



TOP CEOS MAKE 300 TIMES MORE THAN TYPICAL WORKERS

Pay Growth Surpasses Stock Gains and Wage Growth of Top 0.1 Percent

BY **LAWRENCE MISHEL** AND **ALYSSA DAVIS**

The chief executive officers of America's largest firms earn three times more than they did 20 years ago and at least 10 times more than 30 years ago, big gains even relative to other very-high-wage earners. These extraordinary pay increases have had spillover effects in pulling up the pay of other executives and managers, who constitute a larger group of workers than is commonly recognized.¹ Consequently, the growth of CEO and executive compensation overall was a major factor driving the doubling of the income shares of the top 1 percent and top 0.1 percent of U.S. households from 1979 to 2007 (Bivens and Mishel 2013; Bakija, Cole, and Heim 2012). Since then, income growth has remained unbalanced: as profits have reached record highs and the stock market has boomed, the wages of most workers, stagnant over the last dozen years, includ-

ing during the prior recovery, have declined during this one (Bivens et al. 2014; Gould 2015).

In examining trends in CEO compensation to determine how well the top 1 and 0.1 percent are faring through 2014, this paper finds:

- Average CEO compensation for the largest firms was \$16.3 million in 2014. This estimate uses a comprehensive measure of CEO pay that covers chief executives of the top 350 U.S. firms and includes the value of stock options exercised in a given year. Compensation is up 3.9 percent since 2013 and 54.3 percent since the recovery began in 2009.
- From 1978 to 2014, inflation-adjusted CEO compensation increased 997 percent, a rise almost double stock market growth and substantially greater than

the painfully slow 10.9 percent growth in a typical worker's annual compensation over the same period.

- The CEO-to-worker compensation ratio, 20-to-1 in 1965, peaked at 376-to-1 in 2000 and was 303-to-1 in 2014, far higher than in the 1960s, 1970s, 1980s, or 1990s.

In examining CEO compensation relative to that of other high earners, we find:

- Over the last three decades, compensation for CEOs grew far faster than that of other highly paid workers, i.e., those earning more than 99.9 percent of wage earners. CEO compensation in 2013 (the latest year for data on top wage earners) was 5.84 times greater than wages of the top 0.1 percent of wage earners, a ratio 2.66 points higher than the 3.18 ratio that prevailed over the 1947–1979 period. This wage gain alone is equivalent to the wages of 2.66 very-high-wage earners.
- Also over the last three decades, CEO compensation increased more relative to the pay of other very-high-wage earners than the wages of college graduates rose relative to the wages of high school graduates.
- That CEO pay grew far faster than pay of the top 0.1 percent of wage earners indicates that CEO compensation growth does not simply reflect the increased value of highly paid professionals in a competitive race for skills (the “market for talent”), but rather reflects the presence of substantial “rents” embedded in executive pay (meaning CEO pay does not reflect greater productivity of executives but rather the power of CEOs to extract concessions). Consequently, if CEOs earned less or were taxed more, there would be no adverse impact on output or employment.
- Critics of examining these trends suggest looking at the pay of the average CEO, not CEOs of the largest firms. However, the average firm is very small, employing just 20 workers, and does not represent a

useful comparison to the pay of a typical worker who works in a firm with roughly 1,000 workers. Half (52 percent) of employment and 58 percent of total payroll are in firms with more than 500 or more employees. Firms with at least 10,000 workers provide 27.9 percent of all employment and 31.4 percent of all payroll.

CEO compensation trends

Table 1 presents trends in CEO compensation from 1965 to 2014.² The data measure the compensation of CEOs in the largest firms and incorporate stock options according to how much the CEO *realized* in that particular year by exercising stock options available. The options-realized measure reflects what CEOs report as their Form W-2 wages for tax reporting purposes and is what they actually earned in a given year. This is the measure most frequently used by economists.³ In addition to stock options, the compensation measure includes salary, bonuses, restricted stock grants, and long-term incentive payouts. Full methodological details for the construction of this CEO compensation measure and benchmarking to other studies can be found in Mishel and Sabadish (2013).

CEO compensation reported in Table 1, as well as throughout the rest of the report, is the average compensation of the CEOs in the 350 publicly owned U.S. firms (i.e., firms that sell stock on the open market) with the largest revenue each year. Our sample each year will be fewer than 350 firms to the extent that these large firms did not have the same CEO for most of or all of the year or the compensation data are not yet available. For comparison, Table 1 also presents the annual compensation (wages and benefits of a full-time, full-year worker) of a private-sector production/nonsupervisory worker (a group covering more than 80 percent of payroll employment), allowing us to compare CEO compensation with that of a “typical” worker. From 1995 onward, the table identifies the average annual compensation of the production/nonsupervisory workers in the *key industries* of

TABLE 1

CEO compensation, CEO-to-worker compensation ratio, and stock prices, 1965–2014 (2014 dollars)

	CEO annual compensation (thousands)*	Worker annual compensation (thousands)		Stock market (adjusted to 2014)		CEO-to-worker compensation ratio***
		Private-sector production/nonsupervisory workers	Firms' industry**	S&P 500	Dow Jones	
1965	\$832	\$40.2	n/a	579	5,986	20.0
1973	\$1,087	\$47.2	n/a	512	4,401	22.3
1978	\$1,487	\$48.0	n/a	320	2,735	29.9
1989	\$2,769	\$45.4	n/a	596	4,628	58.7
1995	\$5,862	\$46.0	\$52.4	836	6,941	122.6
2000	\$20,384	\$48.7	\$55.2	1,962	14,744	376.1
2007	\$18,786	\$51.1	\$55.4	1,687	15,048	345.3
2009	\$10,575	\$53.2	\$57.4	1,046	9,808	195.8
2010	\$12,662	\$53.7	\$57.8	1,238	11,585	229.7
2011	\$12,863	\$53.0	\$56.9	1,334	12,584	235.5
2012	\$14,998	\$52.6	\$56.3	1,422	13,371	285.3
2013	\$15,711	\$52.8	\$56.4	1,671	15,255	303.1
2014	\$16,316	\$53.2	\$56.4	1,931	16,778	303.4
	Percent change					Change in ratio
1965–1978	78.7%	19.5%	n/a	-44.8%	-54.3%	9.9
1978–2000	1,270.8%	1.4%	n/a	513.0%	439.1%	346.2
2000–2014	-20.0%	9.4%	2.2%	-1.6%	13.8%	-72.7
2009–2014	54.3%	0.0%	-1.7%	84.6%	71.1%	107.6
1978–2014	997.2%	10.9%	n/a	503.4%	513.5%	244.7

* CEO annual compensation is computed using the "options realized" compensation series, which includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 U.S. firms ranked by sales.

** Annual compensation of the workers in the key industry of the firms in the sample

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

Source: Authors' analysis of data from Compustat's ExecuComp database, Federal Reserve Economic Data (FRED) from the Federal Reserve Bank of St. Louis, the Current Employment Statistics program, and the Bureau of Economic Analysis NIPA tables

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the firms included in the sample. We take this compensation as a proxy for the pay of typical workers in these particular firms.

The modern history of CEO compensation (starting in the 1960s) is as follows. Even though the stock market, as measured by the Dow Jones Industrial Average and S&P 500 index, and shown in Table 1, fell by roughly half between 1965 and 1978, CEO pay increased by 78.7 percent. Average worker pay saw relatively strong growth over that period (relative to subsequent periods, not relative to CEO pay or pay for others at the top of the wage distribution). Annual worker compensation grew by 19.5 percent from 1965 to 1978, only about a fourth as fast as CEO compensation growth over that period.

CEO compensation grew strongly throughout the 1980s but exploded in the 1990s and peaked in 2000 at around \$20 million, an increase of more than 200 percent just from 1995 and 1,271 percent from 1978. This latter increase even exceeded the growth of the booming stock market—513 percent for the S&P 500 and 439 percent for the Dow. In stark contrast to both the stock market and CEO compensation, private-sector worker compensation increased just 1.4 percent 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 level. **Figure A** shows how CEO pay fluctuates in tandem with the stock market as measured by the S&P 500 index, confirming that CEOs tend to cash in their options when stock prices are high. The financial crisis in 2008 and the accompanying stock market tumble knocked CEO compensation down 44 percent by 2009. By 2014, the stock market had recouped all of the ground lost in the downturn and, not surprisingly, CEO compensation had also made a strong recovery. In 2014, average CEO compensation was \$16.3 million, up 3.9 percent since 2013 and 54.3 percent since 2009. CEO compensation in 2014 remained below the peak earning years of 2000 and 2007

but far above the pay levels of the mid-1990s and much further above CEO compensation in preceding decades.

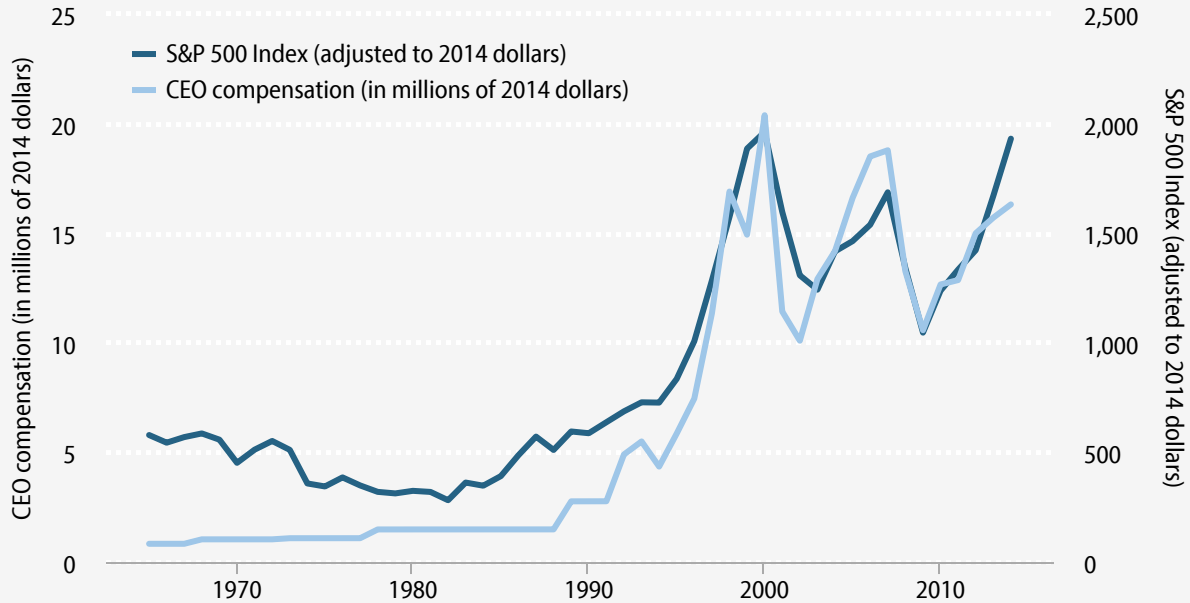
The alignment of CEO compensation to the ups and downs of the stock market casts doubt on any explanation of high and rising CEO pay that relies on the rising individual productivity of executives, either because they head larger firms, have adopted new technology, or other reasons. CEO compensation often grows strongly simply when the overall stock market rises and individual firms' stock values rise along with it (Figure A). This is a marketwide phenomenon and not one of improved performance of individual firms: most CEO pay packages allow pay to rise whenever the firm's stock value rises and permit CEOs to cash out stock options regardless of whether or not the rise in the firm's stock value was exceptional relative to comparable firms. Over the entire period from 1978 to 2014, CEO compensation increased about 997 percent, a rise almost double stock market growth and substantially greater than the painfully slow 10.9 percent growth in a typical worker's compensation over the same period.

It is interesting to note that growth in CEO pay in 2014 was not driven by large increases in pay for just a few executives or just those with the highest pay. **Figure B** shows the growth in CEO pay when compensation is ranked and computed by CEO compensation fifths. CEO compensation rose across the board, and in fact grew the most in the bottom and second fifth—11.1 and 7.9 percent, respectively—between 2013 and 2014.

The increase in CEO pay over the past few years reflects improving market conditions driven by macroeconomic developments and a general rise in profitability. For most firms, corporate profits continue to improve, and corporate stock prices move accordingly. It seems evident that individual CEOs are not responsible for this broad improvement in profits in the past few years, but they clearly are benefiting from it.

FIGURE A

CEO compensation and the S&P 500 Index (in 2014 dollars), 1965–2014



Note: CEO annual compensation is computed using the "options realized" compensation series, which includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 U.S. firms ranked by sales.

Source: Authors' analysis of data from Compustat's ExecuComp database and Federal Reserve Economic Data (FRED) from the Federal Reserve Bank of St. Louis

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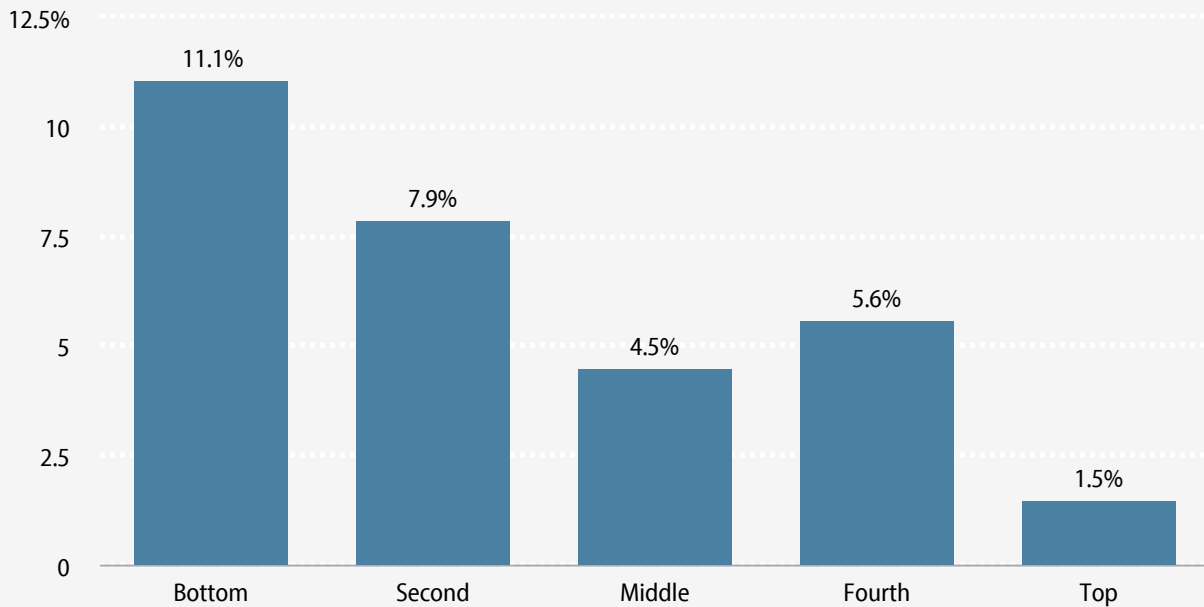
This analysis makes clear that the economy is recovering for some Americans, but not for most. The stock market and corporate profits have rebounded following the Great Recession, but the labor market remains sluggish. Those at the top of the income distribution, including many CEOs, are seeing a strong recovery—compensation up 54.3 percent—while the typical worker is still experiencing the detrimental effects of a stagnant labor market: compensation for private-sector workers in the main industries of the CEOs in our sample has fallen 1.7 percent since 2009.

Trends in the CEO-to-worker compensation ratio

Table 1 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 construct, 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. The last column in Table 1 is the resulting ratio in select years. The trends prior to 1995 are based on the changes in average CEO and economywide private-sector pro-

FIGURE B

Real CEO compensation growth, by CEO pay fifth, 2013–2014



Note: CEO annual compensation is computed using the "options realized" compensation series, which includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 U.S. firms ranked by sales.

Source: Authors' analysis of data from Compustat's ExecuComp database

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duction/nonsupervisory worker compensation. The year-by-year trend is presented in **Figure C**.

U.S. CEOs of major companies earned 20 times more than a typical worker in 1965; this ratio grew to 29.9-to-1 in 1978 and 58.7-to-1 by 1989, and then it surged in the 1990s to hit 376.1-to-1 by the end of the 1990s 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 345.3 times worker pay by 2007, almost back to its 2000 level. 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 2014, the stock market had recouped all of the value it lost following the

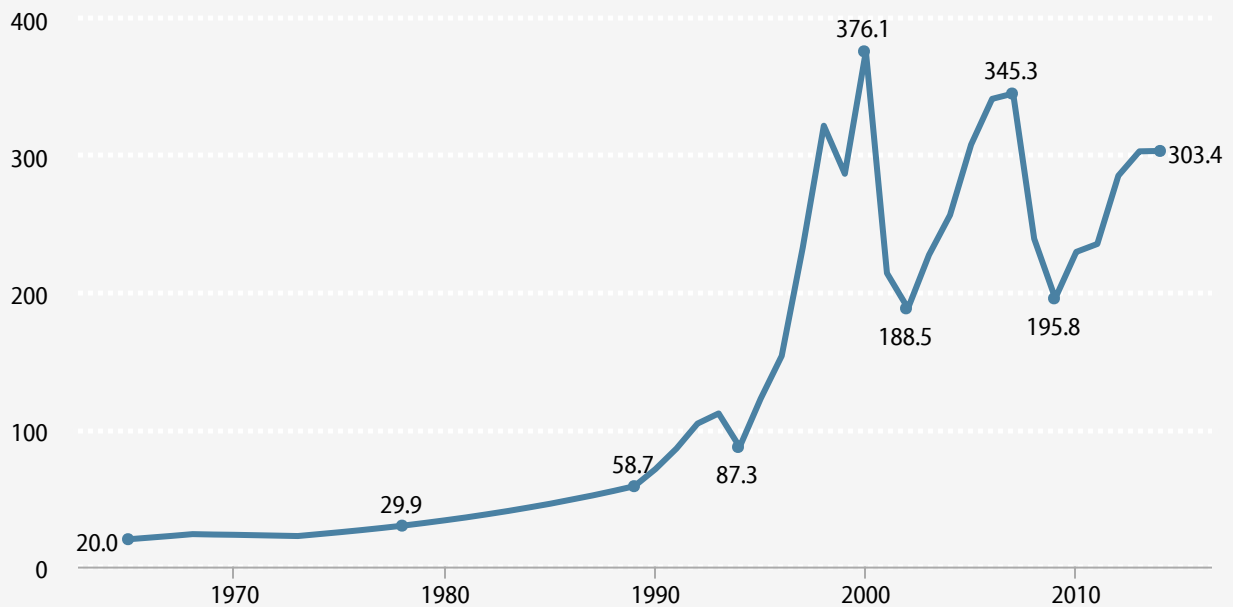
financial crisis. Similarly, CEO compensation had grown from its 2009 low, and the CEO-to-worker compensation ratio in 2014 had recovered to 303.4-to-1, a rise of 107.6 since 2009. Though the CEO-to-worker compensation ratio remains below the peak values achieved earlier in the 2000s, it is far higher than what prevailed through the 1960s, 1970s, 1980s, and 1990s.

Does rising CEO pay simply reflect the market for skills?

CEO compensation has grown a great deal, but so has pay of other high-wage earners. To some analysts this suggests that the dramatic rise in CEO compensation was driven largely by the demand for the skills of CEOs and other highly paid professionals. In this interpretation CEO compensation is being set by the market for

FIGURE C

CEO-to-worker compensation ratio, 1965–2014



Note: CEO annual compensation is computed using the "options realized" compensation series, which includes salary, bonus, restricted stock grants, options exercised, and long-term incentive payouts for CEOs at the top 350 U.S. firms ranked by sales.

Source: Authors' analysis of data from Compustat's ExecuComp database, Current Employment Statistics program, and the Bureau of Economic Analysis NIPA tables

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"skills," and rising CEO compensation is not due to managerial power and rent-seeking behavior (Bebchuk and Fried 2004). One prominent example of the "it's other professions, too" argument comes from Kaplan (2012a, 2012b). For instance, in the prestigious 2012 Martin Feldstein Lecture, Kaplan (2012a, 4) claimed:

Over the last 20 years, then, public company CEO pay relative to the top 0.1 percent has remained relatively constant or declined. These patterns are consistent with a competitive market for talent. They are less consistent with managerial power. Other top income groups, not subject to managerial power forces, have seen similar growth in pay.

And in a followup paper for the CATO Institute, published as a National Bureau of Economic Research working paper, Kaplan (2012b, 21) expanded this point further:

The point of these comparisons is to confirm that while public company CEOs earn a great deal, they are not unique. Other groups with similar backgrounds—private company executives, corporate lawyers, hedge fund investors, private equity investors and others—have seen significant pay increases where there is a competitive market for talent and managerial power problems are absent. Again, if one uses evidence of higher CEO pay as evidence of managerial power or capture, one must also explain why these profes-

sional groups have had a similar or even higher growth in pay. It seems more likely that a meaningful portion of the increase in CEO pay has been driven by market forces as well.

Bivens and Mishel (2013) address the larger issue of the role of CEO compensation in generating income gains at the very top and conclude that there are substantial rents embedded in executive pay, meaning that CEO pay gains are not simply the result of a competitive market for talent. We draw on and update that analysis to show that CEO compensation grew far faster than compensation of other highly paid workers over the last few decades, which suggests that the market for skills was not responsible for the rapid growth of CEO compensation. To reach this finding we employ Kaplan's own series on CEO compensation and compare it to the incomes of top households, as he does, but also compare it to a better standard, the wages of top wage earners, rather than the household income of the top 0.1 percent.⁴ We update Kaplan's series beyond 2010 using the growth of CEO compensation in our own series. This analysis finds, contrary to Kaplan, that compensation of CEOs has far outpaced that of very highly paid workers, the top 0.1 percent of earners.

Table 2 presents the ratio of the average compensation of chief executive officers of large firms, the series developed by Kaplan, to two benchmarks. The first benchmark is the one Kaplan employs: the average *household income* of those in the top 0.1 percent, data developed by Piketty and Saez (2015). The second is the average annual earnings of the top 0.1 percent of *wage earners* based on a series developed by Kopczuk, Saez, and Song (2010) and updated in Mishel et al. (2012) and Mishel and Kimball (2014). Each ratio is presented as a simple ratio and logged (to convert to a "premium," the relative pay differential between one group and another). The wage benchmark seems the most appropriate one since it avoids issues of household demographics—changes in two-earner couples, for instance—and

limits the income to labor income (i.e., excluding capital income). Both the ratios and log ratios clearly understate the relative wage of CEOs since executive pay is a non-trivial share of the denominator, a bias that has probably grown over time simply because CEO relative pay has grown.⁵ For comparison purposes Table 2 also shows the changes in the gross (not regression-adjusted) college-to-high-school wage premium. This is also useful because some commentators, such as Mankiw (2013) have simply asserted that the top 1 percent wage and income growth reflects the general rise of the returns to skills, such as a higher college-high school wage premium. The comparisons end in 2013 because 2014 data for top 0.1 percent wages are not yet available.

CEO compensation grew from 1.14 times the income of the top 0.1 percent of households in 1989 to 2.54 times in 2013. CEO pay relative to the pay of the top 0.1 percent of wage earners grew even more, from a ratio of 2.63 in 1989 to 5.84 in 2013, a rise (3.21) equal to the pay of more than three very high earners. The log ratio of CEO relative pay grew 80 log points from 1989 to 2013 using top 0.1 percent household incomes or wages earners as the comparison.

Is this a large increase? Kaplan (2012a, 4) concluded that CEO relative pay "has remained relatively constant or declined." Kaplan (2012b, 14) finds that the ratio "remains above its historical average and the level in the mid-1980s." **Figure D** puts this in historical context by presenting the ratios displayed in Table 2 back to 1947. The ratio of CEO pay to top (0.1 percent) household incomes in 2013 (2.54) was more than double the historical (1947–1979) average of 1.11. The ratio of CEO pay relative to top wage earners in 2013 was 5.84, 2.66 points higher than the historical average of 3.18 (a relative gain of the wages earned by 2.66 high-wage earners). As the data in Table 2 show, the increase in the logged CEO pay premium since 1979, and particularly since 1989, far exceeded the rise in the college-to-high-school wage premium that is widely and appropriately considered sub-

TABLE 2

Growth of relative CEO compensation and college wages, 1979–2013

	Ratio			Log ratio		
	CEO compensation to:		College wages to:	CEO compensation to:		College wages to:
	Top 0.1% households	Top 0.1% wage earners	High school hourly wages	Top 0.1% households	Top 0.1% wage earners	High school hourly wages
1979	1.18	3.26	1.40	0.164	1.183	0.338
1989	1.14	2.63	1.57	0.129	0.967	0.454
1993	1.56	3.05	1.63	0.443	1.115	0.488
2000	2.90	7.77	1.75	1.064	2.050	0.557
2007	1.49	4.36	1.76	0.397	1.473	0.568
2010	2.04	4.85	1.77	0.712	1.579	0.574
2013	2.54	5.84	1.82	0.933	1.765	0.598
Change						
1979–2007	0.31	1.10	0.36	0.23	0.29	0.23
1979–2013	1.36	2.58	0.42	0.77	0.58	0.26
1989–2013	1.41	3.21	0.24	0.80	0.80	0.14

Source: Authors' analysis of Kaplan (2012b) and Mishel et al. (2012, Table 4.8)

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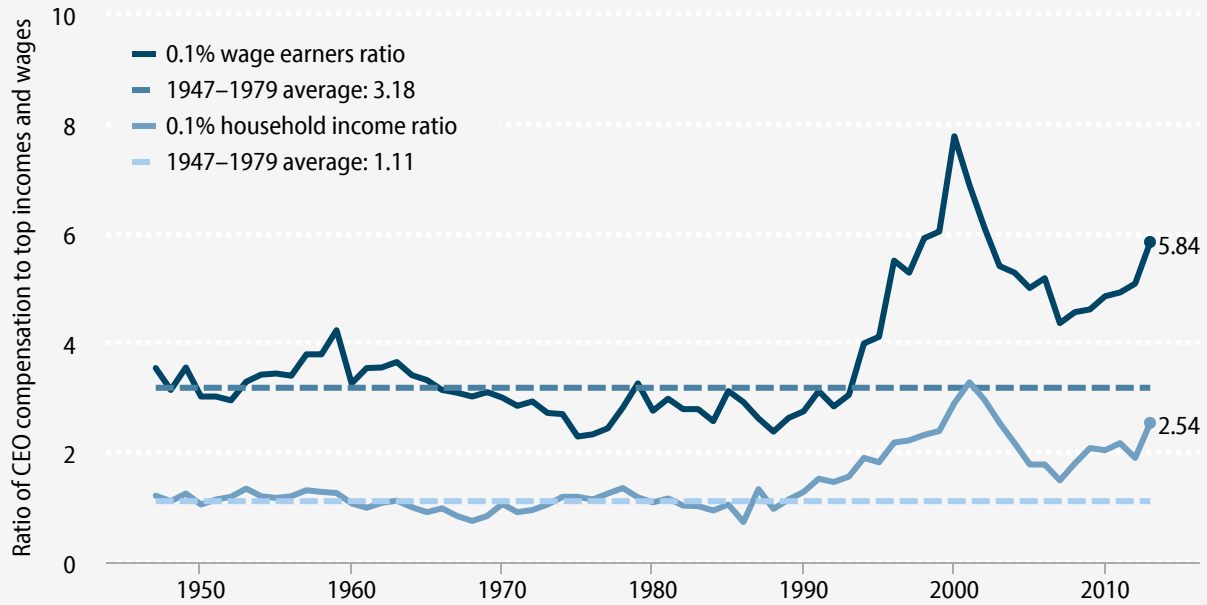
stantial growth. Mankiw's claim that top 1 percent pay or top executive pay simply corresponds to the rise of the college–high school wage premium is unfounded (Mishel 2013a, 2013b). Moreover, the data would show an even faster growth of CEO relative pay if Kaplan had built his historical series using the Frydman and Saks (2010) series for the 1980–1994 period rather than the Hall and Leibman (1997) data.⁶

Presumably, CEO relative pay has grown further since 2013. The data in Table 1 show that CEO compensation rose 3.9 percent between 2013 and 2014. (Unfortunately, data on the earnings of top wage earners for 2014 are not yet available for a comparison to CEO compensation trends.) If CEO pay growing far faster than that

of other high earners is a test of the presence of rents, as Kaplan has suggested, then we would conclude that today's executives receive substantial rents, meaning that if they were paid less there would be no loss of productivity or output. The large discrepancy between the pay of CEOs and other very-high-wage earners also casts doubt on the claim that CEOs are being paid these extraordinary amounts because of their special skills and the market for those skills. Is it likely that the skills of CEOs in very large firms are so outsized and disconnected from the skills of others that they propel CEOs past most of their cohorts in the top tenth of a percent? For everyone else the distribution of skills, as reflected in the overall wage distribution, tends to be much more continuous.

FIGURE D

Comparison of CEO compensation to top incomes and wages, 1947–2013



Source: Authors' analysis of Kaplan (2012b) and Mishel et al. (2012, Table 4.8)

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What about the average CEO?

A relatively new critique of examining the pay of CEOs in the largest firms, as we do, is that such efforts are misleading. For instance, American Enterprise Institute scholar Mark Perry (2015) says the samples of CEOs examined by the *Associated Press*, the *Wall Street Journal*, or our earlier work “aren’t very representative of the average U.S. company or the average U.S. CEO,” because “the samples of 300–350 firms for CEO pay represent only one of about every 21,500 private firms in the U.S., or about 1/200 of 1% of the total number of U.S. firms.” Perry notes, “According to both the BLS and the Census Bureau, there are more than 7 million private firms in the U.S.” Perry considers the pay of the average CEO, \$187,000, to be a much more important indicator.

This is a clever but misguided critique. Amazingly, roughly sixteen percent of the CEOs in Perry’s preferred measure are in the public sector. Those in the private sector include CEOs of religious organizations, advocacy groups, and unions. One wonders why Perry is not critical of the Bureau of Labor Statistics’ measure of CEO pay, since BLS reports that there are only 207,660 private-sector CEOs, far short of the 7.4 million there would be if each private firm had one. The shortfall of CEOs in the BLS data is understandable, however, once one recognizes that the average firm has only 20.2 workers (Caruso 2015, Appendix Table 1). The 5.2 million firms with fewer than 19 employees, averaging four employees per firm, probably do not have a CEO, nor probably do 2 million of the 2.4 million firms with more than 19 employees.

The reason to focus on the CEO pay of the largest firms is that they employ a large number of workers, are the leaders of the business community, and set the standards for pay in the executive pay market and probably do so in the nonprofit sector as well (e.g., hospitals, universities). No agency reports how many workers work for very large firms. We do know from Census data (Caruso 2015, Appendix Table 1) that the 18,219 firms in 2012 with at least 500 employees employed 51.6 percent of all employees and their payrolls accounted for 58.1 percent of total payroll (wages times employment). County Business Patterns data provide a breakout of the 964 firms (just 0.017 percent of all firms) with at least 10,000 employees; these large firms provide 27.9 percent of all employment and 31.4 percent of all payroll. In other words, the CEO of the “average U.S. company” about which Perry purports to be interested does not correspond to the CEO of the firm where the “average” or median worker works. This is further confirmed by a new study that reports that the median firm, ranked by employment, has roughly 1,000 workers while the average firm has about 20 (Song et al. 2015).

Executives and managers comprise a large portion of those in the top 1 percent of income and the top 1 percent of wage earners. The analysis of tax returns in Bakija et al. (2012) shows the composition of executives in the households with the highest incomes; our tabulation of American Community Survey data for 2009–2011 shows that 41.2 percent (the largest group) of those heading a household in the top 1 percent of incomes were executives or managers. Thus, we know that highly paid managers are the largest group in the top 1 percent and the top 0.1 percent, measured in terms of either wages or household income, and so there are plenty of good reasons to be interested in the pay of executives of large firms. Moreover, the pay of CEOs in the largest firms has grown multiples faster than the wages of other very high earners and hundreds of times faster than the wages these CEOs provide to their workers.

Conclusion

It is sometimes argued that rising CEO compensation is a symbolic issue with no consequences for the vast majority. However, the escalation of CEO compensation and executive compensation more generally has fueled the growth of top 1 percent incomes. In a study of tax returns from 1979 to 2005, Bakija, Cole, and Heim (2010), studying tax returns from 1979 to 2005, established that the increases in income among the top 1 and 0.1 percent of households were disproportionately driven by households headed by someone who was either a nonfinancial-sector “executive” (including managers and supervisors and hereafter referred to as nonfinance executives) or a financial-sector executive or other worker. Forty-four percent of the growth of the top 0.1 percent’s income share and 36 percent of the top 1 percent’s income share accrued to households headed by a nonfinance executive; another 23 percent for each group accrued to financial-sector households. Together, finance workers and nonfinance executives accounted for 58 percent of the expansion of income for the top 1 percent of households and 67 percent of the income growth of the top 0.1 percent. Relative to others in the top 1 percent, households headed by nonfinance executives had roughly average income growth, those headed by someone in the financial sector had above-average income growth, and the remaining households (nonexecutive, nonfinance) had slower-than-average income growth. These shares may actually understate the role of nonfinance executives and the financial sector since they do not account for the increased spousal income from these sources.⁷

We have argued above that high CEO pay reflects rents, concessions CEOs can draw from the economy not by virtue of their contribution to economic output but by virtue of their position. Consequently, CEO pay could be reduced and the economy would not suffer any loss of output. Another implication of rising executive pay is that it reflects income that otherwise would have accrued to others: what the executives earned was not available

for broader-based wage growth for other workers. (Bivens and Mishel 2013 explore this issue in depth.)

There are policy options for curtailing escalating executive pay and broadening wage growth. Some involve taxes. Implementing higher marginal income tax rates at the very top would limit rent-seeking behavior and reduce the incentives for executives to push for such high pay. Legislation has also been proposed that would remove the tax break for executive performance pay that was established early in the Clinton administration; by allowing the deductibility of performance pay, this tax change helped fuel the growth of stock options and other forms of such compensation. Another option is to set corporate tax rates higher for firms that have higher ratios of CEO-to-worker compensation. Other policies that can potentially limit executive pay growth are changes in corporate governance, such as greater use of “say on pay,” which allows a firm’s shareholders to vote on top executives’ compensation.

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Lawrence Mishel is president of the Economic Policy Institute and was formerly its research director and then vice president. He is the co-author of all 12 editions of *The State of Working America*. He holds a Ph.D. in economics from the University of Wisconsin at Madison, and his articles have appeared in a variety of academic and nonacademic journals. His areas of research are labor economics, wage and income distribution, industrial relations, productivity growth, and the economics of education.

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Endnotes

1. In 2007, according to the Capital IQ database, there were 38,824 executives in publicly held firms (tabulations provided by Temple University Professor Steve Balsam). There were 9,692 in the top 0.1 percent of wage earners.
2. The years chosen are based on data availability, though where possible we chose cyclical peaks (years of low unemployment).
3. For instance, all of the papers prepared for the symposium on the top 1 percent, published in the *Journal of Economic Perspectives* (summer 2013), used CEO pay measures with realized options. Bivens and Mishel (2013) follow this approach because the editors asked them to drop references to the options-granted measure.
4. We thank Steve Kaplan for sharing his series with us.
5. Temple University Professor Steve Balsam provided tabulations of annual W-2 wages of executives in the top 0.1 percent from the Capital IQ database. The 9,692 executives in publicly held firms who were in the top 0.1 percent of wage earners had average W-2 earnings of \$4,400,028. Using Mishel et al. (2012) estimates of top 0.1 percent wages, executive wages make up 13.3 percent of total top 0.1 percent wages. One can gauge the bias of including executives in the denominator by noting that the ratio of executive wages to all top 0.1 percent wages in 2007 was 2.14, but the ratio of executive wages to nonexecutive wages was 2.32. Unfortunately, we do not have data that permit an assessment of the bias in 1979 or 1989. We also do not have information on the number and wages of executives in privately held firms; their inclusion would clearly indicate an even larger bias. The IRS reports there were nearly 15,000 corporate tax returns in 2007 of firms with assets exceeding \$250 million, indicating there are

many more executives of large firms than just those in publicly held firms.

6. Kaplan (2012b, 14) notes that the Frydman and Saks series grew 289 percent, while the Hall and Leibman series grew 209 percent. He also notes that the Frydman and Saks series grows faster than that reported by Murphy (2012).
7. The discussion in this paragraph is taken from Bivens and Mishel (2013).

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