

Class, Race, Sex, and Extreme Income: A New Model of Working-Class Stratification

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Abstract

We investigate income, race, class, and sex over the period 1971 to 2023. During this time the income distribution became more extreme where the top percentiles gained greater share of total income versus the lower percentiles that lost share. We propose and then test an empirical approach that incorporates changes in extreme income into a model of race, class and sex. The empirical findings confirm the hypothesis predicting declines in race inequality within the working class, and this pattern obtains for both sexes, however the convergence is steeper with regard to working class males. The findings are discussed in terms of the long-horizon of race/ethnic/sex/class change versus the failure of this change to be perceptually visible year-to-year.

Keywords: Income distribution, race, class and sex stratification, long-term change in race, class and sex

1. Introduction

Nearly all social science investigations find that race inequality is a significant dimension within the U.S. stratification order (Myrdal, 1996; Grusky & Szelenyi, 2011; Massey & Denton, 1993; Western & Petit, 2005; Wilson, 2011; 2012). However, this consensus begins to fade when characterizing the direction of change in racial inequality over time. Many now claim that racial inequality is declining in its contribution to the stratification order (Sakamoto, Wu & Tzeng, 2000; Wilson, 2011; 2012), versus others who believe it continues to persist at comparable levels, in particular those who view the state as major player in perpetuating race inequality (Bell, 1980; Delgado and Stefancic, 2017; Freeman 1978). State policy and the law can and often does remain unchanged in the context of changing income and wealth distributions.

A critical element within this debate about racial change is macro-change in the stratification order, namely the relation between changing income inequality and race inequality. How are changes in the distribution of income related to race inequality, and what are the appropriate statistics and methods for answering this question? To the extent that the income distribution polarizes, this has the possibility to split society into opposing camps. How this happens, or doesn't happen, depends on the way income inequality is distributed across stratification categories. In the U.S., the three most salient social stratification categories are generally found to be race, class and sex (Grusky and Szelenyi, 2011).

In this article a model for measuring race inequality within the working class is proposed. Within class inequality is measured for two reasons. First, because the life chances of workers differ from the life chances of those in the capitalist class, hence race data that combines these two classes invite significant levels of measurement error (Wright, 1978). Second, social class is defined here in relational terms, not simply by gradational quantities (ibid). This approach connects social class to theories of collective action where race division undermines the capacity for working-class motivated social reform and betterment (Bonacich, 1976).

Evidence for declining race inequality within the capitalist class can be found in readily available sources, for example in Fortune magazine's tracking of the Chief Executive Officers (CEO) for the 50 largest corporations (Qualtrics Blog, 2023). In 1980 these 50 positions were all occupied by white males. After 1980 there was a slow trickle of women and minorities into top 50 CEO positions, and by 2023 the number of white males had declined to 37 versus six white females, three Asian males, one Black female, one Black male, one Hispanic male and one Hispanic female. White males still dominate the top 50 CEO positions, but less so. Is there a comparable pattern of social stratification change within the working class?

1a. Current Knowledge about What Drives Race and Class Change

According to a broad set of social science perspectives, change since 1970 in the U.S. economy has driven society toward higher levels of social class differentiation because capitalist technological and managerial innovation has bifurcated labor costs within a framework of inter-firm competition. For Gordon (2000), the economic promise of prosperity from

computerization is bifurcated because computers fail to increase productivity outside of durable goods manufacturing, a sector directly engaged in the production and application of computer technology. The remaining 88 percent of the economy experienced a productivity slowdown and stagnant wages since 1970, versus rising wages for high productivity/high tech workers (ibid, p. 50). Summers (2013) argues that the productivity slowdown is caused by self-limiting demand for labor in high productivity goods-producing sectors, and where labor migrates to lower-productivity sectors where professional closure sustains high wages for a subset of professional occupations, e.g., within healthcare and education. Second, there is a tendency for low-productivity employment to reside within the labor market protections institutionalized within the public sector. Both of these perspectives are consistent with the proposition that labor income is polarizing between relatively well-paid jobs versus low-paid jobs, and that this polarization is related to long-run secular changes in the organization of the economy. Piketty's (2014) theory of income polarization is derived from the assumption that the rate of capital accumulation tends to be higher than the rate of economic growth. Kuznets (1955) formulated the well-known Kuznets curve where income inequality tends to stabilize at advanced levels of development, however this depends upon the agency of labor unionization and democratic political action cancelling the tendency for economic growth to concentrate income at the top of the distribution.

This literature can be summarized by the proposition that increasing income dualism resulted from post-1970 economic and political developments, and this result, in turn correlates with concepts from the "winner take all" narrative where entrepreneurs gain greater market power through technological means and/or from income concentration at the top of the distribution (Frank and Cook 1995; Kaplan and Rauh 2010; Wilmers 2017). This narrative specifies dynamics from new technology and/or high-end markets interacting with high-income consumers that lead to small numbers of actors capturing large market shares. The theory can be related to the concept of entrepreneur-driven change at all levels of market share, provided entrepreneurs are in position to invest in ways that take advantage of winner take all dynamics (Schumpeter 1961).

In an extension of Marx's (1974; see also Botwinick 1993) thesis on the rising organic composition of capital, Collins (2013) specifies two stages for the cheapening of working-class labor. The first is displacement of goods producing labor by machinery that took approximately 200 years to mature to its current stage. The second is displacement of middle-class service employment by digital devices, enabled by the development of prodigious computing power. Collins predicts that displacement of middle-class labor will occur more rapidly than in goods production because digital technological innovation is relatively rapid and the cost cutting logic of technological change is well-established from the legacy of goods producing industries. Figure 1 provides indicators for both processes, the first "percent employed in manufacturing" (vertical axis, Figure 1) for a sector whose employment of labor is withering, and the second whose information processing capacity is expanding. The first is calculated from the decennial census and the American Community Survey and indicates the percent employment devoted to the production of commodities in manufacturing industries. This time series peaks in 1960 and then descends to 2020. The other Figure 1 time series "log of the number of transistors per integrated circuit" illustrates exponential growth in transistors per integrated circuit. This time series begins in 1971 with the Intel 4004 at 2.3 thousand transistors per chip and ends in 2020 with the Apple B14 Bionic at 11.8 billion transistors per chip (log units on the vertical axis). Exponential growth in microprocessor computing power since 1969 is a well-documented trend (Furber, 2017).

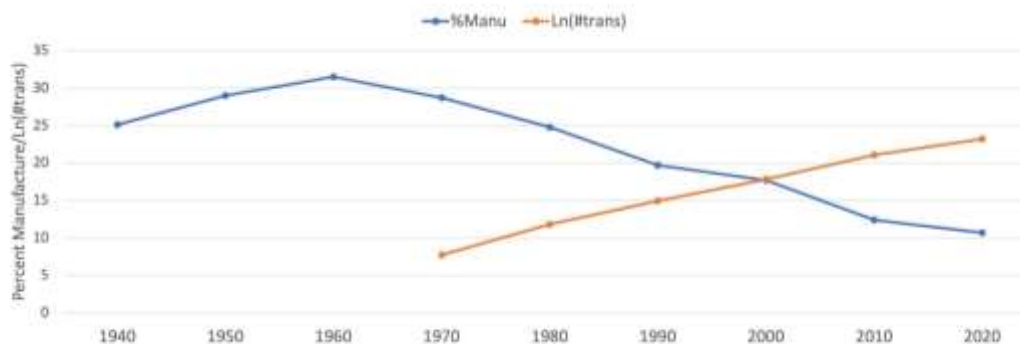


Figure 1. Indicators of Change in the Means of Production: Percent Labor Force in Manufacturing and Log Number of Transistors Per Integrated Circuit

Displacement of labor by machines and the rise of information processing capacity are components of technological change in the means of production. These changes amplify human productive powers through the deployment of light,

fast and cheap digital devices. There are various social theories attempting to conceptualize this change (Autor, Katz & Kearney, 2006; Bell, 1973; Castells, 2010; Wallerstein, Collins, Mann, Derluguian, & Calhoun, 2013), here we reiterate one aspect of digitally aided machine production that is pertinent to this investigation, the tendency for the new means of production to create opportunities for “winner take all” economic gains. In a study of top one percent earners, Kaplan and Rauh (2010) find that these include four sets of economic agents: managers/CEOs of large corporations, financial managers, corporate lawyers, and sports stars. The study finds that each of these sets benefited from technological innovations that effectively extend market prowess, e.g., sports stars that broadcast to global fan bases. Other studies reporting on the implications of winner take all economic structures include Atkinson, Piketty & Saez’s (2011) study of top-income earners over the long-run, and Wilmers’ (2017) study of the tendency for up-market firms to engage in winner take all competition. All of these studies suggest that income dualism is a consequence of labor market inequality defined by a minority of well-paying jobs versus a plethora of low-wage jobs, an outcome not entertained by Collins (2013), yet compatible with his specification.

Class power emanating from ownership of the means of production is central to Wright’s (1978) neo-Marxian account of race and class. Wright criticizes research on income returns to education by race that fail to control for social class, and his analysis compares workers to managers while arguing that the latter occupy a location within class relations that is distinct from workers. Using one wave of the Panel Study of Income Dynamics and two additional employment surveys, Wright decomposes aggregate race differences in returns to education into separate class and race effects, where for example, Black managers have higher income returns to education relative to White workers. This finding is consistent with Wright’s thesis that race effects should be considered in tandem with class because “...diverse dimensions of social inequality cannot be reduced to class inequality, class relations nevertheless play a decisive role in shaping other forms of inequality” (Wright 1978, p.1367). Wright’s analysis finds race and class patterns in wage returns to education support this proposition.

2. Method

Our proposed model embraces the concept “income dualism” due to the dynamism of capitalist development (Collins 2013; Kalleberg 2011; Wright 1978). Researchers have identified a split in the working class between a relatively affluent minority advantaged by the introduction of new types of expertise and skill to social production, e.g., labor with expertise in digital technology, versus a less affluent majority that is not advantaged (Acemoglu and Autor, 2012; Hout, 2012, p.391; Katz and Murphy, 1992). The research question we address is the extent that the income split in the working class correlates with race and sex inequality, e.g., that whites predominate within the top income quantiles whereas women and racial minorities predominate at bottom quantiles.

We focus on income at the extremes of the distribution because total income is concentrating within the upper tail while those at the bottom tail are relatively deprived (Piketty 2014). Being in a top income quantile is desirable because individuals there capture large and increasing shares of total income, versus bottom quantiles that capture small and stagnant shares of income and represents an undesirable and marginal income category. Our analytical strategy is to trifurcate the income distribution to estimate the risk of top-quantile income alongside the risk of bottom-quantile income, where a middle category serves as the referent. We surmise that the post-1970 dynamics of capitalist production create a rationale for focusing upon the tails of the distribution versus mean income differences that represents the standard approach in social inequality research.

There are several studies that find support for a declining significance of race in income stratification. Sakamoto, Wu & Tzeng (2000; see also Farkas and Vicknair, 1996; Farley 1984; Smith and Welch, 1989) analyze change in mean race wage differences among men by comparing the 1940 and 1990 US population censuses for Whites, Hispanic Whites, African Americans, American Indians, Japanese Americans, and Chinese Americans. Except for Hispanic Whites, each of these groups experienced statistically significant wage convergence with Whites between 1940 and 1990. In a follow up study to the thesis on the declining significance of race, Wilson (2011) finds evidence for increasing class polarization among African Americans in the form of a nine percent decline in family income at the bottom quintile of the distribution between 1975 and 2007, versus a 70 percent income increase among top quintile families. However, this observation fails to address the possibility for racial disadvantage in the odds of extreme income, e.g., it is possible that whites have superior odds of attaining top quintile income even as family income overall is polarizing. In yet another analysis of wages for white and black men, Western and Pettit (2005) adjust for the higher probability that blacks are out of the labor force and incarcerated. This adjustment for “sample selection bias” effectively increases the mean black/white wage gap by as much as 58 percent. This evidence leads the authors to surmise that the unadjusted mean racial wage gap is a misleading indicator of race inequality.

The alternative to our hypothesis is sustained race inequality. Race inequality is a long-standing relationship of American

society that has been found to be resistant to change. Indeed, race inequality is an apparently immovable force, e.g., it has not succumbed to significant efforts at reform, including Civil War and Reconstruction (DuBois and Lewis 1998). This alternative hypothesis can be derived from critical race theory which proposes that racism is historically embedded within US social institutions, and especially within legal doctrine (Bell 2008; Delgado & Stefancic 2017; Freeman 1978). Bell (2008) analyzes a set of prominent Supreme Court decisions, beginning with *Dred Scott versus Sandford*, and concludes that the balance of these decisions favor race inequality over race equality. Freeman (1978) reaches a similar conclusion in analyzing the dynamics of race and class in relation to 25 years of federal court decisions beginning with *Brown versus the Board of Education*.

...While all of the Supreme Court opinions to be discussed are, of course, technical assertions of legal doctrine, and can be analyzed as such, they are also an evolving statement of acceptable public morality...Given a view that law serves largely to legitimize the existing social structure and, especially, class relationships within that structure, the ultimate constraints are outside the legal system. But if law is to serve its legitimation function, those ultimate constraints must yield up just enough autonomy to the legal system to make its operations credible for those whose allegiance it seeks as well as those whose self-interest it rationalizes (Freeman 1978, p.1051).

This perspective concurs with Bell's (2008) assertion of net inequality resulting from legal doctrine; however, Freeman (1978) further delineates a structural argument explaining why the court favors the powerful at the expense of the less powerful because it is more committed to the status quo race/class hierarchy than to reformation of that hierarchy.

2a. Data and Statistical Approach

This study utilizes 53 waves of the Current Population Survey from 1971 to 2023 (CPS) (Flood et al., 2024). Family income is used to measure income because it is the broadest income measure available in the data and reflects contributions from all household members. Social class, in the sense we define it, is derived from relational rather than gradational conceptualization (Wright 1978). Class is not defined by how much of something one has, but rather by the individual's relation to other individuals within the capitalist economy. The working class includes all individuals dependent on their own labor for income, while excluding the capitalist class that derives income from capital ownership.

Class is derived from the Current Population Survey (CPS) variable "class of worker" during the previous calendar year. If the person worked for a private employer or for the government, they are classified as members of the working class. Self-employed, those who own their means of labor, are excluded. It is inevitable that some portions of this working-class definition are members of the capitalist class, so two additional screens are developed from available CPS variables. First, if a person earned interest income greater or equal to \$20 thousand in the prior year, they are excluded from the working class. At a modest three percent annual interest, an income of \$20 thousand represents \$667 thousand in banking assets, normally far more than a member of the working class would possess. This screen lowers the percent of population that is working class from 74.2 percent to 73.6 percent. Second, those whose income is within the top 20 percent and are managers, are removed from the working class, reducing the working-class sample from 73.6 percent to 71.0 percent. The concept behind this screen is that managers oversee workplace relations and are therefore in position to enter into ownership relations, in particular where high salary indicates a significant level of leverage over firm resources. Highly paid managers are not necessarily members of the capitalist class but are closer to being capitalist than to being workers.

Second, race within the working class is examined separately by sex because females and males have biological and social attributes pertaining to income attainment, including being subject to patriarchal domination. Female earnings tend to be less than for males (Levanon, England, & Allison, 2009), and the female life course tends to include more years of disengagement from labor force participation (McMunn, 2023).

The research hypothesis is specified as a net decline in race inequality within social class, controlling for a set of individual variables available in the March CPS. First is a set of education dummy variables where the omitted category is less than a high school degree: high school degree, some college, and four or more years of college. Also in the model are a set of dummies for region of residence, marital status, age, age squared, and an interval scale for number of weeks worked. Models are estimated separately by sex, and for the first and final year of the study. Multinomial logistic regression models of top quintile and bottom quintile income are estimated where the omitted category is the middle 60 percent of the distribution, P20 to P80. Finally, the models are estimated for the entire time series using three-year data points, and the results displayed in Figures 3 and 4 where the center year for each data point is given on the vertical axis. The final data point is two years, 2022 and 2023.

The control variable "non-Hispanic other" is comprised of race classifications other than Black or White, and where Hispanics have been subtracted. The components of this variable are unmatched across time other than White and Black

because the 1971 measure gives three race categories (White, Black, and other) versus the 2022 race measure giving 26 categories. The control variable non-Hispanic other is included to ensure that the omitted category is solely non-Hispanic White. Together with non-Hispanic Black and Hispanic, these are the three largest US race/ethnic categories. To test for change in the race/ethnic coefficients between the beginning and end years of the study, standard error estimates are derived from merged samples for 1971-73 and 2022-23 to estimate the covariance between the two years. A time dummy for the first period is entered into the combined estimation, and this time dummy is interacted with the two race/ethnic variables non-Hispanic Black and Hispanic, and is used to estimate the standard error for the coefficient difference, given that the variance for the coefficient test of equality is:

$$Var(\beta_1 - \beta_2) = Var(\beta_1) + Var(\beta_2) - 2Cov(\beta_1, \beta_2)$$

Our study begins with the first year of data available from the March Current Population Survey (CPS) for which there is measurement of Hispanics (1971) and continues to the last available cross-section in 2023. Race/ethnic-based income differences may tend to change slowly if at all on a year-to-year basis, hence observing this change calls for long periods of observation. The proposed theory is premised upon social forces emanating from the power relations derived from ownership of the means of production. These relations are “indispensable and independent” (Marx & Engels, 1969, p. 503) of humanity’s will, and change gradually, if at all, given that basic property relations remained intact over the study time frame, i.e., the means of production are privately owned, and the working class must sell its labor to gain income and ultimately to survive.

“Family Income” (Flood et al. 2024) is the dependent variable because it broadly reflects the individual’s social power relations that manifest as wages, investment income, interest income, government payments, business income, etc. In the analysis we trifurcate the distribution into three categories: 1) bottom quintile, 2) the middle 60 percent, and 3) top quintile income. One nominal advantage of bottom quintile income is that it approximates 150 percent of the US federal poverty line. For example, the 150 percent poverty rate in 2021 was 19.4 percent of total population (Creamer et al. 2022, p.24). The top quintile can be thought of as bounded by affluent middle income on the low end and by high earners at the high end. Top earner income is somewhat unknown because the March CPS suppresses this information to protect respondent confidentiality, hence top quintile share is a lower-bound estimate of the true quantity. We transform total family income to 2022 prices (income is specified as “income from previous calendar year”) and find that the 80th percentile ranges from \$67,578 in 1981 into \$93,790 in 2020, where the median for the entire study period is \$76,800 (1995). The bottom quintile income ranges from 150 percent of the poverty line to negative income. Negative and zero income is replaced by the small value of one dollar to avoid underestimating the bottom quintile income share.

Social class is defined by relations to the means of production, and this cannot be measured by the U.S. Census Bureau’s “occupation” that reflects the technical division of labor. Relationship to the means of production is a social power concept proposed by Marx (1974) and further developed by Wright and Perrone (1977). We agree with Wright (1978, p.1369-70) that the Marxist rendition of social class is based on common positions within the social organization of production, not on position in markets or in authority structures. Since 1970 the income distribution is becoming more polarized (Killewald, Pfeffer, and Schachner 2017), and access to credit and indebtedness have become more prevalent levers of economic power (Dwyer 2018). Under these circumstances the power of money gains potency and underlines our rationale for the dependent variable “total family income” as a reflection of the individual’s social power relationships.

Wright (1978) defines class by cross-classifying self-employment with supervisory employment. This may be appropriate for analysis focused on comparing workers to managers in a static framework, however the present analysis is dynamic with respect to time where we are tasked with measuring changes in the extreme income composition of race and sex within the working class. For example, how is the risk of top quintile versus bottom quintile income changing with respect race and sex composition within the working class? We experimented with various measures of extreme income and found that quintiles and deciles perform similarly in the models. We choose the former to help minimize the limitation of small sample size, in particular small proportions of females and race/ethnic minorities within the upper income quintile during the first years of the study.

3. Results

Figure 2 presents the family income shares for three sets of percentiles for the entire CPS sample, and the pattern is income polarization where the middle share and lower share decline while the upper share increases. The upper income quintile was receiving 36.5 percent of total family income in 1972, and this increased to 50.4 percent in 2023. During this same period the P-20 to P-80 middle income category declined from 58.2 to 46.3, and the bottom quintile declined from 5.3 to 3.3 percent of total income. The story is similar to Piketty’s (2014) finding across a set of countries in North America and Western Europe: relative concentration at the top at the expense of those below. Even though the bottom quintile experienced a relatively small change in its percentage share, its relative change is the greatest in having lost 60.6 percent of its 1972 total share by 2023. Over the entire study period, these changes in the income shares are markedly

substantial, however change across individual 3-year time periods are infinitesimal. This suggests that the income distribution is relatively stable in the short run but can change drastically over the long run defined by multiple decades.

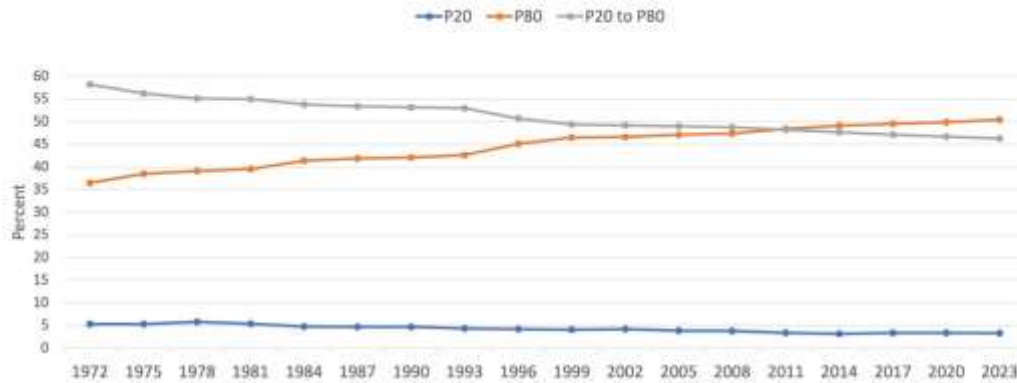


Figure 2. Percent Family Income Share by Percentile: P20, P80, and P20–P80, 1971-2023

Figure 3 presents income composition of the working class over the study period, and the pattern indicates a slow erosion in the middle-income character of working-class family income. In 1972, 84.1 percent of all members of the working-class were middle income defined by P-20 to P-60. This declined to 69.0 percent in 2023. In 1972, top quintile earners were a mere 5.0 percent of the working class, and this tripled to 15.4 percent in 2023. Combined with bottom quintile family income earners increasing from 11.0 to 15.6 percent (1972 to 2023), there is clear evidence of increases at the extremes at the expense of middle-income working-class families.

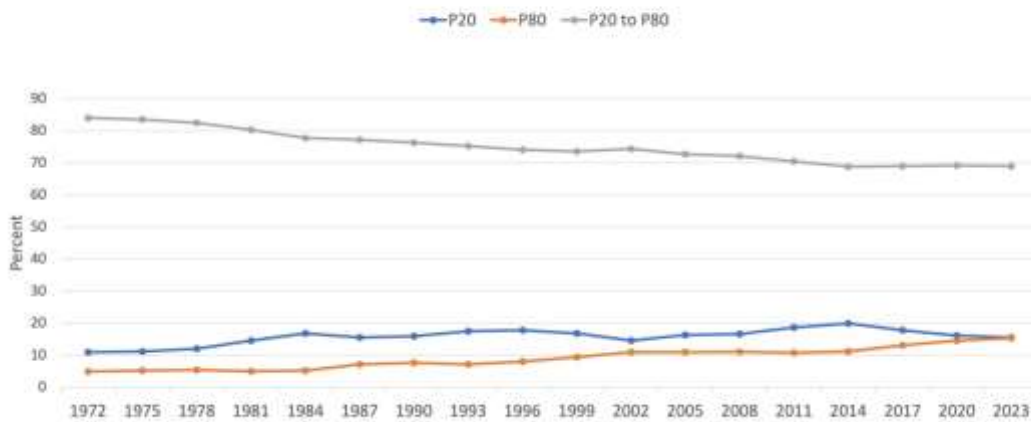


Figure 3. Percent Working-Class Family Income Composition by Percentile: P20, P80, and P20 – P80, 1971 - 2023

Quantitative descriptions of the study variables are given in Tables 2 in columns for the three major race/ethnic groups by sex. Computations are weighted and include all of the study years. The table is sex-specific because male versus female headed families have differing earning power constraints that are changing during the period of study, e.g., increases in female labor force participation, faster rising female versus male educational attainment, and declining fertility. Finally, the table includes all of the variables used to estimate multivariate model results in Tables 2 and 3 and in Figures 4 and 5. The distributions in Table 1 are all in the expected direction, e.g., non-Hispanic Whites are relatively privileged in terms of the likelihood of top quintile family income, likelihood of have bottom quintile income, and educational attainment. Mean values of weeks worked for all groups are above level 5, corresponding to more than 48 to 49 weeks per year.

Table 1. Sample Means for Working-Class by Race and Sex, 1971 – 2023

	Males			Females		
	NH_Wh.	NH_Bl.	Hisp.	NH_Wh.	NH_Bl.	Hisp.
Proportion attaining:						
Bottom quintile	0.124	0.229	0.267	0.152	0.321	0.275
Middle 60	0.781	0.713	0.679	0.736	0.633	0.663
Top quintile	0.096	0.058	0.054	0.115	0.046	0.062
LT High School	0.117	0.168	0.351	0.080	0.127	0.255
High School	0.342	0.385	0.301	0.332	0.343	0.305
Some College	0.246	0.266	0.200	0.268	0.303	0.241
GE 4 Years College	0.295	0.181	0.148	0.320	0.227	0.199
Weeks Worked, int.	5.52	5.31	5.38	5.14	5.20	5.07
Married	0.689	0.549	0.646	0.675	0.474	0.628
Age	38.3	37.9	36.9	38.7	38.6	37.6
Age Squared	1537	1510	1427	1572	1527	1484
Northeast Residence	0.196	0.161	0.219	0.190	0.167	0.247
Midwest Residence	0.266	0.177	0.074	0.271	0.178	0.064
South Residence	0.322	0.562	0.363	0.324	0.573	0.369
West Residence	0.216	0.100	0.344	0.207	0.082	0.320
Unweighted N (in 000's)	996	118	119	909	146	101

Multivariate tests of the hypotheses are presented in Tables 2 and 3 for males and females respectively. The tests reveal strong effects for the individual variables for both sexes, in particular educational attainment is a powerful predictor of extreme income attainment. Weeks worked and being married are also strong predictors of extreme income attainment. The focus of the hypothesis is whether there is convergence versus equality in the race/ethnic coefficients, net or the individual controls. The results indicate converging extreme income attainment between the beginning period 1971 to 1973, and the final period 2022 to 2023. The decline is statistically significant at the .001 level for each of the race/ethnic coefficients for both sexes suggesting that there is less than a one in one thousand chance that the observed convergence is random.

The relative scale of the convergence is marked. For example, when coefficient change is expressed in percentage terms, the 1972 bottom quintile coefficient for non-Hispanic Blacks males is 75 percent smaller in 2023, and the top quintile coefficient is 83 percent diminished (see Table 2). Table 3 shows that the corresponding percentage coefficient loss among non-Hispanic Black and Hispanic females is 82 and 73 percent, respectively. Given that these declines are all statistically non-trivial, it would be imprudent to argue that they represent random change. Between 1972 and 2023, there was marked conversion in the odds of race/ethnic extreme income attainment relative to non-Hispanic Whites, net of individual predictors.

A graphic representation of race/ethnic coefficients over the full study period is provided for males in Figure 4 and for females in Figure 5. These figures plot net odds ratios transformations of coefficients from separate period estimations of the model in Tables 2 and 3. When the odds ratios are above the 1.0 line, this implies greater likelihood of minority risk relative to non-Hispanic Whites, and when the graph is below the 1.0 line there is negative likelihood of minority risk. Thus, all of the odds ratios for bottom quintile income are above the 1.0 line, and below the 1.0 line for top quintile income, implying non-Hispanic White advantage for top and bottom income quintile attainment.

Both Figures 4 and 5 show higher odds ratios at the beginning of the study period, settling down into stable and lower odds ratios after the late 1990s. The decline is steeper for males because the starting points are more distant from the 1.0 line. Males had farther to change relative to females, and after the late 1990s both sexes achieved similar levels of race/ethnic stratification in extreme income. Thus, the declining significance of race during this period further

encompasses a declining significance of gender.

Table 2. Unstandardized Coefficients for Multinomial Logistic Regression Analysis of Total Family Income, Middle 60 Percent is Reference Category, Versus Bottom Quintile, Top Quintile, Working Class Males

	1972		2023	
	Bot Q	Top Q	Bot Q	Top Q
Race/eth (NH_White)				
NH_Black	1.120	-0.537	0.278*	-0.093 ^{NS} *
Hispanic	1.118	-0.637	0.386*	-0.136*
NH_other	1.377	-0.022	0.182	0.295
Education (LT High Sch.)				
High School	-0.928	0.540	-0.854	0.615
Some College	-1.216	1.006	-1.366	0.985
GE 4 Years College	-1.043	1.950	-1.932	1.850
Weeks Worked, Inter.				
Married	-0.549	0.095	-0.398	0.111
Age	-1.156	-0.516	-1.179	0.782
Age Squared	-0.122	0.031	-0.003 ^{NS}	-0.012 ^{NS}
Region (Midwest)				
Northeast Residence	0.093	0.042 ^{NS}	-0.101 ^{NS}	0.471
South Residence	0.809	-0.103	0.171	-0.004 ^{NS}
West Residence	0.265	0.006 ^{NS}	-0.019 ^{NS}	0.322
Intercept	3.83	-5.82	2.30	-2.02*
N		52,537	40,580	
-2LL		15,669	20,755	

^{NS} Coefficient is not statistically significant at $p < .05$, two-tailed test.

*Coefficient difference across time is statistically significant at $p < .05$, two-tailed test. Difference tests are performed only on the variables of direct interest to the study, namely for NH_Black and Hispanic coefficients.

Table 3. Unstandardized Coefficients for Multinomial Logistic Regression Analysis of Total Family Income, Middle 60 Percent is Reference Category, Versus Bottom Quintile, Top Quintile, Working Class Females

	1972		2023	
	Bot Q	Top Q	Bot Q	Top Q
Race/eth (NH_White)				
NH_Black	1.215	-1.041	0.224*	-0.280*
Hispanic	0.529	-0.695	0.296*	-0.158*
NH_other	0.706	0.325	0.044 ^{NS}	0.368
Education (LT High Sch.)				
High School	-0.818	0.758	-0.661	0.496
Some College	-1.175	1.416	-1.148	0.831
GE 4 Years College	-1.554	2.239	-2.302	1.862
Weeks Worked, Inter.				
Married	-0.304	0.139	-0.361	0.068
Age	-2.087	1.255	-1.804	1.395
Age Squared	-0.136	0.252	0.025 ^{NS}	-0.014 ^{NS}
Region (Midwest)				
Northeast Residence	0.002	-0.002	-0.001	0.001
South Residence	0.174 ^{NS}	0.174	-0.109 ^{NS}	0.402
West Residence	-0.193	-0.193	0.106	-0.028 ^{NS}
Intercept	0.097	0.097 ^{NS}	-0.109	0.252
	3.68	-11.27	2.47	-4.67
N		37,175		39,049
-2LL		17,351		21,439

^{NS}Coefficient is not statistically significant at $p < .05$, two-tailed test.

*Coefficient difference across time is statistically significant at $p < .05$, two-tailed test. Difference tests are performed only on the variables of direct interest to the study, namely for NH_Black and Hispanic coefficients.

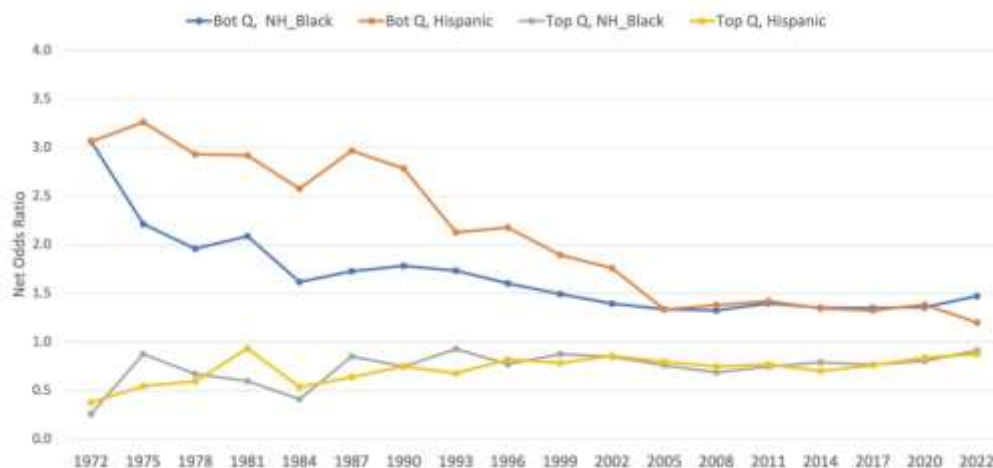


Figure 4. Working-Class Net Odds Ratios for Risk of Top and Bottom Quintile Income, NH_Black/NH_White, Hispanic/NH_White, Men, 1971 - 2023

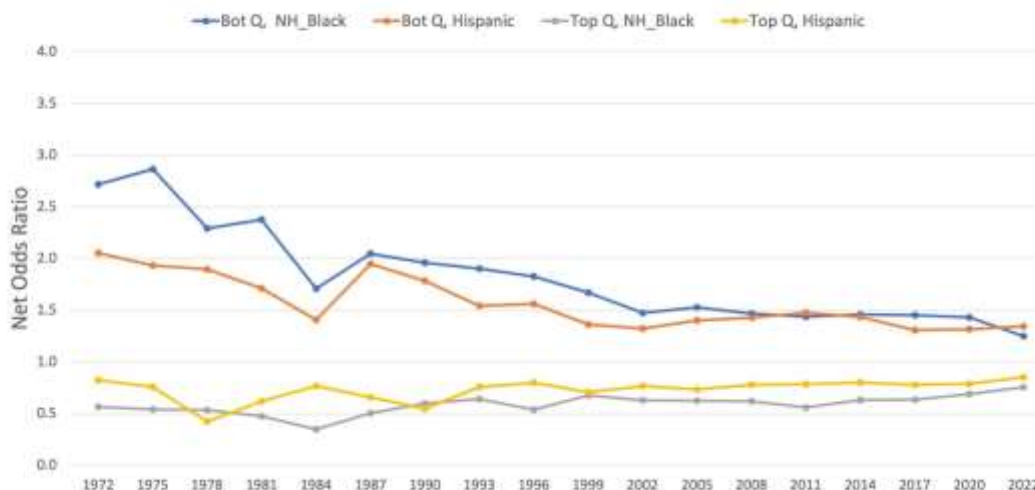


Figure 5. Working-Class Net Odds Ratios for Risk of Top and Bottom Quintile Income, NH_Black/NH_White, Hispanic/NH_White, Women, 1971 - 2023

4. Discussion

This study analyses the relationship between extreme income and race, class, and sex over the period 1971 to 2023 in the U.S. This period is characterized by extreme income concentration where those in the upper percentiles gain income share at the expense of those in lower income percentiles. A model is proposed to assess how this pattern of income change intersects with race/ethnic stratification, or what is sometimes referred to as the relationship between race and class. Wright's (1977) concept of social class frames the analysis of change in race stratification within the working-class, controlling for gender. We sought out the broadest possible observation period to measure long-term change in race, class and sex, elements that we now characterize by the metaphor tectonic plates. Tectonic plate movement is slow year-to-year and requires multiple decades of observation to accurately assess motion. We consider the alternative possibility that race stratification within class is sustained and define social class relationally and according to common position within the social organization of production.

One limitation to the study is that the data lacks sufficiently diverse measures of race/ethnic groups, given that there are additional race/ethnic groups in the diverse fiber of American society. We lack observational data to detect these groups in following our premise that long observational horizons are essential and that the measures of Asian Americans and Native Americans become available much later in the March CPS. The study begins in 1971 because that year is the first for which questions about Hispanic status are asked of survey respondents. This sets the stage for analysis of the three largest race/ethnic groups in America. A second limitation is that the study does not account for year-to-year longitudinal mobility across income categories. This mobility can serve to attenuate income stratification, depending upon how often individuals cross the income boundaries year-to-year. We infer that individuals and families will struggle to sustain and enhance family income, and to minimize declines. Thus, we would argue that an increasingly polarized income distribution raises the probability of family-level income polarization, and that this relationship is probabilistic rather than deterministic.

The present study has three findings, first that the working class is split by income status. Over time the upper quintile of the working-class is found to gain income share at the expense of the lower percentiles. Kuznets (1955) argued that this pattern is expected because market forces will tend to push the income distribution toward polarization, although this tendency is blunted by unionization and by democratic political action. Many have found that political and union countervailing forces have failed to perform thusly in the US context since 1970 (Hacker, 2006; Kalleberg, 2011; Reich, 1992).

Second, that the working class is becoming more homogenous with respect to race/ethnicity. Even though race/ethnic divides in the income distribution remain, these divides have declined in ways that minimize race/ethnic and sex differences. This relationship between the sexes is highly relevant given that the labor force participation of women is increasingly comparable to that of men, e.g., in 2022 male labor force participation among 25- to 54-year-olds was 88.6 percent versus 76.4 percent for females (U.S. Bureau of Labor Statistics, 2023).

We characterize changes in the relations between race, class and sex using the model of dynamic tension from tectonic plate interaction. This motion is slow with respect to annual time and requires decades of observation to evaluate its implications. Year-to-year changes in race, class and sex difference are infinitesimal. Our proposed model has three plates, a working-class plate that must sell its labor to entrepreneurs/capitalists and/or to the public sector. Second, a race/ethnic plate comprised of historically constituted groups that inhabit the various social classes. These historically constituted groups seek income advancement in the face of past and present experiences with discrimination and race/ethnic barriers. Third, a plate representing males and females that is constituted by a history of sex discrimination, patriarchal institutions and related social behavior. Income polarization is driving many into the paid labor market, and all are struggling to maximize total income. Technological prowess may tend to increase tension because it can be configured to produce more with less labor by creating winner take all opportunities. The dynamic tendency resulting from the 1971 to 2023 tectonic interaction is social class polarization in the context of sex and race/ethnic homogenization, and where the income distribution is polarizing.

Third, that changes in the distribution of working-class income towards increasing polarization is correlated with erosion in the race/ethnic divides within the working class. The working class is becoming more divided by income, and less divided by race/ethnicity. The broad implications of this are, as yet, unknown, however we believe that the realization of these implications by social scientists are delayed by the temporal character of the material changes. Due to the perception of little change year-to-year, and the history and legacy of race/ethnic inequality in the U.S., social scientists remain divided on the direction of change and its interactions across race/ethnicity, social class, and gender. We suspect that one reason for this failure is the temporal horizon of change in race/ethnic stratification, namely the appearance of little change year-to-year versus substantial change over the long-term.

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