

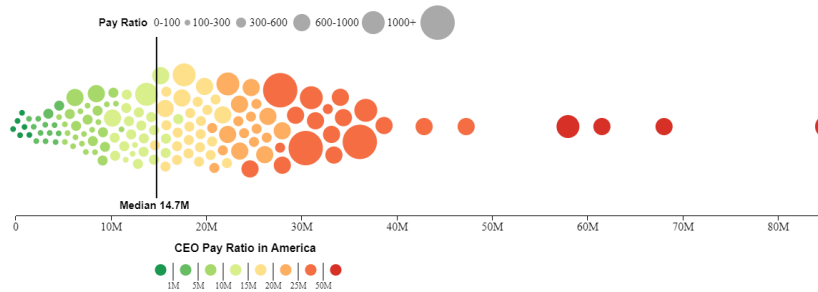
CEO/Worker Pay Ratio, 2014

Enhancement by Gabriella Lindsey

Original Project

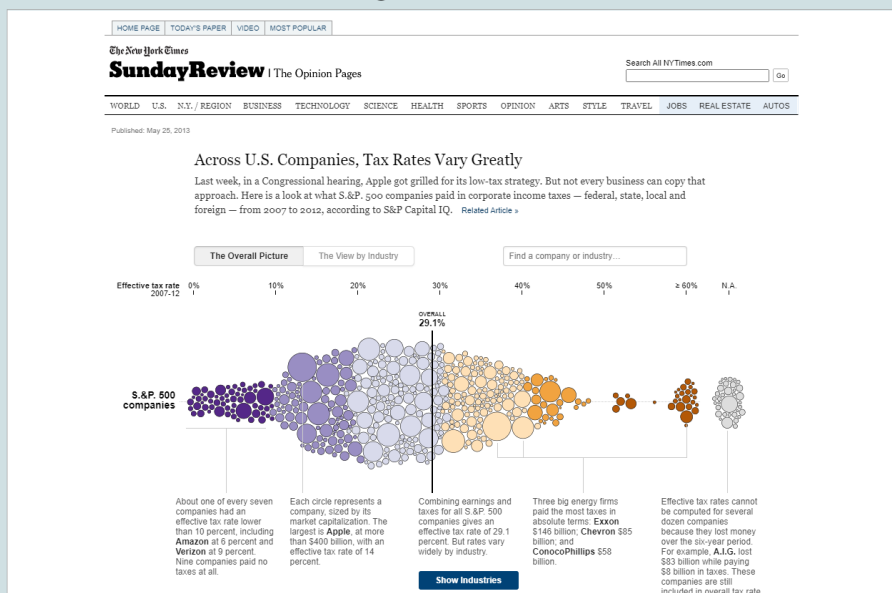
CEO/Worker Pay Ratio, 2014

The purpose of this visualization is to shed light on the disproportionate amount of money most CEOs in American companies make when compared to the average salary of their respective employees. With the median CEO pay being \$14.7 million, it can be observed that after this mark, the CEO/Worker pay ratio steadily grows without falling below a scale of 130/1.



Created by: Artem Litvak in collaboration with Suresh Lodha and Ryan Bourley

Design Inspiration



Goals:

- Convert to V5
- Change the scale and color scheme
- Add functionality:
 - Search Bar
 - View by industry

V3 to V5

```
1 var force = d3.layout.force()  
2   .nodes(nodes)  
3   .size([width, height])  
4   .gravity(0)  
5   .charge(0)  
6   .on("tick", tick)  
7   .start();  
8  
9 // movement of circles and cluster spatial orientation  
10 function tick(e) {  
11   circle  
12   .each(clusterGross(20*e.alpha*e.alpha))  
13   .each(collide(.07))  
14   .attr("cx", function(d) { return d.x + 110; })  
15   .attr("cy", function(d) { return d.y; })  
16 }  
17  
18 // Placement of circles hardcoded on the canvas  
19 function clusterGross(alpha) {  
20   return function(d) {  
21     var yTemp;  
22     if(category == "Employer"){ yTemp = 175;  
23     var cluster = {x: grossScale(d.CEO_Pay),  
24                   y: yTemp,  
25                   radius: -d.radius  
26   };  
27  
28   var k = .1 * Math.sqrt(d.radius);  
29   var x = d.x - cluster.x,  
30       y = d.y - cluster.y,  
31       l = Math.sqrt(x * x + y * y),
```



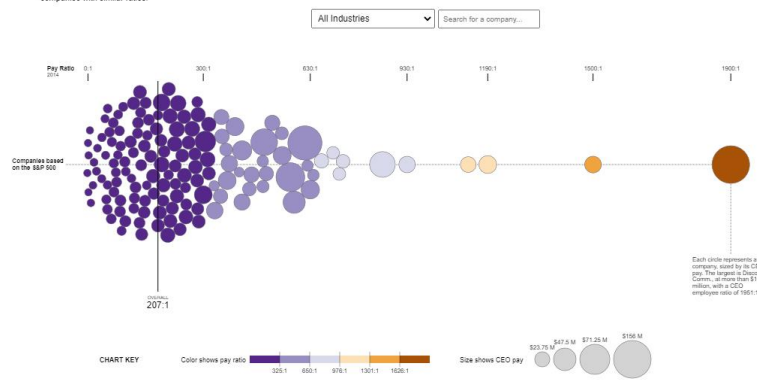
```
1 var force = d3.forceSimulation(nodes)  
2   .force('charge', d3.forceManyBody().strength(-8))  
3   .force('center', d3.forceCenter(width / 2 - 235, height / 3))  
4   .force('forceX', d3.forceX().x(function (d) {  
5     return d.x;  
6   }).strength(0.6))  
7   .force('forceY', d3.forceY().y(function (d) {  
8     return 0;  
9   }))  
10  .force('collide', d3.forceCollide(function (d) {  
11    return d.radius;  
12  }))  
13  .on("tick", tick)  
14  .stop();  
15  
16 function tick() {  
17   var i;  
18   for (i = 0; i < nodes.length; i++) {  
19     var node = nodes[i];  
20     node.cx = node.x;  
21     node.cy = node.y;  
22   }  
23 }
```

Final Product

CEO/Worker Pay Ratio, 2014

The purpose of this visualization is to shed light on the disproportionate amount of money most CEOs in American companies make when compared to the average salary of their employees. The median ratio between CEO and employee pay is 197:1. It can be observed that after this mark the average CEO pay increases significantly.

Each circle below represents a company from the S&P 500 in 2014. They are ordered along the axis according to the companies respective pay ratios. Note that the locations along the x-axis are approximate, positions may vary due to the force simulation. Each company is classified into an industry, using the [Global Industry Classification Standard \(GICS\)](#). Consumer Discretionary and Consumer Staples were combined into one category for convenience. Additionally, circle size is used to represent CEO pay. It is interesting to observe that some companies have smaller pay ratios but higher CEO pay than the respective companies with similar ratios.



Created by: Gabriela Lindsey in collaboration with Suresh Lodha

UCSC CSE163, Spring 2020

Files submitted:

- index.html
- payroll.css
- payroll.csv
- payroll.js