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CEO PAY AND THE TOP 1%

How executive compensation and financial-sector pay have fueled income inequality

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Growing income inequality has a number of sources, but a distinct aspect of rising inequality in the United States is the wage gap between the very highest earners—those in the upper 1.0 percent or even upper 0.1 percent—and other earners, including other high-wage earners. Driving this ever-widening gap is the unequal growth in earnings enjoyed by those at the top. The average annual earnings of the top 1 percent of wage earners grew 156 percent from 1979 to 2007; for the top 0.1 percent they grew 362 percent (Mishel, Bivens, Gould, and Shierholz 2012). In contrast, earners in the 90th to 95th percentiles had wage growth of 34 percent, less than a tenth as much as those in the top 0.1 percent tier. Workers in the bottom 90 percent had the weakest wage growth, at 17 percent from 1979 to 2007.

The large increase in wage inequality is one of the main drivers of the large upward distribution of household income to the top 1 percent, the others being the rising inequality of capital income and the growing share of income going to capital rather than wages and compensation (Mishel and Bivens 2011). The result of these three trends was a more than doubling of the share of total income in the United States received by the top 1 percent between 1979 and 2007 and a large increase in the income gap between those at the top and the vast majority. In 2007, average annual incomes of the top 1 percent of households were 42 times greater than incomes of the bottom 90 percent (up from 14 times greater in 1979), and incomes of the top 0.1 percent were 220 times greater (up from 47 times greater in 1979).

Just as wage inequality is a key driver of income inequality, a key driver of wage inequality is the growth of chief executive officer earnings and compensation and the expansion of and high compensation in the financial sector. This paper uses data from EPI's upcoming *The State of Working America, 12th Edition* (Mishel, Bivens, Gould, and Shierholz 2012) to document and explain these trends. Our analysis first examines the role of executives and the financial sector in the growth of incomes of the top 1 percent and then presents new findings on the growth of CEO compensation back to 1965, including the growth of the CEO-to-worker compensation ratio.

The wages and compensation of executives, including CEOs, and of workers in finance reveal much about the rise in income inequality:

- The significant income growth at the very top of the income distribution over the last few decades was largely driven by households headed by someone who was either an executive or was employed in the financial sector. Executives, and workers in finance, accounted for 58 percent of the expansion of income for the top 1 percent and 67 percent of the increase in income for the top 0.1 percent from 1979 to 2005. These estimates understate the role of executive compensation and the financial sector in fueling income growth at the top because the increasing presence of working spouses who are executives or in finance is not included.
- From 1978 to 2011, CEO compensation increased more than 725 percent, a rise substantially greater than stock market growth and the painfully slow 5.7 percent growth in worker compensation over the same period.
- Using a measure of CEO compensation that includes the value of stock options granted to an executive, the CEO-to-worker compensation ratio was 18.3-to-1 in 1965, peaked at 411.3-to-1 in 2000, and sits at 209.4-to-1 in 2011.
- Using an alternative measure of CEO compensation that includes the value of stock options exercised in a given year, CEOs earned 20.1 times more than typical workers in 1965, 383.4 times more in 2000, and 231.0 times more in 2011.

The role of executives and finance in the top 1 percent

Table 1 draws on a study of tax returns (Bakija, Cole, and Heim 2012) to show the trend in the shares of total income of U.S. households accruing to the top 1.0 and top 0.1 percent of households. It further breaks down these two top income groups into households headed by either an "executive" (including managers and supervisors and hereafter referred to as executives) in nonfinancial sectors and households headed by someone, including executives, working in the financial sector (where household head is defined as the "primary taxpayer"). Between 1979 and 2005 (the latest data available with these breakdowns) the share of total income held by the top 1.0 percent more than doubled, from 9.7 percent to 21.0 percent, with most of the increase occurring since 1993. The top 0.1 percent led the way by more than tripling its income share, from 3.3 percent to 10.3 percent.

Calculations also show that this 7.0 percentage-point gain in income share for the top 0.1 percent accounted for more than 60 percent of the overall 11.2 percentage-point rise in the income share of the entire top 1.0 percent. Table 1 establishes that increases in income at the top were largely driven by households headed by someone who was either an executive or in the financial sector as an executive or other worker). Households headed by a non-finance executive were associated with 44 percent of the growth of the top 0.1 percent's income share and 36 percent in the growth among the top 1.0 percent. Those in the financial sector were associated with nearly a fourth (23 percent) of the expansion of the income shares of both the top 1.0 and top 0.1 percent. Together, finance and executives accounted for 58 percent of the expansion

TABLE 1

Role of executives and financial sector in income growth of top 1.0% and top 0.1%, 1979–2005

	Share of total income*					Change	Share of change
	1979	1993	1999	2001	2005	1979–2005	1979–2005
A. Occupation of primary taxpayer							
Top 1.0%	9.7	14.0	19.3	17.5	21.0	11.2	100%
Executives, managers, and supervisors (non-finance)	3.8	5.6	7.8	6.5	7.9	4.0	36%
Finance workers, including executives	0.9	1.8	3.1	3.0	3.4	2.5	23%
Total, executives and finance workers	4.8	7.4	10.9	9.4	11.3	6.5	58%
Top 0.1%	3.3	5.5	9.3	7.9	10.3	7.0	100%
Executives, managers, and supervisors (non-finance)	1.6	2.8	4.5	3.5	4.7	3.1	44%
Finance, including executives	0.4	0.9	1.8	1.7	2.1	1.6	23%
Total, executives and finance	2.0	3.7	6.3	5.2	6.7	4.7	67%

	1979	1993	1999	2001	2005	1979–2005	
B. Share of households with working spouses employed as executives or in finance							
Top 1.0%	10.0	14.2	16.1	15.9	15.7	5.7	n/a
Top 0.1%	11.6	15.3	16.0	15.0	15.5	3.9	n/a

* Household income including capital gains

Source: Authors' analysis of Bakija, Cole, and Heim (2012, Tables 4, 5, 6a, and 7a)

of income for the top 1.0 percent of households and an even greater two-thirds share (67 percent) of the income growth of the top 0.1 percent of households.

This estimate of the impact of executives and finance on the growing incomes at the top does not include the role of earnings from spouses. These top-tier income households frequently have employed spouses (though the data show the share of these households with an employed spouse did not grow between 1993 and 2005, the earliest and latest years for which data are available (Mishel 2012)), and these spouses have increasingly been executives or employed in the financial sector. As the bottom section of Table 1 shows, the share of households in the top 0.1 percent and 1.0 percent with an employed spouse who was an executive or in finance grew from 1979 to 1993 and held steady at roughly 15 percent or higher thereafter. It is not possible to determine the role of these spouses in driving up top incomes without knowing whether the households' primary taxpayers were also executives or in finance, and these data are not available. However, the increased incomes earned by these spouses and their expanded role means that our analysis of the occupations of the "primary taxpayer" understates the total role of executives and the finance sector in driving up top incomes.

CEO compensation trends

The 1980s, 1990s, and 2000s have been prosperous times for top U.S. executives, especially relative to other wage earners. The enormous pay increases received by chief executive officers of large firms has spillover effects (the pay of other executives and managers rises in tandem with CEO pay), but unfortunately no studies have established the scale of this impact.

Table 2 uses two measures of compensation to show trends in CEO pay since 1965. The measures differ only in their treatment of stock options: one incorporates stock options according to how much the CEO realized in that particular year (by exercising stock options available), and the other incorporates the value (the Black Scholes value) of stock options granted that year. Besides stock options, each measure includes the sum of salary, bonus, restricted stock grants, and long-term incentive payouts. It is possible to have broader measures of CEO compensation, but these wouldn't be available for a historical series. The only historical CEO compensation data available to us (for 1965 to 1992) incorporates the value of stock options realized, and we use this series to extend the two measures back to 1965 (which explains why the growth from 1965 to 1978 is the same for both measures). Methodological details for the construction of these CEO compensation measures and benchmarking to other studies can be found in Mishel and Sabadish (2012).

CEO compensation in Table 2 is the average of the annual compensation of the CEOs in the 350 publicly owned firms (i.e., they sell stock on the open market) with the largest revenue each year. For comparison, Table 2 also presents the annual compensation of a private-sector production/nonsupervisory worker (covering more than 80 percent of payroll employment), a figure that allows us to compare CEO compensation to that of workers overall. Last, from 1995 onward we can identify the average annual compensation of the production/nonsupervisory workers in the key industry of the firms included in the sample. We take this compensation as a proxy for the pay of typical workers in these particular firms.

CEO compensation grew 78.7 percent between 1965 and 1978, three times the growth of the compensation of private-sector workers. It is interesting that the stock market (as measured by the Dow Jones and S&P indices) fell by about half at the same time. CEO compensation grew strongly over the 1980s but exploded in the 1990s and peaked in 2000 at more than $19 million, a growth of 1,279 or 1,390 percent, respectively, from 1978, with the options-realized and the options-granted measures. This growth in CEO compensation far exceeded even the substantial rise in the stock market, which grew 439 or 513 percent in value over the 1980s and 1990s. In stark contrast to both the stock market and CEO compensation growth was the 3.6 percent decline in the compensation of private-sector workers over the same period.

The fall in the stock market in the early 2000s led to a substantial paring back of CEO compensation, but by 2007 (when the stock market had mostly recovered) CEO compensation returned close to its 2000 levels, at least for the options-realized measure. The financial crisis in 2008 and the accompanying stock market tumble knocked CEO compensation down again. By 2011 the stock market had recouped a lot of ground lost in the 2008 financial crisis, and CEO compensation was $12.1 million measured with options realized and $11.1 million measured with options granted. CEO compensation grew roughly one percent in 2011 while a private-sector worker's compensation fell about one percent.

CEO compensation in 2011 is very high by any metric, except when compared with its own peak in 2000, after the 1990s stock bubble. From 1978–2011, CEO compensation grew more than 725 percent, substantially more than the stock market and remarkably more than worker compensation, at a meager 5.7 percent.

TABLE 2

CEO compensation and CEO-to-worker compensation ratio, 1965–2011 (2011 dollars)

	CEO annual compensation (thousands)*		Worker annual compensation (thousands)		Stock market indices (adj. to 2011)		CEO-to-worker compensation ratio***	
	Options realized	**Options granted**	**Private-sector production/ nonsupervisory workers**	**Firms' industry****	**S&P 500**	**Dow Jones**	**Options realized**	**Options granted**
1965	791	750	38.5	n/a	511	5,278	20.1	18.3
1973	1,033	980	45.8	n/a	451	3,881	22.1	20.1
1978	1,413	1,341	47.6	n/a	282	2,411	29.0	26.5
1989	2,631	2,496	44.0	n/a	525	4,081	58.5	53.3
1995	5,570	6,177	43.6	49.8	737	6,120	122.6	136.8
2000	19,482	19,977	45.9	52.0	1,730	13,006	383.4	411.3
2007	17,919	12,484	48.2	52.2	1,487	13,268	351.7	244.1
2008	17,491	11,648	48.4	53.0	1,183	10,902	314.9	225.7
2009	10,036	9,639	50.5	55.4	923	8,648	193.1	181.5
2010	12,042	11,003	50.9	56.0	1,092	10,215	228.0	205.9
2011	12,141	11,082	50.3	55.4	1,268	11,958	231.0	209.4
Percent change							**Change in ratio**	
1965–1978	78.7%	78.7%	23.7%	n/a	-44.7%	-54.3%	8.9	8.1
1978–2000	1,278.8%	1,390.3%	-3.6%	n/a	513.0%	439.3%	354.4	384.9
2000–2011	-37.7%	-44.5%	9.7%	6.6%	-26.7%	-8.1%	-152.4	-201.9
1978–2011	759.3%	726.7%	5.7%	n/a	349.1%	395.9%	202.0	182.9

* "Options realized" compensation series includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 firms ranked by sales. "Options granted" compensation series includes salary, bonus, restricted stock grants, options granted, and long-term incentive payouts for CEOs at the top 350 firms ranked by sales.

** Annual compensation of production and nonsupervisory workers in the key industry of the firms in the sample.

*** Based on averaging specific firm CEO-to-worker compensation ratios and not the ratio of averages of CEO and worker compensation.

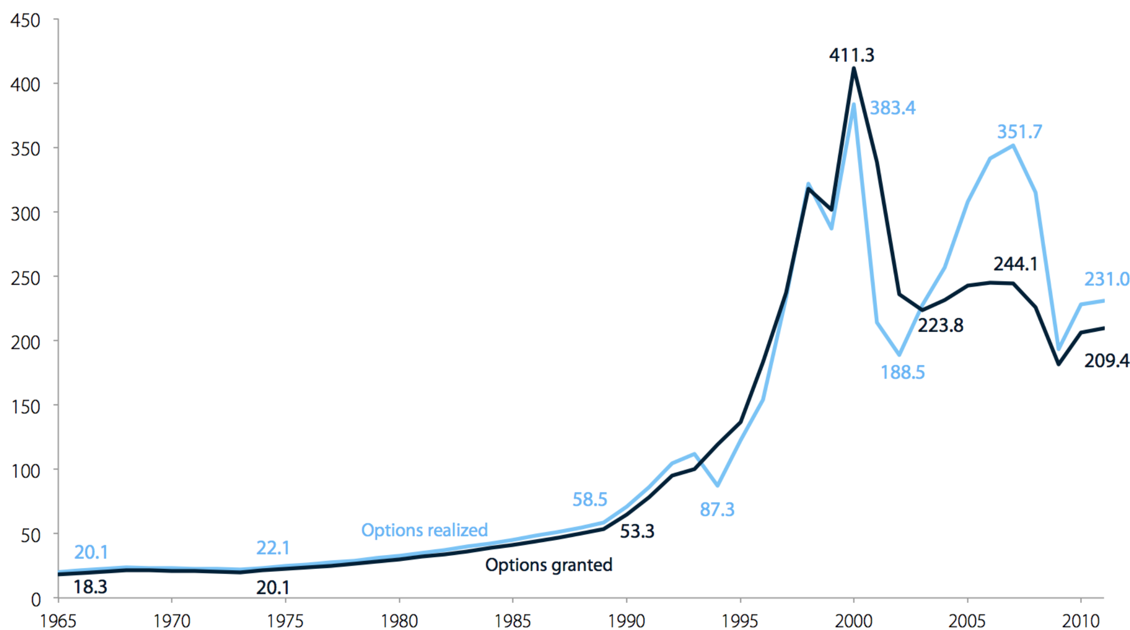
Sources: Authors' analysis of data from Compustat ExecuComp database, Federal Reserve Economic Data (FRED) from Federal Reserve Bank of St. Louis, Bureau of Labor Statistics Current Employment Statistics program, and Bureau of Economic Analysis National Income and Product Account Tables

Trends in the CEO-to-worker compensation ratio

Table 2 also presents the trend in the ratio of CEO-to-worker compensation to illustrate the increased divergence between CEO and worker pay over time. This overall ratio is computed in two steps. The first step is to compute, for each of the largest 350 firms, the ratio of the CEO's compensation to the annual compensation of workers in the key industry of the firm (data on the pay of workers in any particular firm are not available). The second step is to average that ratio across all the firms.

FIGURE A

CEO-to-worker compensation ratio, with options granted and options realized,1965–2011



Note: "Options granted" compensation series includes salary, bonus, restricted stock grants, options granted, and long-term incentive payouts for CEOs at the top 350 firms ranked by sales. "Options exercised" compensation series includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 firms ranked by sales.

Sources: Authors' analysis of data from Compustat ExecuComp database, Bureau of Labor Statistics Current Employment Statistics program, and Bureau of Economic Analysis National Income and Product Accounts Tables

The data in Table 2 are the resulting ratios in every year. The trends prior to 1992 are based on the changes in average CEO and private-sector worker compensation. The year-by-year trends are presented in **Figure A**.

Depending on the CEO compensation measure, U.S. CEOs in major companies earned 20.1 or 18.3 times more than a typical worker in 1965; this ratio grew to 29.0-to-1 or 26.5-to-1 in 1978 and 58.5-to-1 or 53.3-to-1 by 1989 and then surged in the 1990s to hit 383.4-to-1 or 411.3-to-1 by the end of the recovery in 2000. The fall in the stock market after 2000 reduced CEO stock-related pay (e.g., options) and caused CEO compensation to tumble until 2002 and 2003. CEO compensation recovered to a level of 351.7 times worker pay by 2007, almost back to its 2000 level using the option-realized metric. The CEO-to-worker compensation ratio based on options-granted, however, returned only to 244.1-to-1 in 2007, still far below its heights in 2000. The financial crisis in 2008 and accompanying stock market decline reduced CEO compensation after 2007–2008, as discussed above, and the CEO-to-worker compensation ratio fell in tandem. By 2011 the stock market had recouped much of the value it lost following the financial crisis. Likewise, CEO compensation has grown from its 2009 low, and the CEO-to-worker compensation ratio has recovered to 231.0-to-1 or 209.4-to-1, depending on the measurement of options.

Though lower than in other years in the last decade, the CEO-to-worker compensation ratio in 2011 of more than 200-to-1 is far above the ratios prevailing in the 1960s, 1970s, 1980s, and mid-1990s. This illustrates that CEOs have fared far better than the typical worker, the stock market, or the U.S. economy over the last several decades. That begs the question: is there any gauge against which to measure CEO pay that hasn't been surpassed?

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