



Pay Disparity

Uncovering the patterns in CEO vs their median worker's pay.

Katie Bienek, Alex Delacruz
Will MacMillan, Allison Wells

Presentation Overview

01

Questions

What brought us to this topic and what we wondered after seeing the data.

02

CEO vs. Workers

We started by directly comparing the pay of all companies we have data for.

03

Industry Differences

How does pay gap vary in different industries?

04

Company Revenue

Does the revenue made by the company affect pay?

05

Company Profit

Does the company profit have a trend with CEO pay?

06

Conclusions

Summarizing what we found.

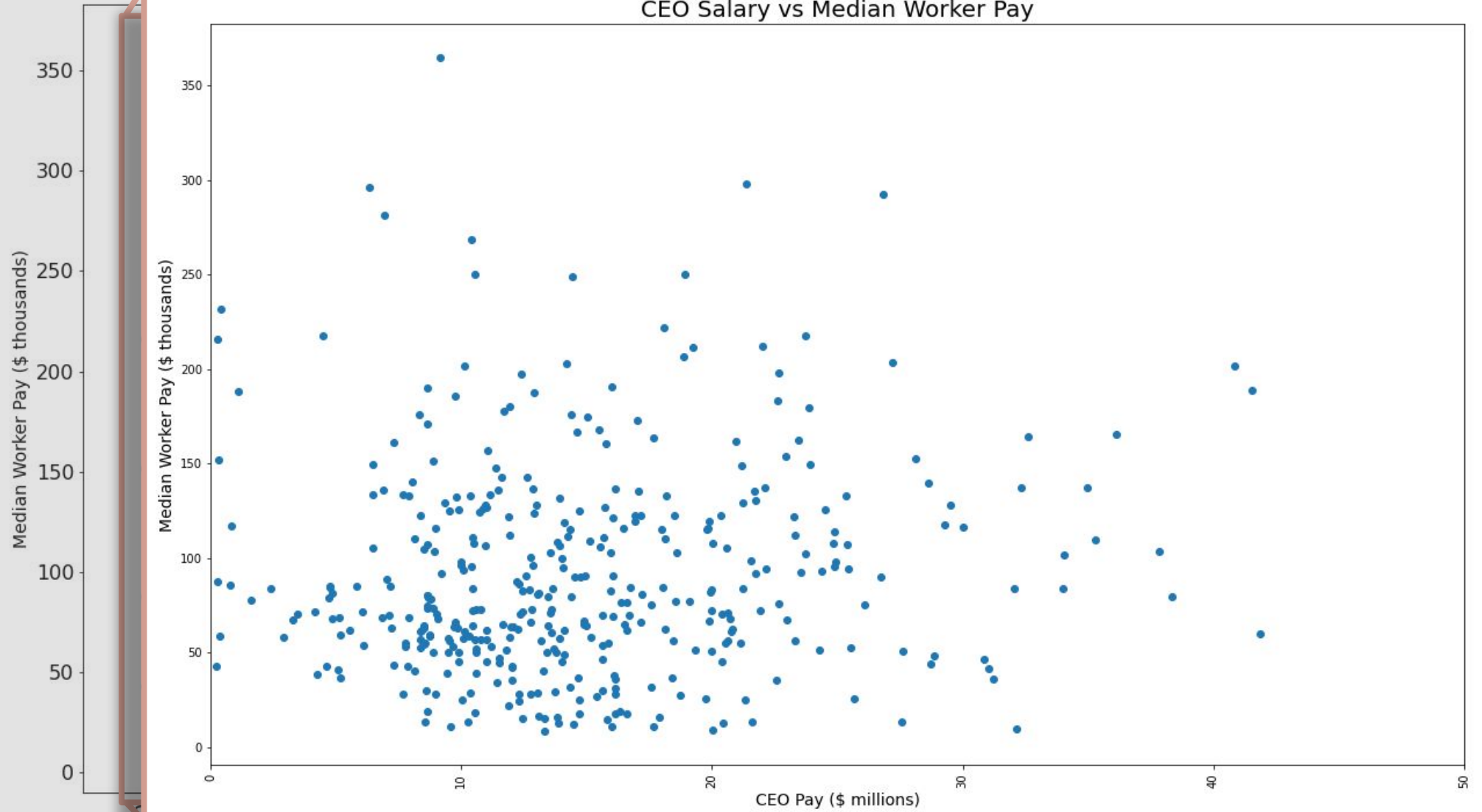
More and more, public attention is turned toward the “livable wage”. This prompted us to explore the discrepancies between company earnings, executive pay, and employee pay.

Prompts

- CEO vs. Worker
- Industry Specific
- Company Revenue
- Company Profits

- How much more are CEOs actually making compared to the median worker?
- Does the CEO Salary to Median Employee Pay Ratio materially change across industries?
- How does the CEO salary compare to company profits/revenues?

CEO Salary vs Median Worker Pay



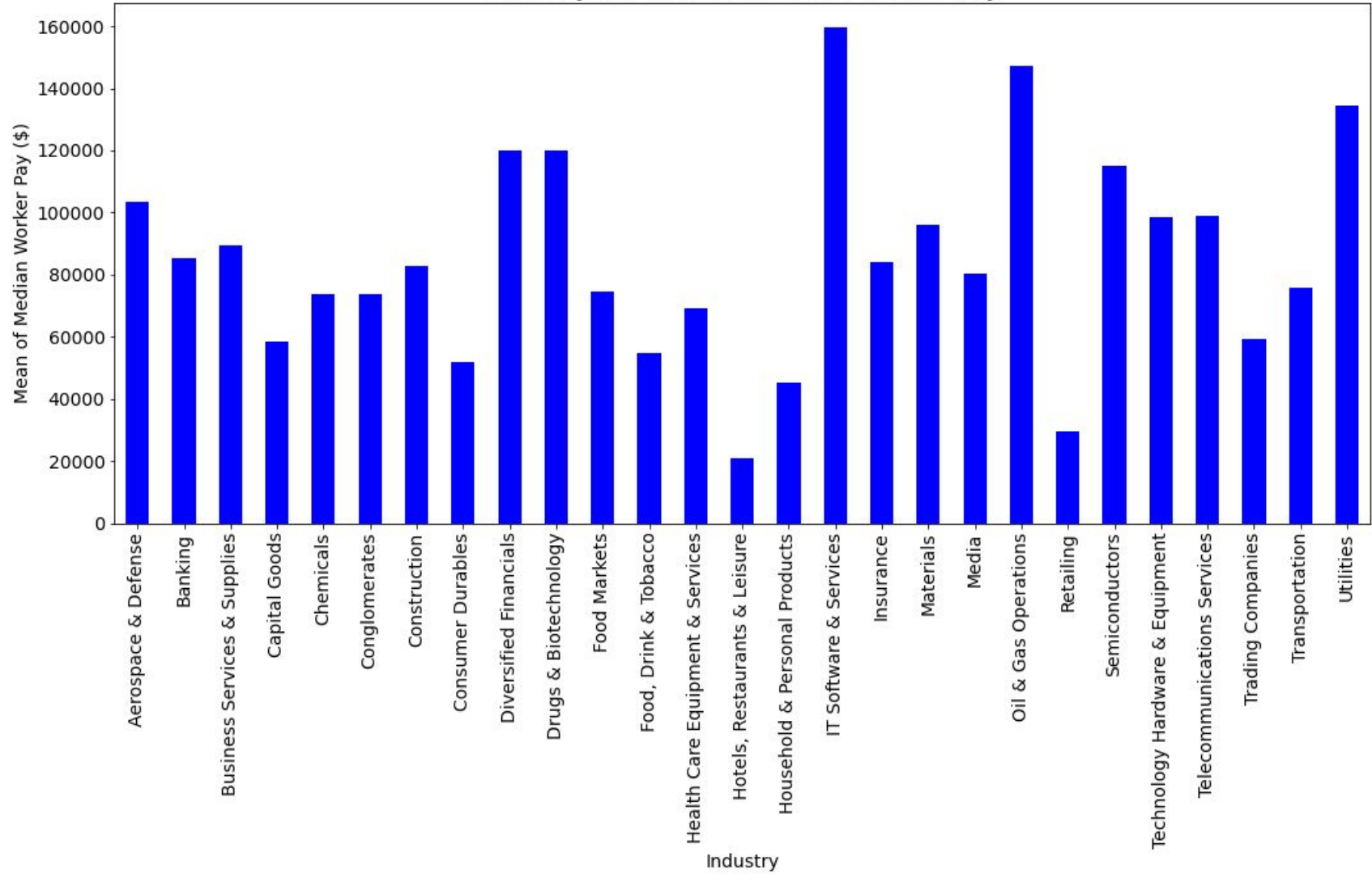
**Does the CEO salary to
median employee pay ratio
materially change across
industries?**

**Can specific industry
factors explain a massive
ratio?**

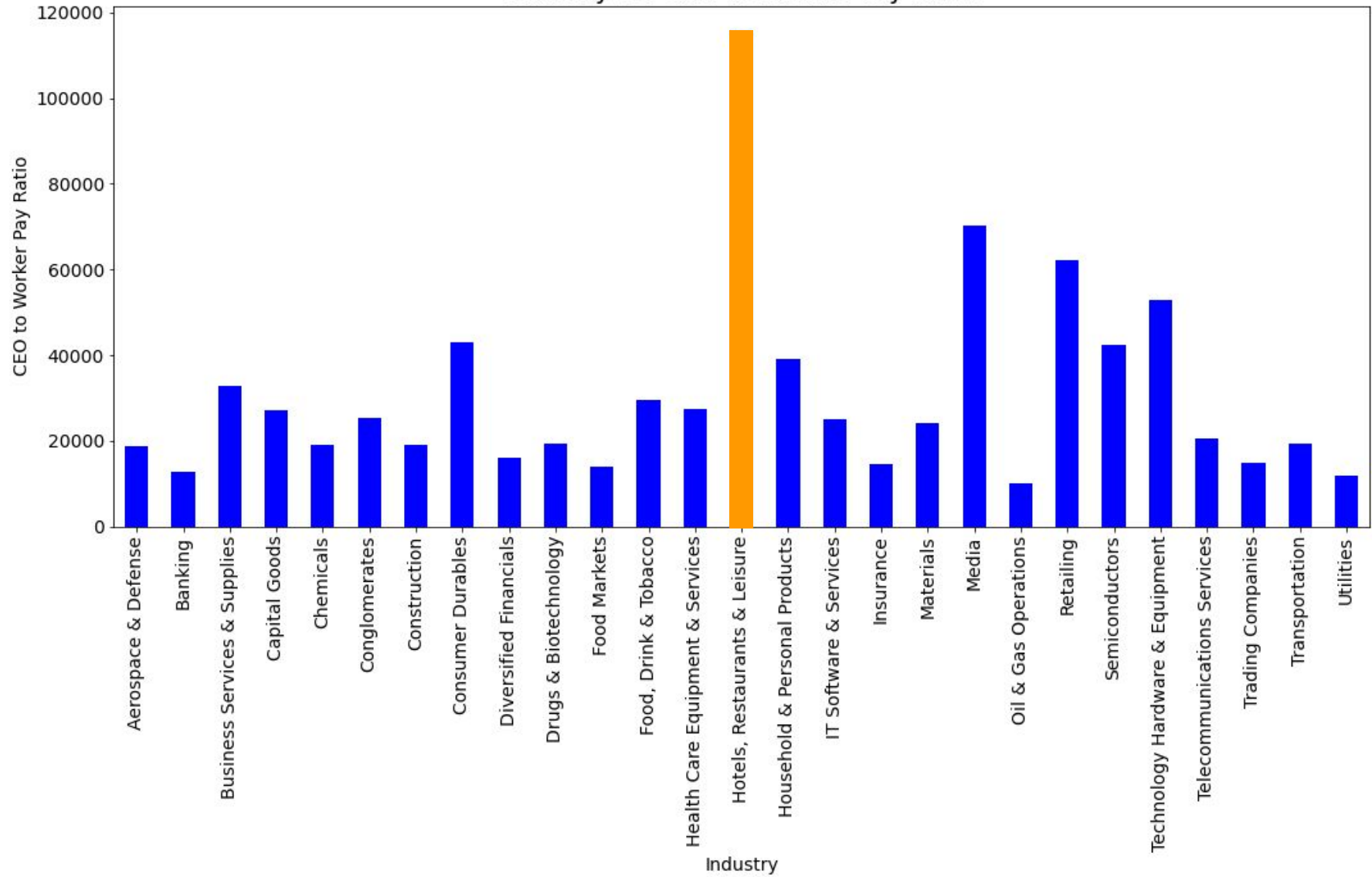
**How does the CEO salary
compare to company
profits/revenues?**

Industry Specific Changes

Industry vs. Mean of Median Worker Pay



Industry vs. CEO to Worker Pay Ratio



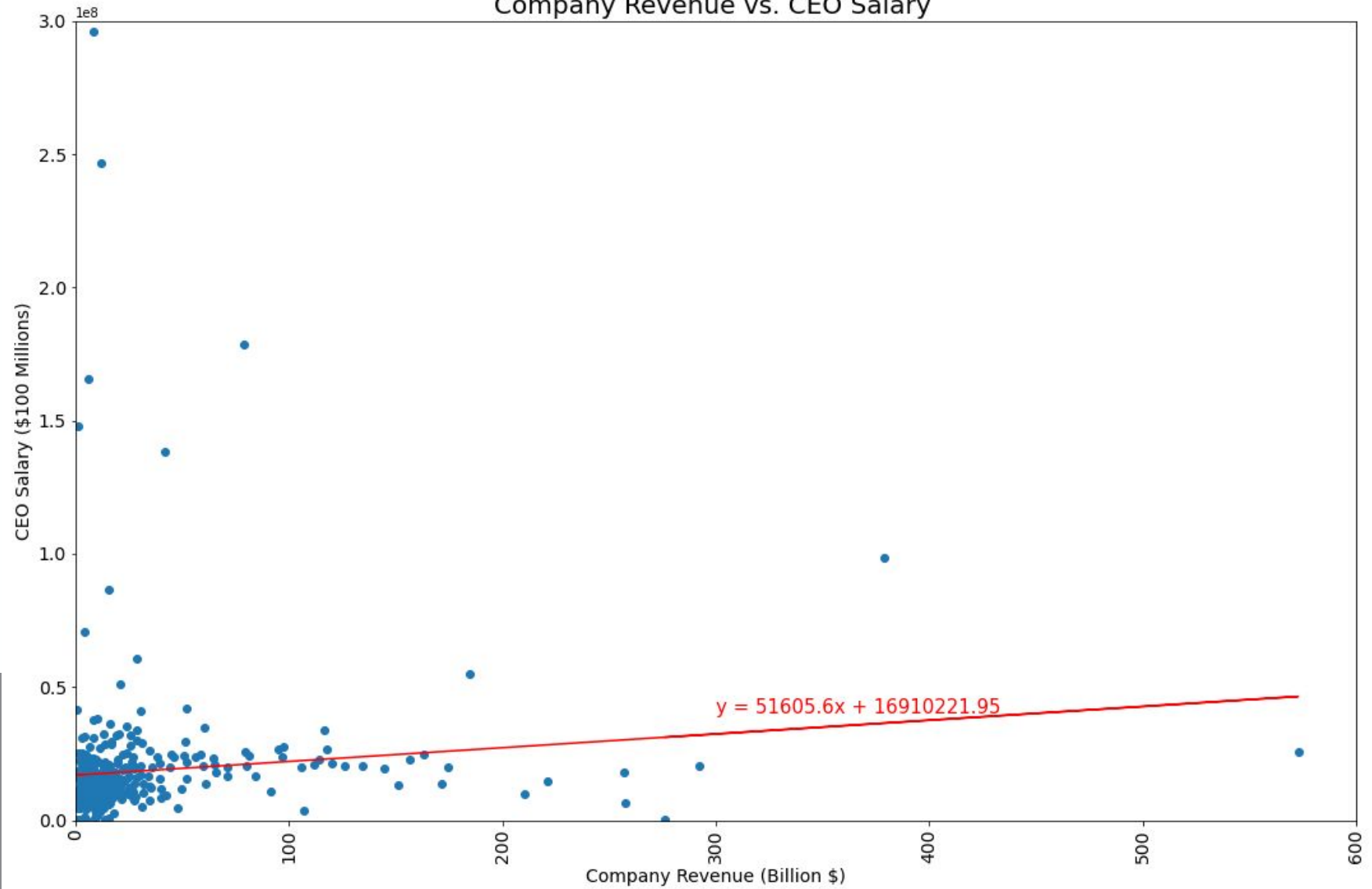
**How does the CEO salary
compare to company
profits/revenues?**

**How does the median
worker pay compare to
company profits/revenues?**

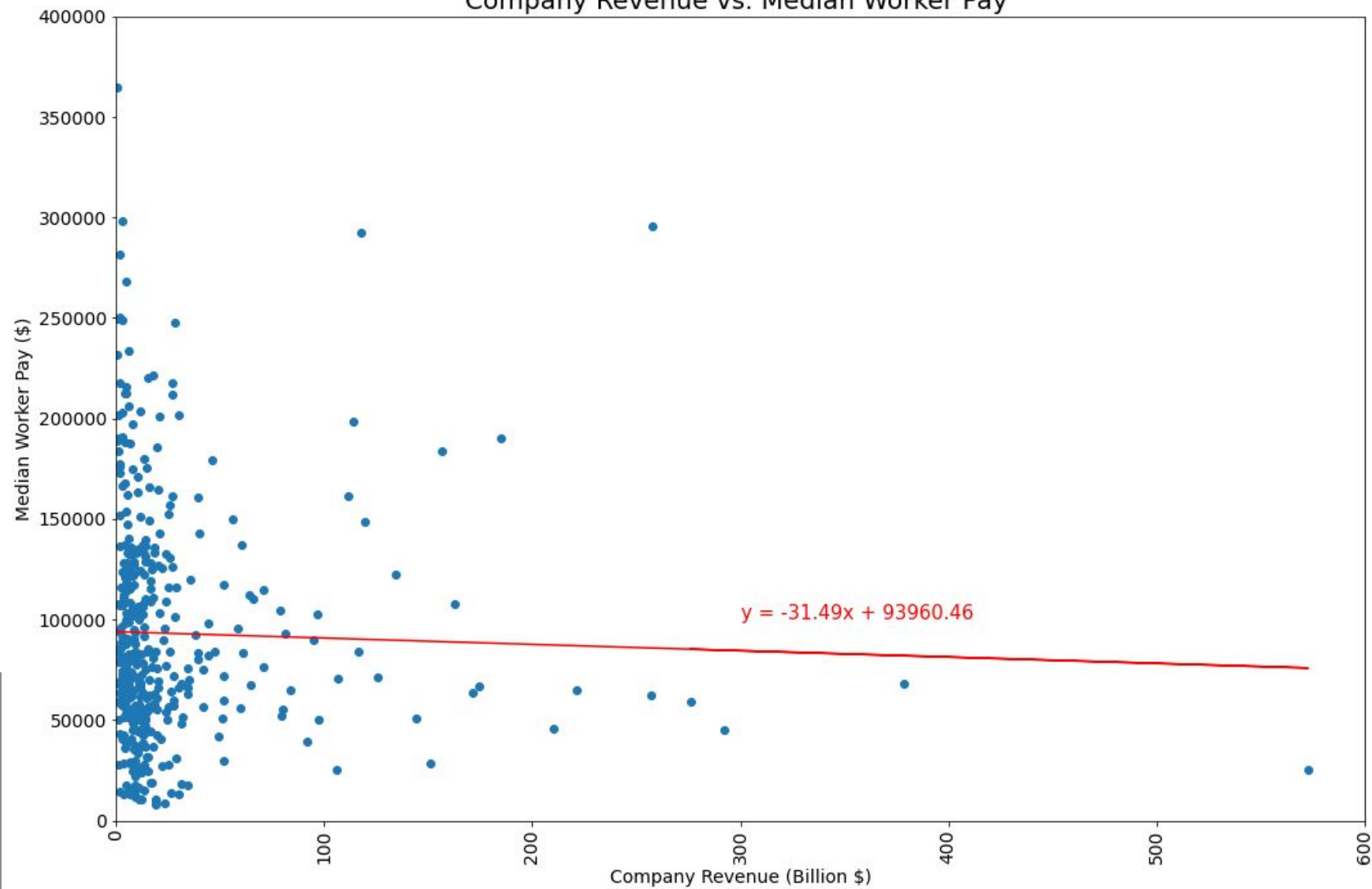
**Who benefits when the
company makes more
money?**

Company Revenue and Profits

Company Revenue vs. CEO Salary



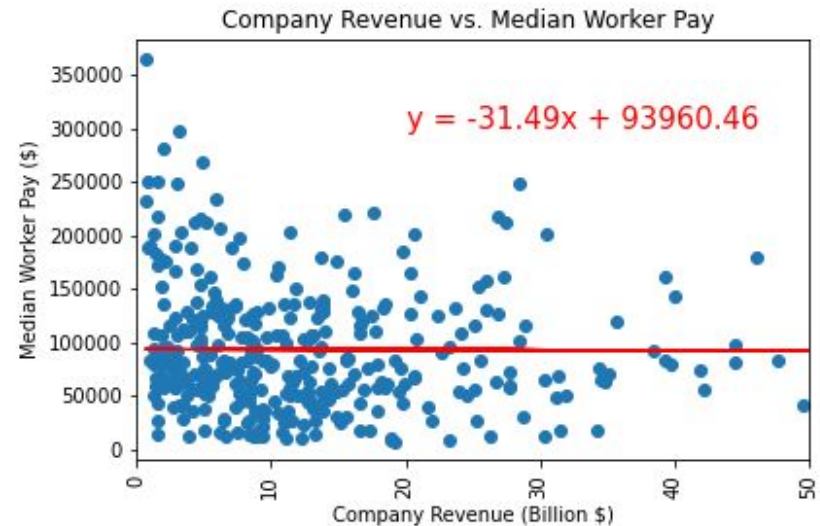
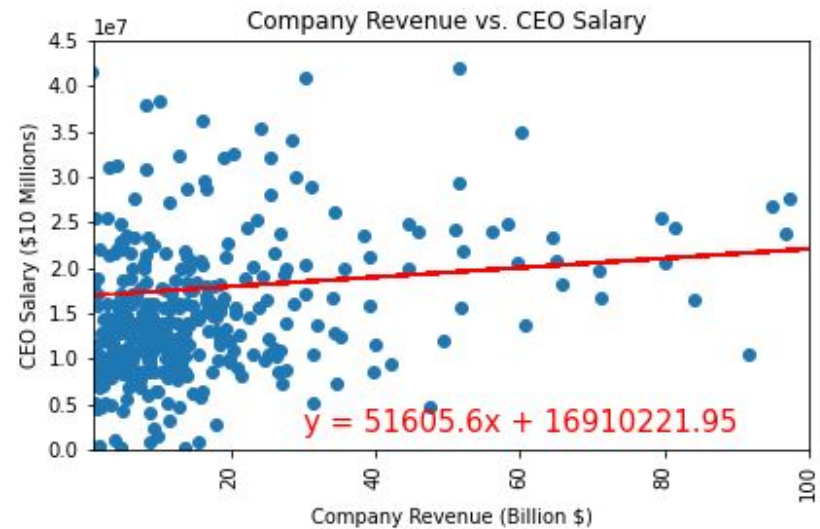
Company Revenue vs. Median Worker Pay

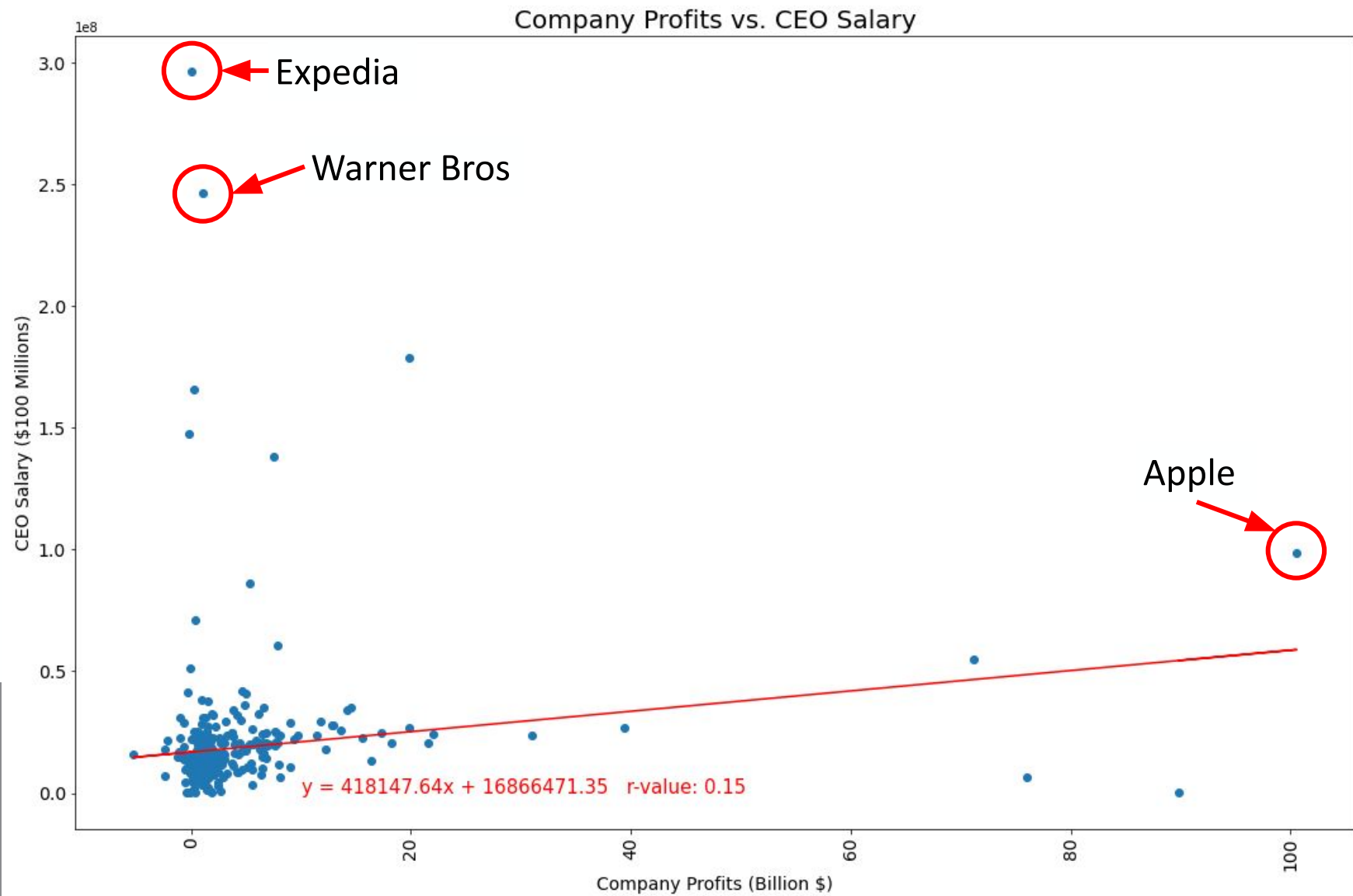


Even zoomed in...

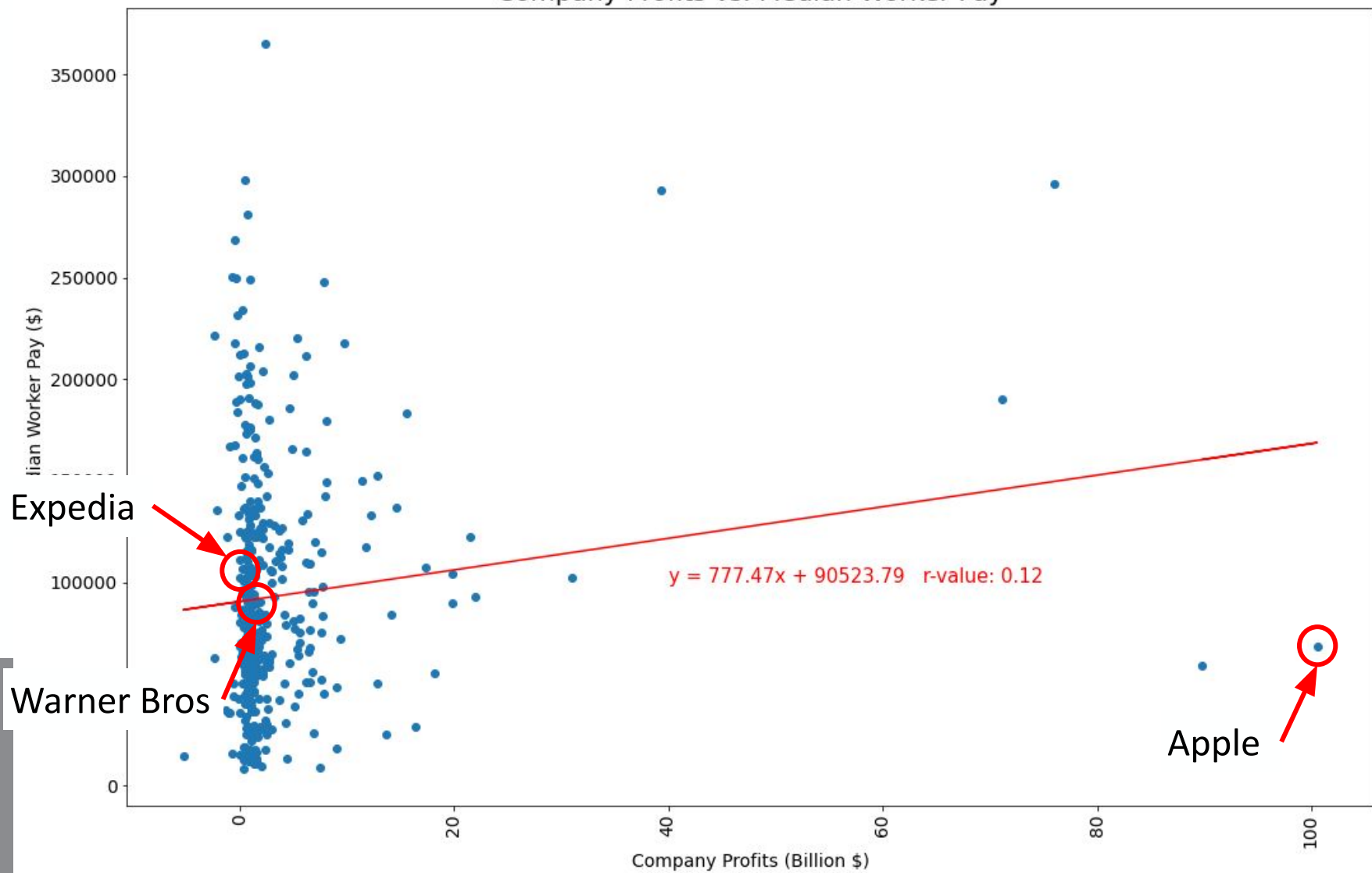
CEO pay seems to have little correlation to the company revenue and even seems to defy the revenue.

Worker pay is consistent despite changes in company revenue.

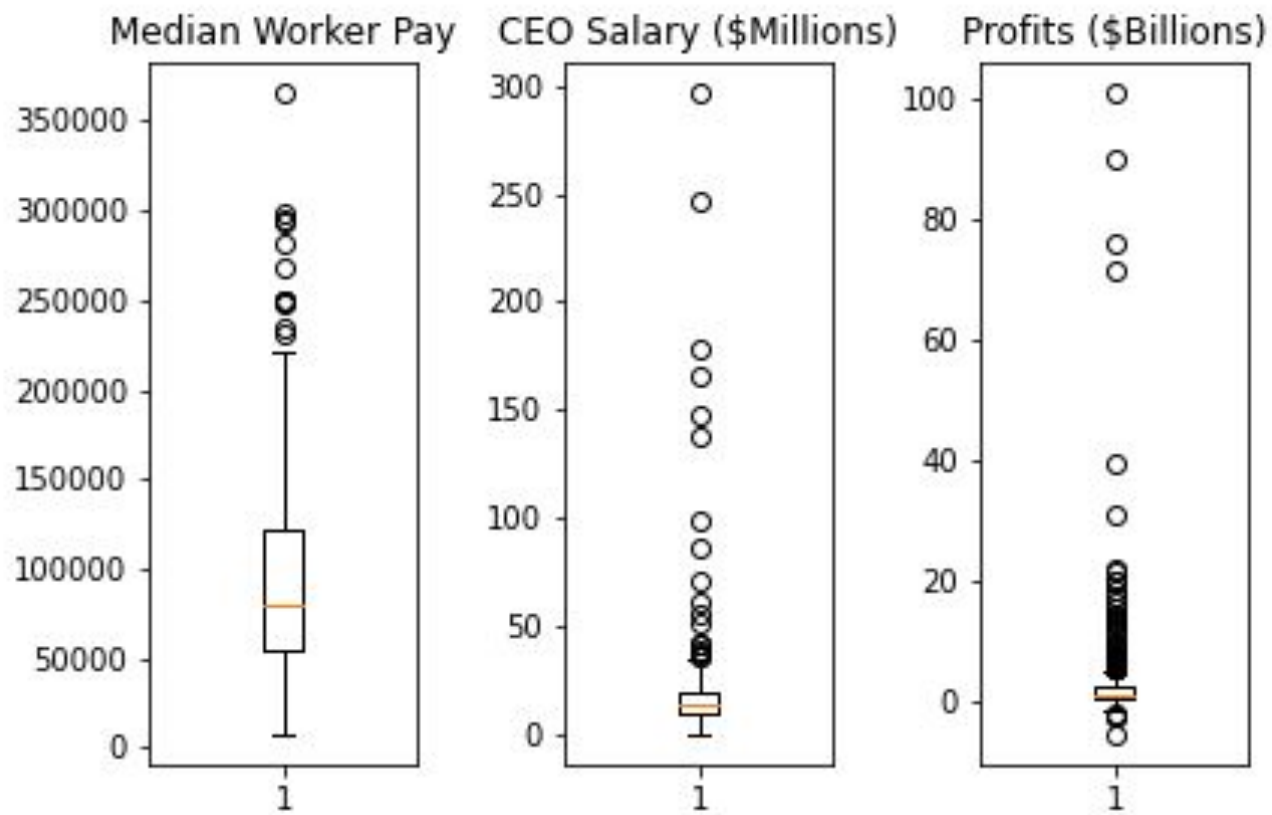




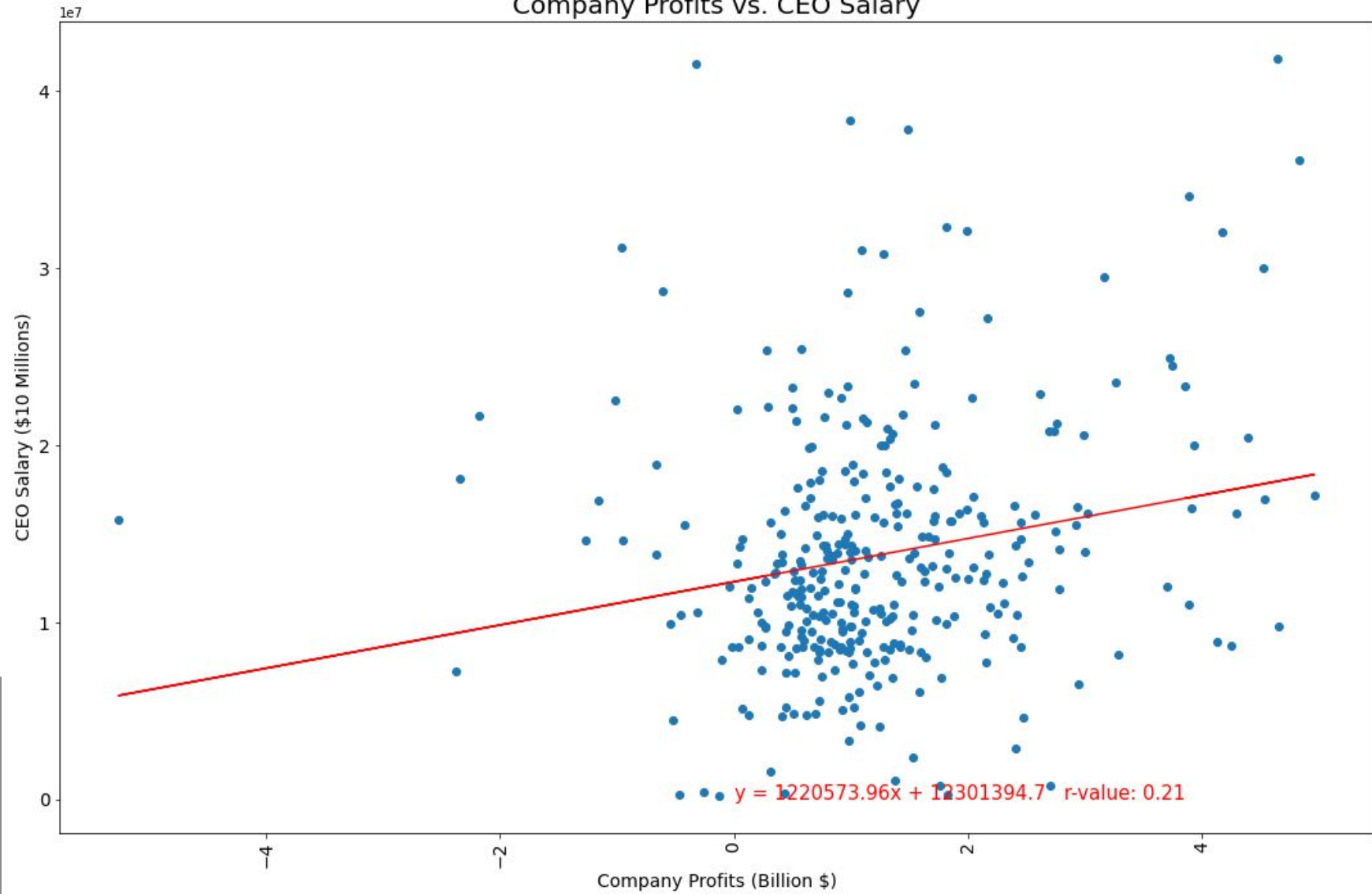
Company Profits vs. Median Worker Pay



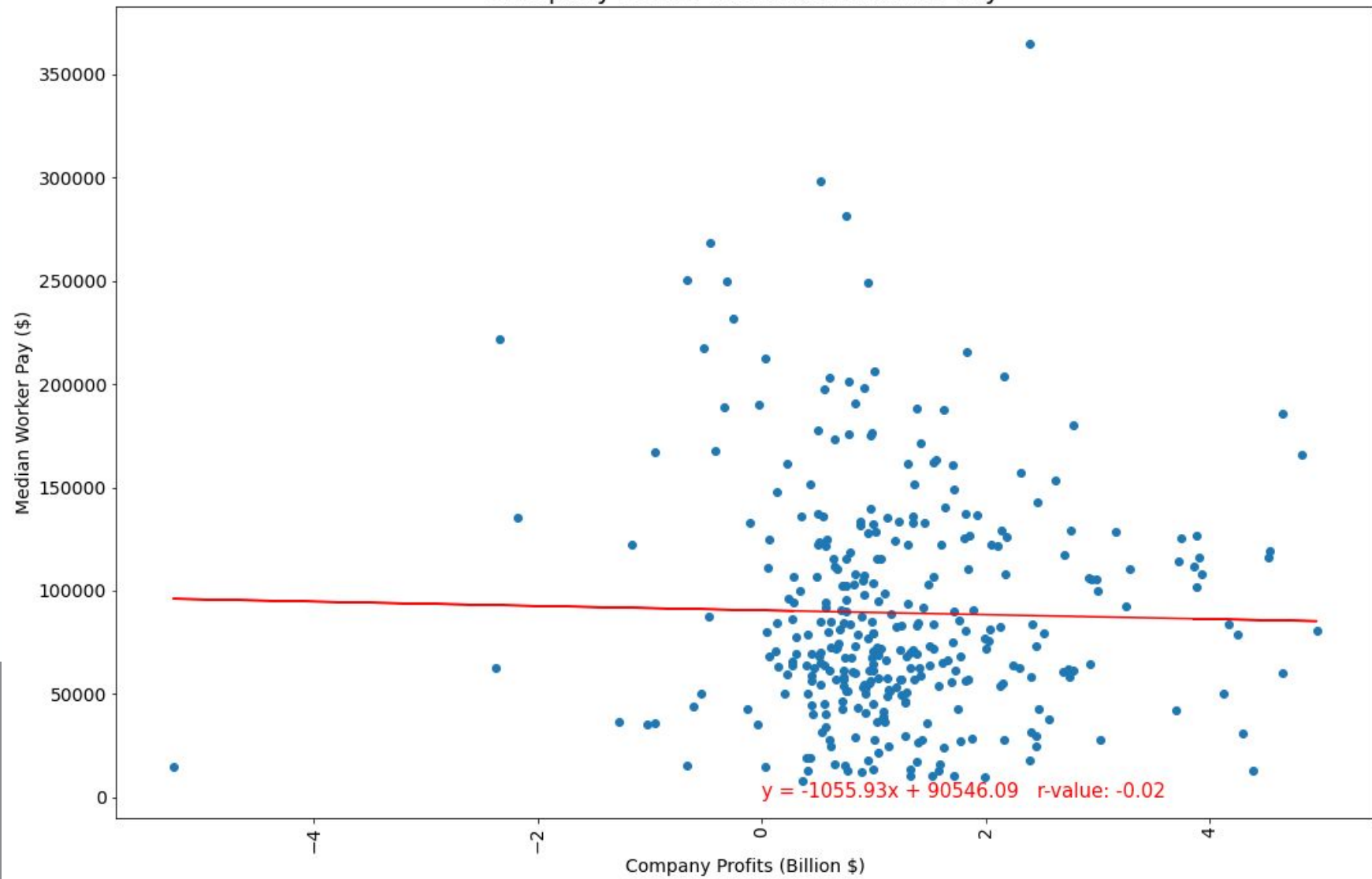
Finding and Removing Outliers



Company Profits vs. CEO Salary



Company Profits vs. Median Worker Pay



	CEO Salary	Median Worker Pay	Revenue (Billions)	Profits (Billions)	Market Value (Billions)
CEO Salary	1.000000	0.045258	0.147215	0.209395	0.378760
Median Worker Pay	0.045258	1.000000	-0.060864	-0.022449	0.127812
Revenue (Billions)	0.147215	-0.060864	1.000000	0.140687	0.125950
Profits (Billions)	0.209395	-0.022449	0.140687	1.000000	0.453471
Market Value (Billions)	0.378760	0.127812	0.125950	0.453471	1.000000

CEO Salary and Worker Pay are most strongly correlated to Market Value.

This correlation strengthened significantly when outlier CEO and Profits were removed from the dataset.

With outliers removed, worker pay now has almost no correlation to the revenue and profits of the company.

Peter Kern

CEO of Expedia

Salary in 2022

\$296,000,000

Profit in 2022

\$10,000,000

Salary : Profit

\$29.6 : \$1



David Zaslav

CEO of Warner Bros Group

Salary in 2022

\$247,000,000

Profit in 2022

\$1,200,000,000

Salary : Profit

\$0.21 : \$1



Tim Cook

CEO of Apple

Salary in 2022

\$98,700,000

Profit in 2022

\$100,560,000,000

Salary : Profit

\$0.0000097 : \$1



Conclusions

CEOs, for the companies that we studied, make between 140 and 333,000 times more than the average worker pay.

The industry with the largest CEO salary ratio is **hospitality** with **oil and gas** having the lowest ratio.

With outliers removed, it is clear that CEO salary has a correlation to Profits and Market Value. Meanwhile, there is almost no correlation between worker pay and profit.



Thank

WRITE SOMETHING HERE

You!

Sources

Salim, W. (2023, February 2). *CEO vs worker pay in top 3000 US companies [2023]*. Kaggle. Retrieved February 13, 2023, from <https://www.kaggle.com/datasets/salimwid/latest-top-3000-companies-ceo-salary-202223>

G, R. A. (2022, December 26). Forbes 2000 global companies. Kaggle. Retrieved February 13, 2023, from <https://www.kaggle.com/datasets/rakkesharv/forbes-2000-global-companies>