



Think like a designer

Knafllic Chapter 5

Traditional Design Concepts

to communicate with data:

1. Affordances make it obvious how to use a product.
2. Accessibility
3. Aesthetics
4. Acceptance



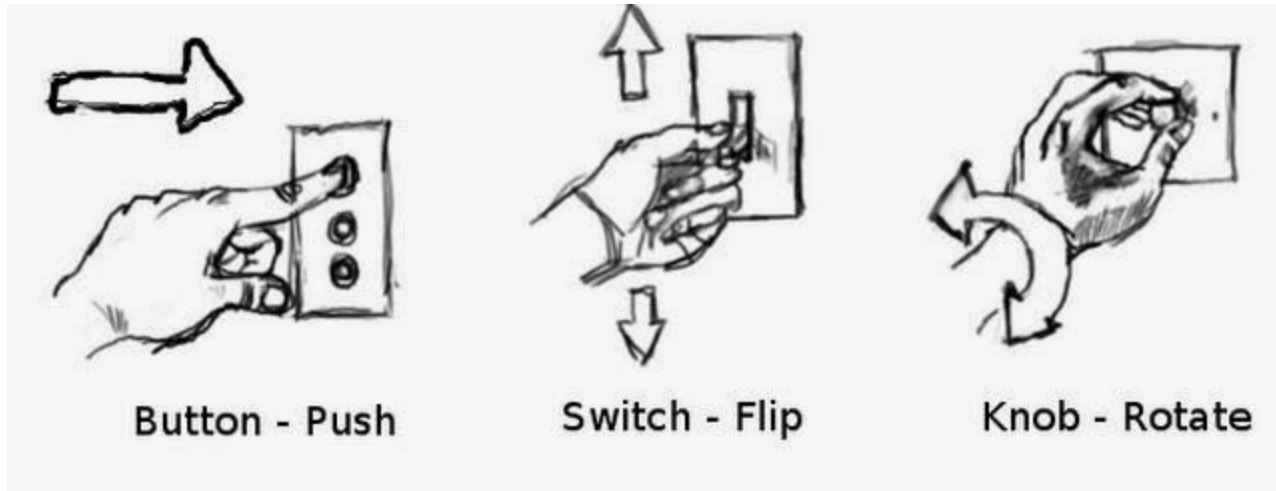
Affordances are clues about how an object should be used, typically provided by the object itself or its context.



The **handle** is shaped for easy grasping

Examples of human-product interactions.

Affordances make it obvious how an object should be used.



from [Medium.com](https://medium.com/)

iPhone

Lock screen affordances.



To leverage visual affordances w data:

1. **Highlight the important text.**
2. Eliminate distractions.
3. Create a clear hierarchy of information.

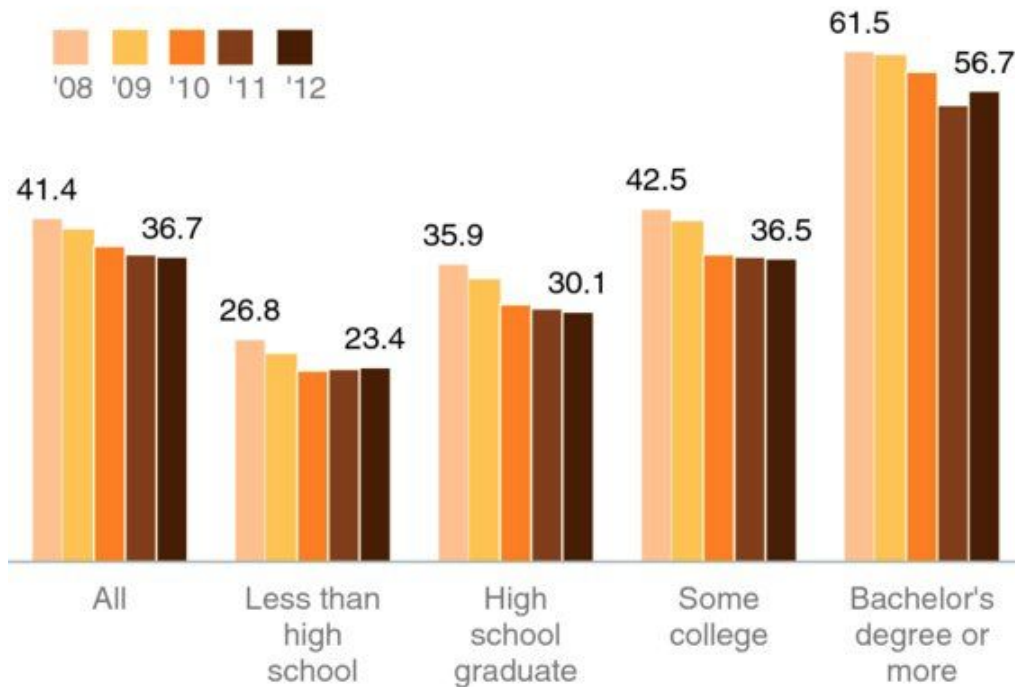


Rule 1 Example.

New Census Data Show
More Americans Are Tying the Knot,
but Mostly It's the **College-Educated.**

New Marriage Rate by Education

Number of newly married adults per 1,000 marriage eligible adults



Note: Marriage eligible includes the newly married plus those widowed, divorced, or never married at interview.

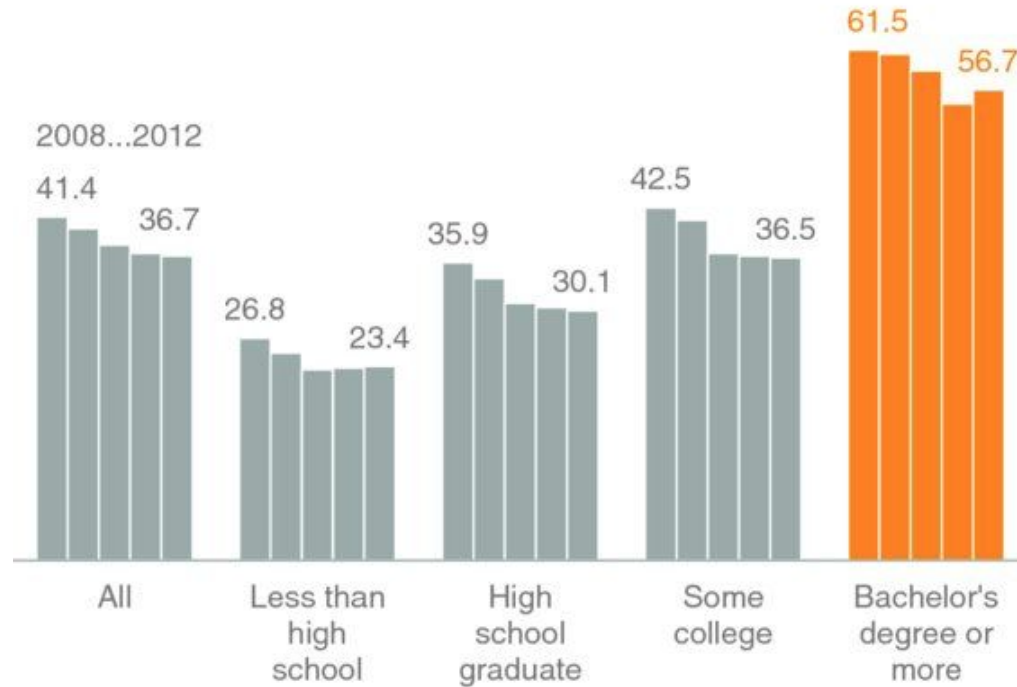
Source: U.S. Census

Adapted from PEW RESEARCH CENTER

Before

New Marriage Rate by Education

Number of newly married adults per 1,000 marriage eligible adults



Note: Marriage eligible includes the newly married plus those widowed, divorced, or never married at interview.

Source: U.S. Census

Adapted from PEW RESEARCH CENTER

Lesson 2. How to eliminate distractions.

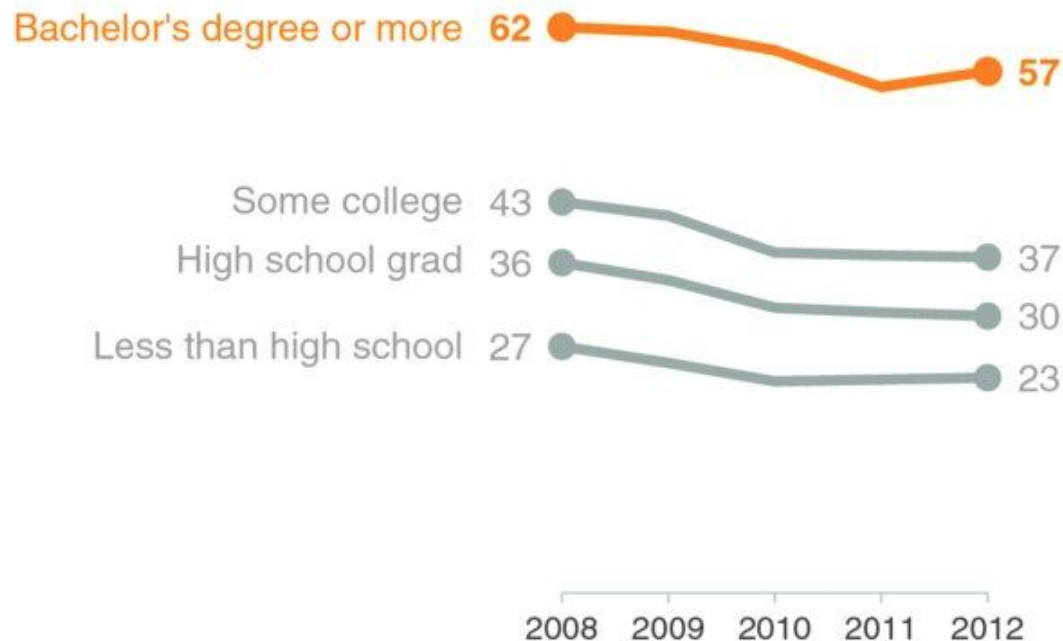
Ask yourself: would eliminating this change anything? No?

Take it out or summarize!

Push to the background necessary, but non-message-impacting items.

New marriage rate by education

Number of newly married adults per 1,000 marriage eligible adults



Note: Marriage eligible includes the newly married plus those widowed, divorced, or never married at interview.

Source: U.S. Census

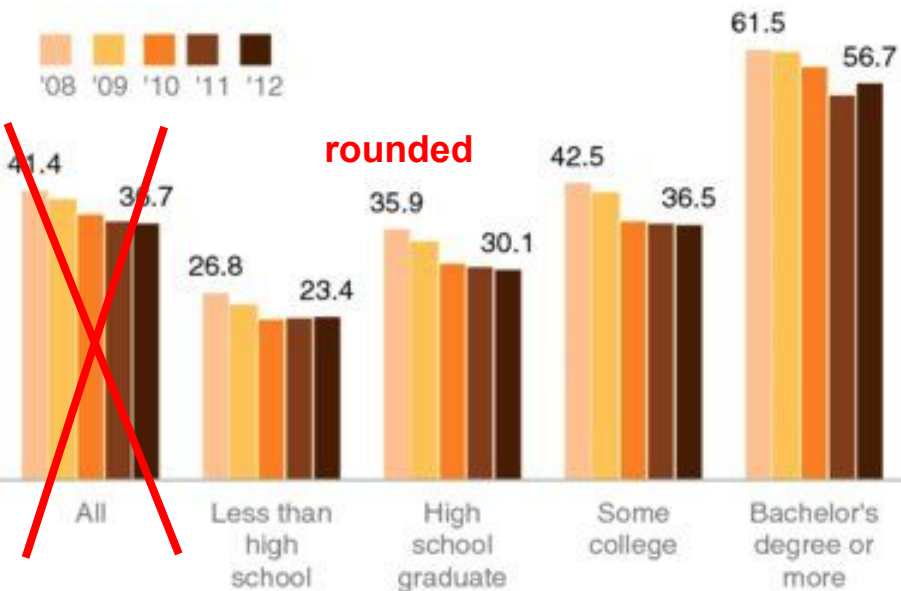
Adapted from PEW RESEARCH CENTER

25 bars

New Marriage Rate by Education

Space & italics removed

Number of newly married adults per 1,000 marriage eligible adults



Note: Marriage eligible includes the newly married plus those widowed, divorced, or never married at interview.

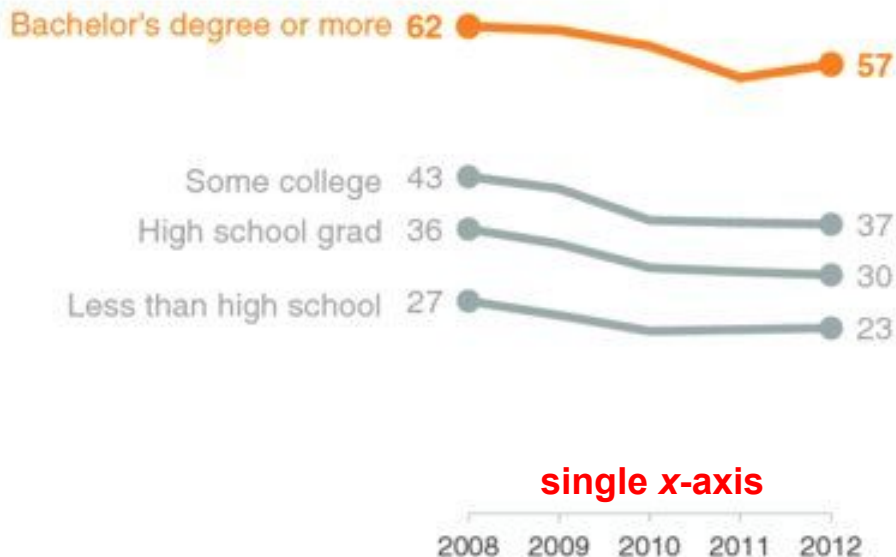
Source: U.S. Census

Adapted from PEW RESEARCH CENTER

4 lines

New marriage rate by education

Number of newly married adults per 1,000 marriage eligible adults



Note: Marriage eligible includes the newly married plus those widowed, divorced, or never married at interview.

Source: U.S. Census

Adapted from PEW RESEARCH CENTER

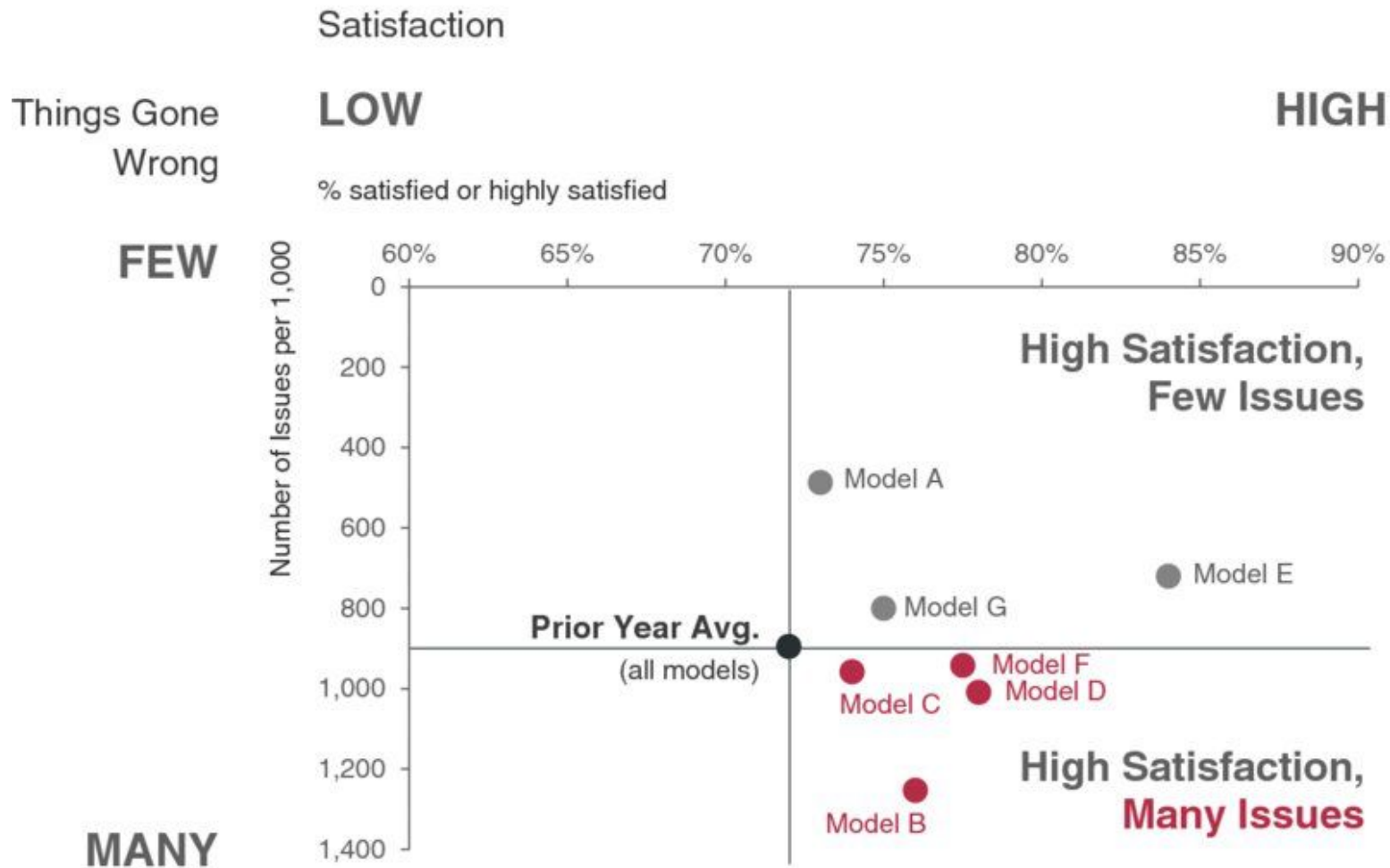
3. Create a clear visual hierarchy of information.



Success of a make / model is established by:

- 1) Customer satisfaction
- 2) Frequency of car issues

Issues vs. Satisfaction by Model



Accessibility.

Design should be usable by people of widely varying technical skills.

Don't overcomplicate.

Make it legible: use a consistent, easy-to-read font.

Keep it clean: make your data visualization approachable by leveraging visual affordances.

Use straightforward language: choose simple language over complex, choose fewer words over more words.

Remove unnecessary complexity.

Text is your friend.

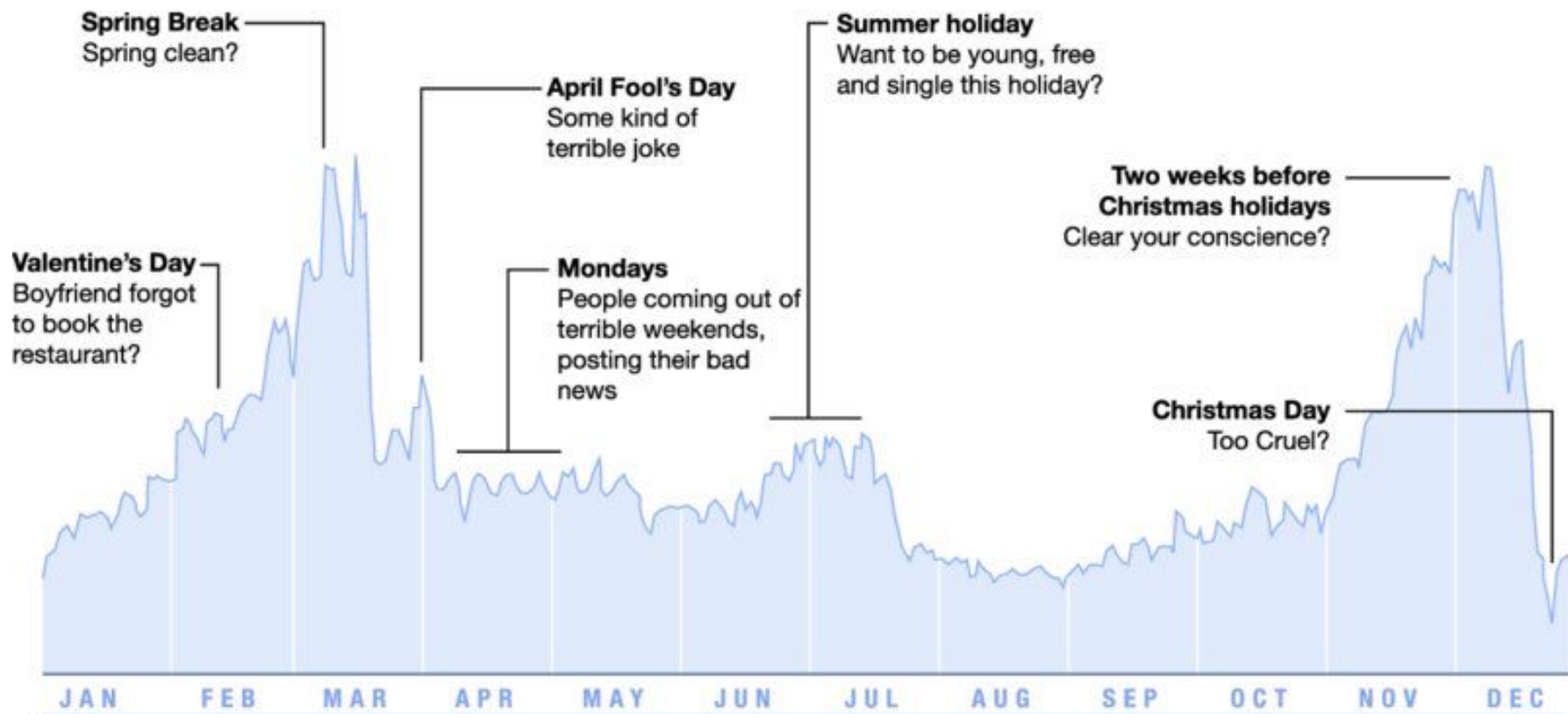
Every chart needs a title.

Every axis needs a title.

Label, introduce, explain, reinforce, highlight, recommend and tell a story.

Peak Break-up Times

According to Facebook status updates





Ticket volume over time

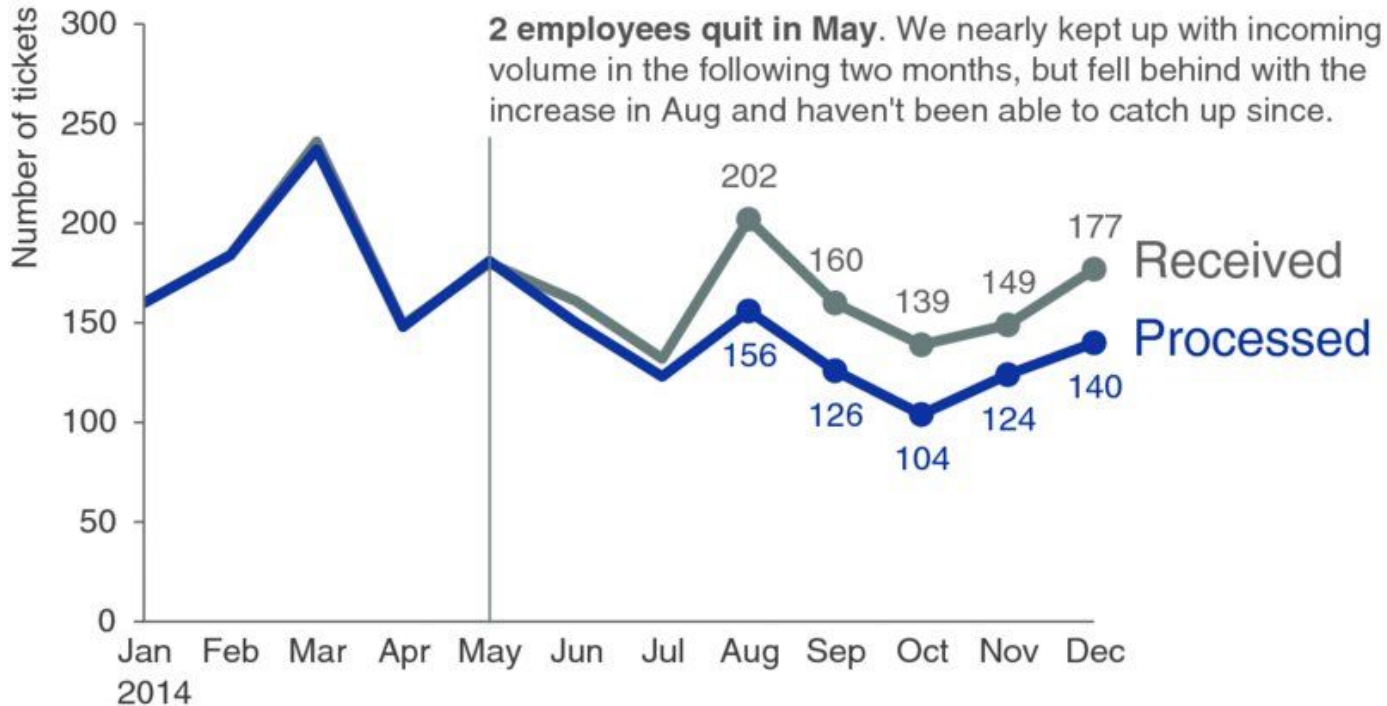


Data source: XYZ Dashboard, as of 12/31/2014

Please approve the hire of 2 FTEs

to backfill those who quit in the past year

Ticket volume over time



Data source: XYZ Dashboard, as of 12/31/2014 | A detailed analysis on tickets processed per person and time to resolve issues was undertaken to inform this request and can be provided if needed.

Aesthetics.
Appreciation of beauty.



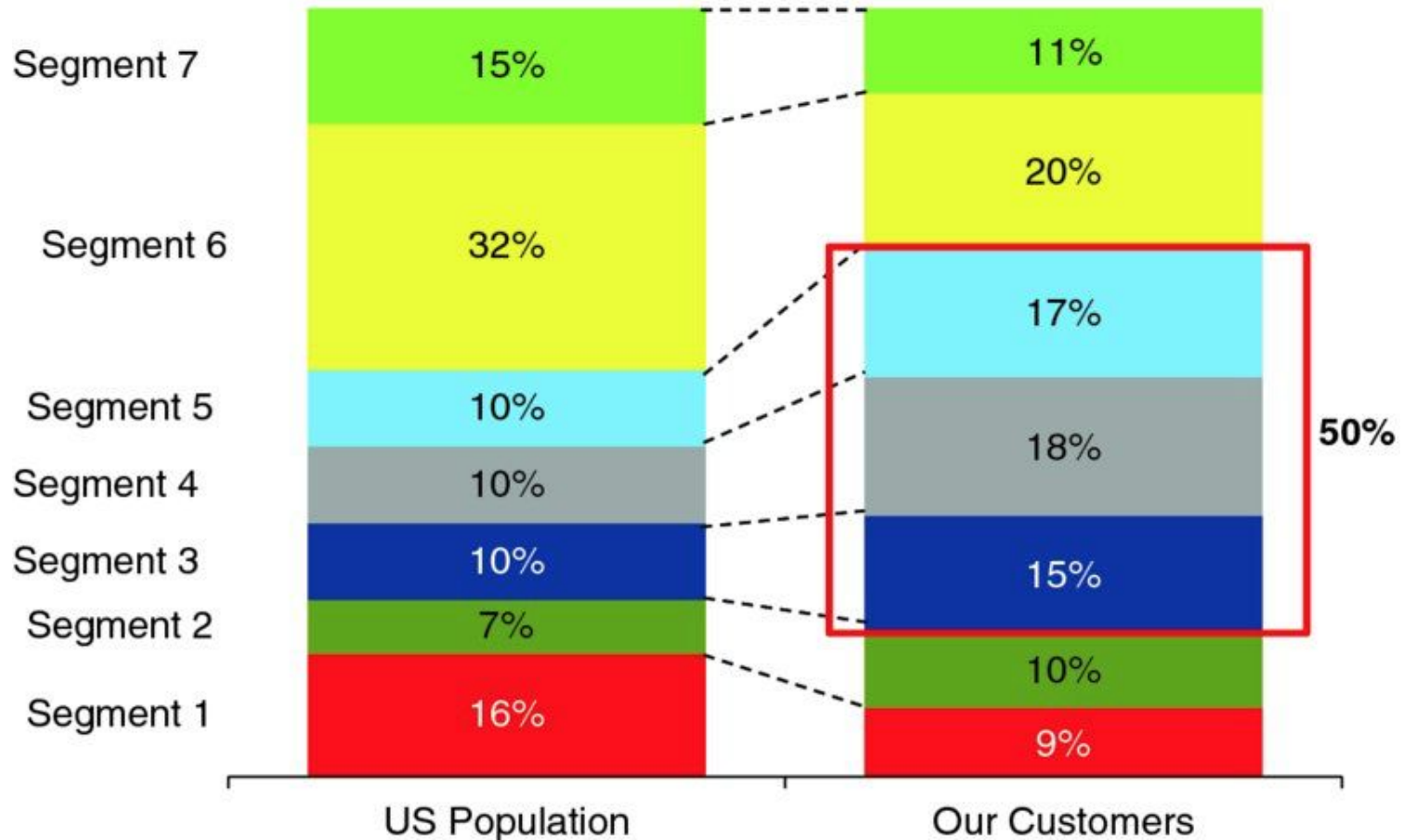


US Population and Our Customers

by customer segment



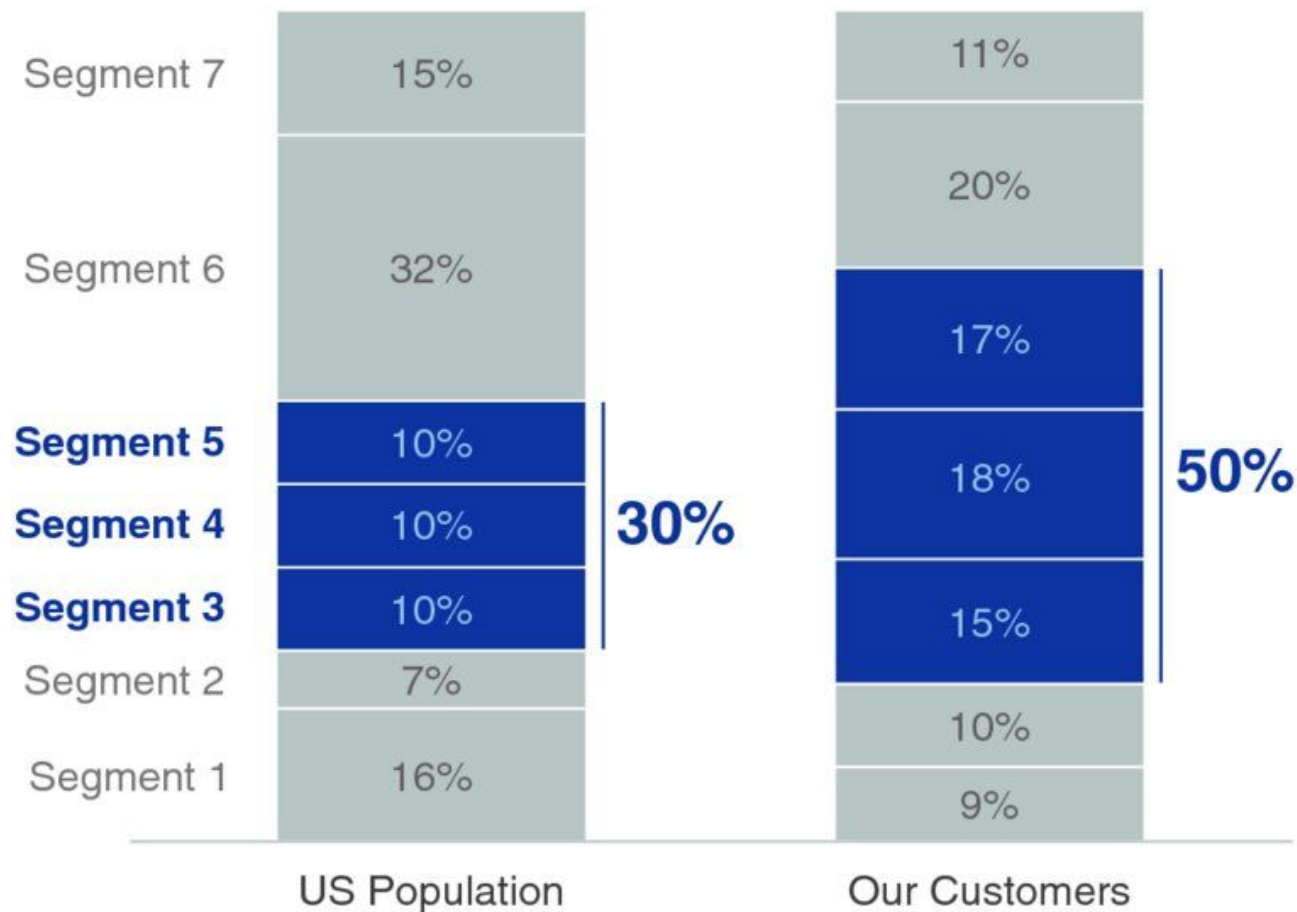
Distribution by customer segment



Improve the aesthetics:

1. Color
2. Alignment
3. White space

Distribution by customer segment



Acceptance.

For the design to be effective, it must be accepted by its intended audience.

