PLANNED PARENTHOOD FEDERATION OF AMERICA:
ABORTIONS UP — LIFE-SAVING PROCEDURES DOWN

2,007,371 IN 2006

CANCER SCREENING & PREVENTION SERVICES

327,000 IN 2013

ABORTIONS

289,750 IN 2006

935,573 IN 2013

2006   2007   2008   2009   2010   2011   2012   2013

SOURCE: AMERICANS UNITED FOR LIFE

This graph was presented in the US Congress by Republicans to question Cecil Richards, the president of Planned Parenthood.[1] The Congressmen suggested that the organization was allocating a higher percentage of federal funds to abortions than to cancer screening and prevention services, since the structure of the graph makes it look like the number of abortions experienced significant growth, conveying a message that in 2013 there were more abortions than cancer screenings and prevention services.

However, if we analyze the number closely, the number of abortions went from 289,750 in 2006 to 327,000 in 2013, while "life-saving procedures" went from 2,007,371 to 953,573. So, the number of prevention services is still triple than the number of abortions.

So, the graph creates an illusion because it does not have a Y axis, so there is no defined placement of measurement lines.

Also, there is funding bias, because this graph originated from Americans United for Life, and anti-abortion organization. Therefore, it is likely that the information will be displayed in a way that undermines the Pro-Choice initiative.

So, I asked two friends to look at this graph and tell me what they though. Friend A is pro-life and friend B is pro-choice. Here is what they said:

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[1] For analysis, see https://www.politifact.com/truth-o-meter/statements/2015/oct/01/jason-chaffetz/chart-shown-planned-parenthood-hearing-misleading-/. The corrected chart presented below comes from the same source.

A)

Friend A: I think it is really sad that Planned Parenthood uses federal fund to fund abortions and disregard life-saving procedures so much. I can see in this graph that the number of abortions has risen so much since 2006, maybe that's because of more pro-choice propaganda and the spread of liberal ideas. I know it is a sensitive topic, so I will not talk about the reasons why I am pro-life, but still I believe all tax payers would be more satisfied if our money went to actual important procedures rather than elective abortions.

Me: But if you analyze the graph, the number of life-saving procedures is three times bigger than the number of abortions in 2013.

Friend A: Oh, you're right. But still "life-saving procedures" is a really vast term that encompasses many types of important procedures. So, for instance, we don't know the exact number of cancer screenings, but we do know that it is less than the total number of 935,537. It might even be less than abortions.

Me: this is a really good point. But do you think that the way this graph was created without a Y axis leads people into believing that there are more abortions than life-saving procedures?

Friend A: Yes.

Me: And do you think this misrepresentation would have impacted your feelings about Planned Parenthood if you hadn't heard the truth?
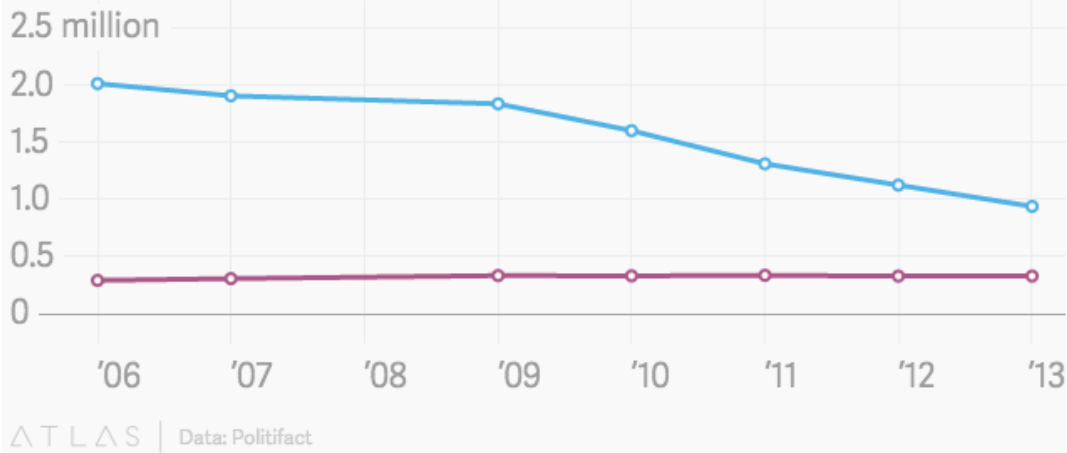
Friend A: I think so.

Me: I'll show you another graph that tries to correct the mistakes of the first. What do you think of it?

Planned Parenthood services
- Abortion procedures
- Cancer screening / preventative services

ATLAS | Data: Politifact

Friend A: I can see clearly that there are more preventive services than abortions. However, I still think it is important to understand the reasons why the number of preventive services has decreased almost 50% while abortions have increased.

Me: Do you think these two factors are correlated?

Friend A: Yes, I think Planned Parenthood has a preference that is clearly represented in this change.

B)
Friend B: Is this thing right? Where did you get this graph from? I doubt there are more abortions than prevention services. I really doubt it.

Me: Check the numbers.

Friend B: Oh, I see. So, who made this graph?

Me: Americans United for Life.

Friend B: It's crazy how they can manipulate information.

So, what I concluded from this experiment was: confirmation bias plays a role in the analysis of information. Friend A was quick to believe in the graph because he is pro-life and wants more arguments to support his beliefs. He was quick to judge Planned Parenthood for investing more

in abortions than in preventive services. At the same time, Friend B was skeptical about the graph because he didn't like what he saw so he looked for the deceptive point.

However, Friend A did bring up an interesting argument that many services follow under the category of life-saving procedures, so we can't really compare the number of abortions to the number of anything else. Thus, the graph can also be misleading in a sense that we read "cancer screenings" and ignore the other preventive services. Friend B did not catch that misguiding fact because he was satisfied enough after finding out the graph was misleading.

During the discussion in class, I realized that some of my colleagues noticed a difference in perception of their friends depending on what their major was. For instance, a science/business/economics major has a tendency to be more critical of the graphics and are more likely to spot the mistakes.

So, I noticed that I failed to mention that my Friend A is in fact a Business major and probably understands more about data processing and display than Friend B, who is a Psychology major. For this reason, it becomes even more important to note that the confirmation bias was so strong that Friend A failed to spot the obvious misrepresentation of data.

At the same time, it now becomes more obvious the reason why Friend A spotted that "life-saving procedures" is a really vast term that encompasses many types of important procedures. So, for instance, we don't know the exact number of cancer screenings, but we do know that it is less than the total number of 935,537. It might even be less than abortions and Friend B did not even bother to look.

Therefore, in that note, it is always important to understand the background of the people to whom the information is shown. I tend to always seek confirmation biases in the subjects because it is something we deal with every day, however other parts of their identities might also account for different tendencies in data analysis.