



Design tips for data visualizations that capture audience attention

Florian Ramseger | Tableau Public Marketing Specialist, Tableau
Jonni Walker | Data Artist



Speakers

Florian Ramseger



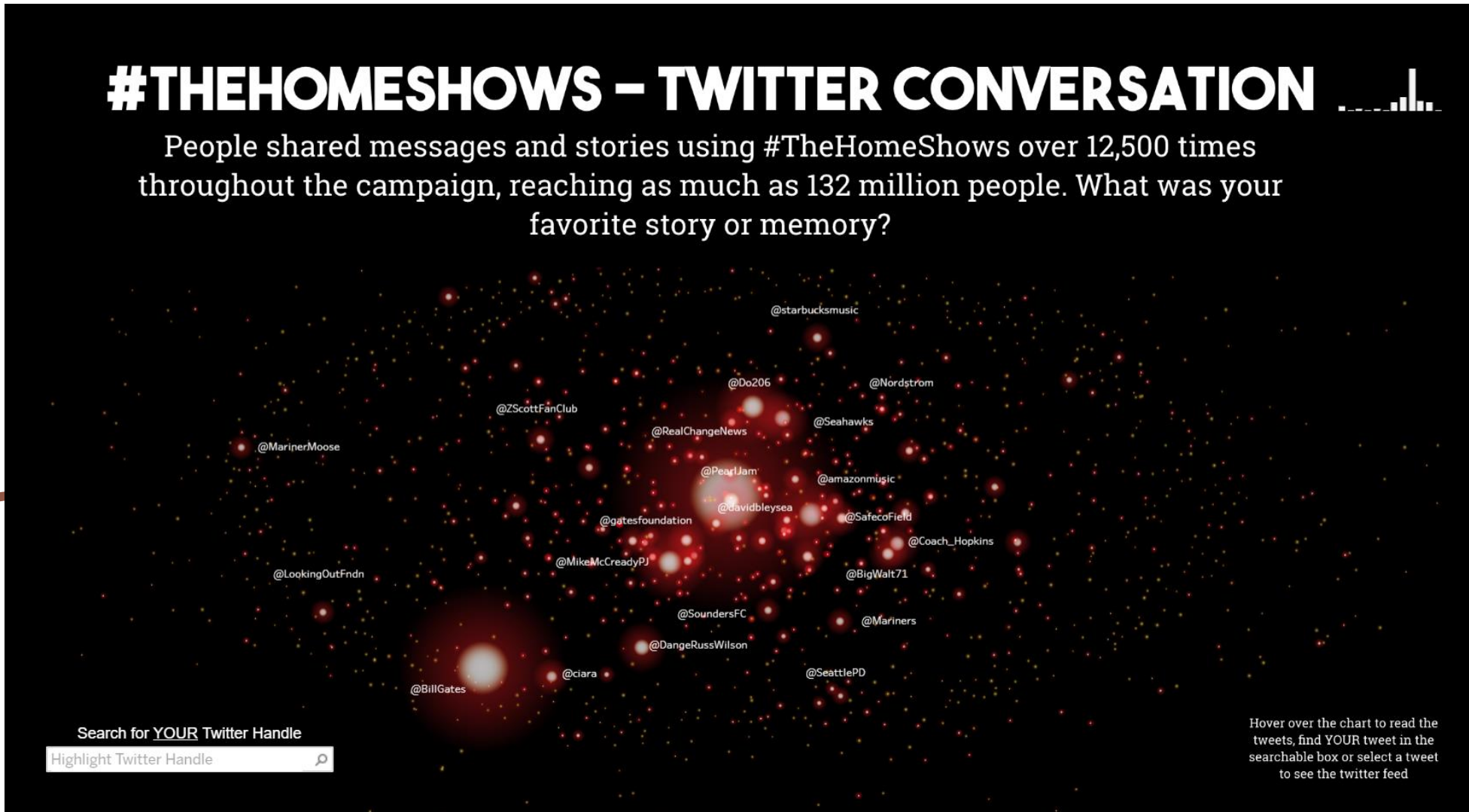
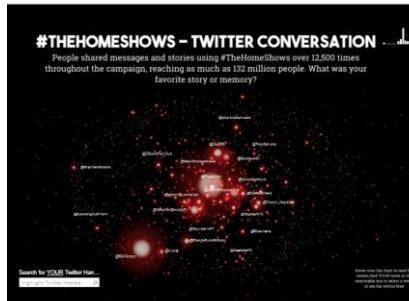
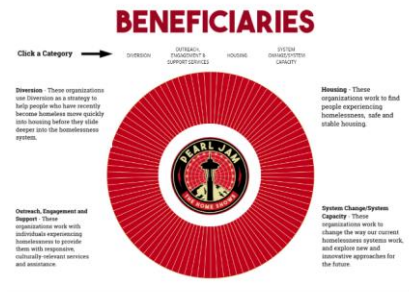
Tableau Public Marketing Specialist,
Tableau

Jonni Walker



Data Artist

Pearl Jam's Campaign



Pearl Jam Web Page



THE HOME SHOWS

A HUGE thank you to the more than 170 businesses—both big and small—philanthropic partners, and individuals that have committed nearly \$11 million to fight homelessness.

Even more important is seeing our community and fans rally around this effort. Tens of thousands of you have taken action by signing up for The Home Shows mailing list, watching stories of our neighbors with lived experience with homelessness, volunteering, getting registered to vote - and voting.

And this is just the beginning. You have more influence than you think—and now is the time to use it.

Email your elected officials and let them know what you want from them. Ask your employers what they're doing on this issue. Support businesses committed to ending homelessness. Go out of your way to say "Hello" and "How can I help?" when you see a neighbor experiencing homelessness.

Then, keep learning, donating, volunteering, paying attention, and believing. The more than 12,000 people living on the streets of our city need us to.

- Ed, Stone, Mike, Jeff & Matt

<https://pearljam.com/thehomeshows/seattle-wa>

What is Tableau Public?

tableau public

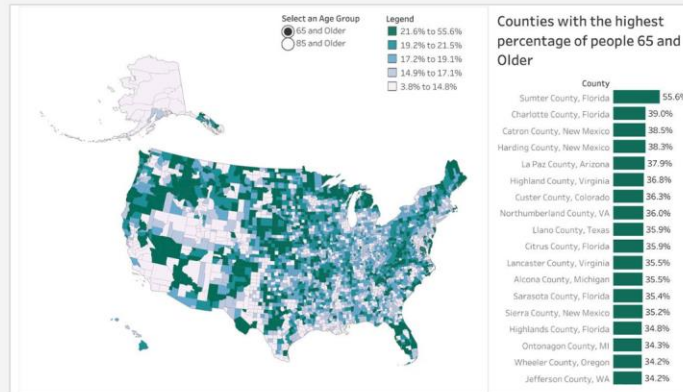
GALLERY AUTHORS BLOG RESOURCES ACTIVITY SIGN UP SIGN IN

Gallery / Viz of the Day

Stunning data visualization examples from across the web created with Tableau Public.

Viz of the Day Featured

Subscribe



Which U.S. counties have the oldest populations? ☆

According to the Centers for Disease Control and Prevention (CDC), older adults and people with serious medical conditions may be at higher risk for more serious complications from Coronavirus (COVID-19). In this visualization, Overflow Data maps U.S. counties with the highest percentage of people over the age of 65. Do you have a Coronavirus (#COVID19) visualization that you'd like to share? Send it to us at public@tableau.com.

Featured On: March 27, 2020



IMDB Season Finale Ratings ☆

Concert venues, sporting arenas, malls, movie theaters, and even parks are closed to slow the spread of Coronavirus (COVID-19). Looking for something to do while you're at home? Re-watch one of your favorite shows! Although if you decide to watch Game of Thrones, you might want to skip the last season. In this visualization, Judit Bekker takes a look at the season finale ratings of the top 15 series on IMDB. How are you staying entertained while self-isolating? Submit it [here](#).

Featured On: March 26, 2020

- Free service
- Anyone can publish interactive data visualizations to the web
- Can embed into web pages & blogs
- Shared via social media or email

1. Create viz in Tableau Desktop
2. Publish to Tableau Public (public.tableau.com)
3. Embed in website

Agenda

1. Content & Message
2. Form Factor & Mobile Design
3. Interactivity & UX
4. Formatting & Branding

Key Takeaways



Design considerations



Real-world examples



Project management tips



Tableau tips

1. Content & Message

Content & Message

Surveys & Opinion Polls

Side projects

Thought-leadership

PR opportunities

Open Data

Content Marketing

Social media campaigns

Statutory reporting

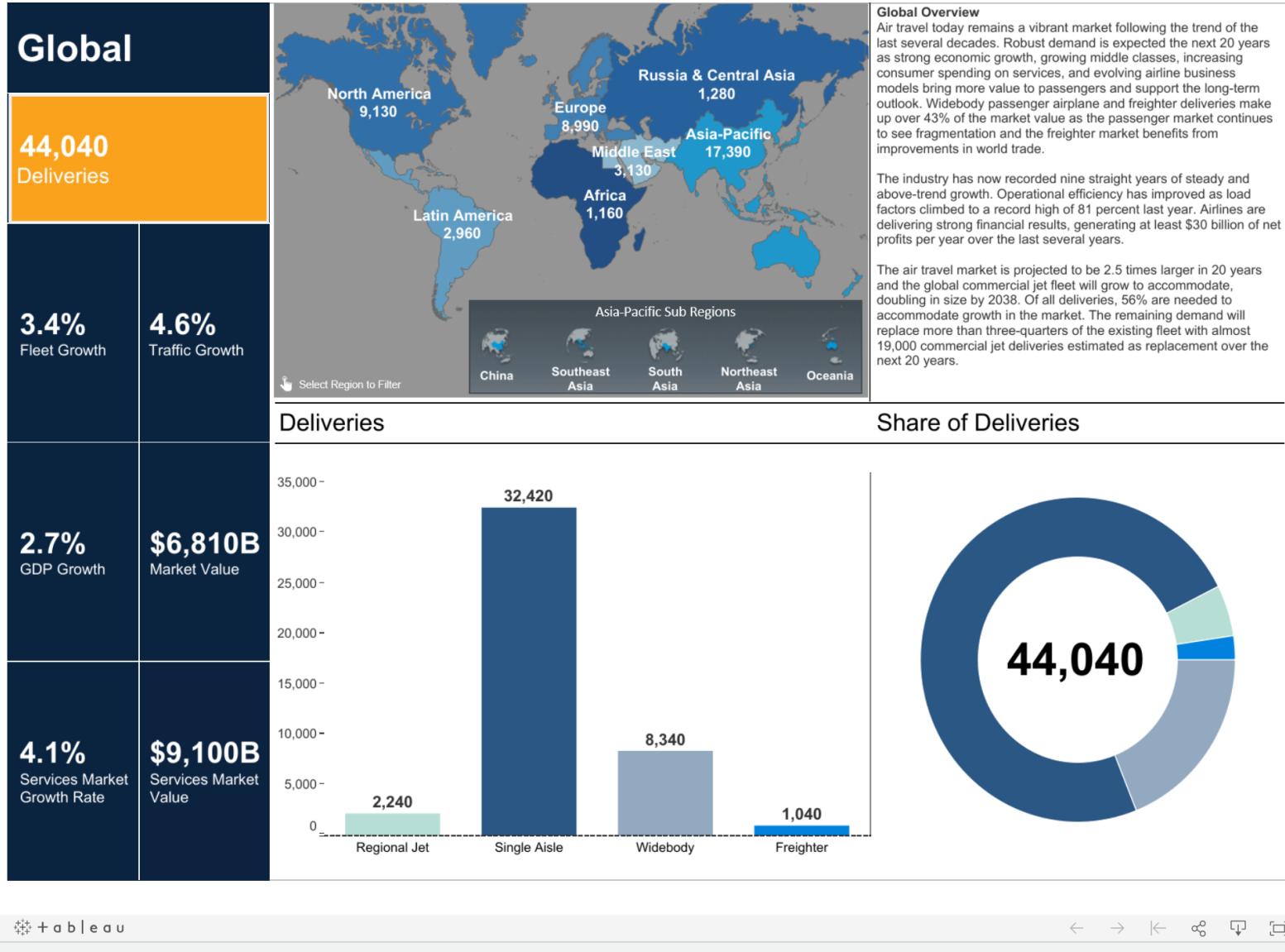
Annual Reports

Transparency

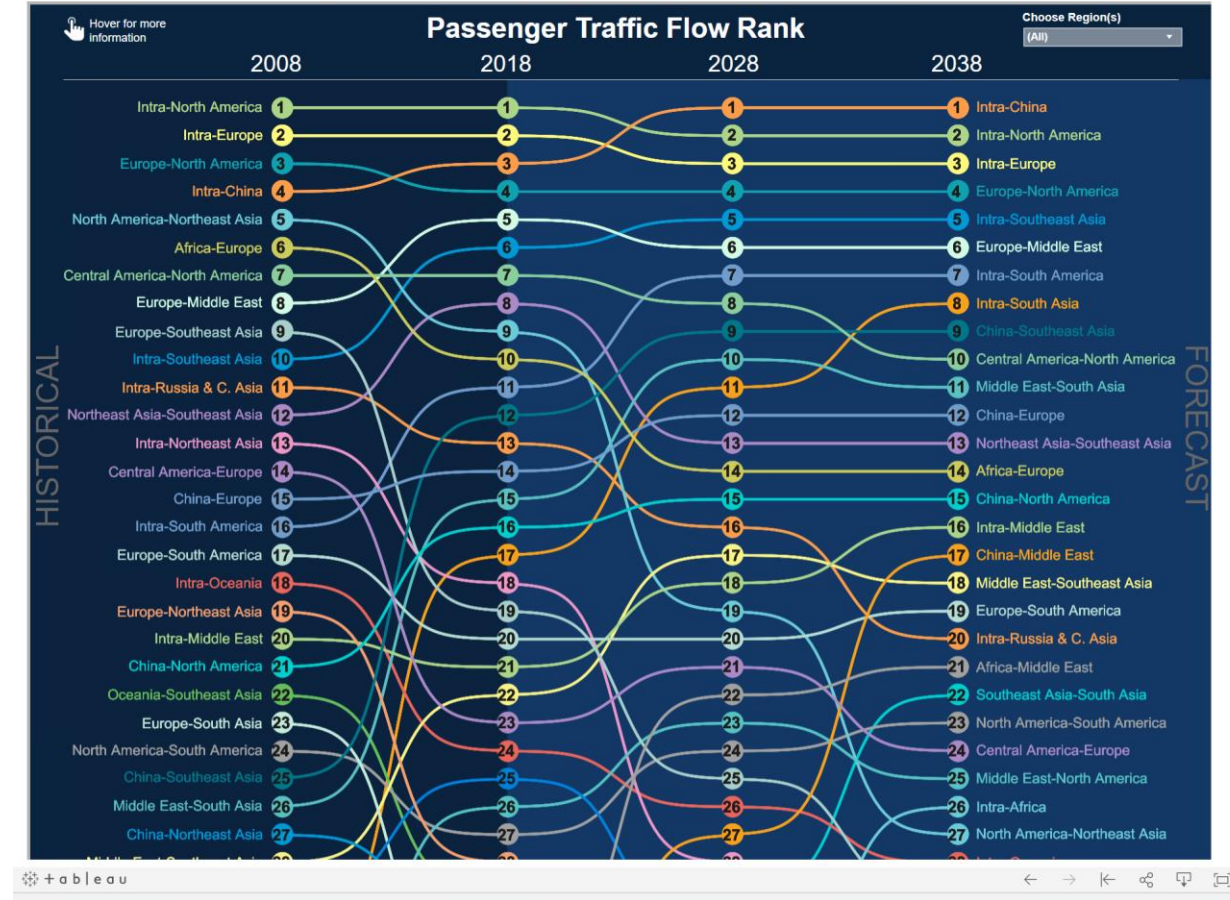
Demonstration of skills, know-how, and tech

Boeing's Annual Report

COMMERCIAL MARKET OUTLOOK 2019-2038 | AIR CARGO OUTLOOK | PASSENGER TRAFFIC FLOW RANK | REGIONAL PASSENGER TRAFFIC GROWTH | AIRPLANE MARKET SECTORS



COMMERCIAL MARKET OUTLOOK 2019-2038 | AIR CARGO OUTLOOK | PASSENGER TRAFFIC FLOW RANK | REGIONAL PASSENGER TRAFFIC GROWTH | AIRPLANE MARKET SECTORS



<http://www.boeing.com/commercial/market/commercial-market-outlook/#/interactive-forecast>



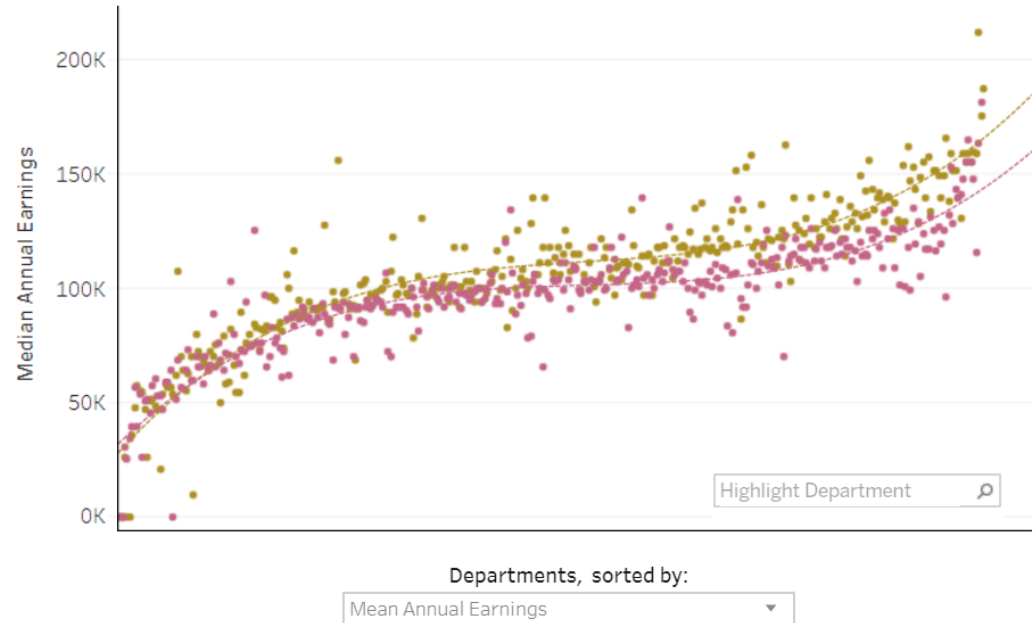
Hatch Institute

Government Payroll Project

Median Pay by Federal Agency

Each pair of dots gives the median pay for an agency - for **women** and **men**.

Hover over the dots to see the difference between earnings, or use the search box to look for a specific agency. Use the drop-down menu to change the sort order.

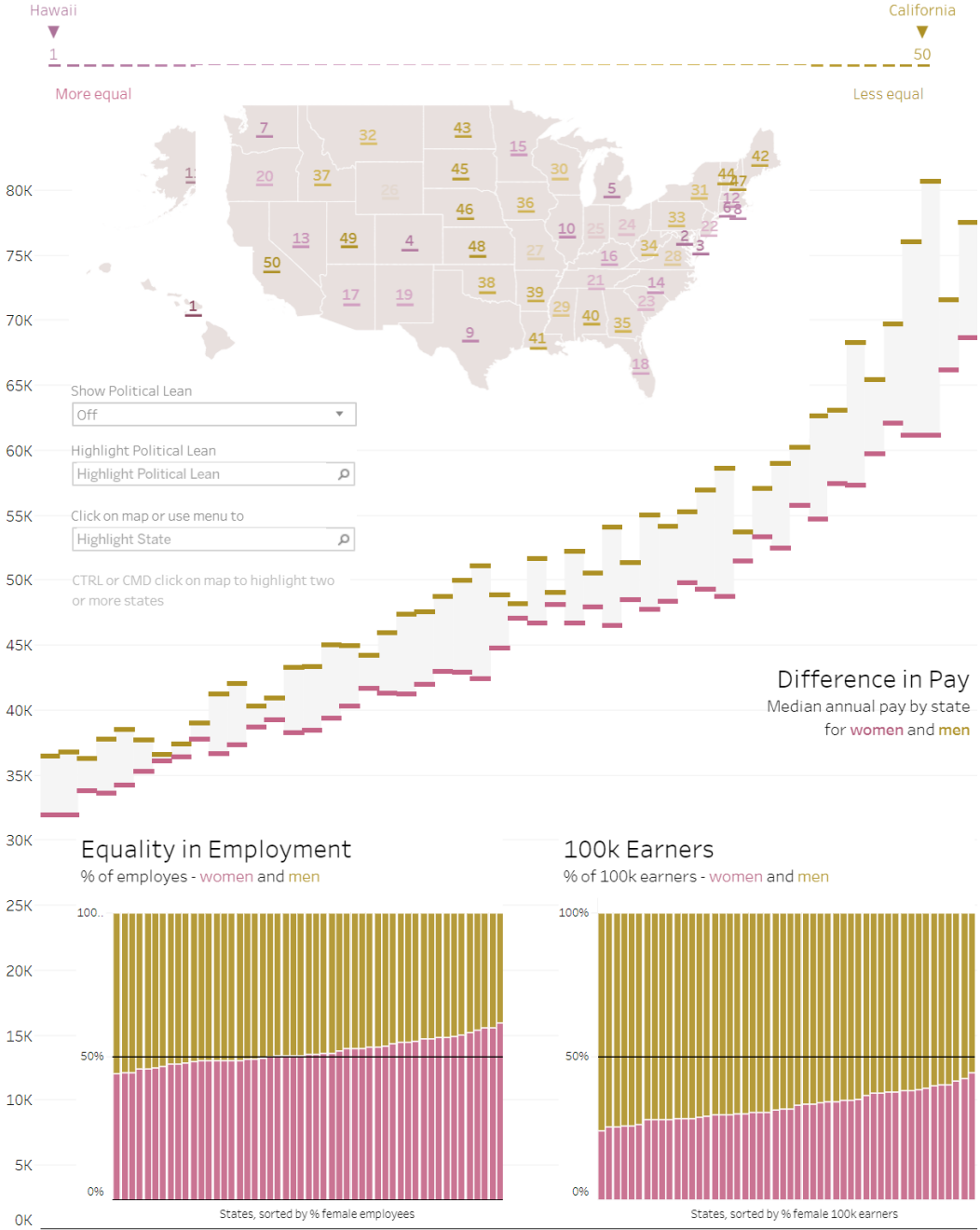


Data and concept by Contently.
Visualization with the help of Tableau.



The Glass Ceiling Rank

How does pay equality differ across the states? Hover over bars to see rank.



<https://thehatchinstitute.org/government-wage-gap-data>

Content & Message

Exploratory

Provide information



Explanatory

Communicate insights

Content & Message | Key Takeaways



Design considerations

- Audience?
- Purpose?
- Message?
- Exploratory or Explanatory?
- How objective do we have to be?



Real-world examples

- Boeing - Market Outlook
- Hatch Institute – Pay Gap

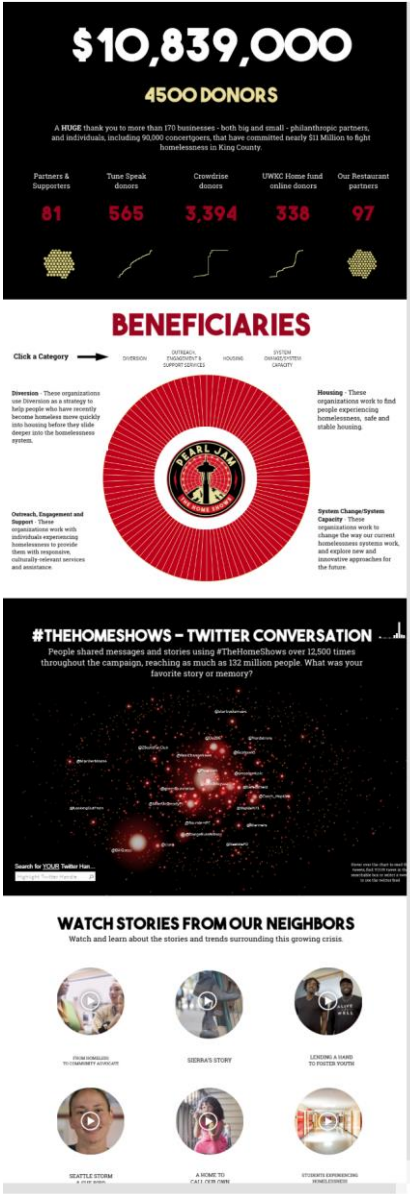


Project management tips

- Involve your PR & Social Media teams early on

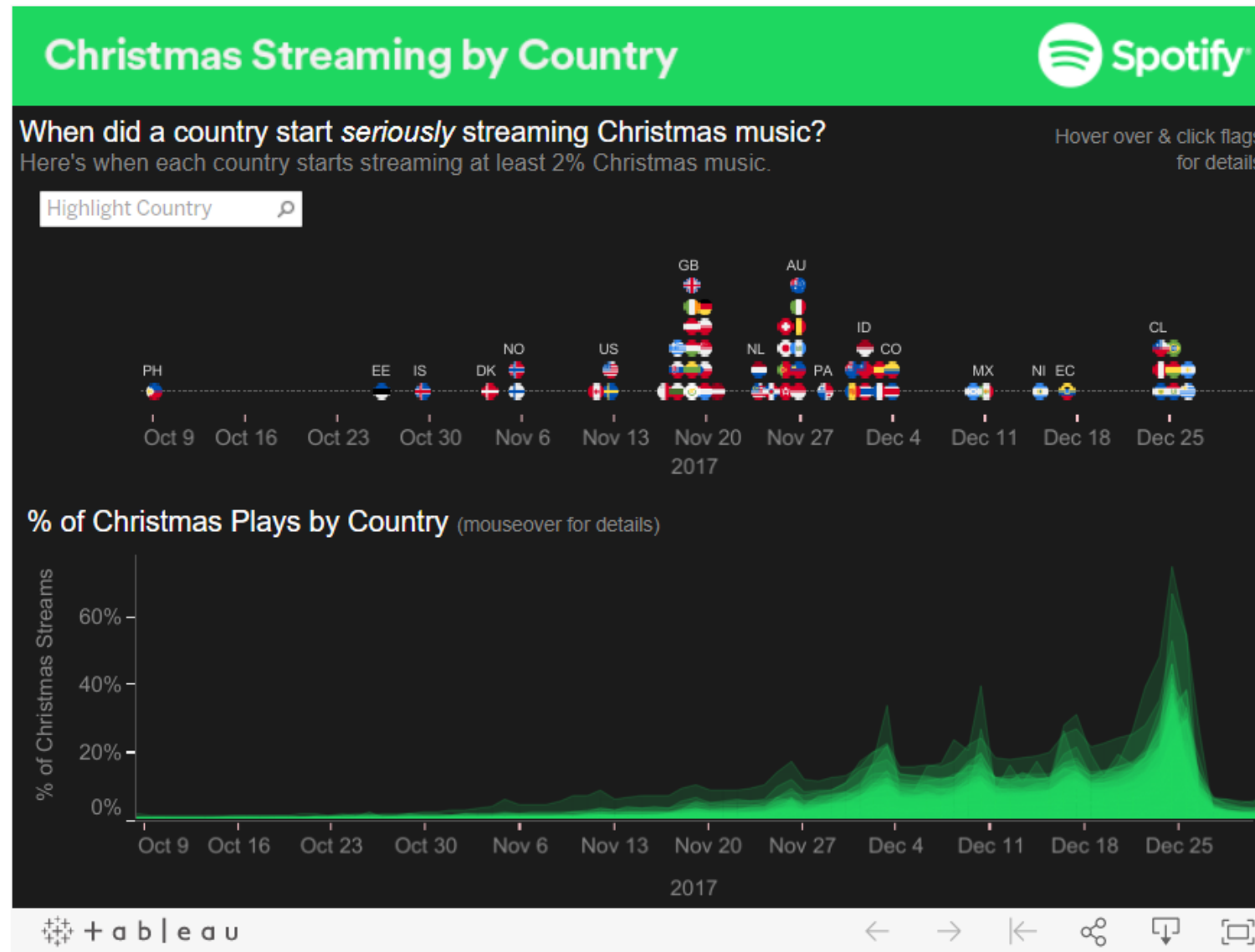
2. Form Factor & Mobile Design

Form Factor | Long-form infographic



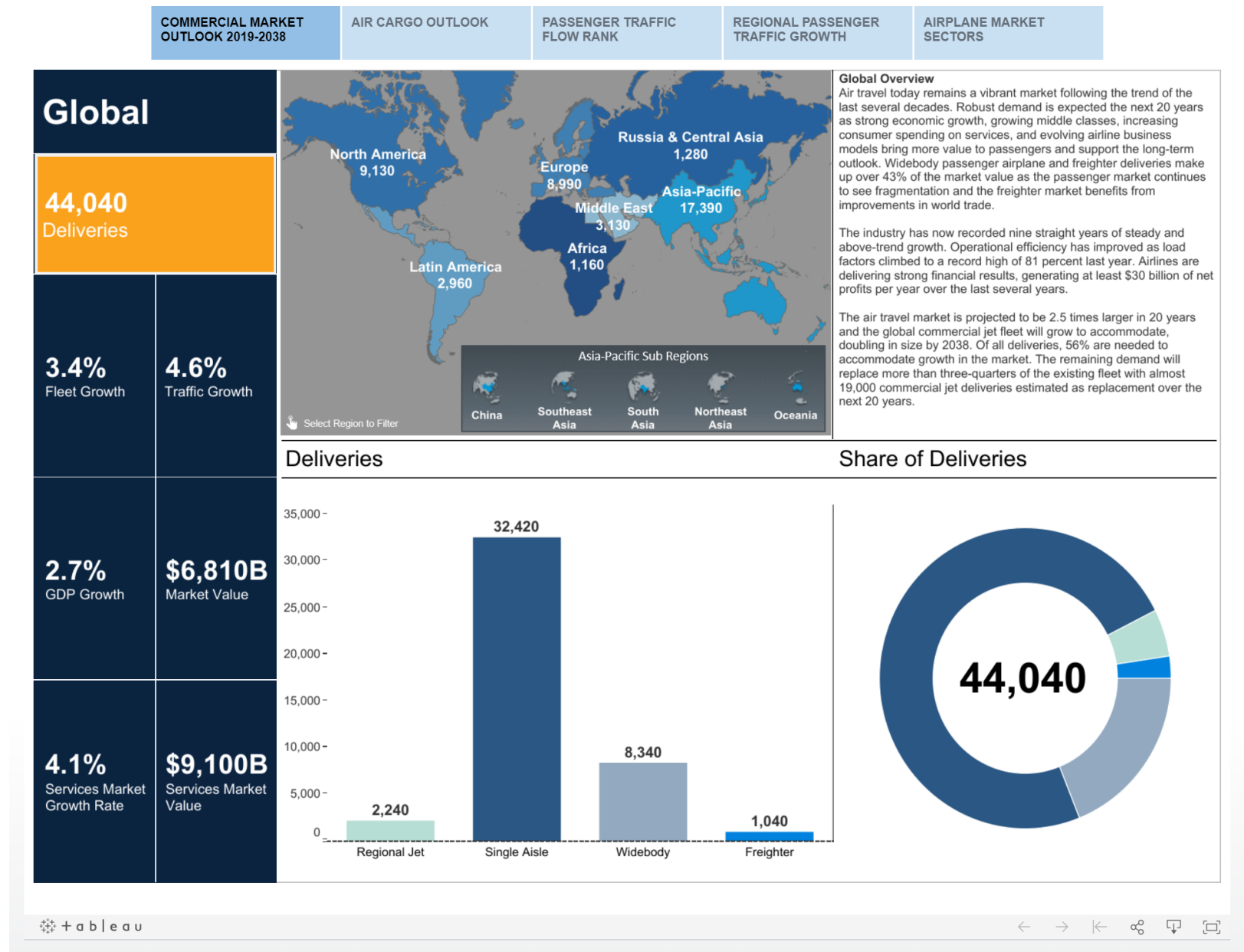
<https://pearljam.com/thehomeshows/seattle-wa>

Form Factor | Mini-Dashboard



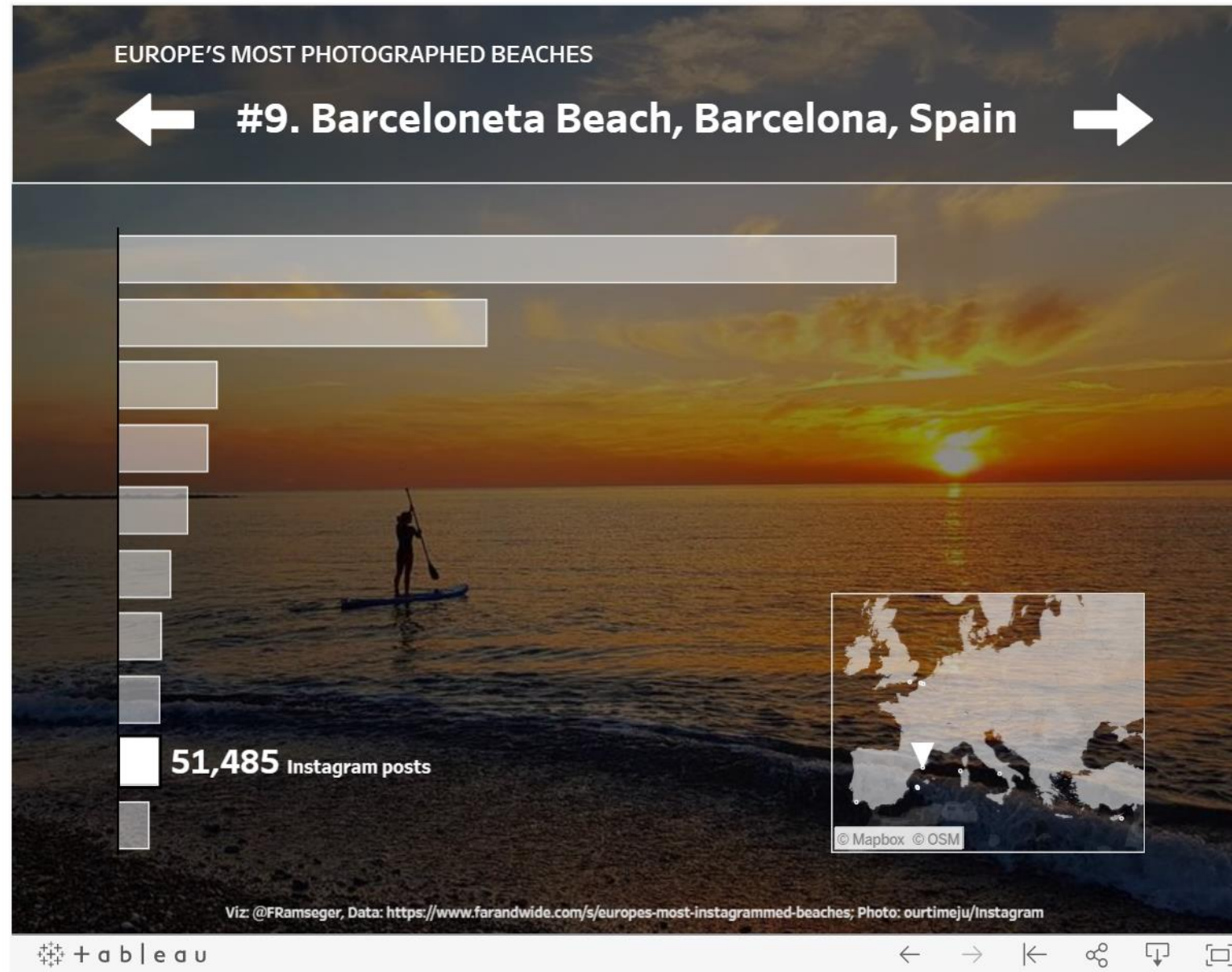
<https://public.tableau.com/profile/spotify.insights#!/vizhome/2017ChristmasStreamingTrendssmall/ChristmasStreaming>

Form Factor | Story Points



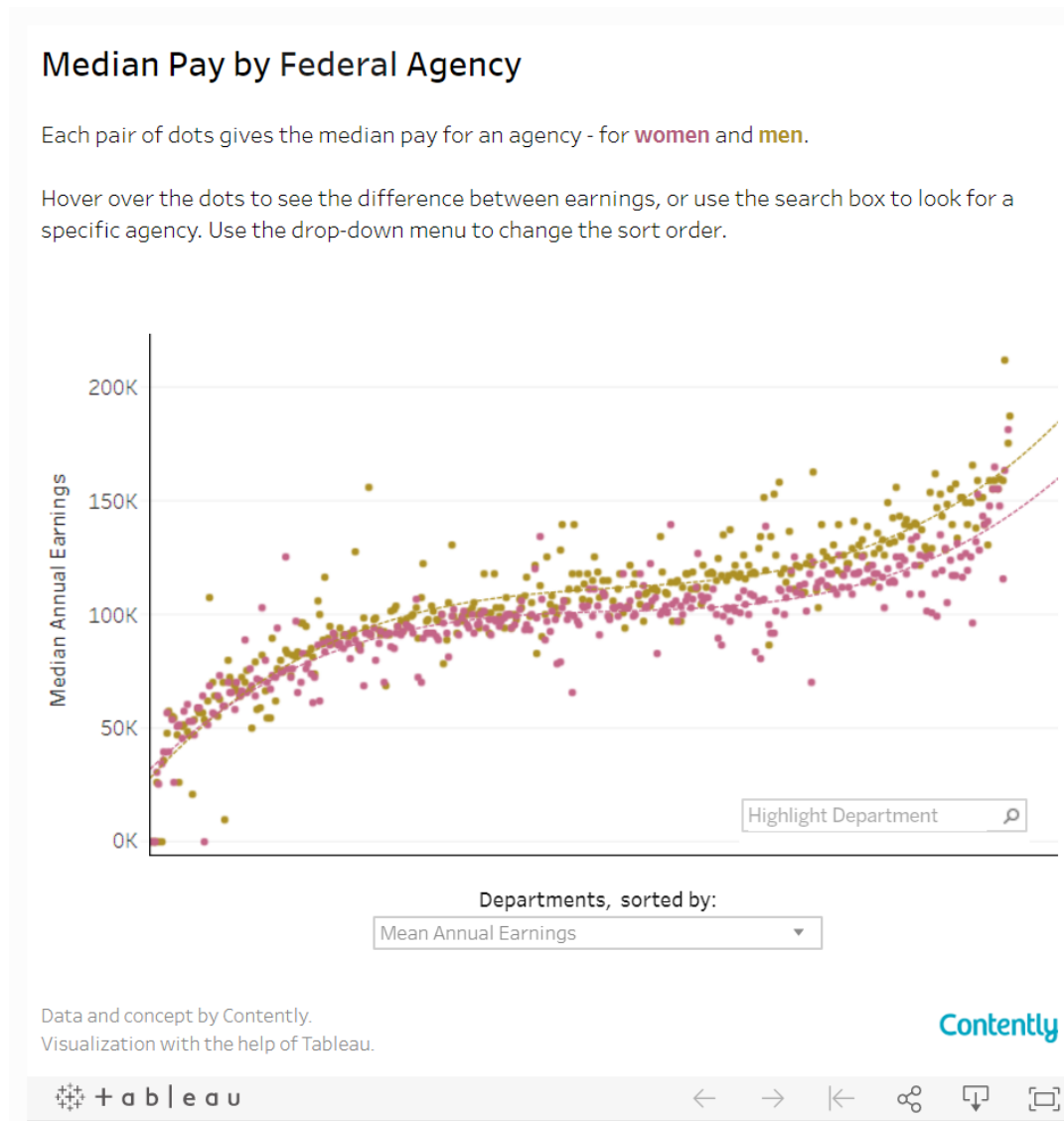
<http://www.boeing.com/commercial/market/commercial-market-outlook/#!/interactive-forecast>

Form Factor | Navigation Buttons



<https://public.tableau.com/profile/florian.ramseger#!/vizhome/MostInstagrammedBeaches/10>

Form Factor | Single Chart



<https://thehatchinstitute.org/government-wage-gap-data>

Form Factor

- Dashboards
- Story Points/Tabs/Navigation Buttons
- Long-form infographics
- “Mini dashboards”
- Individual charts

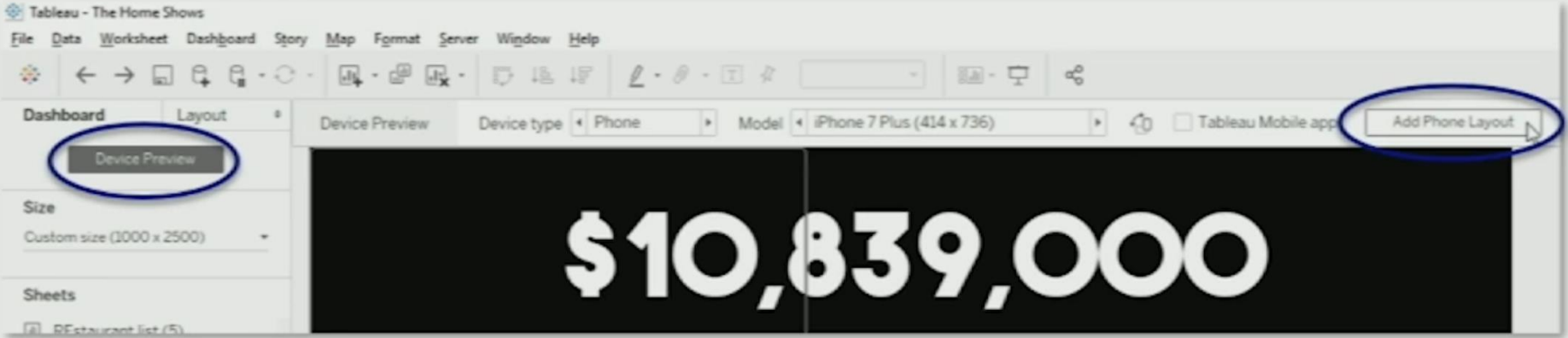
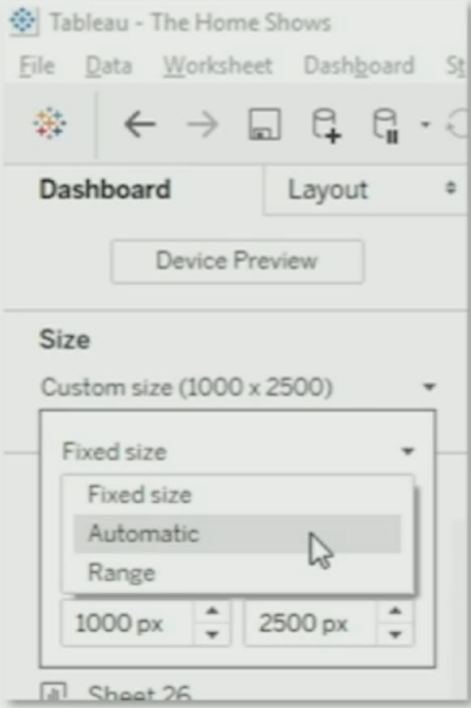
Form Factor | Designing for Mobile

Single small chart

Flexible width (automatic or range sized)

Device designer

Dashboard swap



Form Factor | Key Takeaways



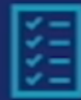
Design considerations

- Content & available space
- Format options:
 - Dashboards
 - Stories/Tabs/Buttons
 - Long-form infographics
 - “Mini dashboards”
 - Individual charts
- Mobile design:
 - Mobile only?
 - Automatic width
 - Device designer



Real-world examples

- Spotify – Christmas songs
- Tableau Foundation – Living Report



Project management tips

- Involve your web team early on
- Don't leave mobile design as an afterthought



Tableau tips

- Style your Story Points to fit design
- Automatic/range sizing + phone layout for best results
- Utilize layout containers for more complex layouts

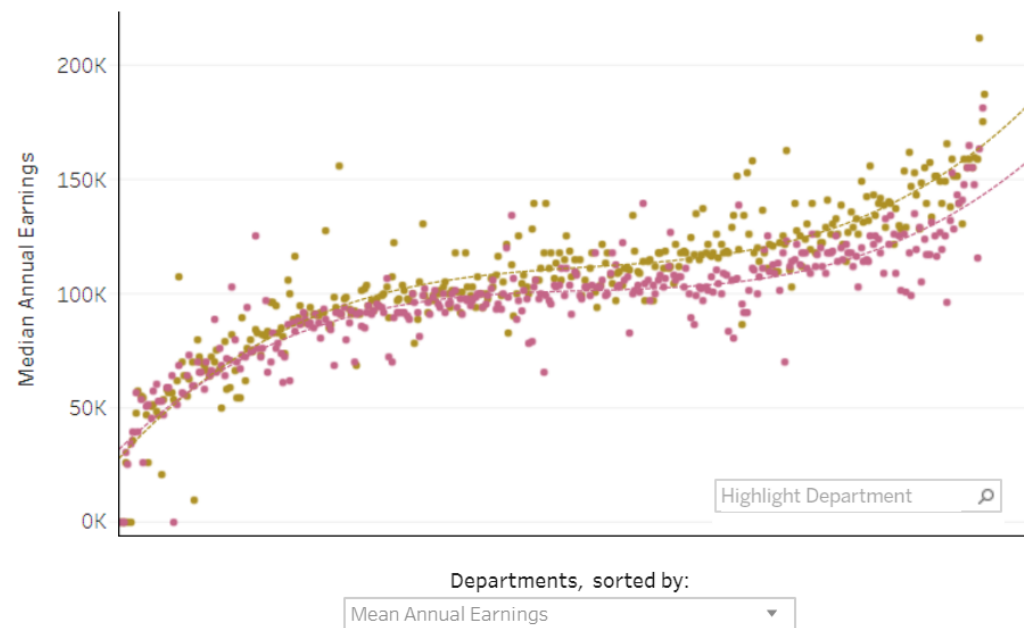
3. Interactivity & UX

Interactivity & UX | Secondary Messages

Median Pay by Federal Agency

Each pair of dots gives the median pay for an agency - for **women** and **men**.

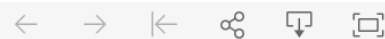
Hover over the dots to see the difference between earnings, or use the search box to look for a specific agency. Use the drop-down menu to change the sort order.



Data and concept by Contently.
Visualization with the help of Tableau.

Contently

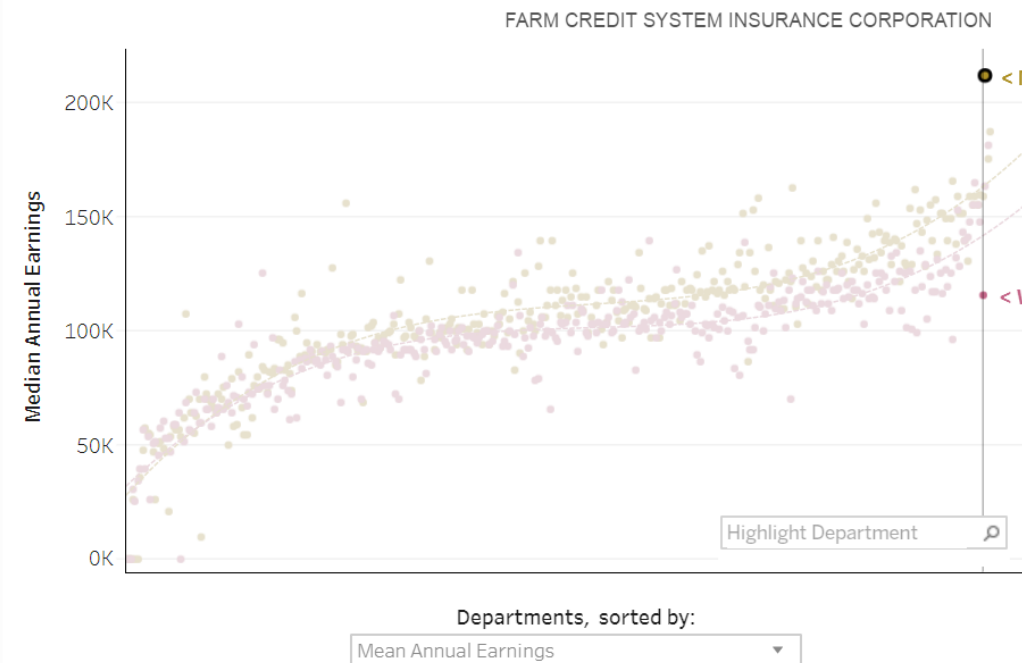
+ a b | e a u



Median Pay by Federal Agency

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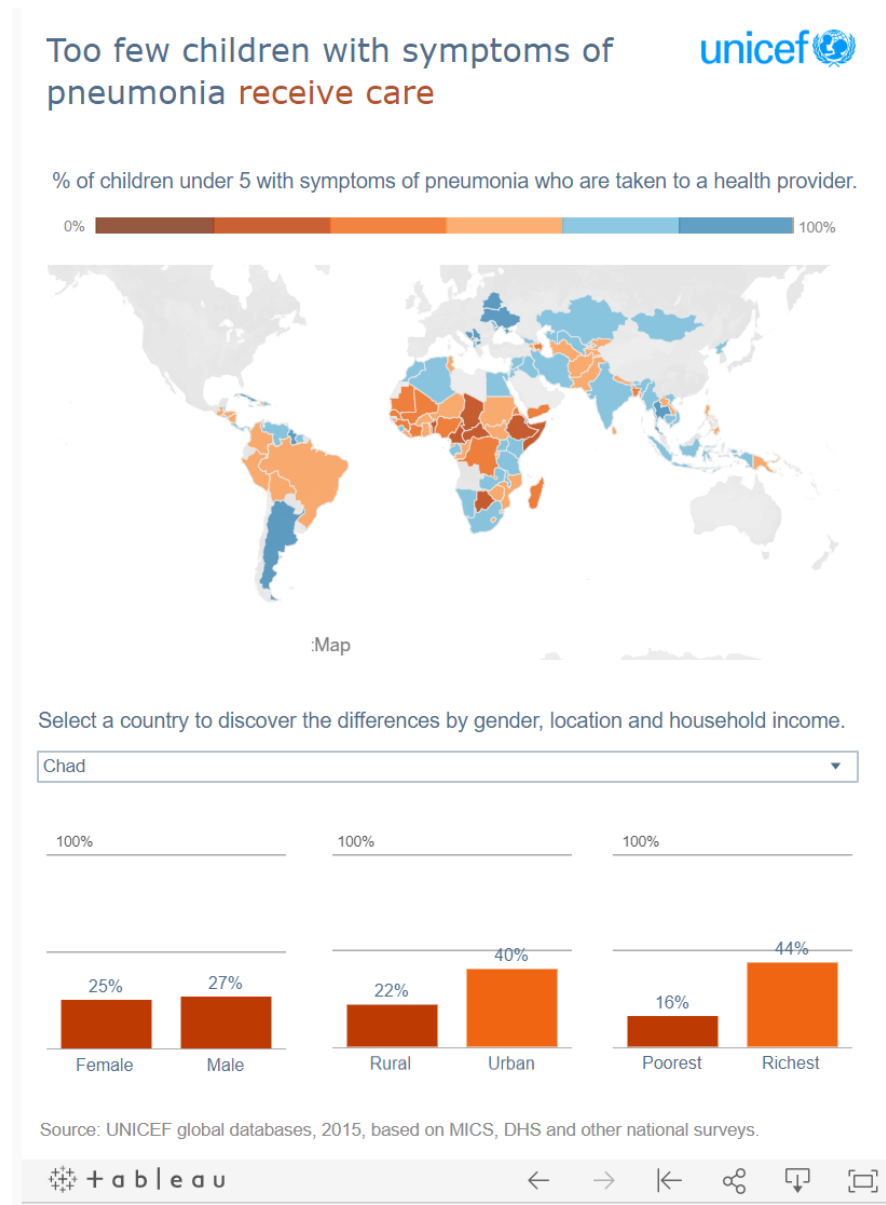
Contently

+ a b | e a u



<https://thehatchinstitute.org/government-wage-gap-data>

Interactivity & UX | Dashboard Actions



<https://blogs.unicef.org/blog/5-facts-about-childhood-pneumonia/>

Interactivity & UX | Key Takeaways



Design considerations:

- Less is more
- Secondary (customized) insights
- Design for non-Tableau users
- Make it obvious - Give guidance!
- Use dashboard actions carefully
- Action on click, rather than hover
- Lock maps



Real-world examples:

- UNICEF – Health care data



Project management tips:

- Let others test your viz

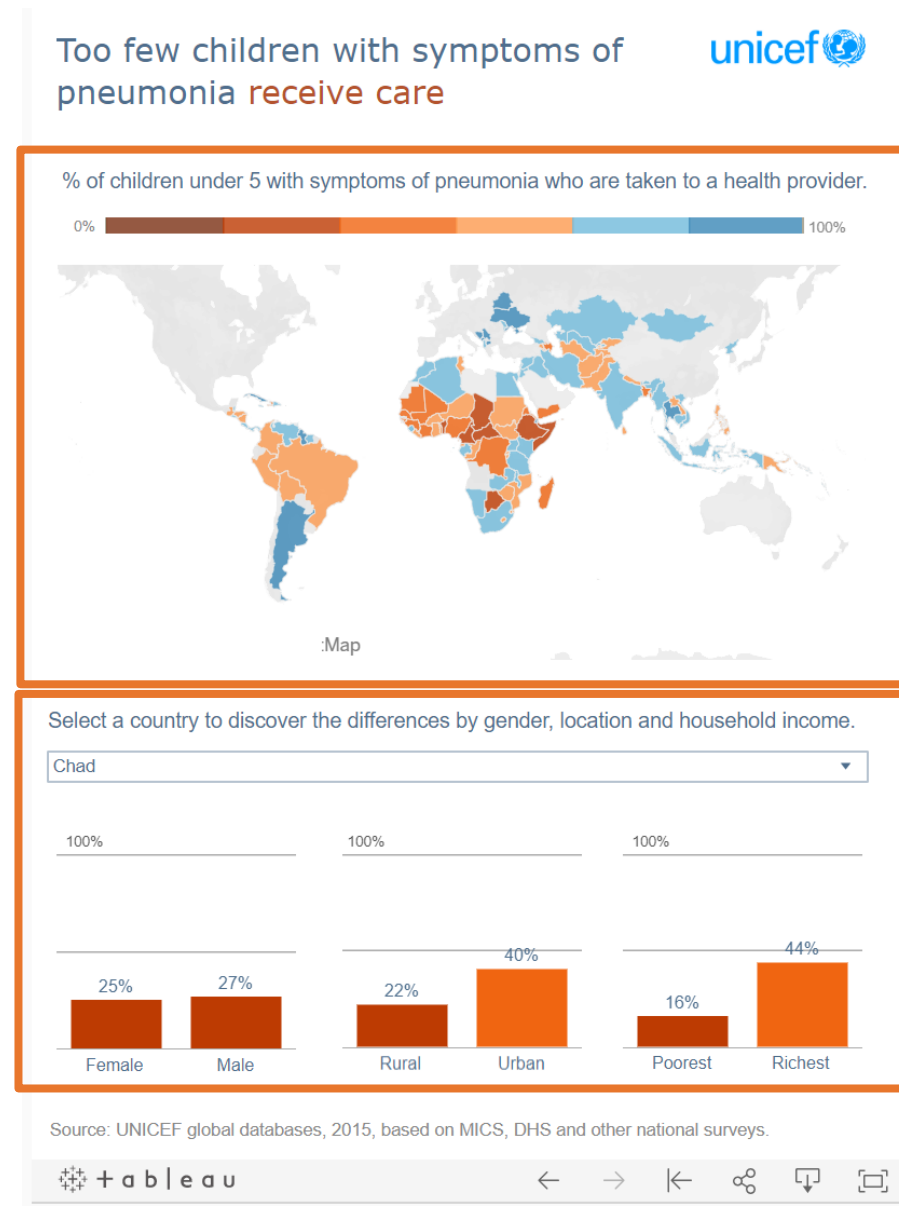


Tableau tips:

- Filter action + drop-down menu
- Maps > Map Options > untick all

4. Formatting & Branding

Formatting & Branding

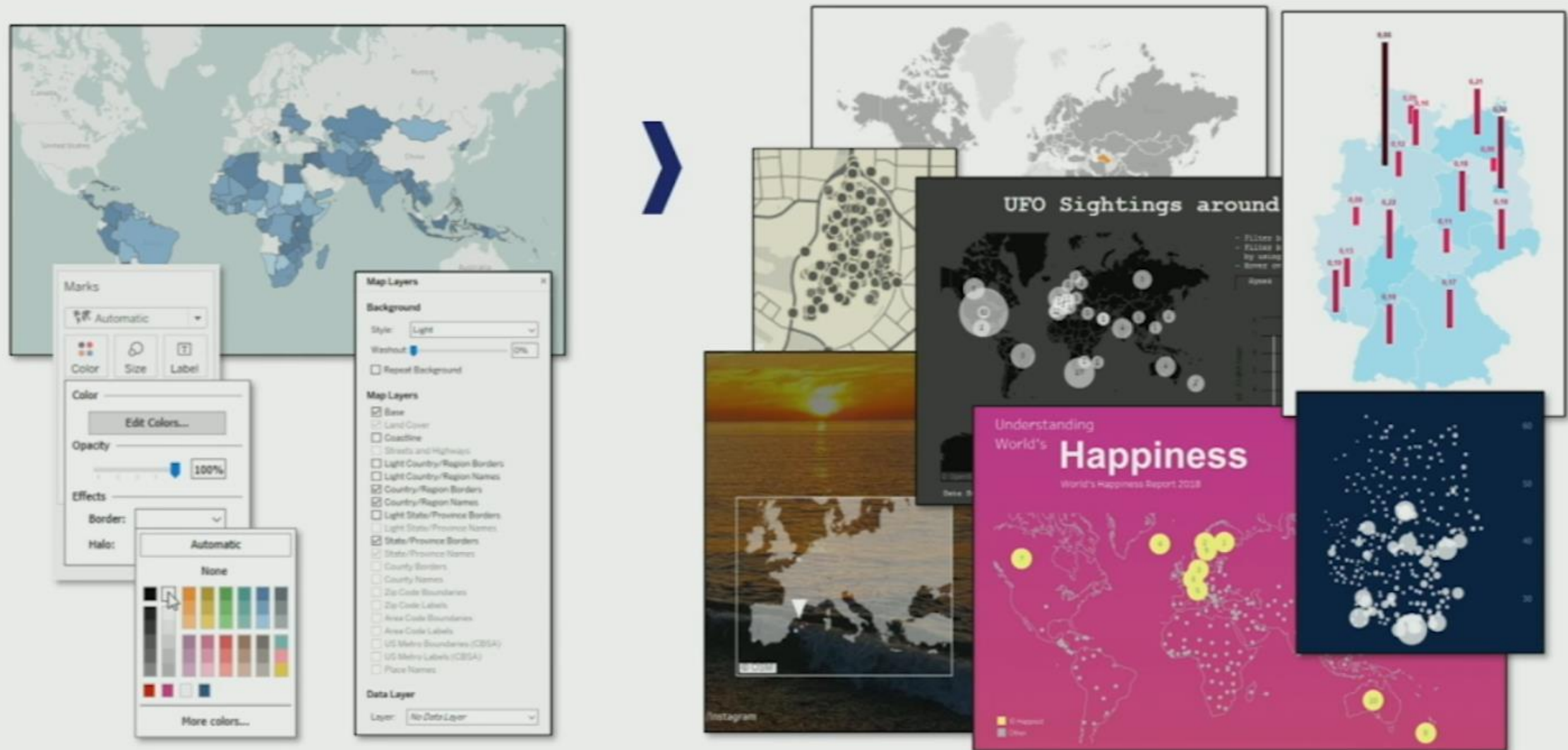


Explanatory

Exploratory

<https://blogs.unicef.org/blog/5-facts-about-childhood-pneumonia/>

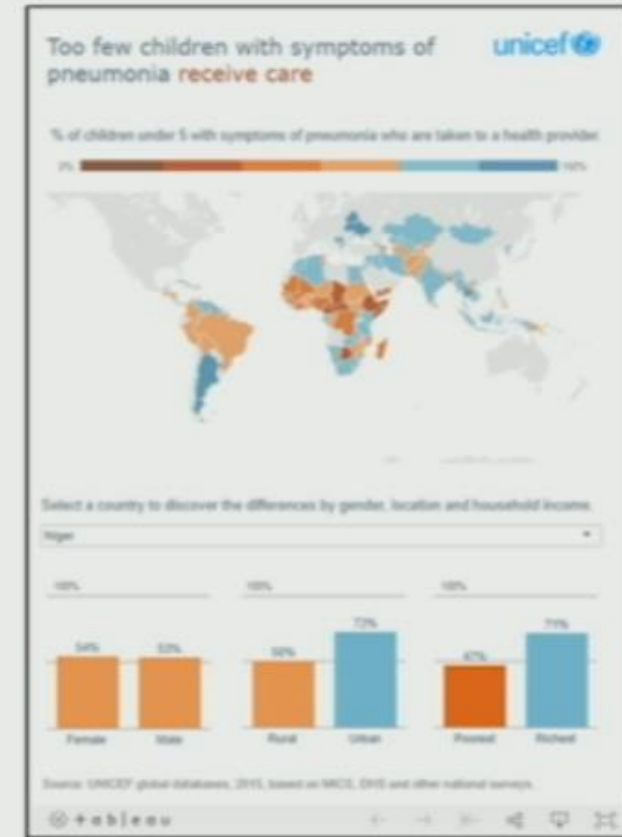
Formatting & Branding | Map Design



Formatting & Branding | Map Design



Before



After

Formatting & Branding | You, the artist



Formatting & Branding | Principles of Design

- Movement and Rhythm
- Balance
- Emphasis
- Simplicity
- Contrast
- Proportion
- Space
- Unity

“Good visual balance, rhythmic movement, emphasis of a focal point, simplicity, contrast in color, anatomical proportion and effective space arrangement will make a data visualization look harmonious in composition.”

Formatting & Branding | Inspiration

tableau public

GALLERY

AUTHORS

BLOG

RESOURCES

ACTIVITY

SIGN UP

SIGN IN

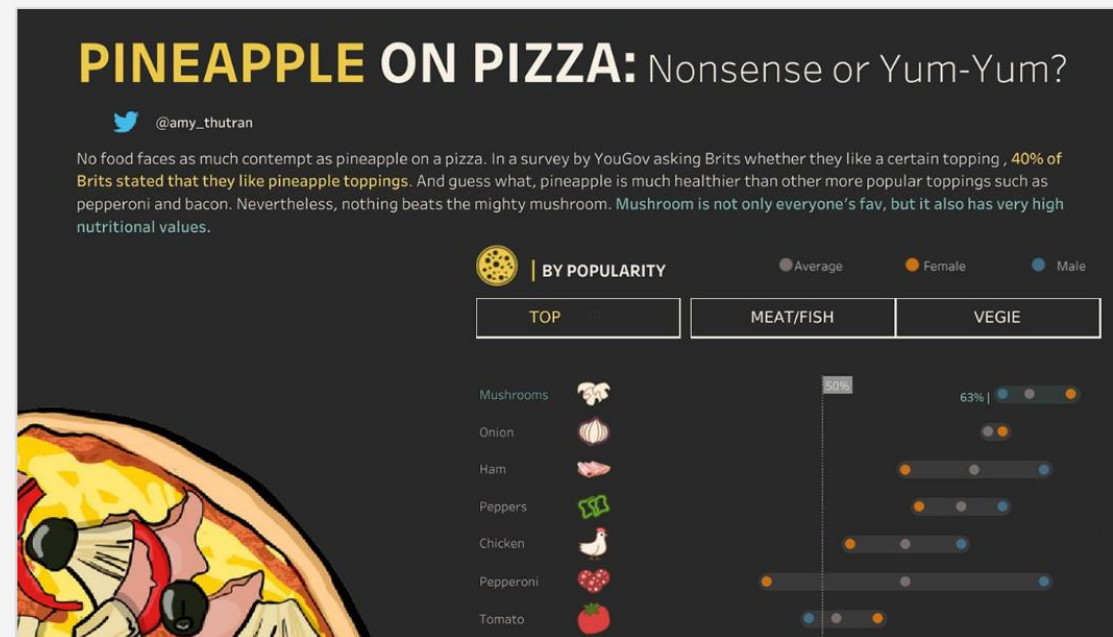


Gallery / Featured

Stunning data visualization examples from across the web created with Tableau Public.

Viz of the Day **Featured**

All



<https://public.tableau.com/en-us/gallery>

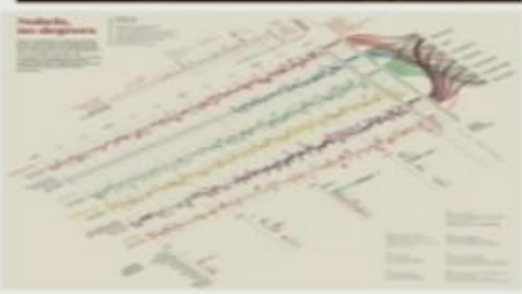
Popular Pizza Toppings



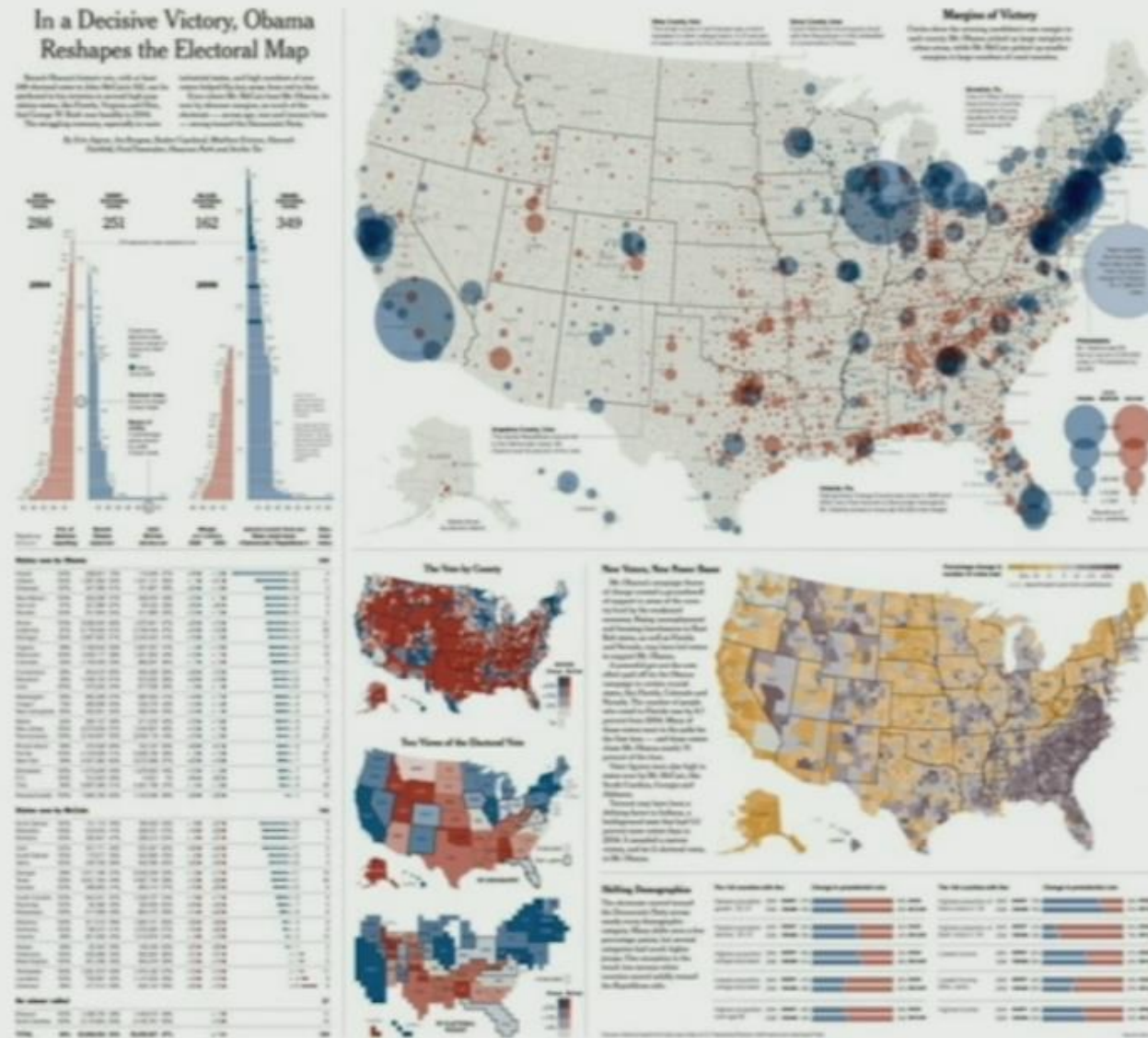
People around the world are transitioning from eating out to dining in. Are some pizza toppings more healthy than others? Check out Amy Tran's [#MakeoverMonday](#) visualization to learn about the nutritional value of your favorite toppings.

Featured On: March 30, 2020

Formatting & Branding | Inspiration

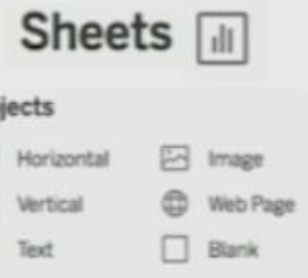


Formatting & Branding | Design Thinking

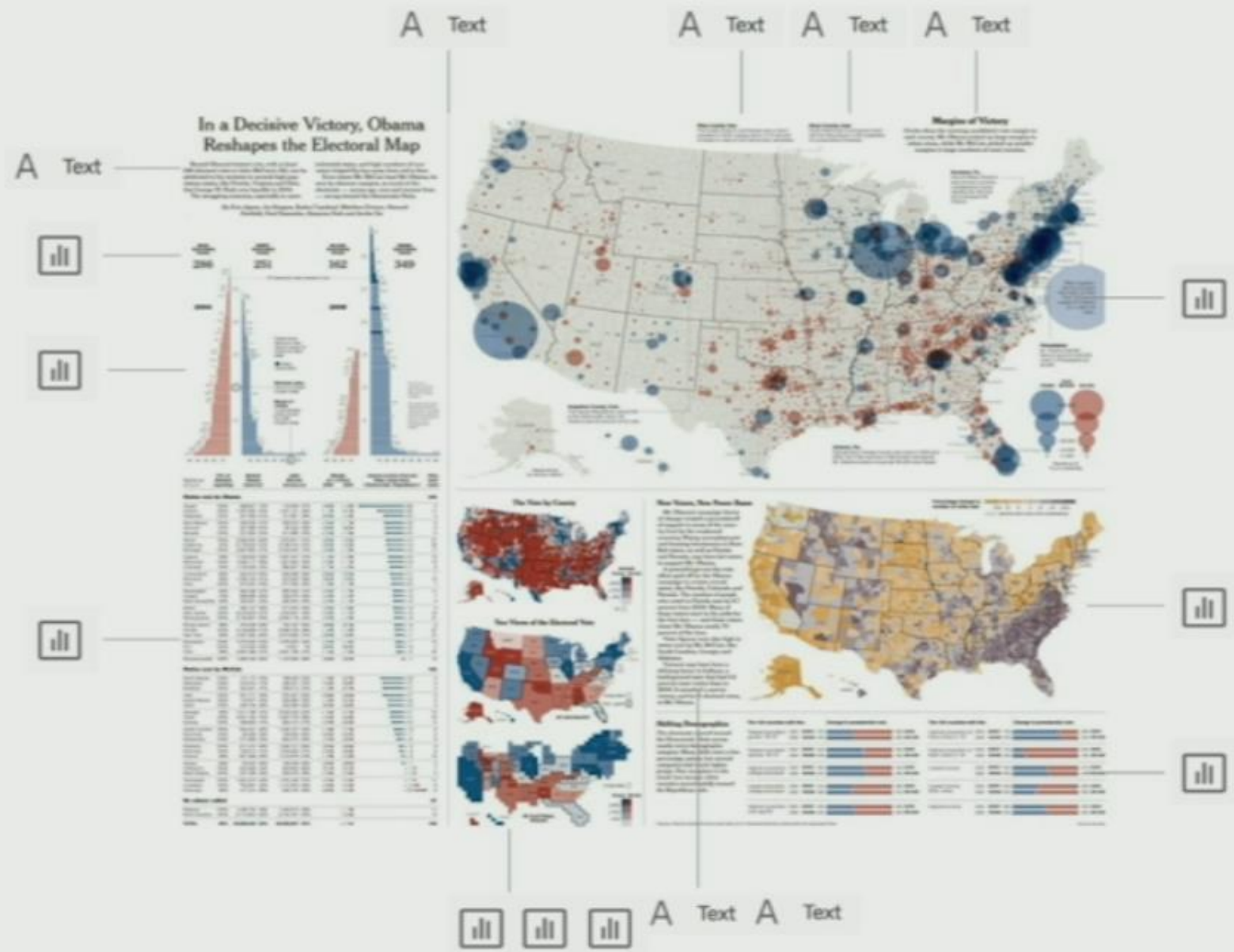


What is a Dashboard?

It's a canvas, a repository for "elements"



Formatting & Branding | Design Thinking



You CAN
do this in
Tableau!

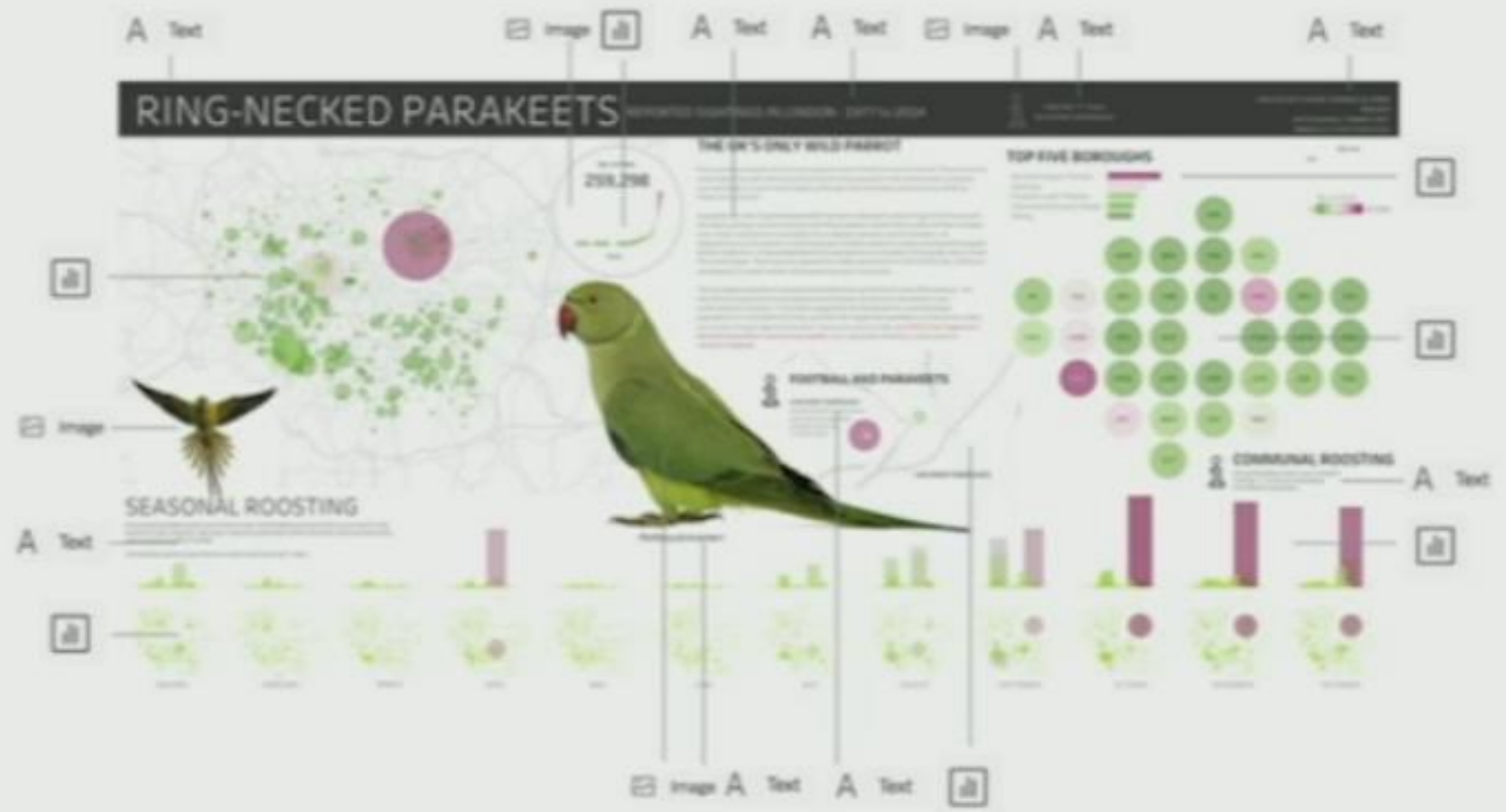
Formatting & Branding | Design Thinking



Bear Viz

72

separate floating elements



Parakeet Viz

23

separate floating elements

Formatting & Branding | Design Thinking



FLOATING?

100%

Tiled

Floating



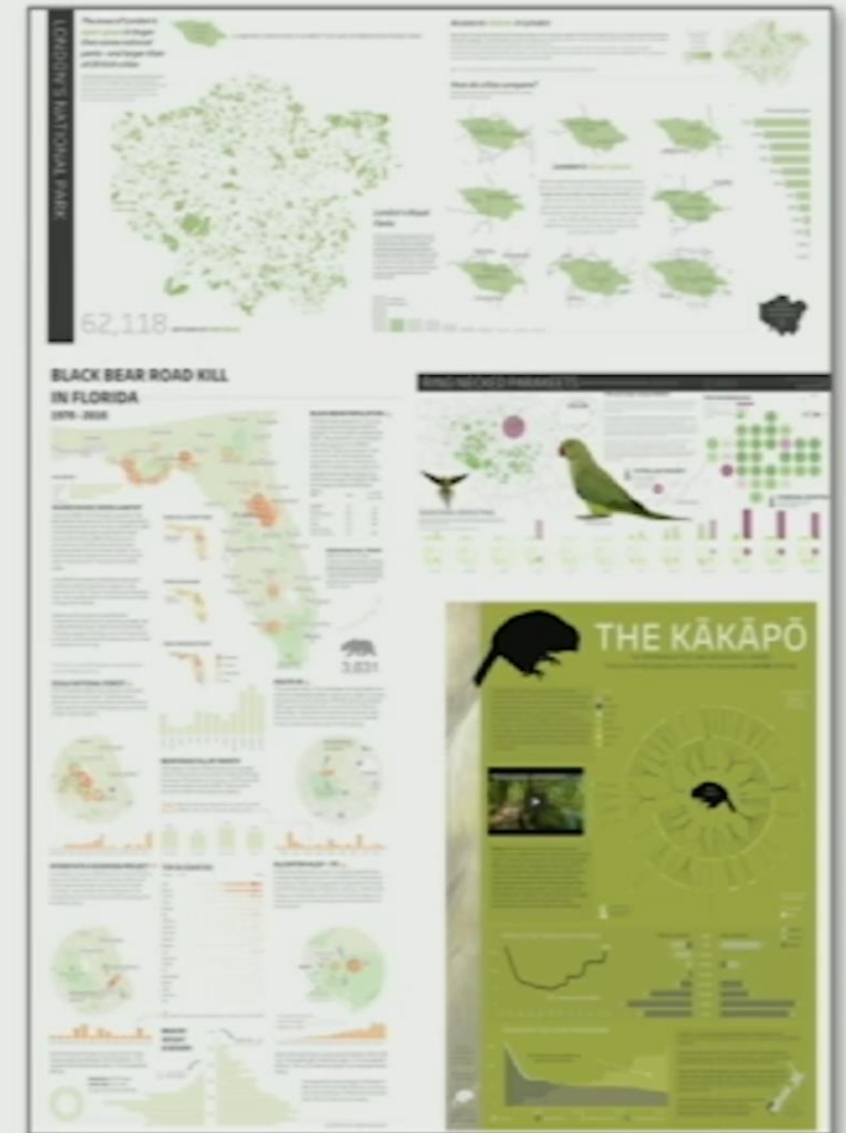
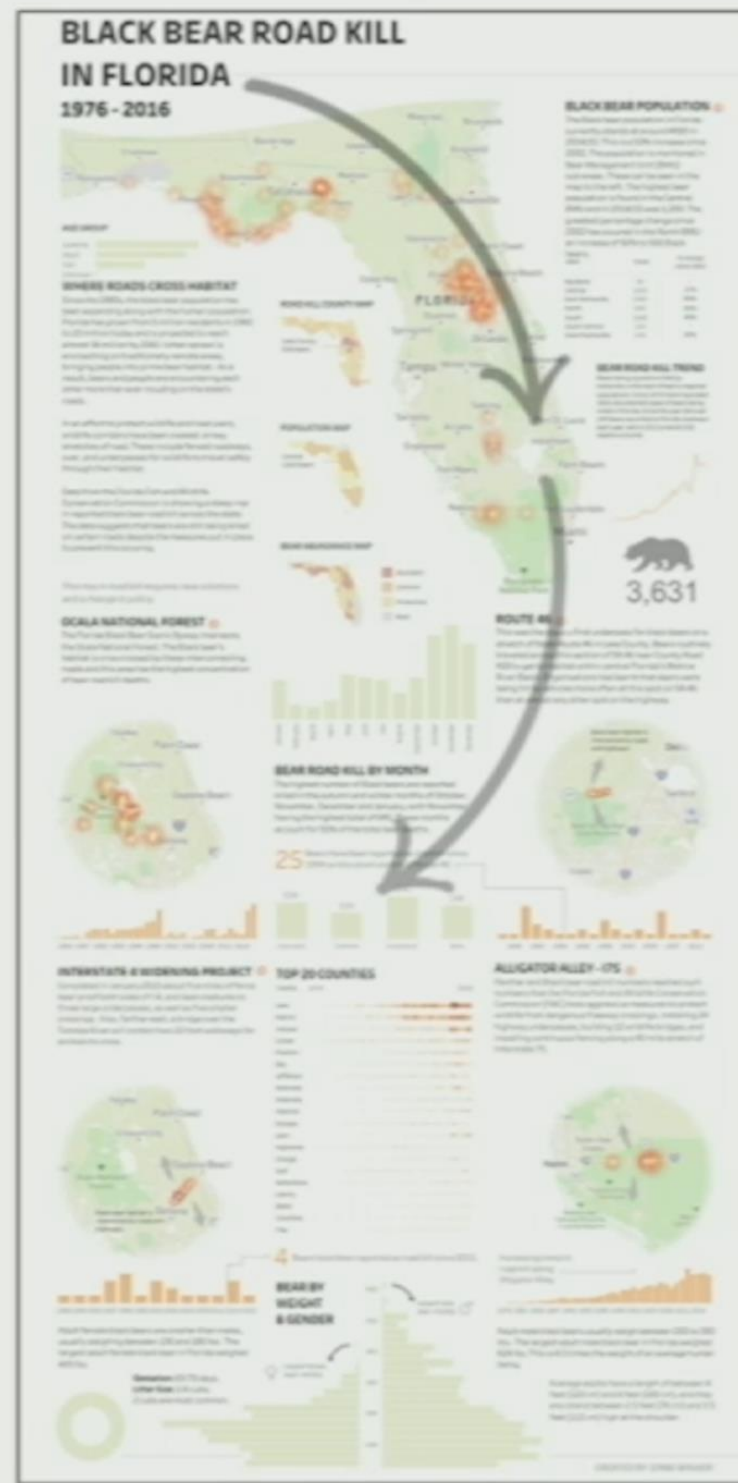
Item hierarchy

Dashboard 2

- ▣ I4 More info
- ▣ Alligator more info
- A Gestation: 63-70 days. Li...
- ▣ Ocala More info
- 🖼 2000px-Disc_Plain_lightgr...
- A Text
- A Increasing trend in road...
- A Text
- A Text
- A BEAR BY WEIGHT & GENDER
- A Average adults have a len...
- A Text
- A Text
- A CREATED BY JONNI WALKER
- 🖼 White curve flip.png
- A Adult female black bears ...
- A Text
- 🖼 2000px-Disc_Plain_lightgr...
- A Adult male black bears us...
- 🖼 Female.png
- 🖼 Male 2.png
- A Text
- A Text
- 🖼 2000px-Disc_Plain_lightgr...

MOVEMENT AND RHYTHM

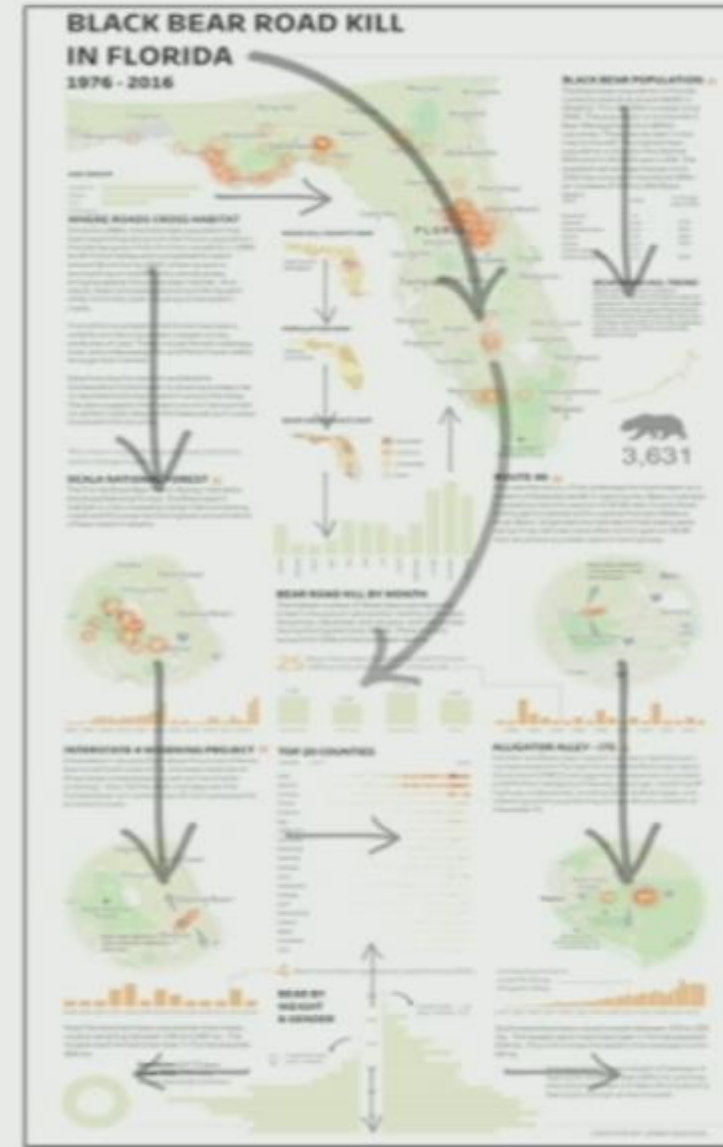
MAPS &
CHARTS ARE
DESIGN



Formatting & Branding | Design Thinking

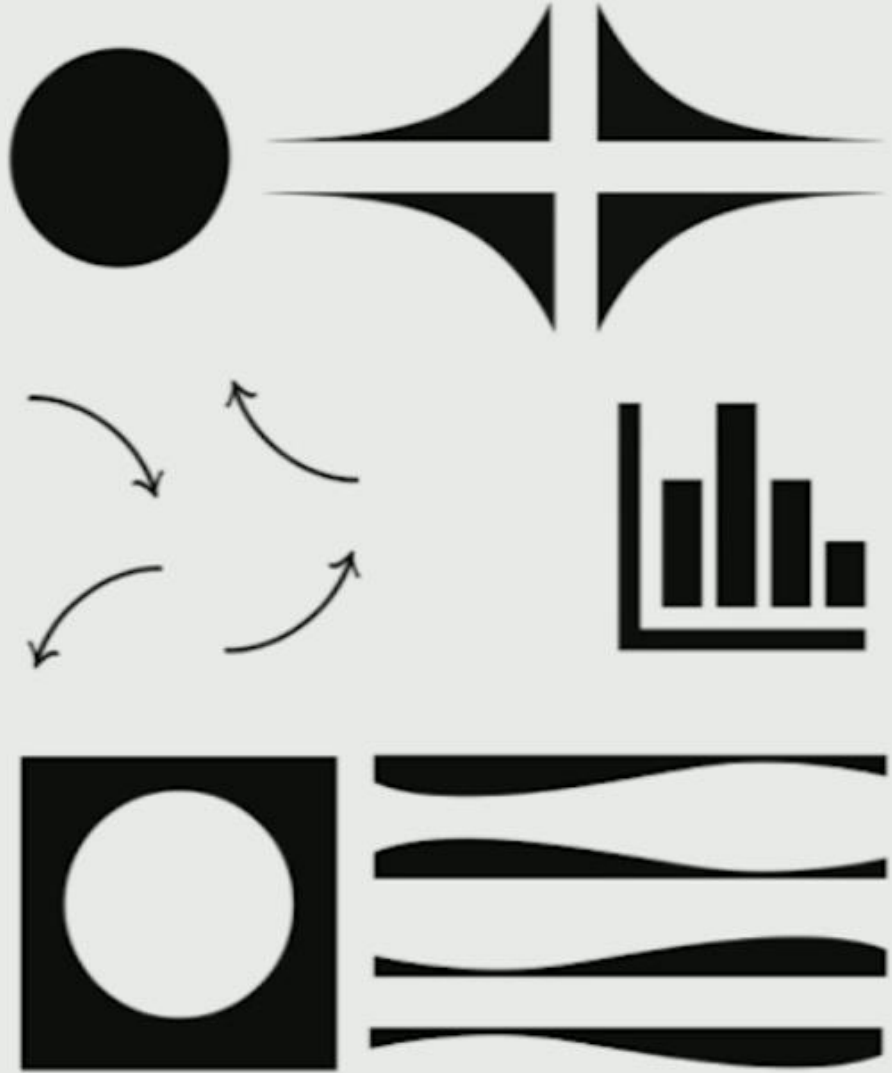
MOVEMENT AND RHYTHM

VISUAL FLOW

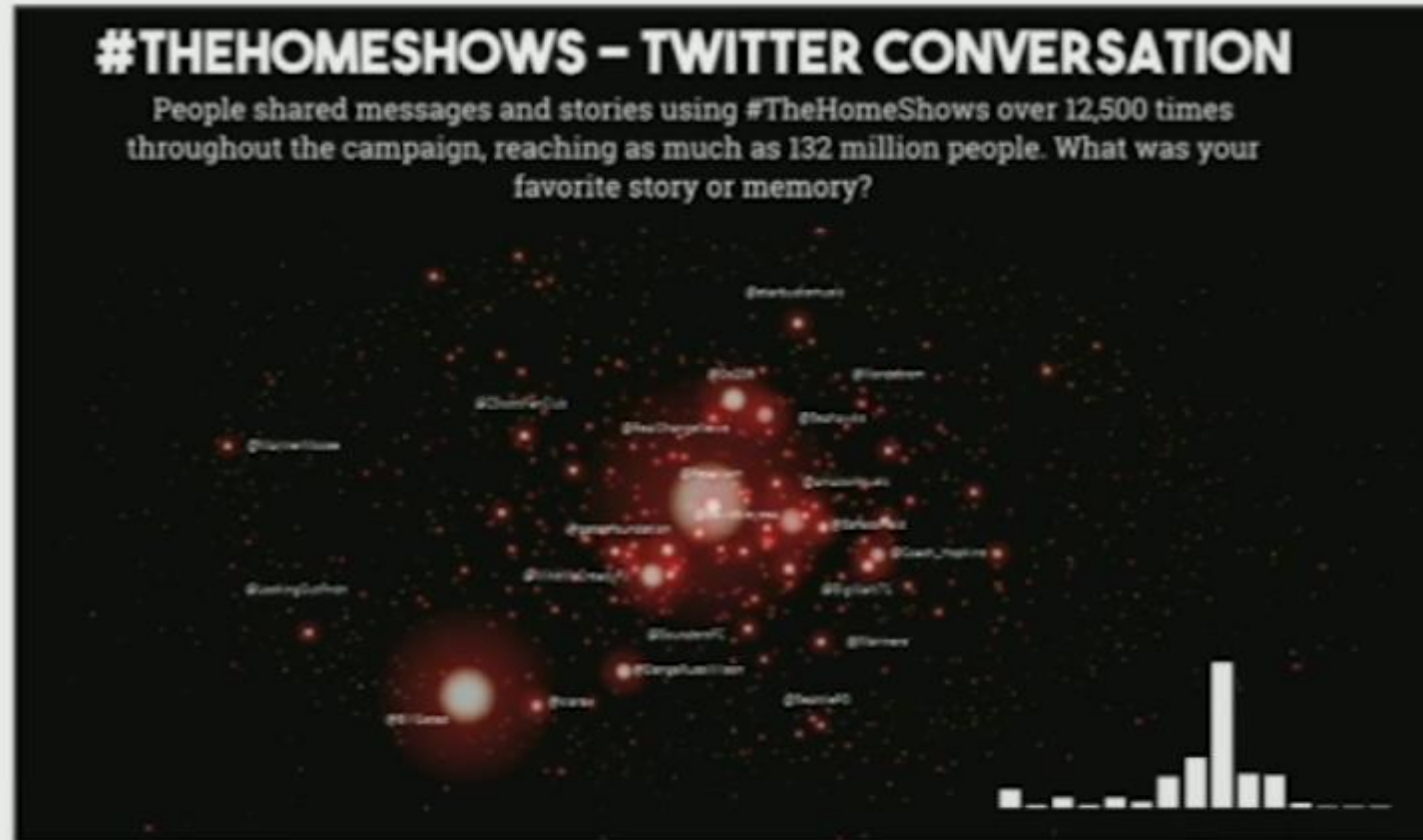


Formatting & Branding | Design Thinking

SHAPES LIBRARY



Formatting & Branding | Transparency



Formatting & Branding | Images

Kingfisher Habitats

In temperate regions, kingfishers inhabit clear, slow-flowing streams and rivers and lakes with well-vegetated banks. Kingfishers are often found in scrubland and bushes with overhanging branches close to shallow open water in which it hunts. In winter, the kingfisher is more coastal, often feeding in estuaries or harbours and along rocky seashores.

The kingfisher nests in the banks of rivers and the birds excavate the nest burrow into the stone-free sandy soil of a low stream bank, usually about 0.5m from the top. The birds choose a vertical bank clear of vegetation, where this provides a reasonable degree of protection from predators.

The nest tunnel is usually 60-90cm long, and the 6cm diameter is only a little wider than the bird. The nest chamber at the end has a slight indentation to prevent egg rolling out, but no material is brought to the nest.

61,697 recorded sightings

238 years of recorded sightings

PEARL JAM

SHOW OUR CHALLENGE TAKE ACTION PARTNERS

BENEFICIARIES

Click a Category →

- Diversion** - These organizations use Diversion as a strategy to help people who have recently become homeless move quickly to housing before they slide deeper into the homelessness system.
- Outreach, Engagement and Support Services** - These organizations work with individuals experiencing homelessness to provide them with responsive, culturally-relevant services and assistance.
- Housing** - These organizations work to find people experiencing homelessness, safe and stable housing.
- System Change/System Capacity** - These organizations work to change the way our current homelessness systems work, and explore new and innovative approaches for the future.

#THEHOMESHOWS - TWITTER CONVERSATION

Formatting & Branding | Videos

1 2 3 4 5 6


Don't Be Afraid to Smile

RACISM AND DISCRIMINATION IN AUSTRALIA

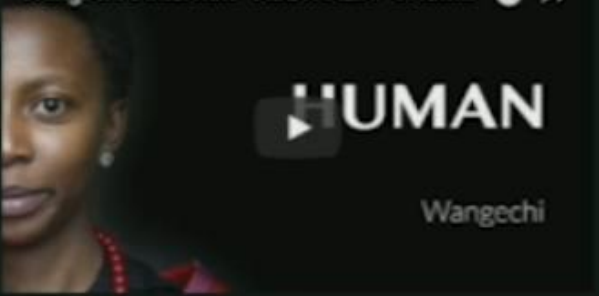
According to the LEAD Experiences of Racism Survey between 755 Aboriginal Australians in four communities across Victoria in the previous 12 months:

- 97% had experienced at least one racist incident
- 92% had experienced racist terms, jokes, or comments that rely on stereotypes
- 84% had been victimized or unfairly accused
- 67% had been asked about their ethnicity or where they are from
- 55% had had their identity, name or race

Stephen's interview - AUSTRALIA - #HUMAN



Wangechi's interview - AUSTRALIA - #HUMAN



There is also a lack of awareness in terms of what constitutes racism. Males are significantly more likely not to identify several of the following as examples of discrimination.

Identifying racism from indigenous Australians when they're nearby	Teaching a woman because she's an indigenous Australian	Respectfully not allowing indigenous Australian to speak	Teasing people about their skin color
Male	Female	Male	Female
Male	Female	Male	Female
Male	Female	Male	Female
Male	Female	Male	Female

Source: BeyondBlue, The Social Research Centre

+ableau

PEARL JAM

SHOW OUR CHALLENGE TAKE ACTION PARTNERS

Search for YOUR Twitter Handle

Watch over the chart to read the trends and watch tweets on the search page for or select a tweet to see the twitter feed

WATCH STORIES FROM OUR NEIGHBORS

Watch and learn about the stories and trends surrounding this growing crisis.

- FROM HOMELESS TO COMMUNITY ADVOCATE
- SEBASTIAN'S STORY
- LENDING A HAND TO FOSTER YOUTH
- SEATTLE STORM & SUE BIRD
- A HOME TO CALL OUR OWN
- STUDENTS EXPERIENCING HOMELESSNESS

+ableau

Formatting & Branding | Key Takeaways



Design considerations

Basic:

- Clean/modern design – less is more
- Logo
- Corporate colors
(+ complementary colors)
- Whitespace

Advanced:

- Think YOU
- Think Design Principles
- Think Unity
- Think Flow
- Think Transparency (Responsibly!)
- Think Images & Shapes (Copyright!)



Project management tips

- Involve your graphic design team to get corporate design guidelines



Tableau tips

- Format > Borders & Lines
- Map layers & background colors
- Mapbox maps
- Color picker
- Transparency
- Hierarchy control

Q&A