with sweetly coloured sticks. I don't care for the house key imagery in the background but it is relatively harmless. Additionally, the typeface, font size and text colour feel more gimmicky in the second graphic. Once again, it feels like it is wanting to shout at me in contrast to the more polite nature of the ONS text. Whereas the *Daily Mail* piece refers to the ONS as the source of the data, it fails to include further details about the data source, which is included on the ONS graphic alongside other important explanatory features such as the subtitle, clarity about the yearly periods and the option to access and download the associated data. The ONS graphic effectively 'shows all its workings' and overall earns, from me at least, significantly more trust.

Another example about the fragility of trust concerns the next graphic, which plots the number of murders committed using firearms in Florida over a period of time. This frames the time around the enactment of the 'Stand your ground' law in the Florida. The area chart in Figure 1.10 shows the number of murders over time and, as you can see, the chart uses an inverted vertical y-axis with the red area going lower down as the number of deaths increases, with peak values at about 1990 and 2007. However, some commentators felt the inversion of the y-axis was deceptive and declared the graphic not trustworthy based on the fact they were perceiving the values as represented by an apparent rising 'white mountain'. They mistakenly observed peak values around 1999 and 2005 based on them seeing these as the highest points. This confusion is caused by an effect known as *figure-ground* perception whereby a background form (white area) can become inadvertently recognised as the foreground form, and vice versa (with the red area seen as the background).

REUTERS

Gun deaths in Florida

Number of murders committed using firearms

200

2005
Florida enacted its 'Stand Your Ground' law

600

800

1990s

2000s

12010s

Source: Florida Department of Law Enforcement

Figure 1.10 Gun Deaths in Florida

Iraq's bloody toll

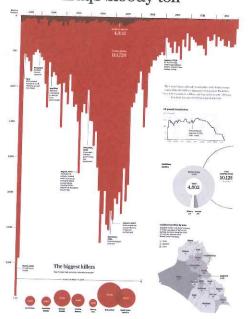


Figure 1.11 Iraq's Bloody Toll

The key point mislead. Althou may not be en legitimate. Crea blood was an i pursue. Indeed, ble infographic death toll durin case of the Florid was just too 's effect achieved inspired and demonstrated b way of developi Unfortunately, g matter - gun de a passionate rea the lack of trust consequence of the y-axis to an how a single sub The creator of tl will make hund than truthful. I motives can so within the press to publish a wo

Trustworthiness all your decision you will see in tation design wormany decision jubich you coul options. Obviouresult of your deto create and defin the choices matters where tr

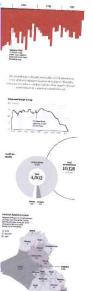
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35

he background but our feel more gimt at me in contrast efers to the ONS as a source, which is atures such as the vnload the associearns, from me at

ch plots the numt. This frames the The area chart in the chart uses an deaths increases, the inversion of he fact they were They mistakenly as the highest ption whereby a preground form,

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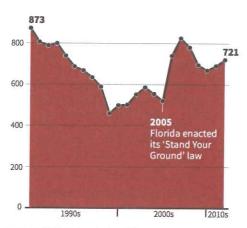


The key point here is that there was no intention to mislead. Although the approach to inverting the y-axis may not be entirely conventional, it was technically legitimate. Creatively speaking, the effect of dribbling blood was an understandably tempting metaphor to pursue. Indeed, the graphic attempts to emulate a notable infographic from several years ago showing the death toll during the Iraq conflict (Figure 1.11). In the case of the Florida graphic, on reflection maybe the data was just too 'smooth' to convey the same dribbling effect achieved in the Iraq piece. However, being inspired and influenced by successful techniques demonstrated by others is to be encouraged. It is one way of developing our skills.

Unfortunately, given the emotive nature of the subject matter – gun deaths – this analysis would always attract a passionate reaction regardless of its form. In this case the lack of trust expressed by some was an unintended consequence of a single, innocent design: by reverting

Gun deaths in Florida

Number of murders committed using firearms



Source: Florida Department of Law Enforcement

Figure 1.12 Reworking of 'Gun Deaths in Florida'

the y-axis to an upward direction, as shown in the reworked version in Figure 1.12, you can see how a single subjective design choice can have a huge influence on people's perception.

The creator of the Florida chart will have made hundreds of perfectly sound visualisations and will make hundreds more, and none of them will ever carry the intent of being anything other than truthful. However, you can see how vulnerable perceived trust is when disputes about motives can so quickly surface as a result of the design choice made. This is especially the case within the pressured environment of a newsroom where you have only a single opportunity to publish a work to a huge and widespread audience. Contrast this setting with a graphic published within an organisation that can be withdrawn and reissued far more easily.

Trust Applies Throughout the Process

Trustworthiness is a pursuit that should guide all your decisions, not just the design ones. As you will see in the next chapter, the visualisation design workflow involves a process with many decision junctions – many paths down which you could pursue different legitimate options. Obviously, design is the most visible result of your decision making, but you need to create and demonstrate complete integrity

'My main goal is to represent information accurately and in proper context. This spans from data reporting and number crunching to designing human-centered, intuitive and clear visualizations. This is my sole approach, although it is always evolving.' Kennedy Elliott, Graphics Editor, The Washington Post

in the choices made across the entire workflow process. Here is an overview of some of the key matters where trust must be at the forefront of your concern.