

SAS® GLOBAL FORUM 2018

USERS PROGRAM

Are Your Color Choices Ruining Your Reports?

Jaime D'Agord

zencos 

April 8 - 11 | Denver, CO
#SASGF

Color Harmonies

Question: Why does Fred Flintstone wear a blue tie, the minions wear blue jumpers and the hulk wear purple pants?



Answer: Color Harmonies

What are color harmonies?

Colors on the color wheel that work well together.



Complementary



Analogous



Rectangle



Triadic



Split Complementary



Square

Tip! Contrasting colors work well in reporting. Complementary colors have the best contrast.

What color is that?

How does a red-green color blind person interpret color?

Original



Like this?



Or this?



A person who is red-green color-blind sees in black and white - **FALSE**

Red and green appear similar for a person who is red-green color-blind - **TRUE**



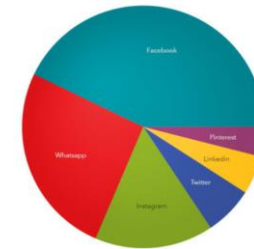
Imagine this: using different shades of a color to determine if you finished a Rubik's cube



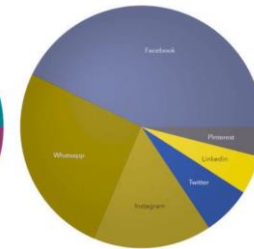
Good design practices would ensure you take all of the population into consideration when creating data visualizations.

Let's Consider the Color Blind

Social Media Active Users – Feb 2018



Original



Color-blind



Color-blind friendly

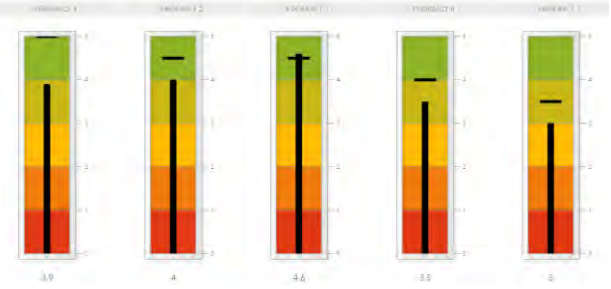
Tip! Use monochrome in reporting. The color-blind can distinguish different shades of one color.



Facebook co-founder, Mark Zuckerberg is red-green color blind. Blue is the richest color he can see!



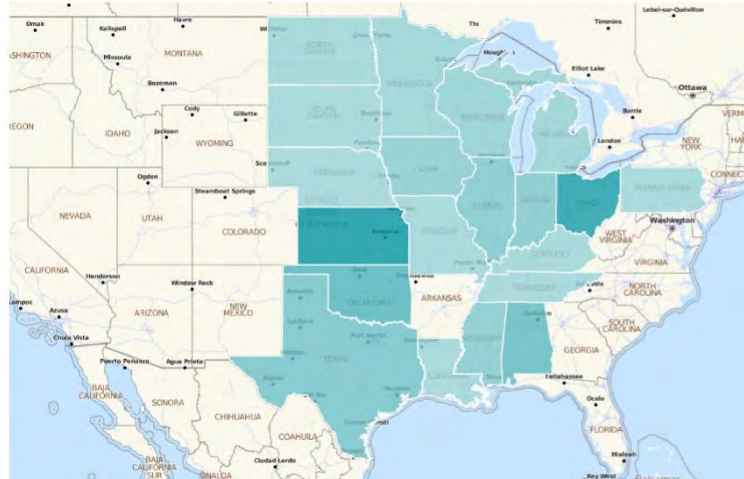
Color for Meaning



Glancing at the report we understand the **meaning** without looking into the details.

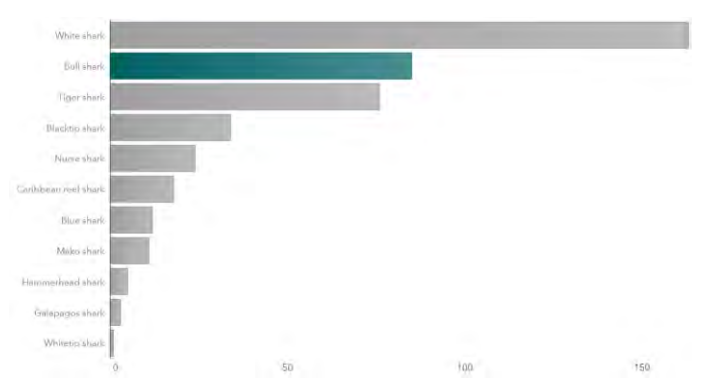
Everyone universally understands that green is good and red is bad.

Color for Searching



Our eyes are drawn to the darkest spots and we want to know **why?**

Color for Emphasis

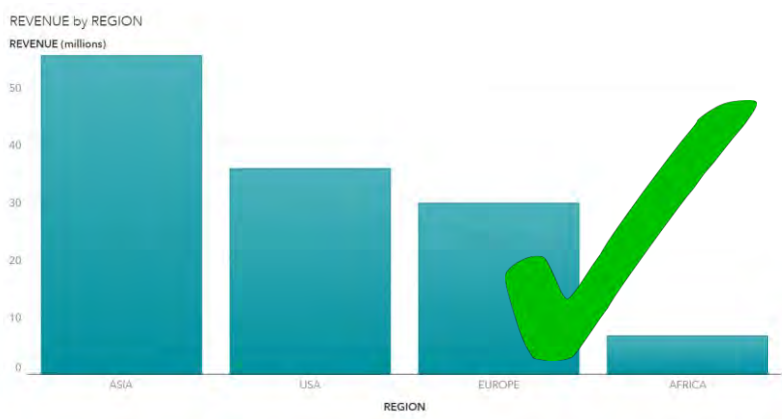


Color and contrast to **emphasize** information.

Color to Show Associations

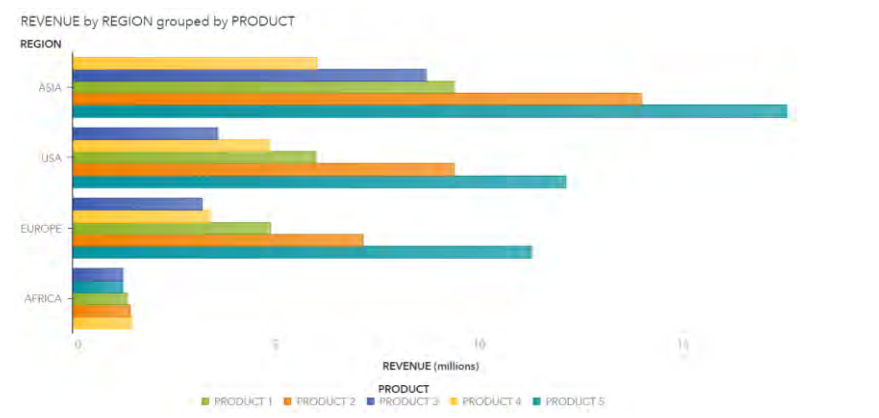


Question: Does this graph convey information quickly? Why is color used?
 Answer: No, it does not. Color is being used for decoration and serves no purpose.



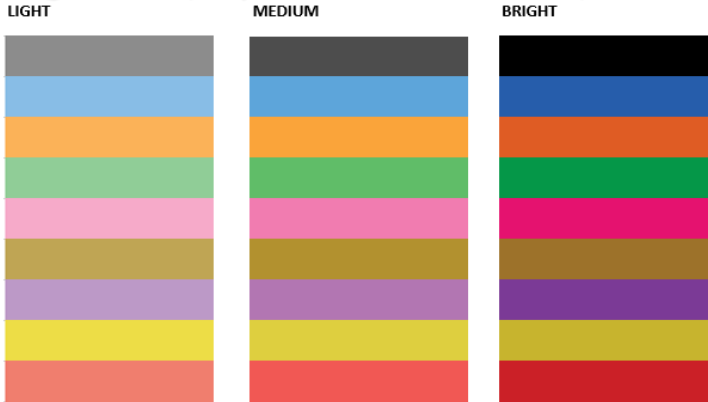
Much better! No confusing colors and our eyes are drawn to what's important. The Data!

Tip! Introduce color when differentiating between groups to show **association.**

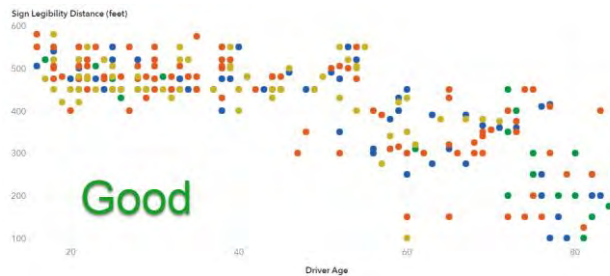


Color Palettes

Stephen Few suggests 9 colors that go well together (separated in 3 hues)



These colors are harmonious, like on a paint strip. They can be used interchangeably in reporting and work!



Tip! A bright color palette makes small data points easier to read.

Natural Color Palettes

Hard time choosing color palettes? Use Nature!



<http://cssdrive.com>



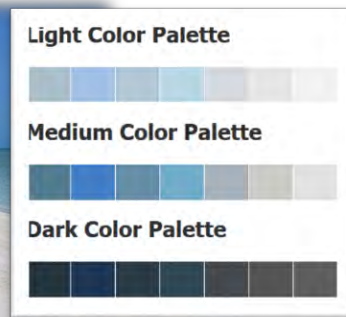
Upload Image



3 Palettes Generated

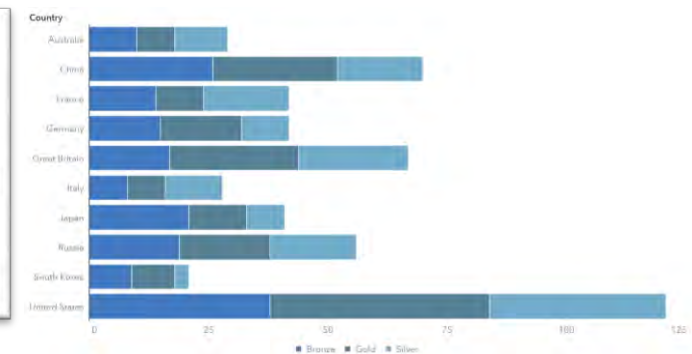
Natural color palette used in reporting

Here's some considerations...



Issue: The graph is pretty to look at but the colors are confusing compared against the legend. When your brain processes gold, silver or bronze, it doesn't link to pretty shades of blue. When representing colors on a graph use their corresponding color.

2016 Olympic Medal Standings





SAS[®] GLOBAL FORUM 2018

April 8 - 11 | Denver, CO
Colorado Convention Center

Visit the Zencos blog for more data visualization tips

<http://www.zencos.com/blog>

zencos 

#SASGF