For decades, there has been a general consensus among Americans that "the rich" don't pay their "fair-share" in taxes. In an April 2019 Gallup poll, 62% of respondents said that "upper-income people" are paying "too little" in Federal Income Taxes, while 81% said that "lower-income people" are paying either "too much" or their "fair share."[1] Placating this populist position, politicians such as Bernie Sanders, Elizabeth Warren, and Alexandria Ocasio-Cortez have all been quite vocal in advocating for drastically increasing taxes on "the rich."

Recognize that there cannot be an objective answer to any question along the lines of "Does 'group X' pay its 'fair share' of taxes?," since by its very nature such a question is subjective. Any person's answer to such a question is based upon his own personal value judgements, assessment of fairness, and notions of equity. This being said, we can still attempt to objectively measure how the burden of a tax is distributed over different segments of society in order to have a fact-based informed opinion about the fairness or lack of fairness in our tax system.

One of the most commonly applied notions of tax equity is vertical equity, which states that for a tax to be fair people with greater economic capacity should have greater tax burdens. This sounds like something that every reasonable person would agree with, so why doesn't it settle the issue? Once we begin to apply this notion of fairness we see where difficulties and disagreements can arise. What does economic capacity mean – should it simply be measured by income? Likewise, how should tax burden be measured – should it be equal to dollars paid in taxes or perhaps percentage of income paid in taxes?
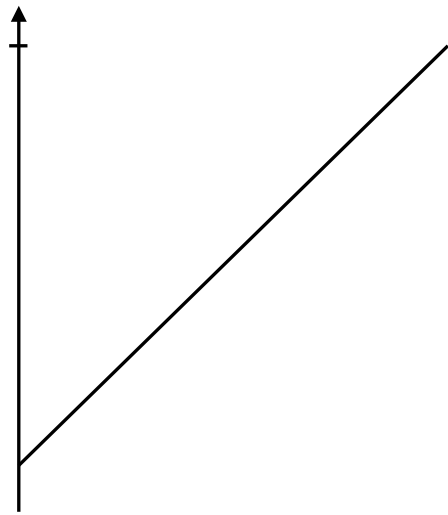
If we take the positions that economic capacity should be measured by income and tax burden should be measured by percentage of income paid in taxes, then the notion of vertical equity would begin to give us an argument in favor of wh

degree line." This final observation can be understood by recognizing that the Lorenz Curve would exactly coincide with the "45 degree line" or "Line of Perfect Equality" if everyone had the same exact income. At the other extreme, if only one person had any income (and everyone else in society had zero income), then the Lorenz Curve would be a "reverse-L," passing through the points (0,0), (1,0), and (1,1). Looking at Figure 1, the Lorenz Curve will divide the "unit triangle" (i.e., a triangle with base of 1 and height of 1, which has an area of ½) into Area A and Area B.
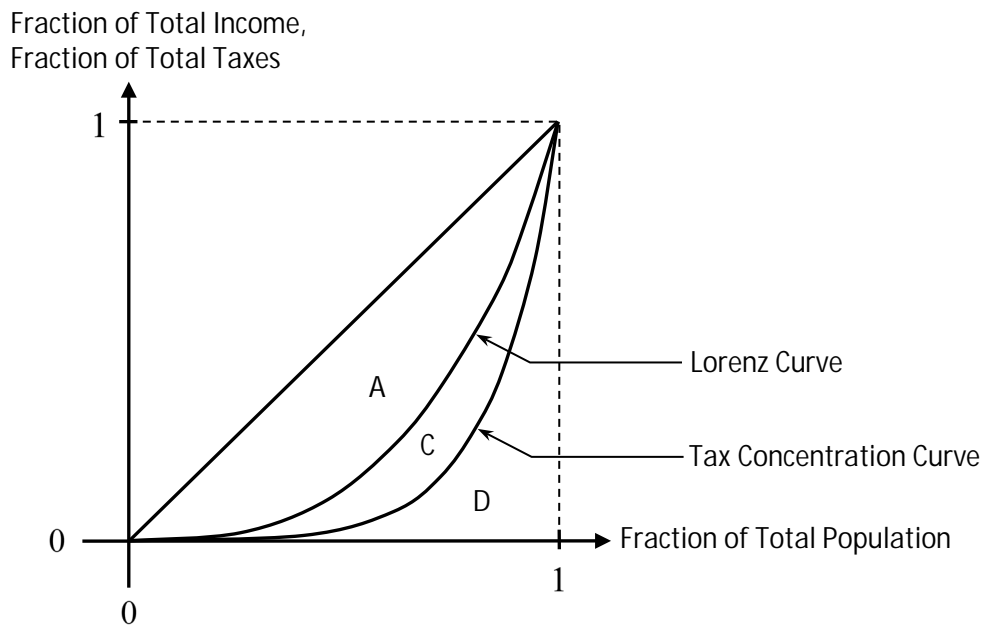
in every single year between 1929 and 1939, when the Federal Income Tax was still a tax on the very elite as opposed to a tax on the masses. Between 1929 and 2018, the mean (i.e., average) index value was .635 and the median (i.e., middle) index value was .584.

A visual inspection of Figure 13.2 reveals that since realizing its low value of .445 in 1969 there has been a consistent and steady increase in the degree of tax progressivity. The value has been above

Figure 1 – Lorenz Curve and Gini Coefficient

Figure 2 – Tax Concentration Curve and Stroup Coefficient of Tax Progressivity

Fraction of Total Income,
Fraction of Total Taxes

1

A

C

D

Lorenz Curve

Tax Concentration Curve

Fraction of Total Population

0

0

1

0

Figure 3 – Stroup Coefficient of Tax Progressivity for the U.S. Federal Income Tax