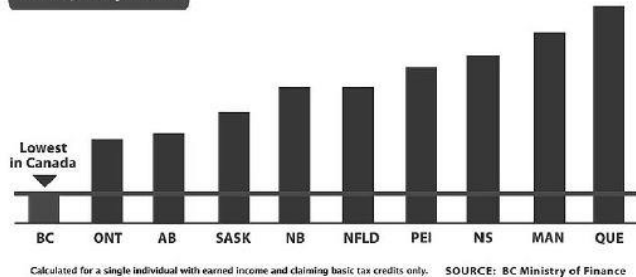


# Why All Charts Should Start at Zero

## PROVINCIAL PERSONAL INCOME TAXES

AT \$45,000



► In 2010, in crisis because of the HST, B.C. Premier Gordon Campbell gave a TV address in which he emphasized how his government had reduced income taxes to some of the lowest rates in Canada. The chart at left was used to illustrate his point.

► Looking at that chart, how much higher do you think income taxes are in Ontario? Twice as high? Three times as high?

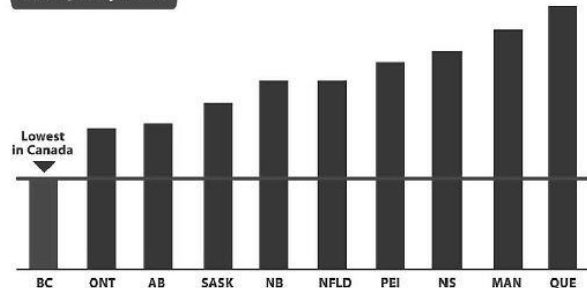
► Now look at the chart on the right. How much higher do Ontario income taxes look now? 50% or less, right?

► The difference between the two charts? The one above used **\$1,000** as its **baseline**, or starting point. The one on the right used **zero**.

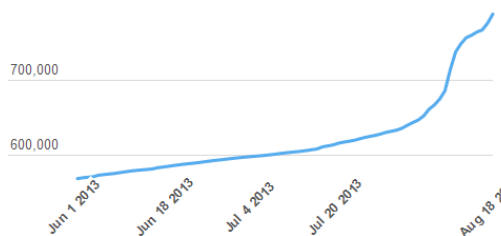
► Using **any number other than zero** as your chart's baseline is misleading. This is particularly true if, like Campbell, you don't label what you're doing (by putting a \$1,000 by the baseline). But even if you *do* label your axis, the impression your chart provides will still be misleading.

## PROVINCIAL PERSONAL INCOME TAXES

AT \$45,000

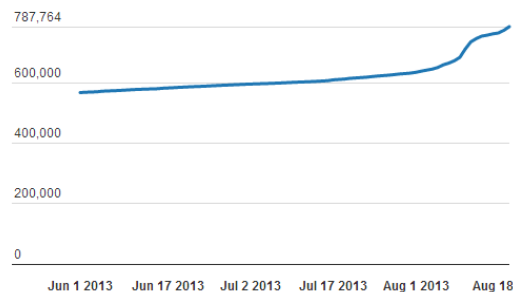


@AaronPaul\_8's followers on Twitter



@AaronPaul\_8's followers on Twitter

With a zero baseline



► Using a baseline other than zero makes line graphs misleading, too, as in the example above left [used by Twitter](#) to show the growth in Breaking Bad star Aaron Paul's Twitter followers. Or this [business website's graph](#) showing a "big change" in the stock market.

► This is a good example of the rule of thumb that **your chart should make sense with the numbers removed**. Using a baseline other than zero means, almost by definition, that your chart will give a false impression with the numbers removed.