Analyzing top US income shares: earned or extracted?

Lambert, Thomas and Kwon, Eundak

Northern Kentucky University

2 May 2012

Analyzing Top US Income Shares: Earned or Extracted?

By

Thomas E. Lambert, PhD*

Northern Kentucky University

lambertthomas@hotmail.com

502-403-9795

And

Edward Kwon, PhD

Northern Kentucky University

kwone@nku.edu

859-572-5329

*Corresponding Author

Keywords: income inequality, profitability, rate of exploitation, surplus value, top income shares, trade unions

Abstract

With the current Occupy Movement occurring on Wall Street and other parts of the globe, a lot of attention has recently been given to growing inequality and how much the top 1 percent of households have in terms of income versus the other 99 percent in the United States. Mainstream economists and other social scientists point to greater trade liberalization, lower union membership, smaller government, greater GDP growth, a greater presence of the financial services industry in the economy, and lower marginal tax rates on upper income households as making significant contributions to growing income inequality and greater income shares for those at the top of the income scale in the United States. Additionally, some mention that gains to upper income households have been made possible by a growing pay gap between skilled and unskilled or educated versus less educated workers, in which upper income households are made up disproportionately of college educated and highly trained individuals. Finally, declines in the number of high paying jobs in manufacturing are also blamed for rising inequality and greater gains in income to top income households relative to those in other income groups. All of these factors affecting inequality have been found to be statistically significant in one study or another. This research note does not dispute the findings of other research efforts but explores the use of three other concepts to explain income inequality. The use of 1) the profitability of the private sector, 2) the decline in the wages and salaries of most workers, and 3) the Marxian concept of rate of exploitation are offered as additional explanations of inequality and the income shares of top income households. Since the Great Depression, it appears that the income shares of the top strata are due just as much to the income losses and "exploitation" of other groups and to governmental policies as they are due to the performance of the general US economy or to the performance of private sector profitability and returns on education. These findings which offer support to both sides of the arguments over greater accumulation of income by those at the top of the income scale.

Introduction

With the September 2011 Occupy Wall Street Movement spreading globally, issues regarding inequality in the US and in other parts of the globe have been gaining momentum in the news media, and public dialogue and discourse. In fact, a recent PEW Center Research report found an increasing number of US citizens indicating an awareness of greater class conflict between rich and poor—47% indicating this in 2009 yet 66% indicating it in 2011 (Morin 2011). Respondents to the PEW survey were about evenly split on the question of whether the rich have their wealth through "hard work, ambition or education" or, on the other hand, by being "born into wealthy families" or knowing the right people (Morin 2011).

The cutoff for the income shares of those toward the top of the income scale depend upon whether capital gains are included or not (Saez 2009). Without capital gains, the top 1 percent is estimated to have a family income of slightly less than $400,000 in 2007 according to Saez (2009) or to have a household income of $387,000 for 2010 according to Sentier Research (2012). If capital gains are included, the thresholds are much higher. According to Saez (http://emlab.berkeley.edu/users/saez/), for 2008 and when capital gains income is included, the cutoff for the top 10, 5, 1, 0.5, 0.1 and 0.01 percent of households are around $261,951, 396,717, $1,137,684, $1,832,265, $5,658,768, and $27,342,212 respectively.

From where the top income and wealth strata in the US derive their success has been long studied and analyzed by various social scientists. An upper strata of US citizens has probably always existed, but wealth concentration in the US probably did not become a public issue until the rise of big industrialists and robber barons during the Gilded Age around the second half of the 19th century (Hughes and Cain 1994). In modern times, some account for income differences and high

earnings for those at the top by noting that higher earning households have higher levels of education than the general population (Freeman 2007; Miller, Benjamin, and North 2010).[1] Others have noted that over the last 30 to 37 years top income groups have benefited more than other income groups from high growth rates in GDP and the growth of international trade (Dew-Becker and Gordon 2005; Roine, Vlachos, and Waldenstrom 2009); lower top marginal tax rates for individuals and corporations thanks to the ascendancy of neo-liberal policies in the late 1970s (Roine, Vlachos, and Waldenstrom 2009; Hacker and Pierson 2010); a smaller government presence in the economy with regard to trying to alleviate inequality (Roine, Vlachos, and Waldenstrom 2009; Hacker and Pierson 2010); the growth in the Finance, Insurance, and Real Estate industries (FIRE) (Foster and Magdoff 2009; Kotz 2003, 2008, 2009; Lapavitsas 2009; McNally 2009; Roine, Vlachos, and Waldenstrom 2009; Kotz and McDonough 2010; Tabb 2010a and 2010b) and the decline of high paying manufacturing employment and in labor union membership as well as the wages and salaries of other income groups, especially those in middle income groups (Bluestone and Harrison 1982; Freeman and Katz 1995; Gordon 1996; Birchfield and Crepaz 1998, Alderson and Nielsen 2002; Minnich 2003; Piketty and Saez 2006; Hacker and Pierson 2010).

This paper adds three other variables to this list of factors influencing top income shares: net operating surplus as a percentage of GDP (a measure of business profitability); wages and salaries as a share of national income; and the Marxian concept of the rate of exploitation. The variable net operating surplus as a percentage of GDP is used to predict top income shares. In the course of

[1] Freeman notes that those with college degrees in the US make more than those with a high school diploma or those without a high school diploma but also argues that the earning differences are due to more than the productivity differences in workers' educational backgrounds. He shows that in developed countries which have the same or greater portion of college graduates as the United States, the earnings differentials between college and non-college grads are not as great as those in the US. This is across all types of degrees conferred. Freeman believes that the earnings gap between US college grads and non-grads is so large relative to other developed nations because wages in the US are mostly set by market forces rather than by institutional arrangements (collective bargaining agreements, government regulation, etc.).

writing this paper, no research has been found where the variable has been used to predict an upper income share, and specifically the shares of those at the top since these income strata derive a greater share of their income from capital gains, dividends, and rents than other income groups (http://elsa.berkeley.edu/~saez/) . Since some radical scholars and writers claim that top income shares are determined or influenced by a zero sum situation in which gains to the top come at the expense of wage earners and salaried employees, this paper uses the variable wages and salaries as a percentage of GDP as a predictor of the top income shares. This variable has been used to predict overall income inequality in different nations (Birchfield and Crepaz 1998, Alderson and Nielsen 2002) but never solely for the US and never solely for predicting top income shares. Finally, only a handful of authors (Amsden 1981; Lambert 2011) have used the concept of the rate of exploitation to predict income inequality, and in the course of researching this paper, none has been found that uses it explicitly for the US or for the top shares of an income distribution.

The rate of exploitation is based upon the concepts of surplus value and variable capital. The notion of surplus value, or the amount of labor value extracted by the capitalist from the worker that is over and above what is necessary to sustain himself or herself, originated in Marx's labor theory of value (Marx 1867) and has been used and debated extensively in economics ever since (Brue 1994). The rate of surplus value or the rate of labor exploitation (S') has been expressed as the ratio of surplus value (S) divided by the value paid in wages, or variable capital (V):

$$\mathbf{S' = S / V} \qquad (1)$$

Measurements of national or macroeconomic surplus value and/or rates of surplus value include those developed by Baran and Sweezy (1966), Stanfield (1973), Shaikh and Tonak (1994), Wolff (1975, 1977, 1979, and 1987) and Zafirovski (2003) among many others. Some of the measurements are used to analyze surplus value or rates of surplus value (or rates of exploitation) in

the US (Baran and Sweezy 1966, Stanfield 1973, Wolf 1979 and 1987, and Shaikh and Tonak 1994) whereas others are applied to other economies or used for cross country comparisons (Wolff 1975 and 1977, Alberro-Semerena and Nieto-Ituarte 1986, Kalmans 1997, Zafirovski 2003 and Venida 2007). The latter studies use national input-output tables for calculations whereas others rely on intra-industry wage differentials, or the consumer price index and its hypothetical market basket of goods, to estimate the degree to which labor is exploited. The most common types of calculations are those using the input-output tables, and these studies also make the distinction first used by Marx between labor that is productive and that which is unproductive. Although this distinction is often debated as a to whether it is necessary in Marxian economic analysis (Becker 1977, Wolff 1987, Laibman 1999), one of the purposes of this paper is not to partake in the debate but rather to illustrate the usefulness of applying different measurements of surplus value.

If private sector net operating surplus as a percentage of GDP is a positive and significant predictor of the income of the top shares, then those who claim that the success of the top, also seen as an investor and managerial class, is due to their business savvy and knowledge would find support for their arguments.[2] Meanwhile, those who see gains to a top income group coming from lower and working classes via decreasing labor wages and salaries and greater rates of exploitation (higher GDP output coming from productive labor) would find their views supported if these variables are found to be linked to top income shares.

[2] In doing calculations, it was found that the top 10, 5, 1, 0.5, 0.1, and 0.01 percent are moderately correlated (r = 0.56 to 0.66) with estimates of wealth concentration in the US from the 1920s to 2007 using Domhoff's estimates of wealth concentration (http://www2.ucsc.edu/whorulesamerica/power/wealth.html). Wealth is defined as household total assets minus total liabilities. Additionally, as of 2008, Saez's website (http://elsa.berkeley.edu/~saez/) on inequality and income shares shows that after excluding capital gains the top 10% derived around a quarter of its income from entrepreneurial income, interest, rents, and dividends; for the top 5% it was around 32%; for the top 1 percent it was around 45%; for the top 0.5% it was around 50%; for the top 0.1% it was around 57%; and for the top 0.01% it was around 64%.

This paper proceeds as follows. The next section is a methods section describing what variables are to be used in the correlation and regression analyses. After that, the results of descriptive statistics for the variables, an analysis of some graphs, and the results of the correlation analysis and regression analysis are discussed. Finally, some concluding remarks are made that explore the implications of the paper's analyses.

Methods

Given the preceding discussion of factors that can affect the top income shares of US households, least squares regression using time series data from 1929 to 2008 is used to predict an index[3] of the income shares as a percentage of GDP of the top 10%, 5%, 1%, 0.5%, 0.1% and 0.01%, including capital gains income (Piketty and Saez 2003, updated 2010) using the following independent variables as predictors:

1. Lag Top Income Shares for Top 10%, 5%, 1%, 0.5%, 0.1% and 0.01%, including capital gains income, Index. Because the current state of a class's income is dependent upon and related to its previous levels because of occupations, educational level, etc., income is characterized by hysteresis, and so the previous period's income share is used to predict a current period's income share (e.g., 1929 income shares are used to predict 1930 top income shares, 1930 is used to predict 1931, and so on and so forth). Like with the dependent variable, an index that combines these shares is created using factor analysis since the Pearson correlation coefficients among them are 0.90 or greater. Obviously, the hypothesized sign of this variable should be positive.

[3] Since the top 0.01 to 10 percent income shares covered in this paper were all highly correlated (r = 0.9 or more), an index of all shares was created using factor analysis, where the factor loadings were all ninety percent or more as well.

2. Manufacturing Employment as a Percentage of Overall Employment (US Bureau of Labor Statistics). This variable should be inversely related to the top income shares and should have a negative sign since the increase in top income shares has occurred simultaneously with a decline in manufacturing employment in the US and the loss of high paying manufacturing jobs. Because of high labor costs, many manufacturing jobs were eliminated so as to restore profitability to many US firms, something which should help top income shares since these households constitute an investor class more or less.
3. College Educated as a Percentage of Total Population (US Census Bureau). The values from decennial census years for US educational levels are used to predict the top income shares. This variable is hypothesized to have a positive sign since some writers have cited it as a source of the current US income gap—upper income households typically have higher levels of education than other income groups, and as a greater percentage of the workforce becomes college educated, the income shares of those at the top should increase.
4. Trade Union Membership as a Percentage of the Private Sector Labor Force (US Bureau of Labor Statistics). This is hypothesized to have a positive sign since in other papers (mentioned above) declining union membership has been linked to less income for lower and middle income groups and more income for upper income groups.
5. Government expenditures as percentage of GDP (US Bureau of Economic Analysis). This is hypothesized to have a negative sign since some previous research has shown this to be the case—greater government expenditures help lower and middle income groups to the detriment of higher income groups.

6. Trade as Percentage of GDP (US Bureau of Economic Analysis). This is hypothesized to have a positive sign based on previous research findings, and for each year, it is the sum of the value of total exports and total imports. Because international trade supposedly weakens domestic, working class wages, this should in turn raise the income share of the top income strata according to the works mentioned above.
7. Net Operating Surplus (NOS) as a Percentage of Wages and Salaries (US Bureau of Economic Analysis). Private sector net operating surplus is divided by wages and salaries in order to come up with a variable that is somewhat akin to a rate of exploitation variable from Marxian economics as mentioned above. It is hypothesized to have a positive value since higher rates of exploitation should lead to higher top income shares.
8. Net Operating Surplus (NOS) as a Percentage of GDP (US Bureau of Economic Analysis). If members of the top classes are typically members of an "investor class" and if many are also the leaders of or investors in US industry (Stiglitz 2011), then as business sector profits rise, so should the incomes of this class, and so the sign is hypothesized to positive.
9. Taxes on Corporate Income & Production as a Percentage of GDP (US Bureau of Economic Analysis). If the top income classes constitute an investor class, then increases/decreases on corporate income and production should decrease/increase their income shares. This variable is hypothesized to have a negative sign.
10. Wage & Salary Disbursements as a Percentage of GDP (US Bureau of Economic Analysis). According to previous research, as the portion of wages of salaries goes up, the income shares of top groups should go down because of decreased business

profitability, and vice versa, and so this variable is hypothesized to have a negative sign as well.

11. Percentage Annual Change in GDP (US Bureau of Economic Analysis). As mentioned above, greater increases in GDP (or from another way of looking at it, increases in productivity) have been linked to greater inequality in recent times, and so this variable is hypothesized to have a negative sign. This is mostly due to the fact that some writers believe that labor has not shared in any GDP or productivity increases over the last few decades in particular (Dew-Becker and Gordon 2005).
12. Top Marginal Rate Individual Income Tax (Saez 2010). Higher marginal rates cut into top income shares, so this variable is hypothesized to have a negative sign.
13. Regime. This is a dummy variable wherein the years 1933 to 1980 are coded as "1" and correspond to years where social and labor policies were less generous to upper income groups, and all other years are coded as "0", wherein the years 1929 to 1932 correspond to pre-New Deal social reforms and the years 1981 to 2008 to the neo-liberal era.
14. Finance/Insurance/Real Estate (FIRE) Wages and Salaries as a Percentage of all Wage & Salaries (US Bureau of Economic Analysis). Since revenues and value added for these industries are not available for all years in the series, this variable is used as a proxy to represent the size of these industries in the US economy from 1929 to 2008. The sign of the variable is hypothesized to be positive since previous research has found a significant and positive relationship between this variable and top income shares, mostly due to the fact that researchers believe that top income groups mostly work and invest in these industries.

15. S / V, Rate of Exploitation of Productive Labor (US Bureau of Economic Analysis). In addition to the other rate of exploitation variable outlined above (NOS/Wages & Salaries Percentage) and a working class income share variable (Wages & Salaries / GDP Percentage), this variable is used to measure a rate of exploitation using the traditional Marxian concepts of productive and unproductive labor. In general, productive labor is essentially the labor that is exploited and whose wages or factor payments appear in the denominator of the ratio in equation (1) above. According to Shaikh and Tonak (1994) and Kalmans (1997) it is labor which produces socially useful output, and that, for example, would be used in the direct production of goods or services in agriculture, manufacturing, mining, construction, transportation, utilities, and personal and social services. Unproductive labor is that which is indirectly involved in the production of such items (such as managers, clerical workers, etc.) in such industries as well as those working in finance, insurance and real estate, wholesaling, retailing, and business services such as advertising and consultancy services. Because only aggregate wages and salaries are given per industry and there is no breakdown between unproductive and productive labor pay within each industry in the early decades of the time series analyzed in this paper, this paper uses the total of wages and salaries for the productive industries in the denominator of S/V. For the numerator, GDP minus the wages and salaries of the productive industries is used as the total of the economy's surplus value. These components of the ratio create a measure similar to that employed by Shaikh and Tonak (1994) and Kalmans (1997) in their analyses of surplus value.

Table 1 displays the descriptive statistics for the variables. Some variables, such as the top marginal tax rate had higher values until the 1980s when tax rates were lowered whereas other

variables had lower values until the 1980s such as international trade as a percentage of GDP (something which became larger as trade barriers increasingly fell that decade and subsequent decades).

Table 2 shows some potential problems with multicollinearity among many of the independent variables if one uses the criteria of a Pearson correlation coefficient of an absolute value of 0.70 or greater among two independent variables (Anderson, Sweeny, and Williams 2008, page 644). Therefore, a series of models are used and compared in which multicollinearity among the independent variables is avoided. This is a method recently employed by Roine, Vlachos, and Waldenstrom (2009) in their analysis of the top income shares of OECD nations.

(Insert Tables 1 and 2 around here)

(Insert Figures 1 to 4 around here)

Results and Discussion

Figures 1 to 4 illustrate some of the key variables used in this paper. Figure 1 shows that the income shares of the top 0.01 to 10 percent mostly declined during and after the Great Depression until the end of the 1970s. Beginning in the 1980s, neo-liberal policies of deregulation, slower government growth, and lower taxes were implemented in the US, which many writers credit with the beginning of a period of rising inequality in the US (Birchfield and Crepaz 1998; Foster and Magdoff 2009; Kotz 2003, 2008, 2009; Lapavitsas 2009; McNally 2009; Roine, Vlachos, and Waldenstrom 2009; Kotz and McDonough 2010; Tabb 2010a and 2010b; Congressional Budget Office 2011). Figure 2 shows a similar pattern to Figure 1 and shows net operating surplus as a percentage of GDP falling slowly during and after the Great Depression, and then somewhat picking up in the 1980s, although the uptick after the 1970s in Figure 2 is not as great as those in Figure 1.

Wages and salaries as a percentage of GDP in Figure 3 only varies between around 45 to 55% from 1929 to 2008, with the highest percentages occurring before the late 1970s. Figure 4 mirrors more closely those of Figure 1—an overall and gradual decline in one measure of the rate of exploitation, NOS/Wages & Salaries %, during and after the Great Depression and up through the end of the 1970s, and then a gradual, overall increase during the 1980s and onward. Finally, Figure 5 shows another measure of the rate of exploitation, S/V, Rate of Exploitation of Productive Labor, declining up to and through the 1960s rather than the 1970s and trending upwards after the 1960s until 2001, when a dip occurs, probably due to the 2001 recession. However, the rate of exploitation begins to go back up after 2001. Because the denominator in S/V is composed of the wages and salaries of workers in the manufacturing, transportation, construction and other industries deemed productive, perhaps S/V bottoms out somewhere in the 1960s because this decade and the 1950s would be two decades where manufacturing employment was at its highest as a portion of overall US employment (Congressional Budget Office 2004). Afterwards, manufacturing as a share of overall employment began to decline, which would cause the ratio S/V to go up, all else held constant.

The figures seem to support the notion that some type of exploitation has played a role in gains to the top groups in addition to increases in NOS as a percentage of GDP, although the latter variable never got back up to its pre-1960s levels after trending upward again in the 1970s. One inference from looking at the graphs is that perhaps gains to the top have come more from taking a greater share of national income from other groups and not so much from gains coming through private sector success or profitability. However, only multivariate analysis can yield more solid conclusions, and this is explored next.

(Insert Table 3 around here)

The models shown in Table 3 were chosen so as to have combinations of independent variables that do not result in any multicollinearity. Those variables which did not show any multicollinearity with any of the other independent variables show up in all eleven models, whereas others are rotated. All the models avoid multicollinearity thanks to rotating certain variables, and they also avoid autocorrelation or serial correlation—all tests for autocorrelation yield Durbin-Watson statistics greater than the upper tail cutoffs for the Durbin-Watson test statistic using significance levels of $\alpha < 0.05$ or $\alpha < 0.01$ (Studenmund 1992, pages 642-645; Anderson, Sweeney and Williams 2008, pages 732-736). All models have a high degree of explanatory power with adjusted r-squares of 0.85 or more, which is not an unusual finding with time series data.

In all models, the one-year lag of the top shares is statistically significant and has its hypothesized sign (positive). Most of the independent variables are statistically significant to one degree or another in predicting top income shares and have their hypothesized signs. Some exceptions are the yearly percentage change in GDP, which does not work in any of the models, the variable Government Expenditures as a Percentage of GDP, which only works in Model 11 and is only significant at the $\alpha < 0.10$ level, and the variable Tax on Corporate Income and Production as a Percentage of GDP which is used in Model 6 but is not statistically significant.

Models 1 to 4 show that the smaller the percentage employed in manufacturing, the greater the percentage of college educated in the workforce, the smaller the percentage belonging to unions, and the greater the volume of trade as a percentage of GDP, the greater the income shares of those of the top. Models 8, 9 and 10 also support previous research and assertions that those at the top have gained due to lower marginal individual income taxes, the growth of the finance, insurance, and real estate industries, and the policies of neo-liberalism (see Regime variable).

For the main variables of interest in this paper, the variable NOS as a percentage of GDP works in both Models 5 and 11 although the sign of the variable in Model 5 is the reverse of what is hypothesized. Therefore, the hypothesis that the top get some of their income share due to business profitability or success is only partially supported since the regression results give mixed results. The variable wages as a percentage of GDP works well and has its hypothesized sign in Model 7, the only model in which it is used because it is highly correlated with other variables. The variable NOS/Wages and Salaries is used in eight models, and is statistically significant in two of the eight and has its predicted sign. Finally, the variable S/V, Rate of Exploitation of Productive Labor, is used in Model 11 and has the expected positive sign and is statistically significant. Because the denominator of S/V includes wages of the manufacturing industry, which has suffered many job losses over the last few decades, and because the pay of other industries included in the denominator (construction, transportation, utilities, etc.) have traditionally been a major source of pay for the US working class, it is not surprising that S/V works well since it has elements of the variables Manufacturing Employment as a Percentage of Total Employment, Trade Union Membership, and Wages and Salaries as a Percentage of GDP.

Conclusion

Most of the writings reviewed for developing this paper explained the growth in the income shares of the top income groups by using traditional measurements of manufacturing employment, labor income share, trade union membership as well as other macroeconomic variables mentioned above. None, however, used any profitability measures such as Net Operating Surplus or a measure of exploitation, such as S/V or NOS/Wage & Salaries Percentage. The profitability measure shows mixed results and the exploitation measures show mixed results as well (these variables work in 3 of 9 models). Considering these with the labor income share variable (Wages & Salaries as a

Percentage of GDP) and the Trade Union Membership as Percentage of Private Sector Employment variable, the argument that income shares are class and politically derived seems to have some support.

On the other hand, those who argue that top income shares are based on the productivity of the upper classes due to their educational levels (College Educated as a Percentage of the Population variable) or to their involvement in the FIRE industries (FIRE Wages & Salaries as a Percentage of Total Wages & Salaries variable), or trade openness (Trade as a Percentage of GDP), or due to the profitability of the private sector (NOS/GDP %) also find some support from the results of this paper. However, some research has found no connection between the pay of top corporate leaders and the performance of their organizations (Collins 2001; *Economist* 2012), and some argue that many college educated workers are underemployed, and therefore many of them may be exploited workers and not necessarily part of the top income strata (Vaisey 2006; Matgouranis 2010). Further research needs to be done on the contention that a greater percentage of college grads contribute to greater income shares at the top. If many college graduates are underemployed due to their oversupply, then this would possibly suggest that some portion of the top income shares are due not so much to the greater productivity, and hence earnings, of those with college degrees but to well-educated labor being in low paying jobs, wherein their human capital is not earning adequate returns, which instead could be captured by their employers.

Whereas the income tax variables (corporate and individual) do not show statistically significant results at the $\alpha < 0.05$ level, the regime variable is statistically significant, which demonstrates that income shares can be linked to how favorable or unfavorable political regimes are to the top income strata. Political dimensions seem to matter as much as those as economic factors.

Although the results of this note bolster arguments to one degree or another that top income shares are earned, and at the same time support the opposite view, that they are extracted from lower classes, the findings make a contribution to the literature by using different measurements of exploitation to predict with some success top income shares. In most mainstream writings, the concept of exploitation is mostly ignored with the exception of looking at how working class wages have declined and can be used to predict measures of inequality such as Gini coefficients as well as top income shares (Birchfield and Crepaz 1998, Alderson and Nielsen 2002; Minnich 2003). The Marxian concept of the rate of exploitation appears to have some statistical validity.

References

Alberro-Semerena, Joséeluis and María Dolores Nieto-Ituarte. 1986. "Empirical Estimates of Marxian Categories in Mexico: 1970-1975", *Review of Radical Political Economics,* Vol. 18 (4): 32-46.

Amsden, Alice H. 1981. "An International Comparison of the Rate of Surplus Value in Manufacturing Industry," *Cambridge Journal of Economics,* Vol. 5(3): 229-249.

Anderson, David R., Dennis J. Sweeney, and Thomas A. Williams. 2008. *Statistics for Business and Economics, 10 Edition.* Thomson South-Western: Mason, Ohio.

Baran, Paul A. and Paul M. Sweezy. 1966. *Monopoly Capital: An Essay on the American Economic Social Order.* Monthly Review Press: New York and London.

Becker, James F. 1977. *Marxian Political Economy: An Outline.* Cambridge, UK: Cambridge University Press.

Birchfield, Vicki and Markus M. L. Crepaz. 1998. "The Impact of Constitutional Structures and Collective and Competitive Veto Points on Income Inequality in Industrialized Democracies," *European Journal of Political Research,* Vol. 34(1): 175-200.

Bluestone, Barry and Bennett Harrison. 1982. *The Great U-Turn: Corporate Restructuring and the Polarizing of America.* New York, NY: Basic Books.

Brue, Stanley L. 1994. *The Evolution of Economic Thought, Fifth Edition.* Forth Worth, TX: The Dryden Press.

Collins, Jim. 2001. *Good to Great.* New York, NY: HarperCollins Publishers.

Congressional Budget Office. 2004. *What Accounts for the Decline in Manufacturing Employment?* http://www.cbo.gov/doc.cfm?index=5078&type=0 Retrieved on February 7, 2012.

_____. 2011. *Trends in the Distribution of Income Between 1979 to 2007.* http://www.cbo.gov/ftpdocs/124xx/doc12485/WebSummary.pdf Retrieved on February 7, 2012.

Dew-Becker, Ian and Robert J. Gordon. 2005. "Where did the Productivity Growth Go? Inflation Dynamics and the Distribution of Income." Brooking Papers on Economic Activity 2, 67-127.

Domhoff, G. William. No date. "Who Rules America." http://www2.ucsc.edu/whorulesamerica/power/wealth.html . Retrieved on March 19, 2012.

Economist. 2012. "Focus: Executive Pay and Performance." *Economist Online, February 7, 2012.* http://www.economist.com/blogs/graphicdetail/2012/02/focus-0 . Retrieved on April 19, 2012.

Foster, J. B., and F. Magdoff (2009) *The Great Financial Crisis: Causes and Consequences.* New York, NY: Monthly Review Press.

Freeman, Richard B. 2007. *America Works: The Exceptional US Labor Market.* New York: Russell Sage Foundation.

Freeman, Richard B. and Lawrence F. Katz. 1995. *Difference and Changes* in *Wage Structures.* Chicago and London: University of Chicago Press.

Hughes, Jonathan and Louis P. Cain. 1994. *American Economic History, Fourth Edition.* New York, NY: HarperCollins Publishers.

Gordon, David M. 1996. *Fat and Mean:* The Corporate Squeeze of Working Americans and the Myth of Managerial "Downsizing". New York, NY: The Free Press.

Hacker, Jacob S. and Paul Pierson. 2010. "Winner-Take-All Politics: Public Policy, Political Organization, and the Precipitous Rise of the Top Incomes in the United States." Politics and Society 2010 38 (2): 152-204.

Kalmans, Rebecca M. 1997. "Productive Activity, Accumulation, and Growth in Postwar Japan and the United States," *Review of Radical Political Economics,* Vol. 29 (2): 1-25.

Kotz, D. M. 2003. "Neoliberalism and the Social Structure of Accumulation Theory of Long-Run Capital Accumulation," *Review of Radical Political Economics* 35, 3 (September): 263–270.

—— 2008. "Contradictions of Economic Growth in the Neoliberal Era: Accumulation and Crisis in the Contemporary U.S. Economy," *Review of Radical Political Economics* 40, 2 (June): 174–188.

—— 2009. "The Final Conflict: What Can Cause a System-Threatening Crisis of Capitalism?" *Science and Society* 74, 3 (July): 362–380.

Kotz, D. M., and T. McDonough. 2010. "Global Neoliberalism and the Contemporary Social Structure of Accumulation," in T. McDonough, M. Reich, and D. M. Kotz, eds., *Contemporary*

Capitalism and Its Crises: Social Structure of Accumulation Theory for the 21st Century. New York, NY: Cambridge University Press.

Laibman, David. 1999. "Productive and Unproductive Labor: A Comment," *Review of Radical Political Economics,* Vol. 31 (2): 61-73.

Lambert, Thomas E. "Explaining Levels of Inequality in OECD Nations by Using Rates of Surplus Value and Profit to Wage Ratios." Unpublished manuscript.

Lapavitsas, C. 2009. "Financialised Capitalism: Crisis and Financial Expropriation," *Historical Materialism* 17, 2 (April): 114–148.

Matgouranis, Christopher. 2010. "The Underemployed College Graduate," The Center for College Affordability and Productivity. http://centerforcollegeaffordability.org/archives/1761 . Retrieved on March 25, 2012.

McNally, D. 2009. "From Financial Crisis to World-Slump: Accumulation, Financialisation, and the Global Slowdown," *Historical Materialism* 17, 2 (April): 35–83.

Miller, Roger LeRoy, Daniel K. Benjamin, and Douglas C. North. 2010. *The economics of public issues.* New York: Addison-Wesley.

Minnich, Daniel J. 2003. "Corporatism and Income Inequality in the Global Economy: A Panel Study of 17 OECD Countries," *European Journal of Political Research,* Vol. 42(1): 23-53.

Morin, Rich. 2012. "Rising share of Americans see conflict between rich and poor." Pew Social and Demographic Trends, Pew Research Center, January 11, 2012. http://www.pewsocialtrends.org/2012/01/11/rising-share-of-americans-see-conflict-between-rich-and-poor/ Accessed on January 24, 2012.

Piketty, Thomas and Emmanuel Saez. 2003. "Income Inequality in the United States, 1913-1998" *Quarterly Journal of Economics*, 118(1), 2003, 1-39 (Longer updated version published in A.B. Atkinson and T. Piketty eds., Oxford University Press, 2007) (Tables and Figures **Updated to 2008** in Excel format, July 2010).

_____. 2006. "The Evolution of Top Incomes: A Historical International Perspective." *American Economic Review, Papers and Proceedings* 96(2): 200-205.

Saez, Emmanuel. 2009. "Striking it Richer: The Evolution of Top Incomes in the United States (Update with 2007 Estimates)." August 5, 2009. http://elsa.berkeley.edu/~saez/saez-UStopincomes-2007.pdf

Sentier Research. 2012. "The Top 1 Percent." *The Washington Post.* Published on February 1, 2012. http://www.washingtonpost.com/local/the-top-1-percent/2012/02/01/gIQAhRT2iQ_graphic.html

Shaikh, Anwar M. and E. Ahmet Tonak. 1994. *Measuring the Wealth of Nations: The Political Economy of National Accounts.* New York: Cambridge University Press.

Stiglitz, Joseph E. 2011. "Of the 1%, by the 1 %, for the 1 %." *Vanity Fair,* May 2011. http://www.vanityfair.com/society/features/2011/05/top-one-percent-201105 Retrieved February 6, 2012.

Studenmund, A. H. 1992. *Using Econometrics: A Practical Guide, Second Edition.* New York, NY: HarperCollins Publishers.

Tabb, W. K. 2010a. "Marxism, Crisis Theory and the Crisis of the Early 21st Century," *Science and Society* 74, 3 (July): 305–323.

—— 2010b. "Financialization in the Contemporary Social Structure of Accumulation," in T. McDonough, M. Reich, and D. M. Kotz, eds., *Contemporary Capitalism and Its Crises: Social Structure of Accumulation Theory for the 21st Century*. New York, NY: Cambridge University Press.

US Bureau of Economic Analysis. GDP and NIPA accounts. http://www.bea.gov/national/index.htm#gdp Retrieved on January 10, 2012.

US Bureau of Labor Statistics. Labor Force Statistics. http://www.bls.gov/cps/cpslutabs.htm Retrieved on January 15, 2012.

_____. Manufacturing. http://www.bls.gov/iag/tgs/iag31-33.htm#workforce Retrieved on January 15, 2012.

US Census Bureau. Educational Attainment. http://www.census.gov/hhes/socdemo/education/data/census/half-century/tables.html Retrieved on January 15, 2012.

Vaisey, Stephen. 2006. "Education and Its Discontents: Overqualification in America, 1972-2002," *Social Forces*, 85(2): 835-864.

Venida, Victor S. 2007. "Marxian Categories Empirically Estimated: The Philippines, 1961-1994," *Review of Radical Political Economics,* Vol. 39 (1): 58-79.

Wolff, Edward N. 1975. "The Rate of Surplus Value in Puerto Rico," *Journal of Political Economy,* Vol. 83(3): 935-949.

_____. 1977. "Unproductive Labor and the Rate of Surplus in the United States," in Paul Zarembka, editor, *Research in Political Economy,* Greenwich, CT.

_____. 1979. "The Rate of Surplus Value, the Organic Composition, and the General Rate of Profit in the U.S. Economy, 1947-67," *The American Economic Review,* Vol. 69(3): 329-341.
_____. 1987. *Growth, Accumulation and Unproductive Activity: An Analysis of the Postwar US Economy*. Cambridge, UK: Cambridge University Press.

Zafirovski, Milan. 2003. "Measuring and Making Sense of Labor Exploitation in Contemporary Society: A Comparative Analysis," *Review of Radical Political Economics,* Vol. 35(4): 462-484.

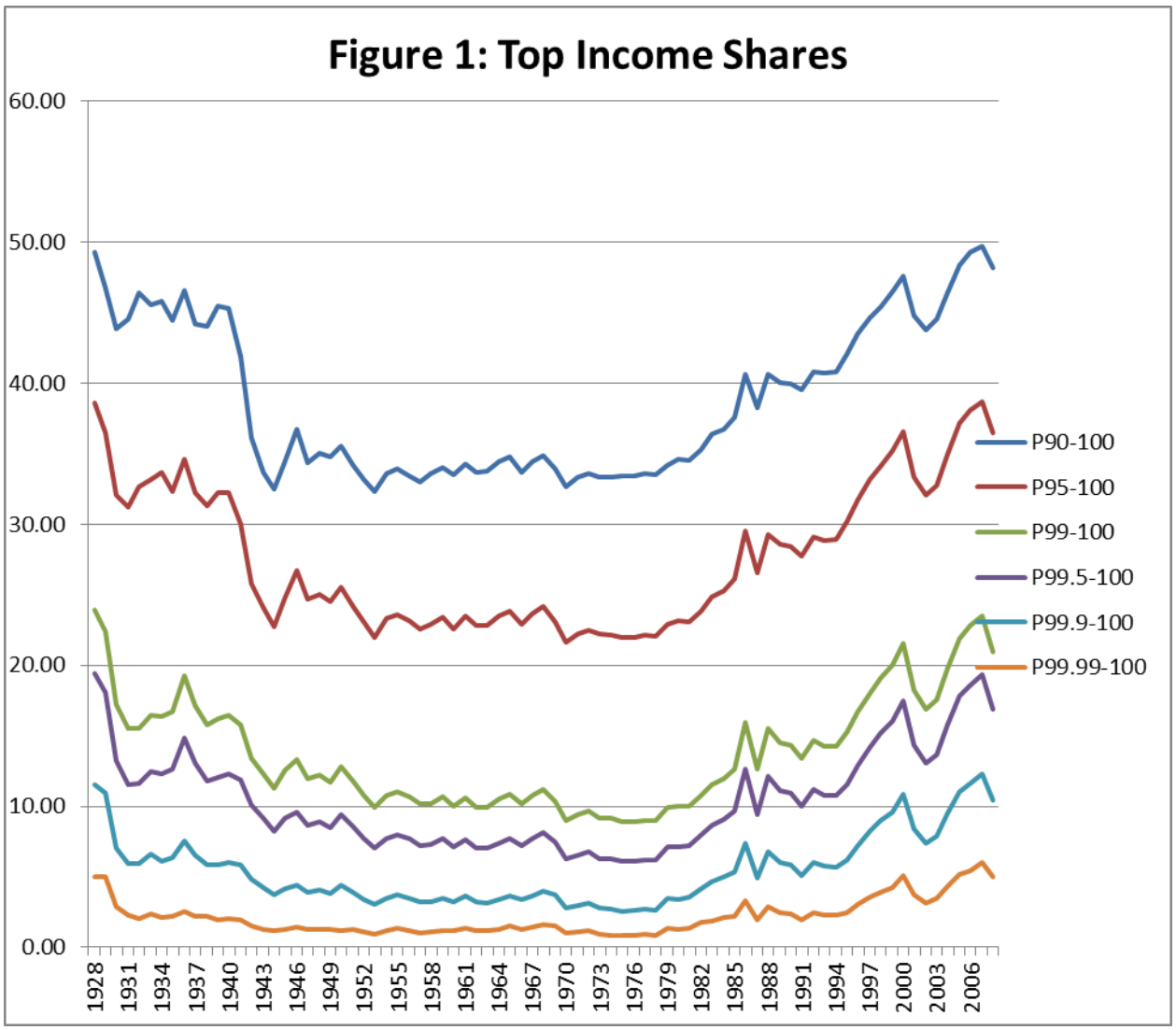
Figure 1: Top Income Shares
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1928
1931
1934
1937
1940
1943
1946
1949
1952
1955
1958
1961
1964
1967
1970
1973
1976
1979
1982
1985
1988
1991
1994
1997
2000
2003
2006
P90-100
P95-100
P99-100
P99.5-100
P99.9-100
P99.99-100

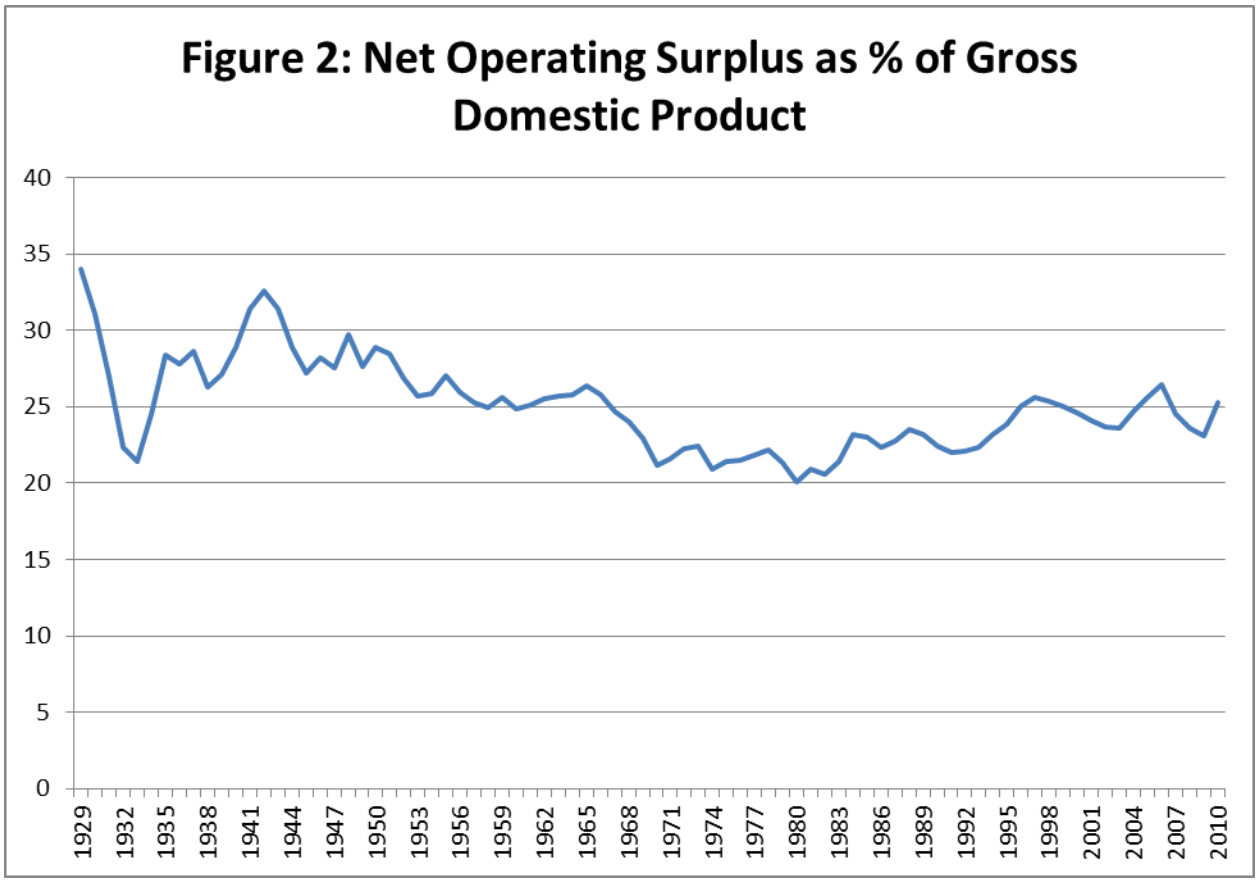
Figure 2: Net Operating Surplus as % of Gross Domestic Product
40
35
30
25
20
15
10
5
0
1929
1932
1935
1938
1941
1944
1947
1950
1953
1956
1959
1962
1965
1968
1971
1974
1977
1980
1983
1986
1989
1992
1995
1998
2001
2004
2007
2010

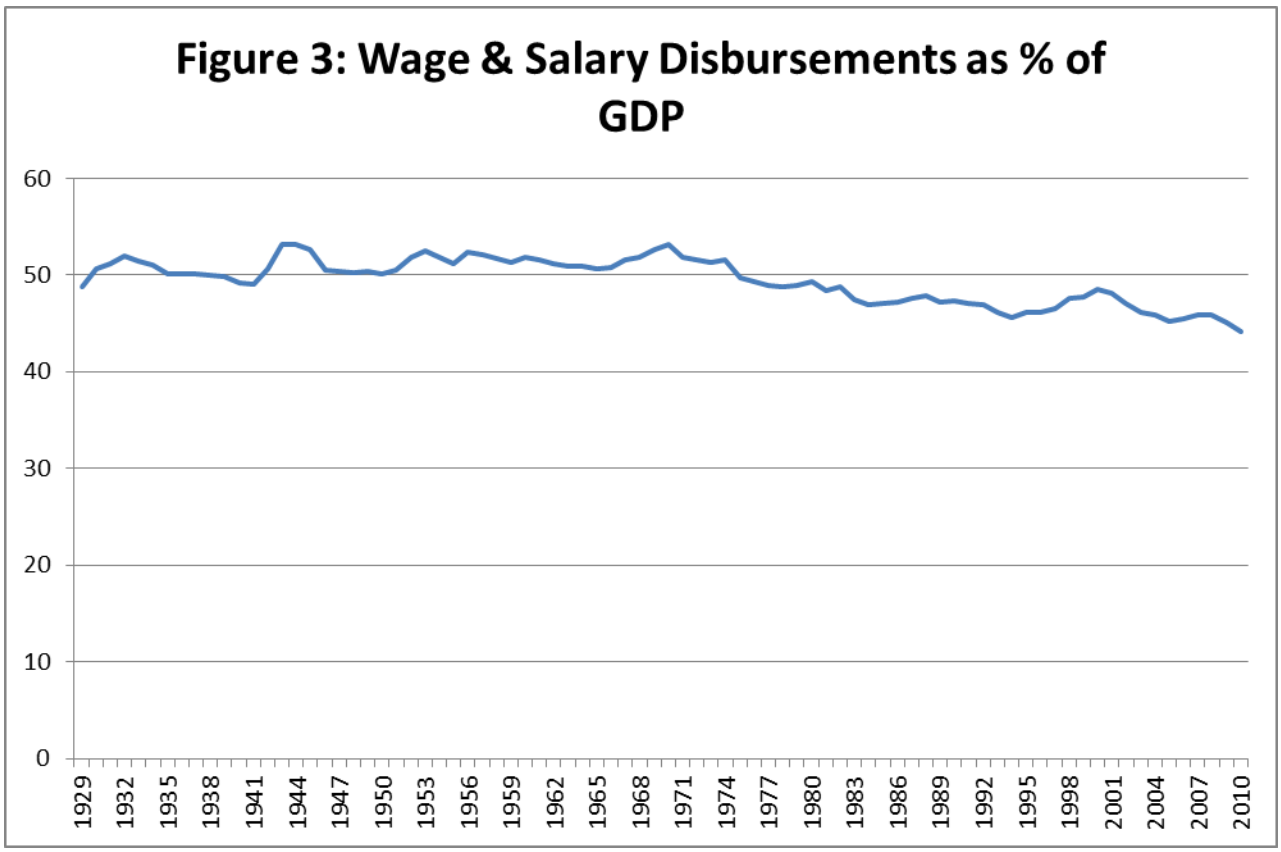
Figure 3: Wage & Salary Disbursements as % of GDP
60
50
40
30
20
10
0
1929
1932
1935
1938
1941
1944
1947
1950
1953
1956
1959
1962
1965
1968
1971
1974
1977
1980
1983
1986
1989
1992
1995
1998
2001
2004
2007
2010

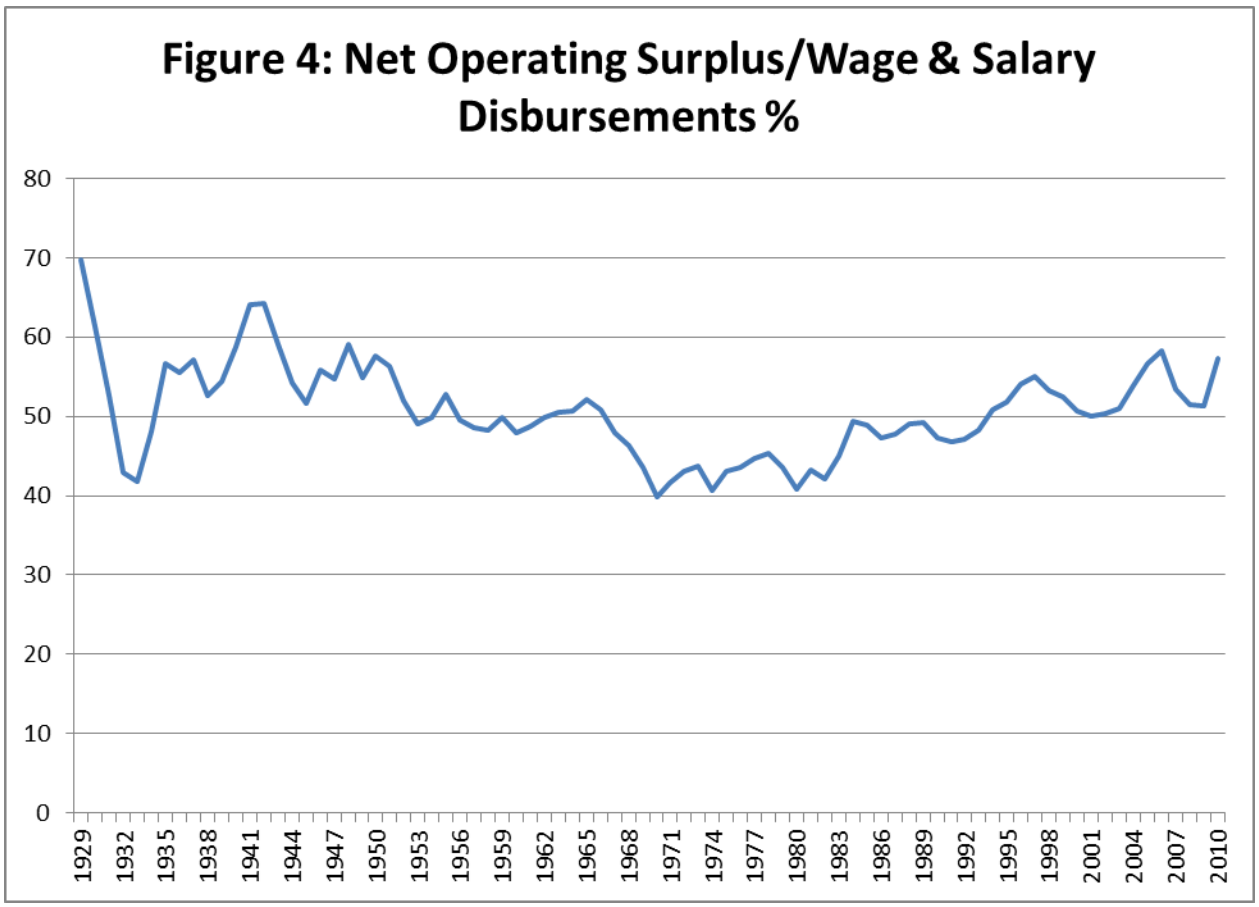
Figure 4: Net Operating Surplus/Wage & Salary Disbursements %
80
70
60
50
40
30
20
10
0
1929
1932
1935
1938
1941
1944
1947
1950
1953
1956
1959
1962
1965
1968
1971
1974
1977
1980
1983
1986
1989
1992
1995
1998
2001
2004
2007
2010

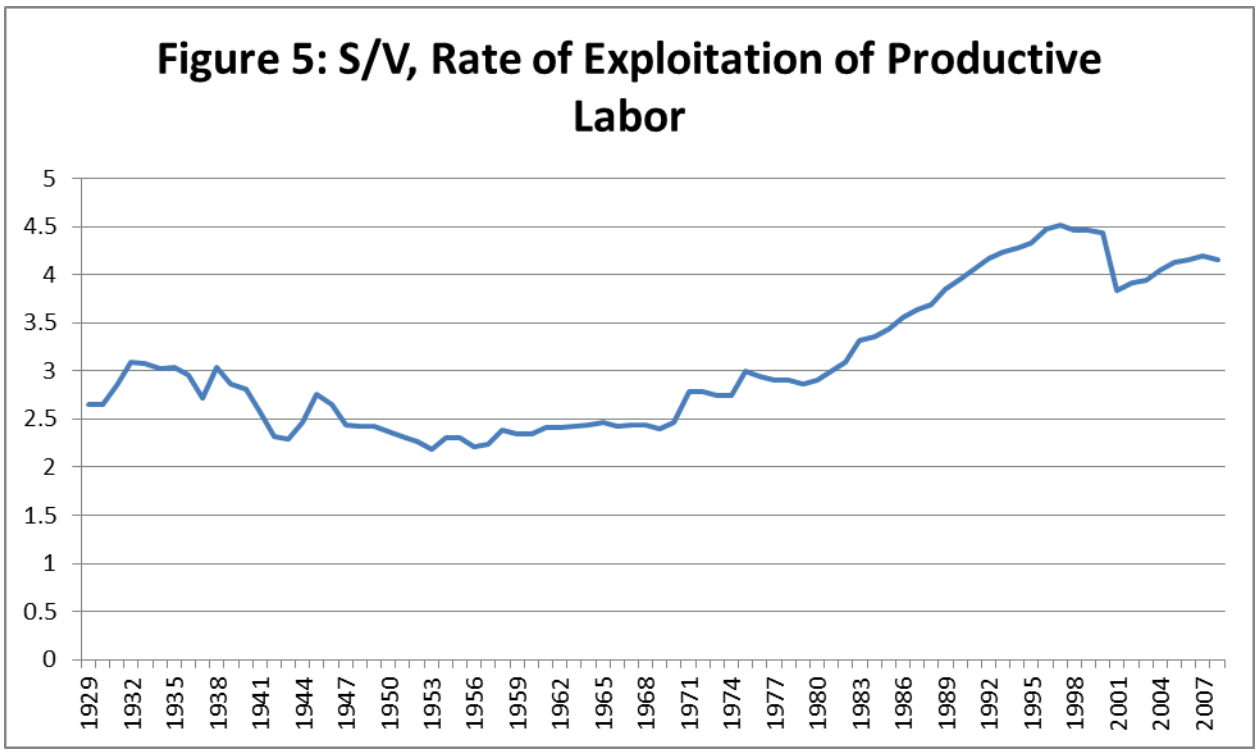
Figure 5: S/V, Rate of Exploitation of Productive Labor
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1929
1932
1935
1938
1941
1944
1947
1950
1953
1956
1959
1962
1965
1968
1971
1974
1977
1980
1983
1986
1989
1992
1995
1998
2001
2004
2007

Table 1--Descriptive Statistics

	Mean	Std. Deviation
Top Income Shares Index	0	1.0
Lag Top Income Shares Index	0	1.0
Manufacturing Employment Pct.	23.298	7.428
College Educated Percent	11.408	7.254
Trade Union Private Sector Pct.	21.421	10.015
Government Expenditure / GDP Pct.	20.492	6.212
Trade as Pct. of GDP	14.275	6.807
NOS / Wages & Salaries Pct.	50.569	5.832
NOS / GDP Pct.	25.030	2.984
Taxes on Corporate Income & Production, % of GDP	0.114	0.015
Wage & Salary Disbursements as % GDP	49.531	2.221
Percentage Annual Change GDP	6.669	7.086
Top Marginal Rate Individual Income Tax	0.638	0.227
Regime	0.600	0.492
FIRE Wage & Salaries as Pct. Tot. Wage & Salaries	5.670	1.567
S / V, Rate of Exploitation	3.102	.741

n = 80

Table 2--Pearson Correlations

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Top Income Shares Index	r	1	.946	-.594	.484	-.761	-.377	.540	-.654	.201	-.555	-.684	.697	.710	.454	-.207	-.640
		Sig. (2-tailed)		.000	.000	.000	.000	.001	.000	.000	.074	.000	.000	.000	.000	.000	.065	.000
2	Lag Top Income Shares Index	r	.946	1	-.509	.397	-.725	-.357	.457	-.616	.289	-.545	-.663	.616	.626	.509	-.222	-.551
		Sig. (2-tailed)	.000		.000	.000	.000	.001	.000	.000	.009	.000	.000	.000	.000	.000	.048	.000
3	Manufacturing Employment Pct.	r	-.594	-.509	1	-.912	.860	.367	-.922	.787	.575	.722	.840	-.941	-.902	.272	.174	.836
		Sig. (2-tailed)	.000	.000		.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.015	.122	.000
4	College Educated Pct.	r	.484	.397	-.912	1	-.698	-.101	.956	-.758	-.513	-.651	-.719	.812	.870	-.218	-.017	-.824
		Sig. (2-tailed)	.000	.000	.000		.000	.375	.000	.000	.000	.000	.000	.000	.000	.052	.878	.000
5	Trade Union Pct. Private Sector	r	-.761	-.725	.860	-.698	1	.363	-.742	.847	.292	.780	.921	-.920	-.867	.005	.212	.783
		Sig. (2-tailed)	.000	.000	.000	.000		.001	.000	.000	.009	.000	.000	.000	.000	.966	.059	.000
6	Govt./ GDP Pct.	r	-.377	-.357	.367	-.101	.363	1	-.226	.270	.109	.340	.385	-.454	-.250	-.038	.380	.348
		Sig. (2-tailed)	.001	.001	.001	.375	.001		.044	.016	.338	.002	.000	.000	.026	.740	.001	.002
7	Trade as Pct. of GDP	r	.540	.457	-.922	.956	-.742	-.226	1	-.752	-.484	-.714	-.756	.833	.874	-.169	-.028	-.865
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.044		.000	.000	.000	.000	.000	.000	.134	.802	.000
8	Regime	r	-.654	-.616	.787	-.758	.847	.270	-.752	1	.243	.843	.898	-.855	-.830	-.043	.328	.792
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.016	.000		.030	.000	.000	.000	.000	.703	.003	.000
9	NOS / GDP Pct.	r	.201	.289	.575	-.513	.292	.109	-.484	.243	1	.287	.276	-.449	-.355	.930	.170	.251
		Sig. (2-tailed)	.074	.009	.000	.000	.009	.338	.000	.030		.010	.013	.000	.001	.000	.131	.025
10	Taxes on Corporate Income Pct. Of GDP	r	-.555	-.545	.722	-.651	.780	.340	-.714	.843	.287	1	.852	-.756	-.713	.037	.369	.695
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.002	.000	.000	.010		.000	.000	.000	.742	.001	.000
11	Top Marginal Rate	r	-.684	-.663	.840	-.719	.921	.385	-.756	.898	.276	.852	1	-.896	-.837	-.013	.282	.779
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.013	.000		.000	.000	.912	.011	.000
12	FIRE Wage & Sal as Pct. GDP	r	.697	.616	-.941	.812	-.920	-.454	.833	-.855	-.449	-.756	-.896	1	.931	-.147	-.272	-.823
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.193	.014	.000
13	S / V	r	.710	.626	-.902	.870	-.867	-.250	.874	-.830	-.355	-.713	-.837	.931	1	-.035	-.146	-.873
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.026	.000	.000	.001	.000	.000	.000		.757	.195	.000
14	NOS / Wages	r	.454	.509	.272	-.218	.005	-.038	-.169	-.043	.930	.037	-.013	-.147	-.035	1	.168	-.116
		Sig. (2-	.000	.000	.015	.052	.966	.740	.134	.703	.000	.742	.912	.193	.757		.137	.303

	tailed)																
15 Pct. Annual Chg. GDP	r	-.207	-.222	.174	-.017	.212	.380	-.028	.328	.170	.369	.282	-.272	-.146	.168	1	-.016
	Sig. (2-tailed)	.065	.048	.122	.878	.059	.001	.802	.003	.131	.001	.011	.014	.195	.137		.889
16 Wages & Salary as Pct. GDP	r	-.640	-.551	.836	-.824	.783	.348	-.865	.792	.251	.695	.779	-.823	-.873	-.116	-.016	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.002	.000	.000	.025	.000	.000	.000	.000	.303	.889	

Table 3--Regression Models
Dependent Variable is Top Income Shares Index

Model 1 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.959[a]	.920	.915	.28280	2.032

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	-.562	.408		-1.375	.173
Lag Top Income Shares Index	.707	.066	.716	10.682	.000
Govt. Exp. / GDP Pct.	-.001	.006	-.007	-.184	.855
Pct. Annual Chg. GDP	-.004	.005	-.027	-.695	.489
NOS / Wages	2.794	1.006	.167	2.776	.007
Manufacturing Emp. Pct.	-.035	.008	-.268	-4.619	.000

Model 2 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.956[a]	.913	.908	.29501	1.980

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	-.720	.480		-1.502	.137
Lag Top Income Shares Index	.803	.058	.813	13.821	.000
Govt. Exp. /GDP Pct.	-.010	.006	-.062	-1.590	.116
Pct. Annual Chg. GDP	-.002	.006	-.014	-.338	.736
NOS / Wages	1.302	.882	.078	1.477	.144
College Educated Pct.	.023	.006	.172	3.689	.000

Model 3 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.954	.910	.903	.30158	1.776

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	-.102	.408		-.251	.802
Lag Top Income Shares Index	.735	.080	.744	9.166	.000
Govt. Exp. / GDP Pct.	-.005	.006	-.034	-.846	.400
Pct. Annual Chg. GDP	.000	.006	.002	.057	.955
NOS / Wages	1.253	.942	.075	1.330	.188
Trade Union Priv. Sector	-.020	.006	-.210	-3.136	.002

Model 4 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.955	.912	.906	.29690	1.945

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	-.809	.508		-1.594	.115
Lag Top Income Shares Index	.804	.059	.814	13.618	.000
Govt. Exp. / GDP Pct.	-.006	.006	-.039	-.983	.329
Pct. Annual Chg/ GDP	-.003	.006	-.019	-.462	.646
NOS / Wages	1.173	.877	.070	1.337	.185
Trade as Pct. of GDP	.024	.007	.170	3.536	.001

Model 5 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.950	.902	.897	.31214	1.953

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	.730	.321		2.277	.026
Lag Top Income Shares Index	.951	.041	.963	22.949	.000
Govt. Exp. / GDP Pct.	-.006	.007	-.038	-.922	.359
Pct. Annual Chg. GDP	.005	.005	.034	.850	.398
NOS / GDP Pct.	-.026	.013	-.079	-1.999	.049

Model 6 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.948	.899	.892	.31887	1.856

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	.661	.442		1.495	.139
Lag Top Income Shares Index	.909	.058	.920	15.624	.000
Govt. Exp. / GDP Pct.	-.007	.007	-.047	-1.108	.272
Pct. Annual Chg. GDP	.005	.006	.036	.849	.399
NOS / Wages	-.341	.822	-.020	-.415	.680
Taxes on Corporate Income & Production Pct. GDP	-3.321	3.336	-.050	-.996	.323

Model 7 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.957	.915	.911	.29027	2.013

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	3.756	.902		4.166	.000
Lag Top Income Shares Index	.833	.042	.843	19.982	.000
Govt. Exp. / GDP Pct.	-.001	.006	-.009	-.234	.815
Pct. Annual Chg. GDP	-.003	.005	-.020	-.520	.605
Wage & Salary as Pct. GDP	-.075	.019	-.172	-4.043	.000

Model 8 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.950	.902	.895	.31441	1.821

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	.329	.389		.845	.401
Lag Top Income Shares Index	.858	.067	.869	12.849	.000
Govt. Exp. / GDP Pct.	-.006	.007	-.039	-.931	.355
Pct. Annual Chg. GDP	.004	.006	.028	.668	.506
NOS / Wages	.073	.855	.004	.085	.932
Top Marginal Rate	-.004	.002	-.101	-1.770	.081

Model 9 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.952	.906	.899	.30827	1.869

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	.251	.384		.654	.515
Lag Top Income Shares Index	.848	.060	.858	14.200	.000
Govt. Exp. / GDP Pct.	-.008	.006	-.054	-1.335	.186
Pct. Annual Chg. GDP	.006	.006	.044	1.071	.288
NOS / Wages	.042	.788	.003	.053	.958
Regime	-.246	.098	-.125	-2.498	.015

Model 10 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.961	.924	.919	.27665	1.852

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	-2.318	.642		-3.608	.001
Lag Top Income Shares Factor	.684	.066	.692	10.411	.000
Govt. Exp. / GDP Pct.	.002	.006	.010	.261	.795
Pct. Annual Chg. GDP	.000	.005	-.002	-.041	.967
NOS / Wages	2.439	.900	.146	2.710	.008
FIRE Pct. Tot. Wages & Sal.	.183	.036	.296	5.062	.000

Model 11 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.964	.929	.924	.26812	1.921

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	Beta		
(Constant)	-1.940	.578		-3.359	.001
Lag Top Income Shares Index	.700	.060	.708	11.748	.000
Govt. Exp. / GDP Pct.	-.010	.006	-.061	-1.692	.095
Pct. Annual Chg. GDP	.000	.005	-.002	-.056	.956
NOS / GDP	.036	.016	.110	2.216	.030
S / V	.401	.076	.300	5.259	.000