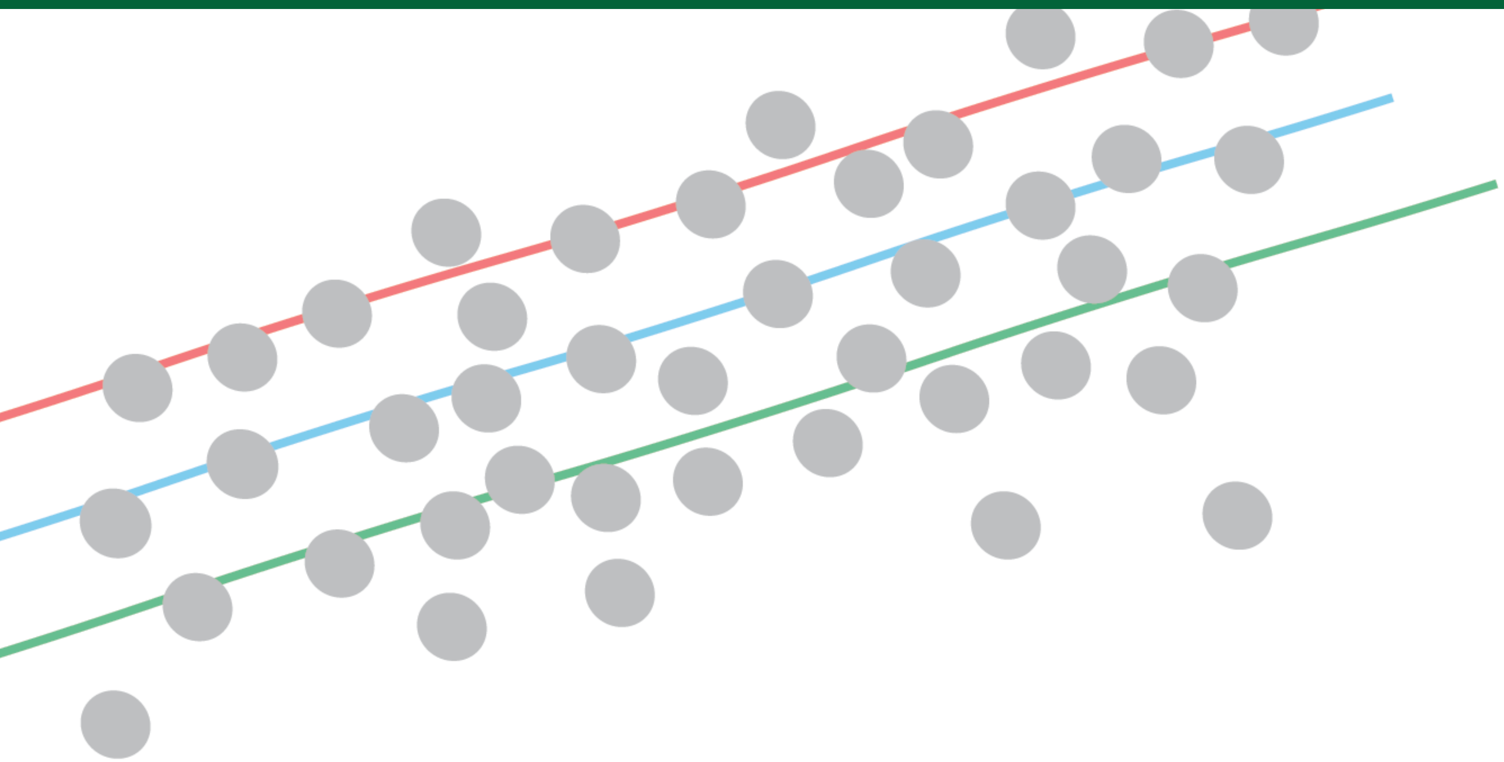
CEO Pay Ratios: The Story Behind the Trends



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Introduction

The total pay comparison of the typical executive to the average worker in the United States has been a hot button issue for decades. In recent months, we have seen an increased media focus on CEO pay, due at least in part to the SEC adoption of one of the final rules set forth by the Dodd-Frank act more than five years ago. Approved by the SEC in August 2015, Section 953(b) of Dodd-Frank requires public companies to disclose the ratio of CEO pay to that of the median annual compensation of all employees other than the CEO. "All employees" is defined specifically to include both foreign and domestic, as well as both full-time and part-time workers. The rule will be effective as of the 2017 fiscal year, so it will not show up in public disclosures until the 2018 proxy season.

Experts differ in their opinion of how effective this ratio will be in helping investors make more informed decisions. The purpose of this paper is neither to justify nor discredit the new rule. Our goal is to be as transparent and detailed as possible in answering two specific questions: "How does the pay of the typical CEO compare to the pay of the typical U.S. worker over the past ten years?" and "How might the answer to that question change depending on the data we choose to include and how we define what is typical?"

Total pay earned by top executives at U.S. companies has outpaced the pay of the typical U.S. worker over the past few decades. This phenomenon has often been simplified to a single measure, the ratio of CEO pay to that of the typical U.S. worker. This paper will offer several brief explanations for this relative rise, but the purpose here is not to pass judgement or justify executive compensation. This paper will focus primarily on arriving at a clearly defined answer to the CEO pay ratio question based on the most recent data available.

Estimates for the ratio of CEO pay to that of the typical worker vary wildly depending on who you ask. There are sources claiming that for 2014 the ratio was greater than 500:1. Others claim that the ratio is a mere 4:1. The following series of examples will illustrate how researchers might arrive at different answers to just how much relative CEO pay has risen in recent years. Before we get there, let's first define our basis for comparison, or what we mean by the "typical" U.S. worker.

Compensation of the Typical Full-Time U.S. Worker

The first opportunity for disagreement in the current CEO to worker pay ratio is how one measures the pay of the typical worker. The analysis in this paper uses the commonly referenced Occupational Employment Statistics (OES) data from the U.S. Bureau of Labor Statistics (BLS) to estimate individual worker income over the past ten years. The OES analysis uses national-level data from ten annual installments and includes both the mean and median wages for all U.S. full-time employees. Figure 1 displays these values for the years 2005 to 2014.

Figure 1: Median and Average U.S. Full-Time Worker Income 2005 to 2014

	Median Worker		Average Worker	
Year	Income	Annual % Change	Income	Annual % Change
2005	29,430	-	37,870	-
2006	30,400	3.30	39,190	3.49
2007	31,410	3.32	40,690	3.83
2008	32,390	3.12	42,270	3.88
2009	33,190	2.47	43,460	2.82
2010	33,840	1.96	44,410	2.19
2011	34,460	1.83	45,230	1.85
2012	34,750	0.84	45,790	1.24
2013	35,080	0.95	46,440	1.42
2014	35,540	1.31	47,230	1.70
Total 10 Year % Change		19.10		22.40

Annual wages for the median U.S. worker increased 19.1% in the ten years from 2005 to 2014. According to the Consumer Price Index (CPI), inflation over that period was about 22.5%, so overall the median worker has slightly less buying power now than he or she did just before the most recent recession. The OES defines *wages* as "straight-time, gross pay, exclusive of premium pay." This includes base salary or hourly wage, tips, commissions, and incremental items such as cost-of-living increases or mileage reimbursement. Three important items it does *not* include are year-end bonuses based on overall company performance, stock-based compensation, and overtime pay.

The following three sections of this report will tell three very different CEO pay ratio stories. The intent is to suggest that the analysis behind many of the media sources on CEO pay ratio is often driven by agenda rather than consistent and defensible methodology. The first section also employs OES data and compares all worker pay to the pay of the family of positions labeled "Chief Executives."

OES Chief Executives Pay Compared to the Typical U.S. Worker

Figure 2 below displays median and average wages for two groups according to OES data from the Bureau of Labor Statistics. The first group is all full-time U.S. workers. The second is the job family Chief Executives, which includes all top management positions. We don't believe this is a good way to describe the ration of top executives to typical workers.

First, the job family Chief Executives includes mostly non-CEO job titles. CEOs almost exclusively earn more than the other c-suite executives and vice presidents that make up the majority of this grouping of titles. Using these values as a proxy for CEO pay is a stretch based on that fact alone. Second, and vastly more important, is what the OES data includes in its definition of wages. The majority of compensation for the typical U.S. worker consists of a base salary or hourly wage. That is certainly captured by OES data, and the wage values for the median and average worker in Figure 2 are probably on par with what we would find if we had income data for all U.S. workers. For top executives, on the other hand, the OES definition of wages excludes pay elements that often represent 60-70% of the total compensation package. It is unclear whether performance-based annual cash payments are included in the OES definition of wages. Even if performance cash is captured, what *is* clear is that long-term cash incentives and equity grants are not included. Ignoring these elements significantly limits the usefulness of OES executive compensation data. The pay ratios displayed in Figure 2 are likely a decent estimate of how top executive *salaries* relate to the wages of the typical U.S. worker, but that is not a very interesting or useful comparison. Base salary tends to make up a small portion of the compensation of top executives. For many executives, salaries even decrease over time thanks to the increasing importance of displaying pay-for-performance to company stakeholders.

Figure 2: Census Data Chief Executive to All Workers Pay Ratio

	Median			Average		
Year	All Workers	Chief Executives	Pay Ratio	All Workers	Chief Executives	Pay Ratio
2005	29,430	142,440	4.84 : 1	37,870	139,810	3.69 : 1
2006	30,400	-	-	39,190	144,600	3.69 : 1
2007	31,410	-	-	40,690	151,370	3.72 : 1
2008	32,390	158,560	4.90 : 1	42,270	160,440	3.80 : 1
2009	33,190	160,720	4.84 : 1	43,460	167,280	3.85 : 1
2010	33,840	165,080	4.88 : 1	44,410	173,350	3.90 : 1
2011	34,460	166,910	4.84 : 1	45,230	176,550	3.90 : 1
2012	34,750	168,140	4.84 : 1	45,790	176,840	3.86 : 1
2013	35,080	171,610	4.89 : 1	46,440	178,400	3.84 : 1
2014	35,540	173,320	4.88 : 1	47,230	180,700	3.83 : 1

Reporting a relatively stable CEO to worker pay ratio of under 5:1 would come as a surprise at best to most people. The next section illustrates a more commonly reported approach. It uses the universe of U.S. publicly available data to consider the total grant-date value of public CEO compensation packages.

Public Company CEO Pay Compared to the Typical U.S. Worker

Figures 3 illustrates the pay relationship between U.S. public company CEOs and the median U.S. worker. Two measures of executive compensation are shown. First is total cash compensation, which includes base salary and any annual variable cash. Annual variable cash may include sign-on and retention bonuses, discretionary bonuses, or performance-based cash incentives. It does not include equity grants or other long-term incentives. The second measure, total direct compensation, includes total annual cash along with the grant-date value of equity awards.

As of 2014, the median public company CEO earned a cash amount of roughly 28 times the wages of the median U.S. worker. If we also consider long-term incentives in the form of full-value stock or stock options, that number climbs to 71 times the median worker pay. This ratio has almost tripled in the past ten years alone.

Figure 3: Median U.S. Worker Pay Compared to Median Public CEO

		Total Cash Compensation		Total Direct Compensation	
Year	All Workers	Executive Median	Ratio	Executive Median	Ratio
2005	29,430	554,480	19 : 1	772,650	26 : 1
2006	30,400	558,668	18 : 1	790,203	26 : 1
2007	31,410	550,103	18 : 1	900,000	29 : 1
2008	32,390	535,500	17 : 1	880,000	27 : 1
2009	33,190	542,780	16 : 1	852,351	26 : 1
2010	33,840	623,237	18 : 1	1,035,559	31 : 1
2011	34,460	684,847	20 : 1	1,272,258	37 : 1
2012	34,750	800,000	23 : 1	1,559,027	45 : 1
2013	35,080	831,092	24 : 1	1,746,860	50 : 1
2014	35,540	998,125	28 : 1	2,514,968	71 : 1

This analysis was also done comparing the *mean* U.S. full-time wage to the *mean* compensation for public CEOs. In any given year, a small fraction of top executives will be granted very lucrative equity awards, driving the mean CEO compensation far above the median. For 2014, this resulted in a ratio of more than 100:1 when comparing the mean worker pay to the total direct pay of the mean public CEO. The median is arguably a better estimate of what is "typical" when it comes to executive pay, as adding or removing a few extremely high values has little to no effect.

The next section considers only those large public companies included in the S&P 500 index. Sources reporting a typical CEO pay ratio of 200 or 300 to 1 generally use this index or some similar combination of large public companies.

S&P 500 CEO Pay Compared to the Typical U.S. Worker

Figure 4 displays ten years of data comparing the median U.S. worker to the median total pay for CEOs at current S&P 500 companies. The median revenue for S&P 500 companies was rough $9.1 billion in 2014. It is not surprising that the median pay is much higher for this group compared to the previous analysis of all public CEOs. As for pay ratio, the median cash compensation for S&P 500 CEOs was 86 times that of the median U.S. worker in 2014. When we consider equity, that number jumps to almost 320. The story for these large company CEOs is similar to that of all public companies. Cash compensation has remained relatively flat as compared to the growth in wages for the median worker. It is the growth in long-term incentives, paid mostly in the form of full-value stock and stock options, that has caused this relative difference to explode.

This analysis was again repeated comparing *mean* worker wages to the *mean* compensation of S&P 500 CEOs. The resulting CEO earned direct compensation (cash plus equity) more than 380 times higher than the wages of the mean worker in 2014.

Figure 4: Median U.S. Worker Pay Compared to Median S&P 500 CEO

		Total Cash Compensation		Total Direct Compensation	
Year	All Workers	Executive Median	Ratio	Executive Median	Ratio
2005	29,430	2,345,904	80 : 1	6,005,049	204 : 1
2006	30,400	2,472,700	81 : 1	6,158,083	203 : 1
2007	31,410	2,574,018	82 : 1	8,015,388	255 : 1
2008	32,390	2,221,771	69 : 1	7,870,948	243 : 1
2009	33,190	2,426,528	73 : 1	7,481,409	225 : 1
2010	33,840	3,062,167	90 : 1	9,283,136	274 : 1
2011	34,460	3,000,000	87 : 1	9,708,178	281 : 1
2012	34,750	2,965,900	85 : 1	10,611,072	305 : 1
2013	35,080	3,052,154	87 : 1	10,076,140	287 : 1
2014	35,540	3,048,580	86 : 1	11,335,484	319 : 1

Many sources that site CEO to worker pay ratios of 200 or 300 to one have likely used this approach of including only those executives at top public companies in their analyses. That is not to say that such an analysis is useless or misleading, but it must be understood that any value gained is specifically answering the question, "How does the typical U.S. worker pay compare to that of CEOs at large public conglomerates?"

Are There Any Legitimate Reasons for the Recent Acceleration of CEO Compensation?

One contributing factor, at least in the public sector, has to do with market consolidation. There are half as many U.S. public companies today compared to before the dot com bubble burst in the late 1990s. Figure 5 displays the number of U.S. stock listings from 1995 to 2015, excluding investment funds and trusts. Total U.S. market capitalization has increased since the late 1990s, so public company CEOs are in charge of larger entities, on average. Rewards from successful mergers, and generally greater responsibilities resulting from this consolidation, have helped drive up the income of those top executives who survived the narrowing of opportunities over the past 20 years.

The effect of market consolidation is not trivial, but two other factors working in tandem have likely had a much greater effect on executive compensation. Those factors are changes to the *structure* of pay packages and an improving economic climate. In the past decade, regulators and investors alike have pushed hard for companies to display pay-for-performance when it comes to executive compensation, and things have certainly moved in that direction. Discretionary bonuses have become a rarity, objective performance cash is on the rise, and large pay packages are usually dominated by equity awards. As a result, the increasing pay gap between CEOs and the typical worker is mostly due to the great stock market success since the last recession. The prevalence of performance awards is as high as it has ever been, and if companies reward executives for increasing shareholder value, a rising tide will in fact lift all executive pay ships. What will be interesting to see is how the same ships fair the next time the tide lowers as significantly as it did in 2008.

Conclusion

CEO pay ratio disclosure requirements are on their way. As this paper hopefully illustrates, this information regarding the scale of top executive compensation is already readily available and reported upon. A little direction and a better trained eye can go a long way in helping consumers of data find a balance between the usefulness and limitations of certain statistics. Long before we come to any conclusions about the result of a given analysis, we should first understand the source of the underlying data, the methods used to analyze, and the possible agenda of whomever is providing the result.

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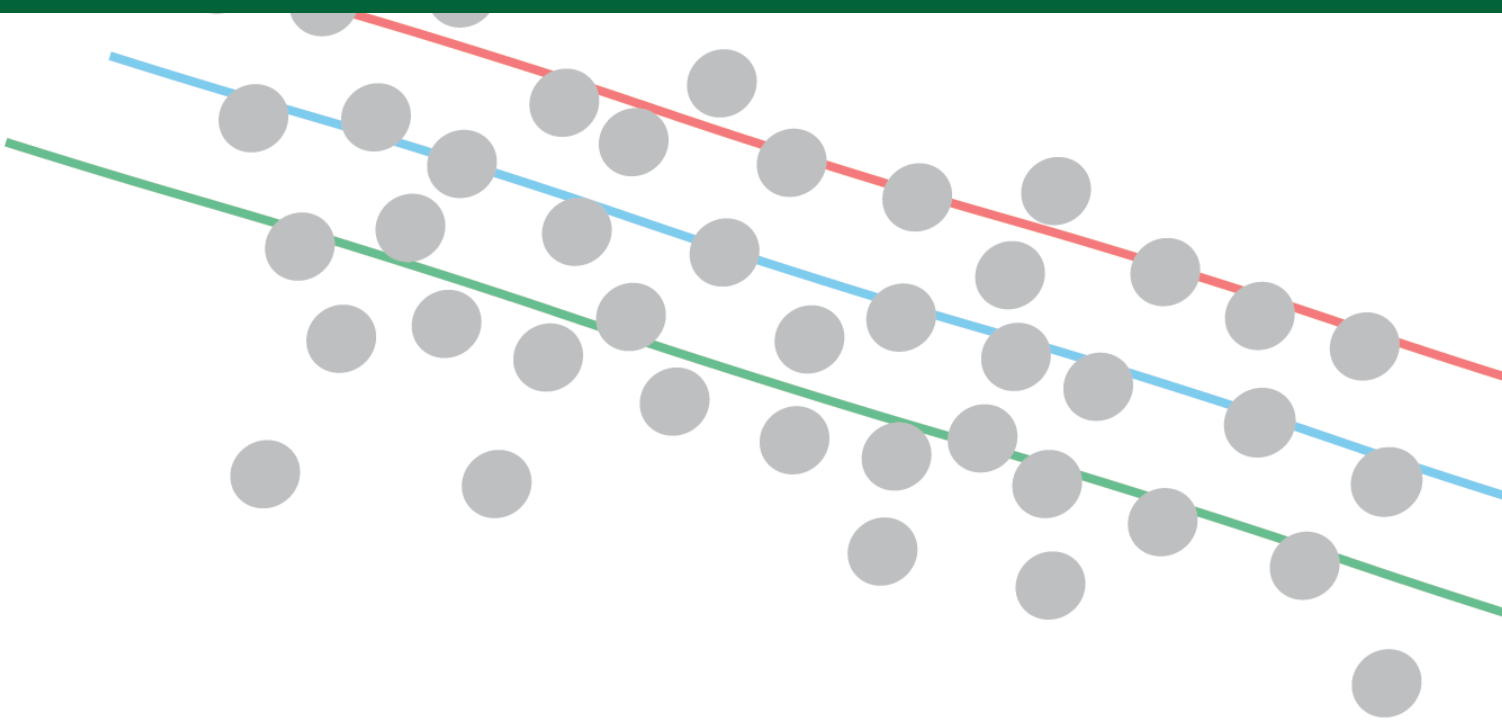

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