

Design for Data Journalism

WHAT TO DO & WHAT NOT TO DO



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LENA GROEGER

Propublica

@lenagroeger



MOIZ SYED

Wikimedia Foundation

@moizsyed

**Why does design
matter to you?**

1

**Don't design for
likes**

2

**Advertisers
manipulate,
journalists inform**

3

**When good design
goes bad: your
power as a designer**

A lot of examples



1

**Don't design for
likes**

1

**Don't design for
likes / Unnecessary
3D**

Unnecessary 3D

Anatomy of a Winning TED Talk

● 1%

Sophisticated Visual Aids

We're not sure who puts the D in TED—most of the best presentations favor tepid PowerPoint slide shows (sorry, Brené Brown), Pictionary-quality drawings (really, Simon Sinek?), or no props at all.

● 5%

Opening Joke

Remember the one about the shoe salesman who went to Africa in the 1900s? That's how Benjamin Zander opened his talk—which turned out to be about classical music.

● 5%

Spontaneous Moment

Don't overprepare. Tease the guy in the front row ("You could light up a village with this guy's eyes"). Commend the stagehand who handles the human brain you brought.

● 5%

Statement of Utter Certainty

People come for answers—give 'em what they want, as Shawn Achor did: "By training your brain ... we can reverse the formula for happiness and success."

● 12%

Snappy Refrain

The TED equivalent of "I have a dream." Example: "People don't buy what you do; they buy why you do it." Repeat 7x.

● 23%

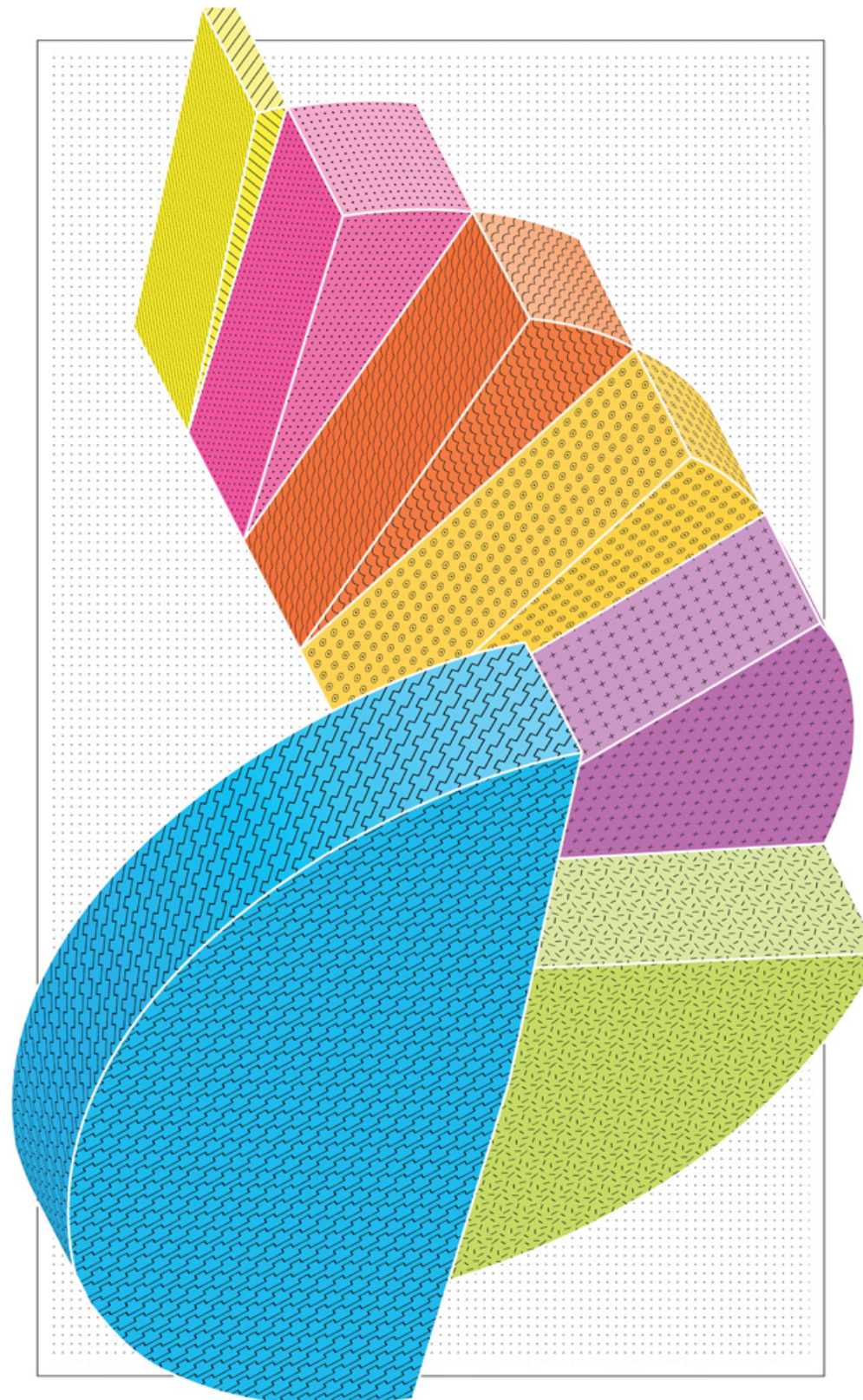
Personal Failure

Be relatable. We want to know about that nervous breakdown. Or at least the time you didn't fit in at summer camp.

● 49%

Contrarian Thesis

Wait a sec—we should be playing *more* videogames? The more choices we have, the worse off we are? TED is where conventional wisdom goes to die.



Unnecessary 3D

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Opening Joke

Remember the one about the shoe salesman who went to Africa in the 1900s? That's how Benjamin Zander opened his talk—which turned out to be

3D: Completely uncalled for

● 12%

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1

**Don't design for
likes / Breaking
rules of perception**

1

DON'T DESIGN FOR LIKES

Breaking rules of perception



1

DON'T DESIGN FOR LIKES

Breaking rules of perception

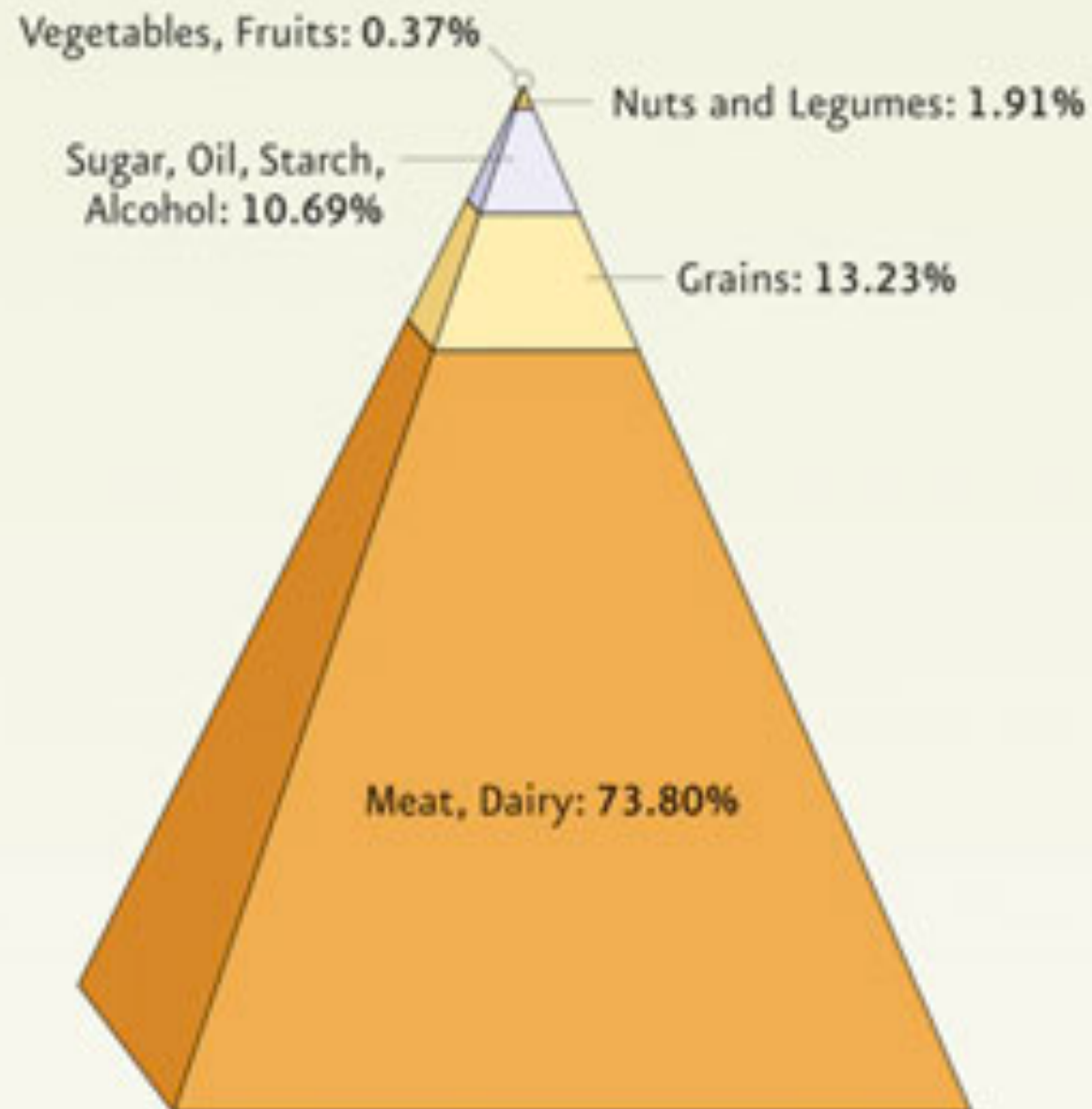
Should have been a bar chart



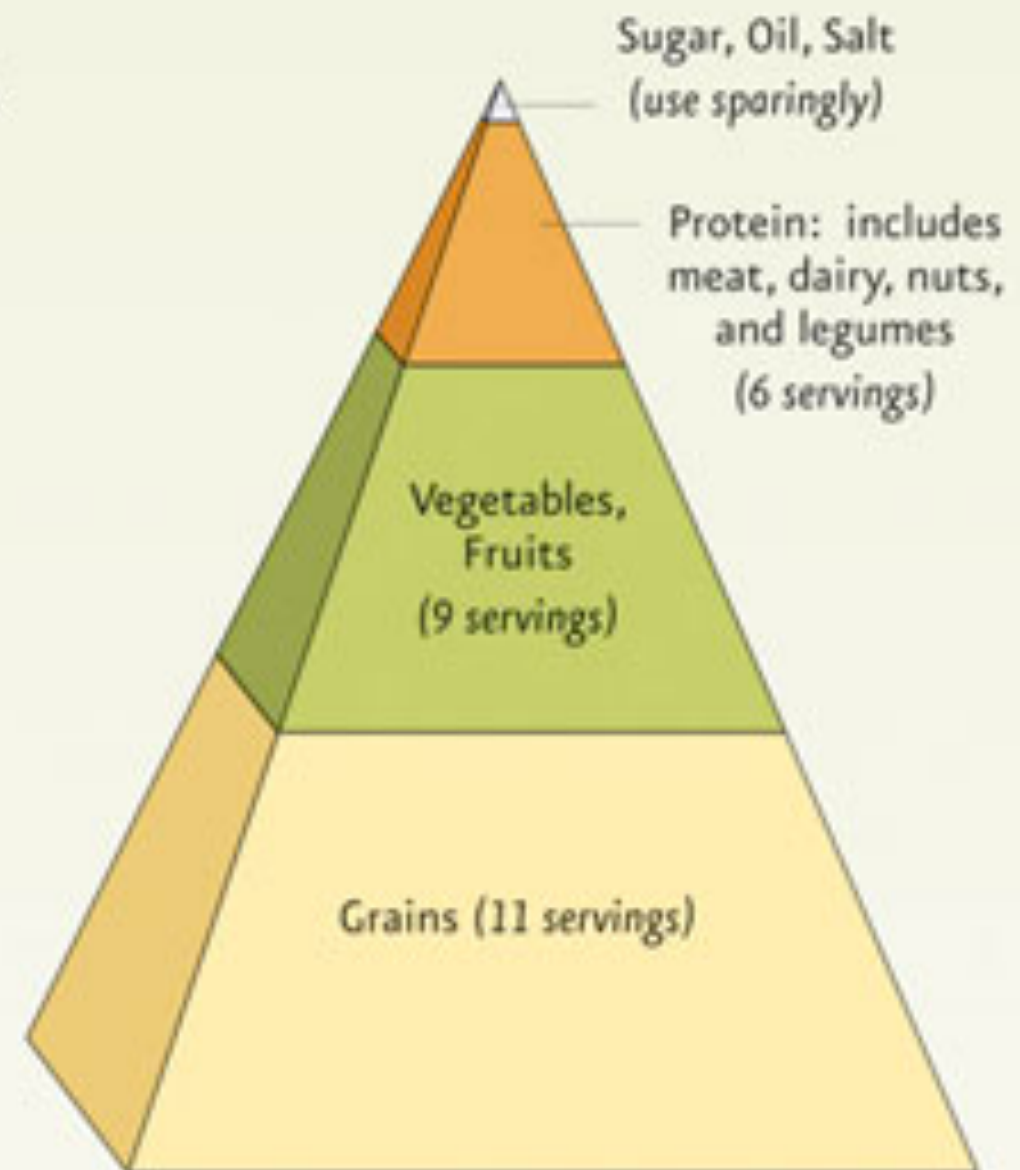
Breaking rules of perception

Why Does a Salad Cost More Than a Big Mac?

Federal Subsidies for Food Production, 1995-2005[®]



Federal Nutrition Recommendations



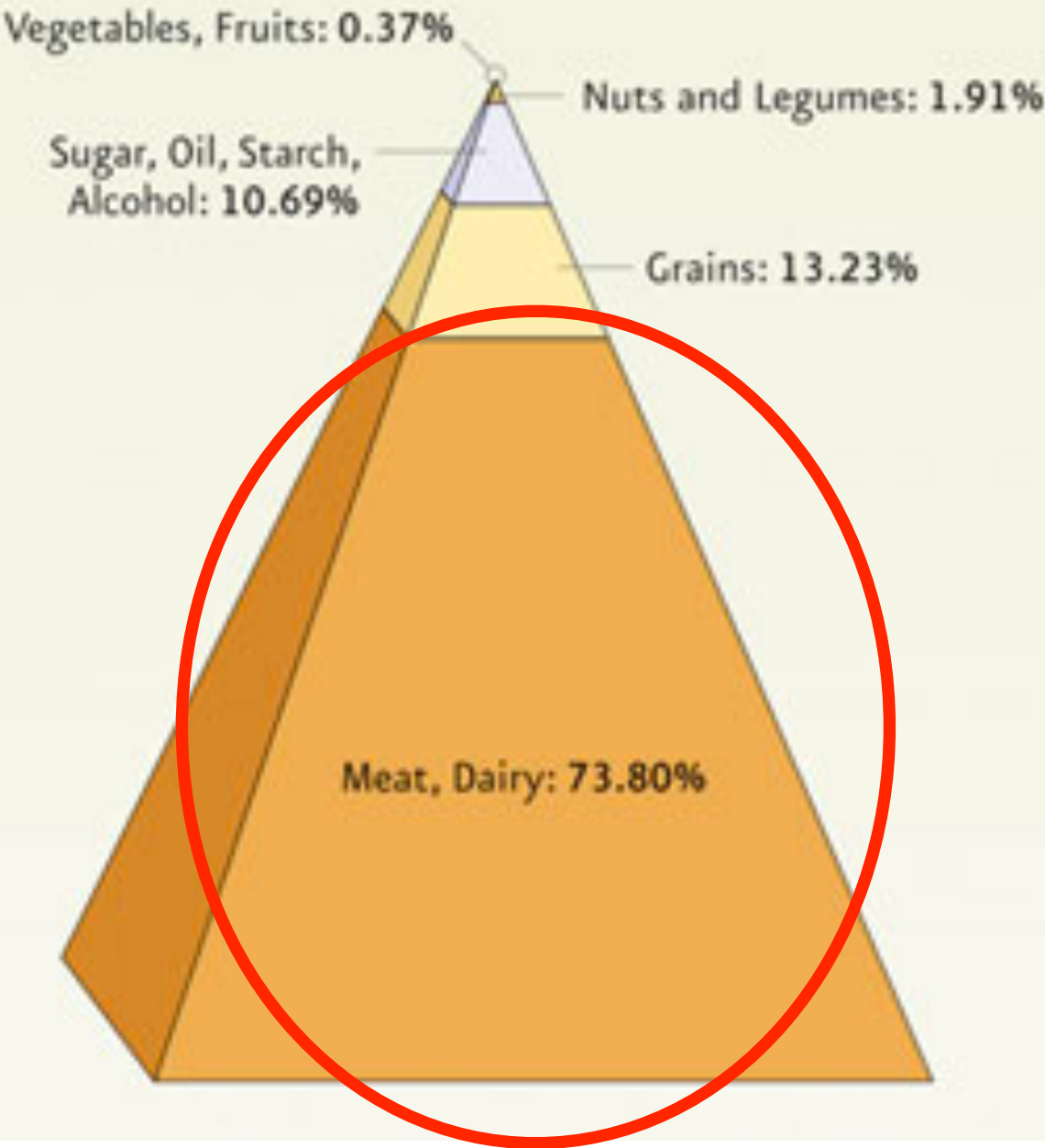
1

DON'T DESIGN FOR LIKES

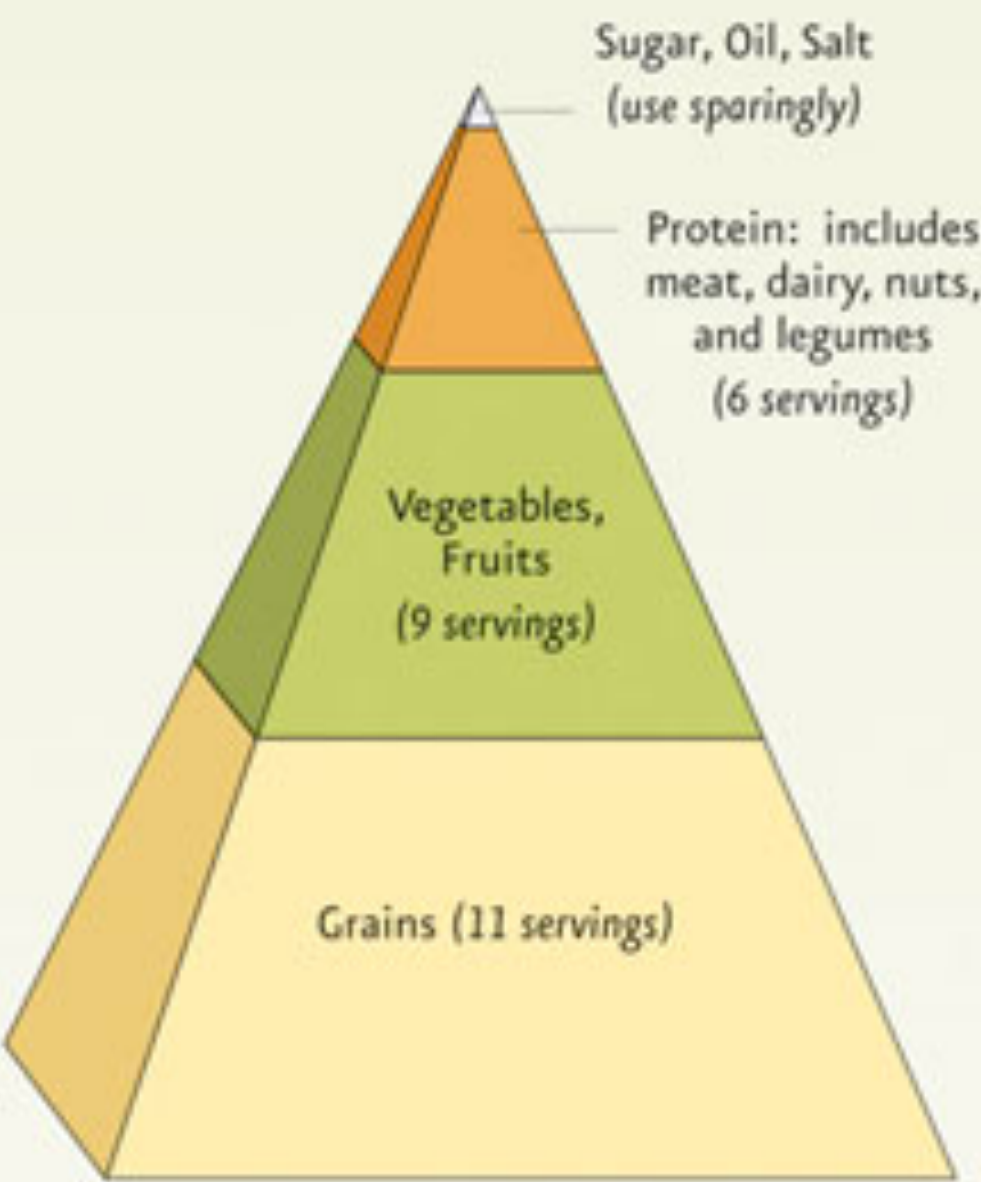
Breaking rules of perception

Why Does a Salad Cost More Than a Big Mac?

Federal Subsidies for Food Production, 1995-2005[®]



Federal Nutrition Recommendations



1

**Don't design for
likes / A good
example**

A good example

An Outlier for Arrest Warrants

Data from municipal courts across Missouri show that in 2013, the city of Ferguson had the highest number of warrants issued in the state relative to its size.

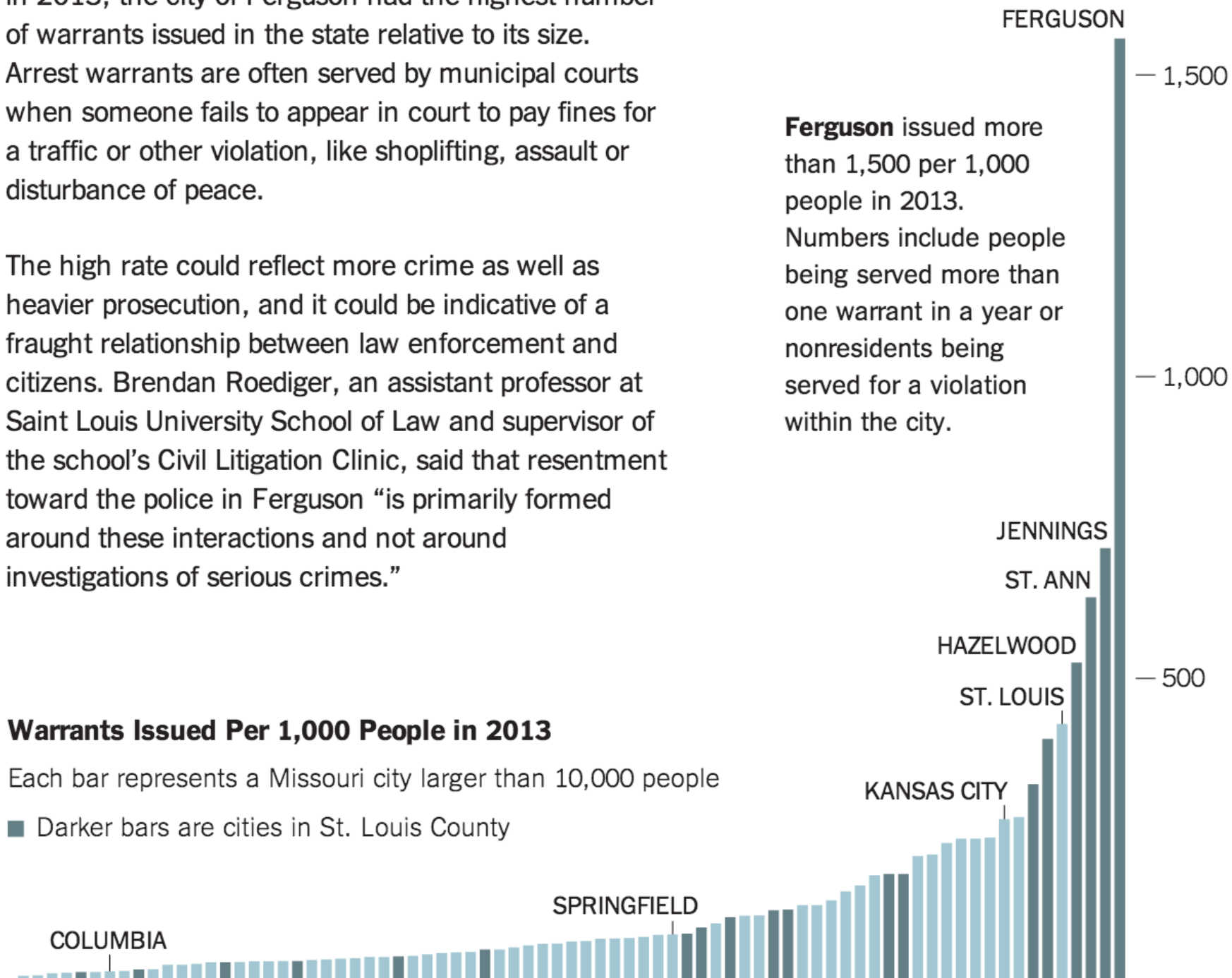
Arrest warrants are often served by municipal courts when someone fails to appear in court to pay fines for a traffic or other violation, like shoplifting, assault or disturbance of peace.

The high rate could reflect more crime as well as heavier prosecution, and it could be indicative of a fraught relationship between law enforcement and citizens. Brendan Roediger, an assistant professor at Saint Louis University School of Law and supervisor of the school's Civil Litigation Clinic, said that resentment toward the police in Ferguson "is primarily formed around these interactions and not around investigations of serious crimes."

Warrants Issued Per 1,000 People in 2013

Each bar represents a Missouri city larger than 10,000 people

■ Darker bars are cities in St. Louis County





**Bar charts are
beautiful**

1

Don't design for

likes / Design

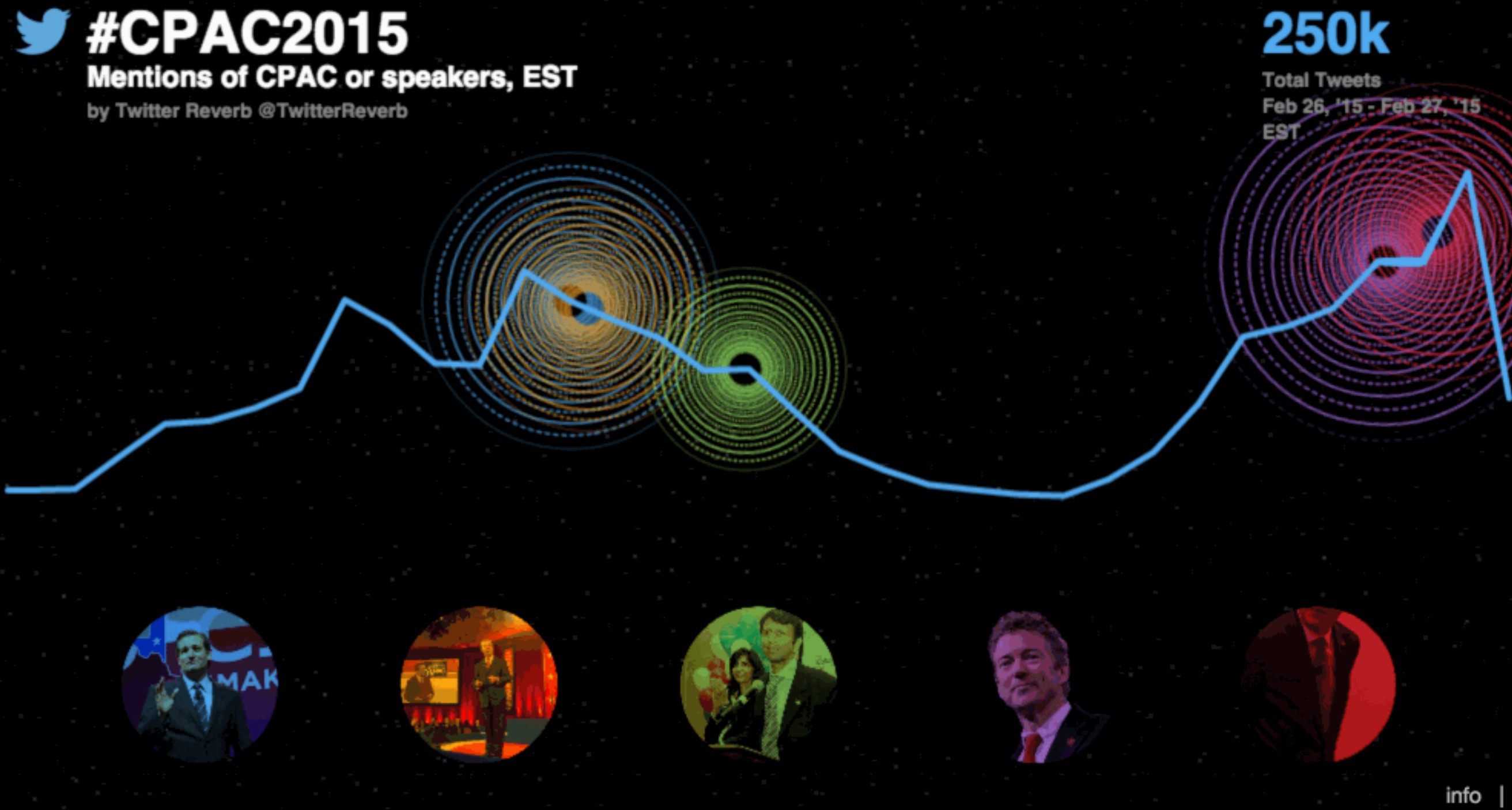
complexity reflects

data complexity

1

DON'T DESIGN FOR LIKES

Design complexity should reflect data complexity



1

DON'T DESIGN FOR LIKES

Design complexity should reflect data complexity



#CPAC2015

Mentions of CPAC or speakers, EST


by Twitter Reverb @TwitterReverb

250k

Total Tweets
Feb 26, '15 - Feb 27, '15
EST

**Why is this
happening**



info | 

1

DON'T DESIGN FOR LIKES

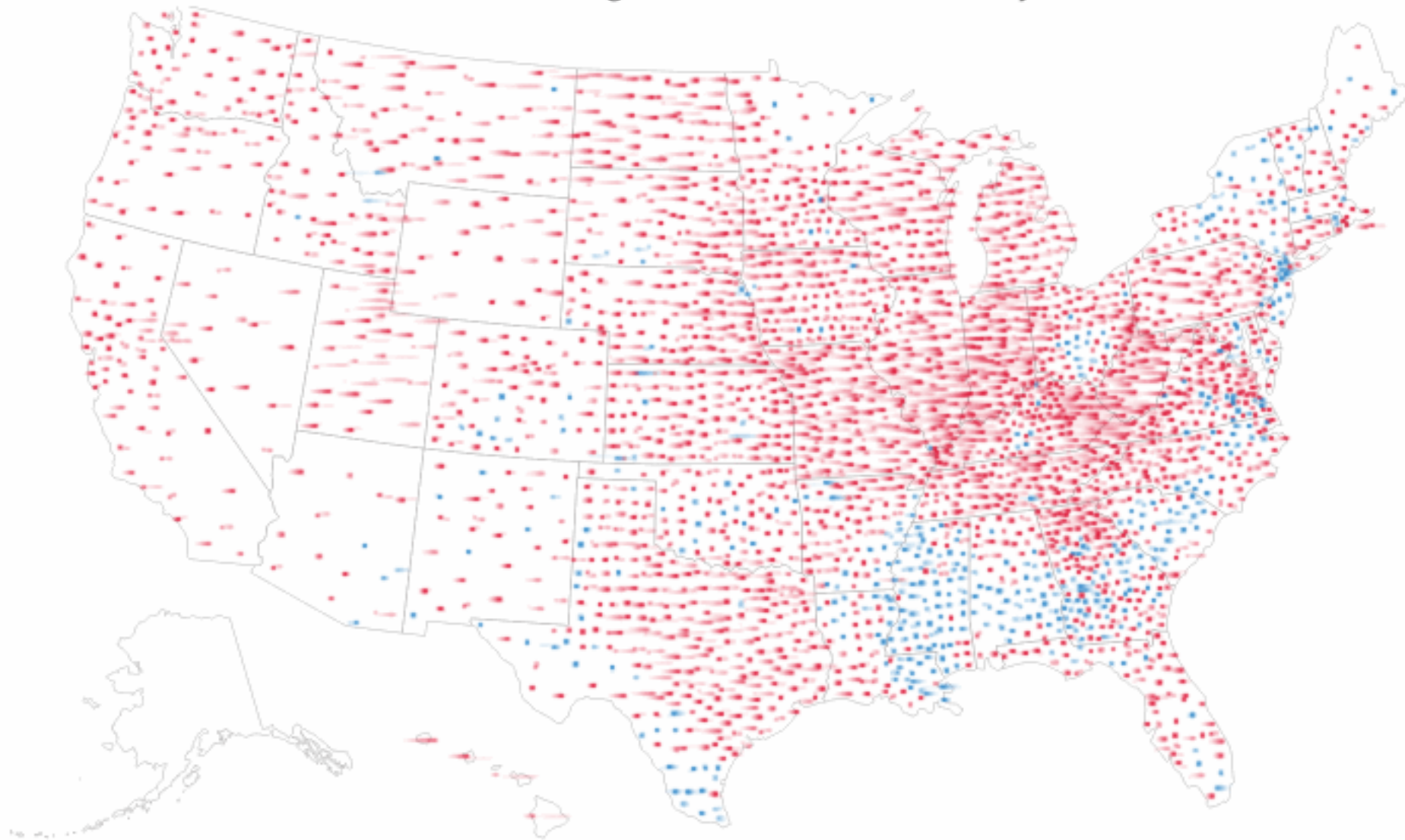
A good example

Romney's Shift Wasn't Enough

2008

2012

Most of the nation shifted to the right in Tuesday's vote, but not far enough to secure a win for Mitt Romney.



Source: The New York Times

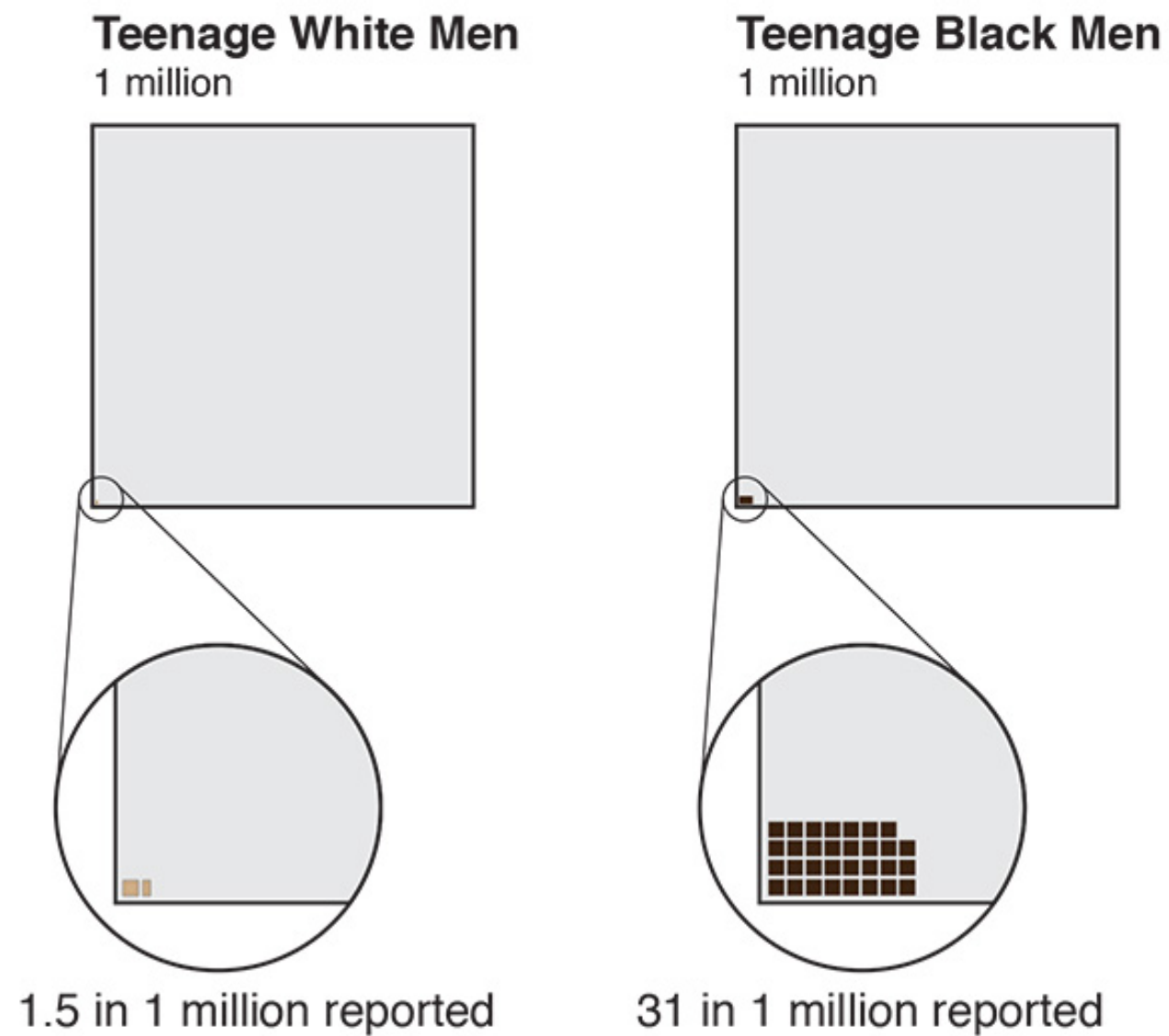


Flashy but cool

1

DON'T DESIGN FOR LIKES

A good example



Reported killings by police during 2010-2012
21 times as likely for black vs. white teenage men



**Keep that data-ink
in check**

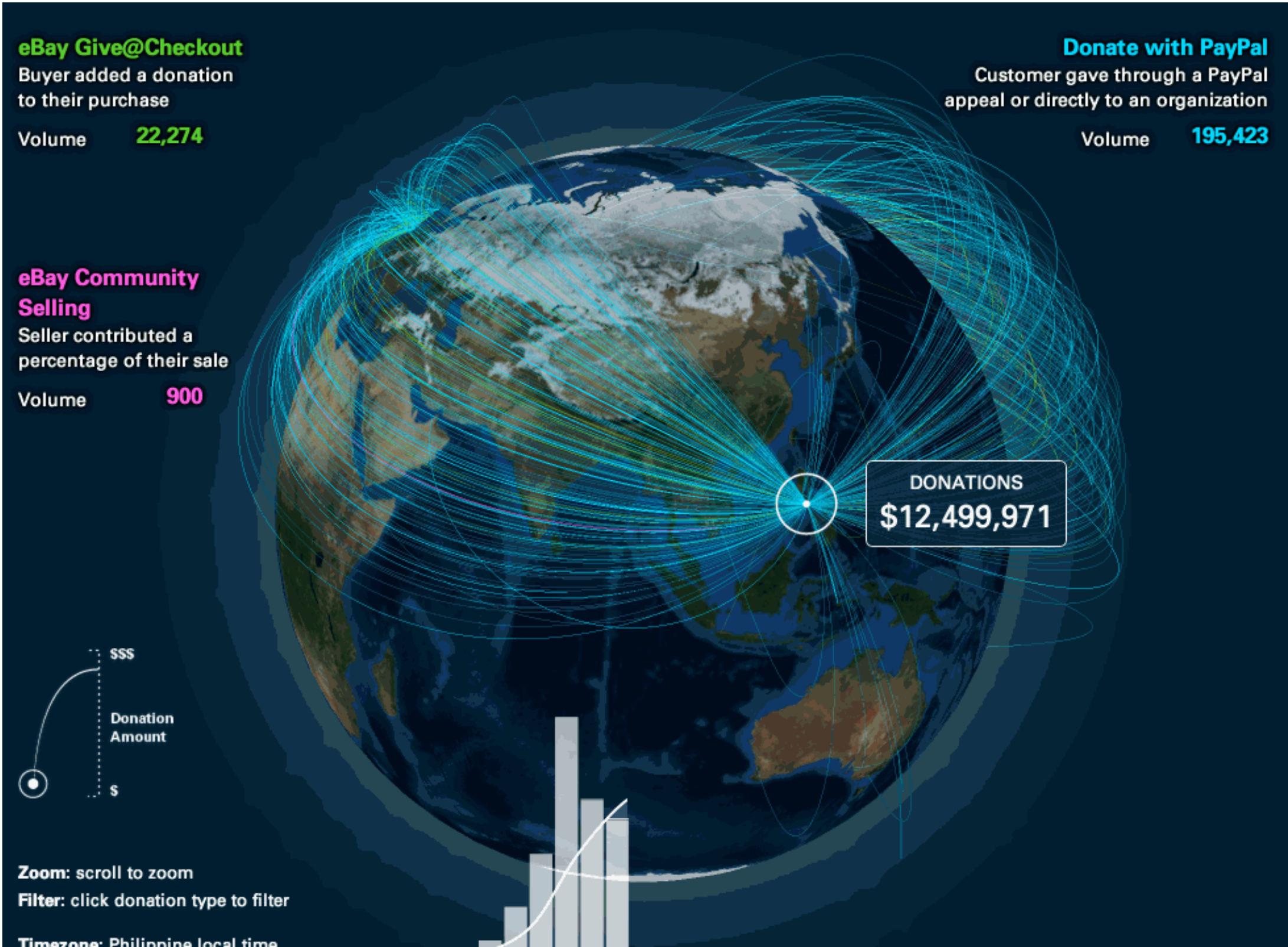
1

**Don't design for
likes / Unnecessary
animation**

1

DON'T DESIGN FOR LIKES

Unnecessary animation



1

DON'T DESIGN FOR LIKES

Unnecessary animation



1

**Don't design for
likes / A good
example**

1

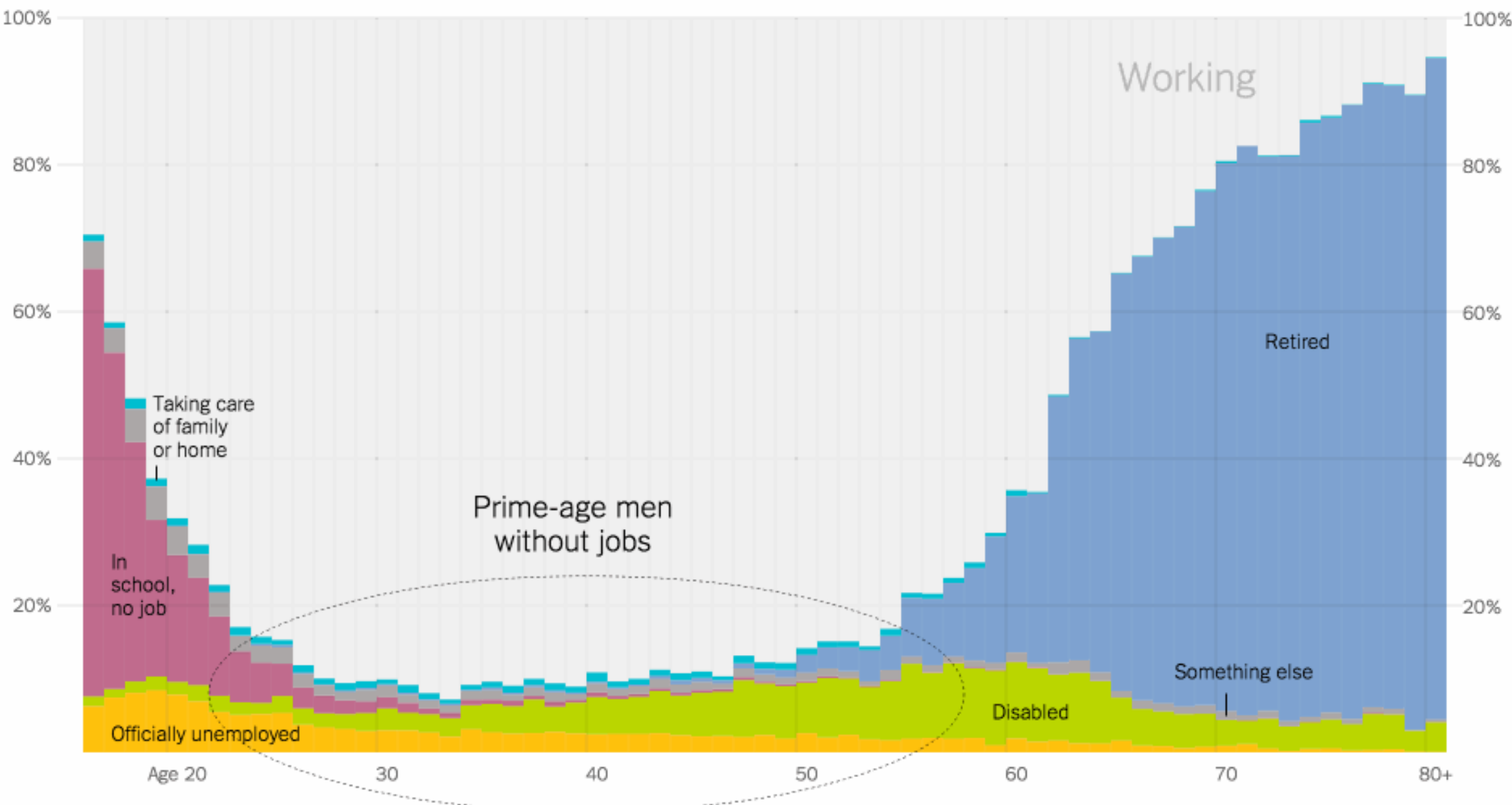
DON'T DESIGN FOR LIKES

A good example

The Rise of Men Who Don't Work, and What They Do Instead

DEC. 11, 2014

Men in **2000** | 2014



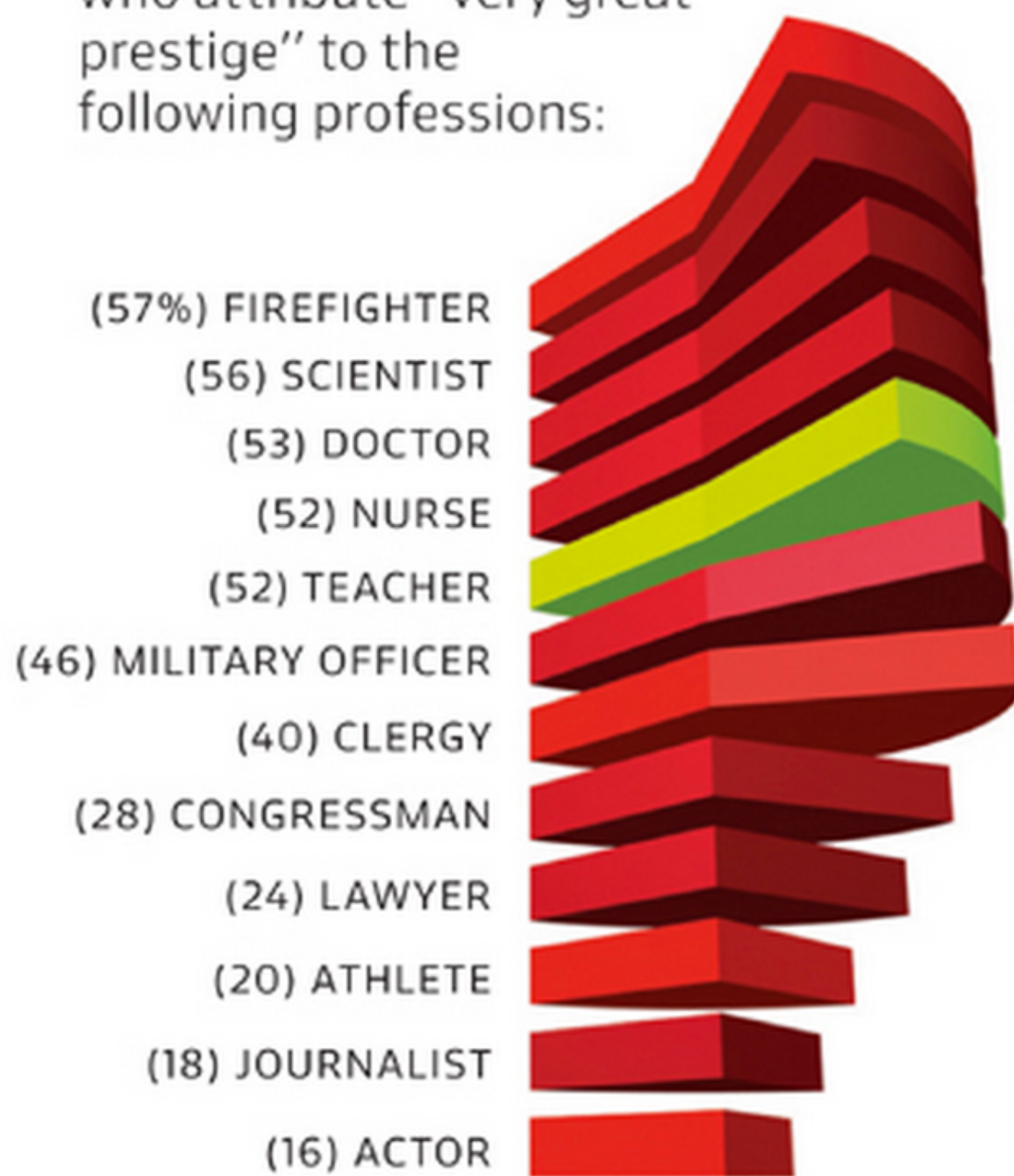
Source: NBC Nightly News



**Now it's time for
SHOULD HAVE BEEN
A BAR CHART**

CALLINGS

Proportion of respondents who attribute "very great prestige" to the following professions:

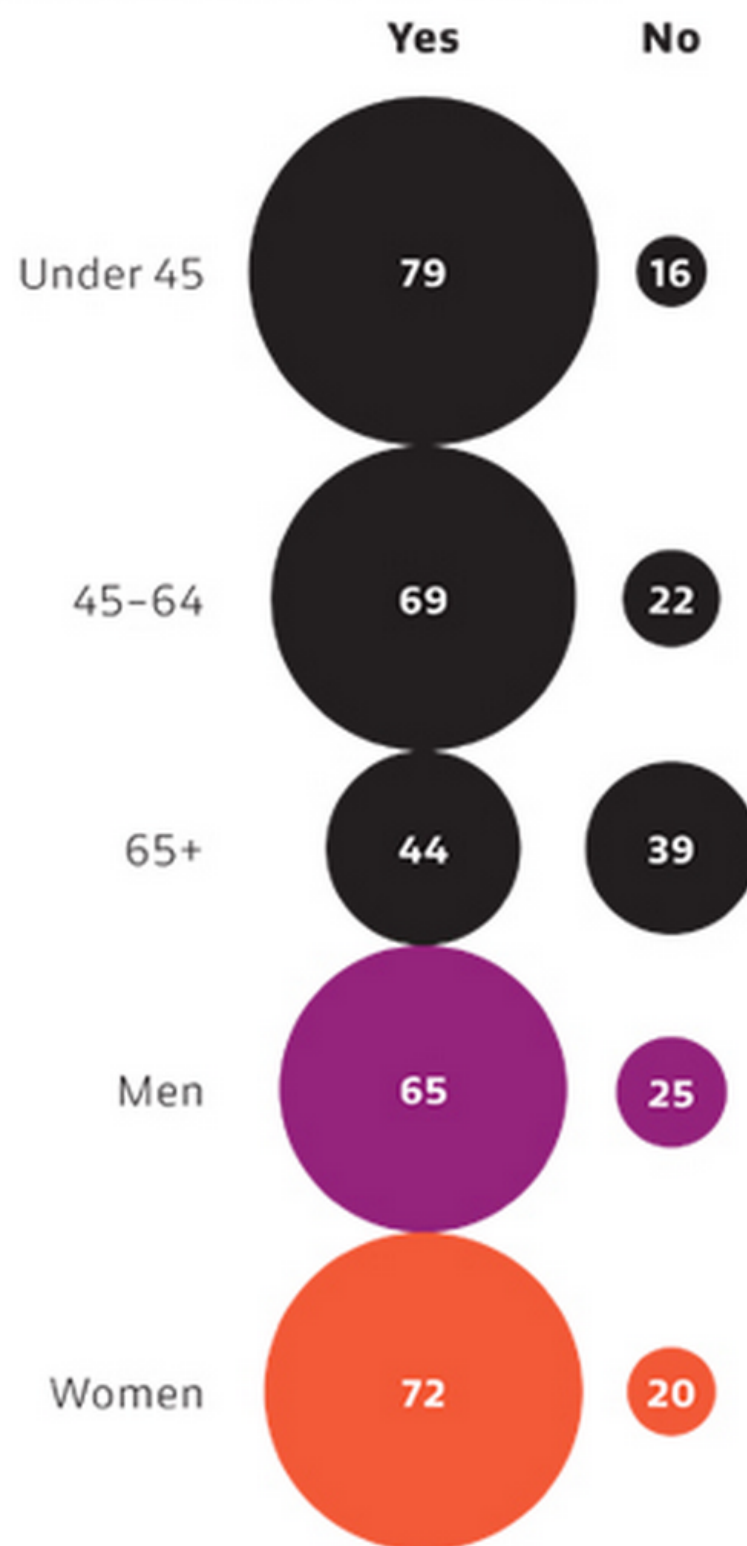


Source: The Harris Poll, July 2008

Chart by **ERIK DE GRAAFF** ArtEZ Academy
of Visual Arts, the Netherlands

MRS. PRESIDENT

Percentage of respondents who say it is likely that a woman will be president in their lifetime.



Source: CBS News, June 2008

Snow depth in Boston 18:00 GMT (13:00 EST)



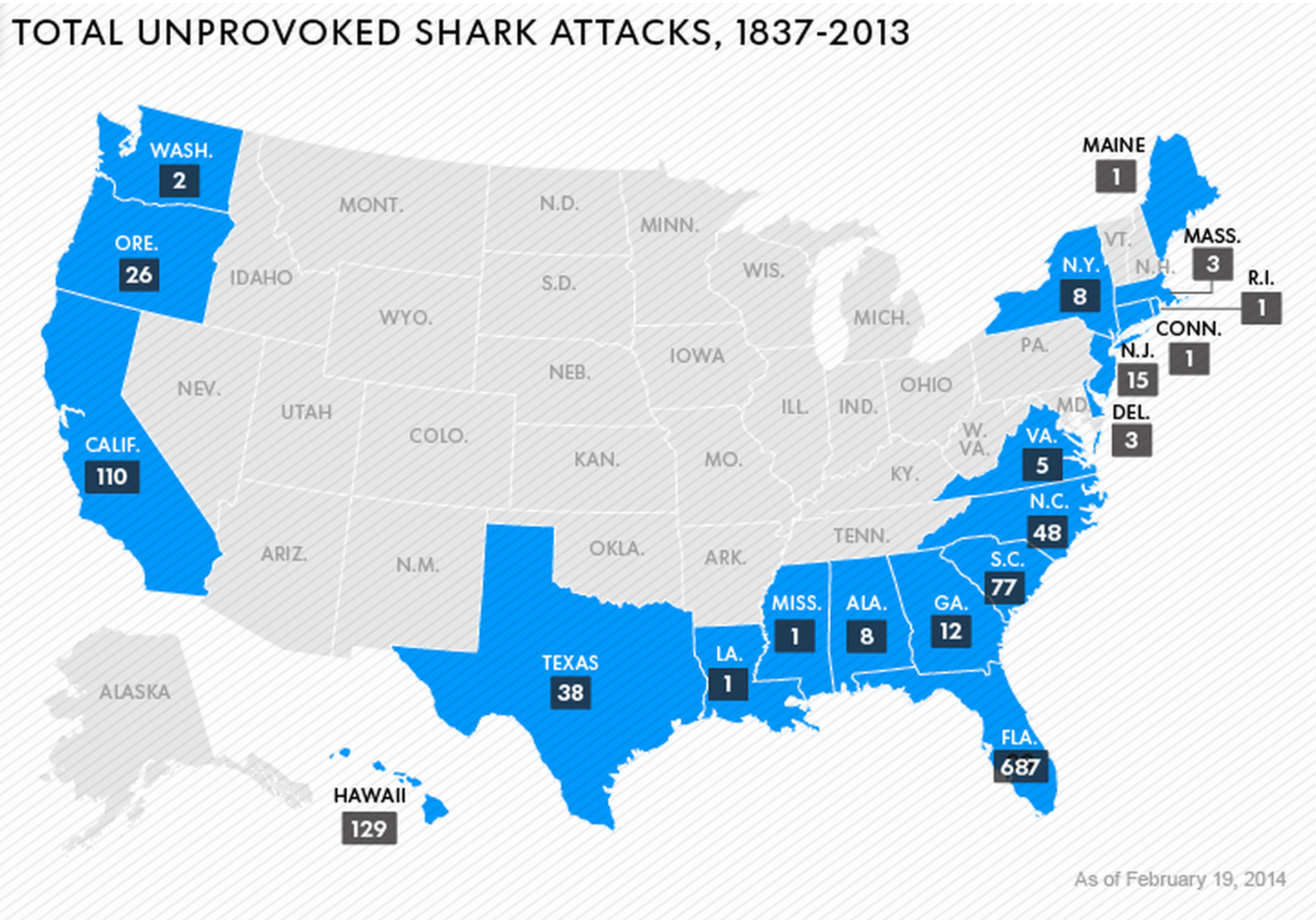
1

**Don't design for
likes / Unnecessary
maps**

1

DON'T DESIGN FOR LIKES

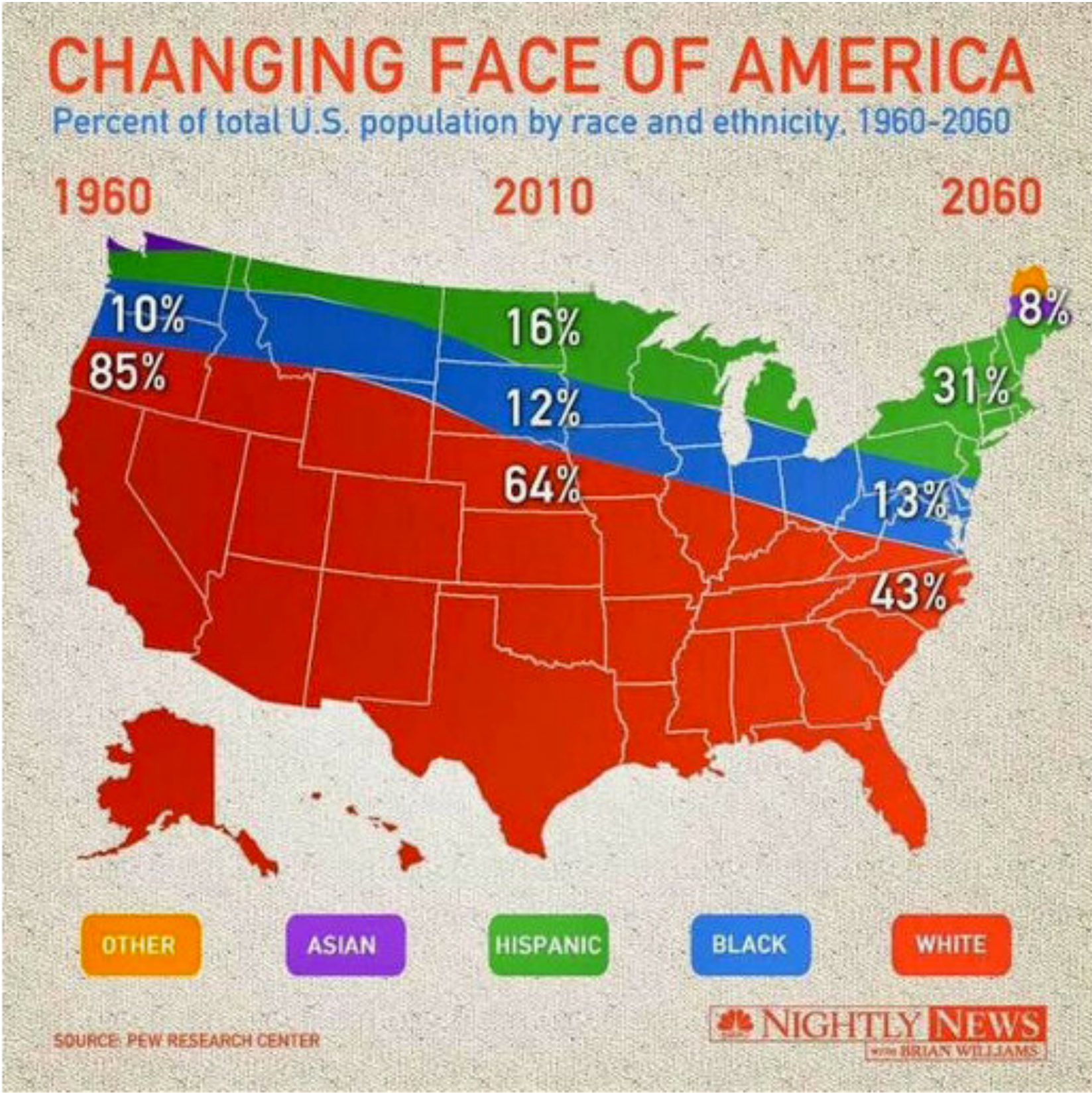
Unnecessary maps



1

DON'T DESIGN FOR LIKES

Unnecessary maps

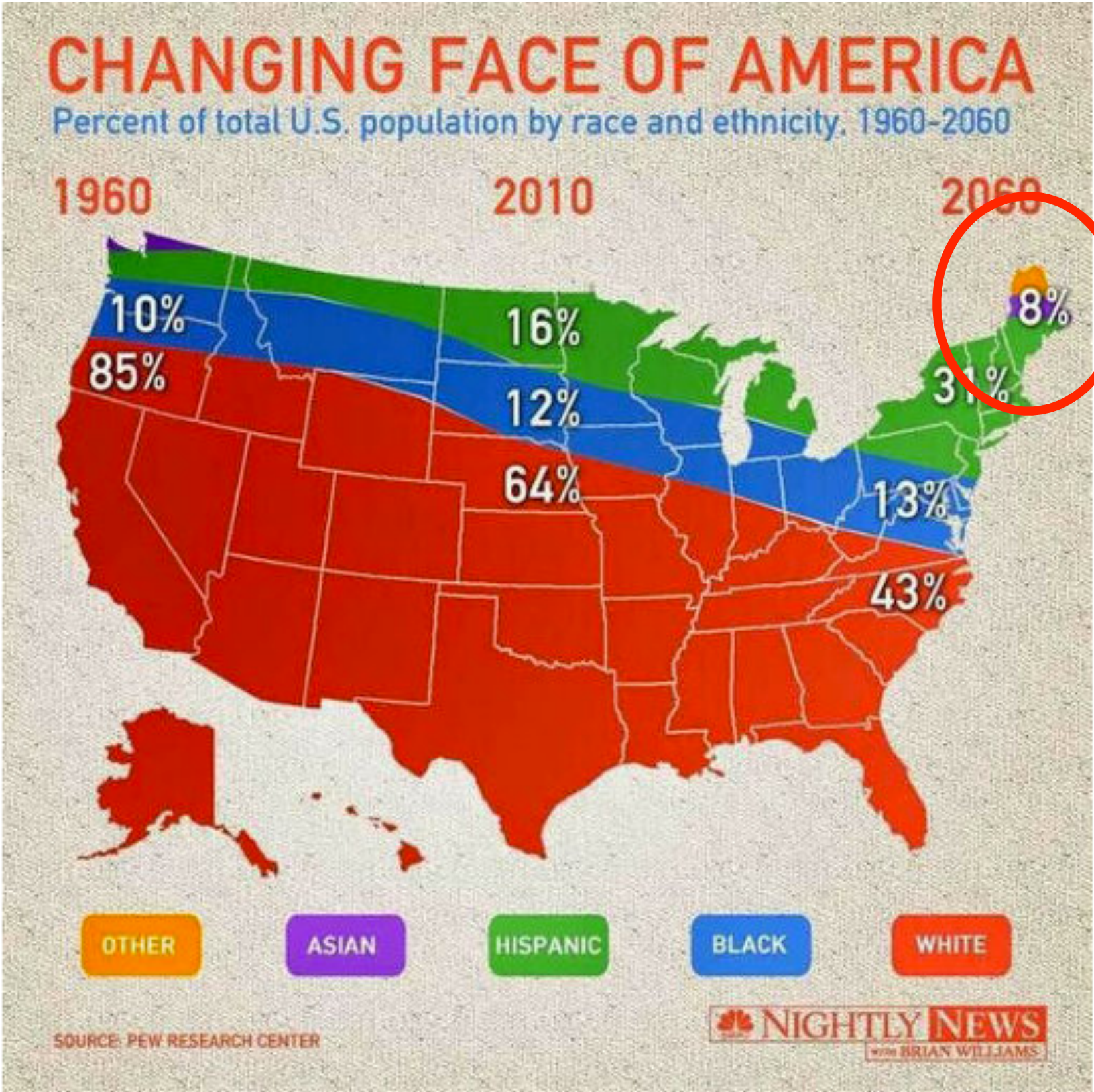


Source: NBC Nightly News

1

DON'T DESIGN FOR LIKES

Unnecessary maps



Source: NBC Nightly News

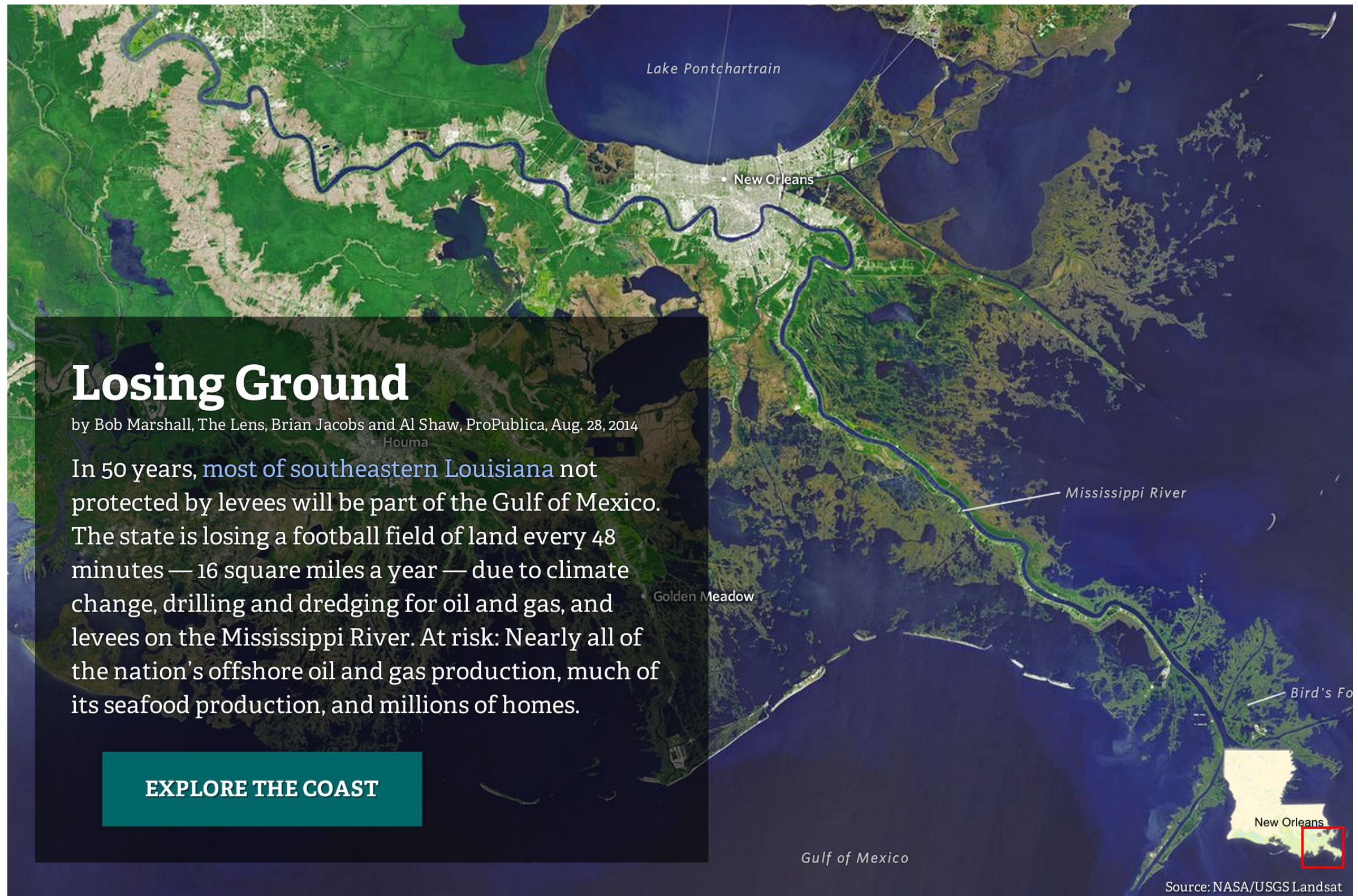
1

**Don't design for
likes / Two good
examples**

1

DON'T DESIGN FOR LIKES

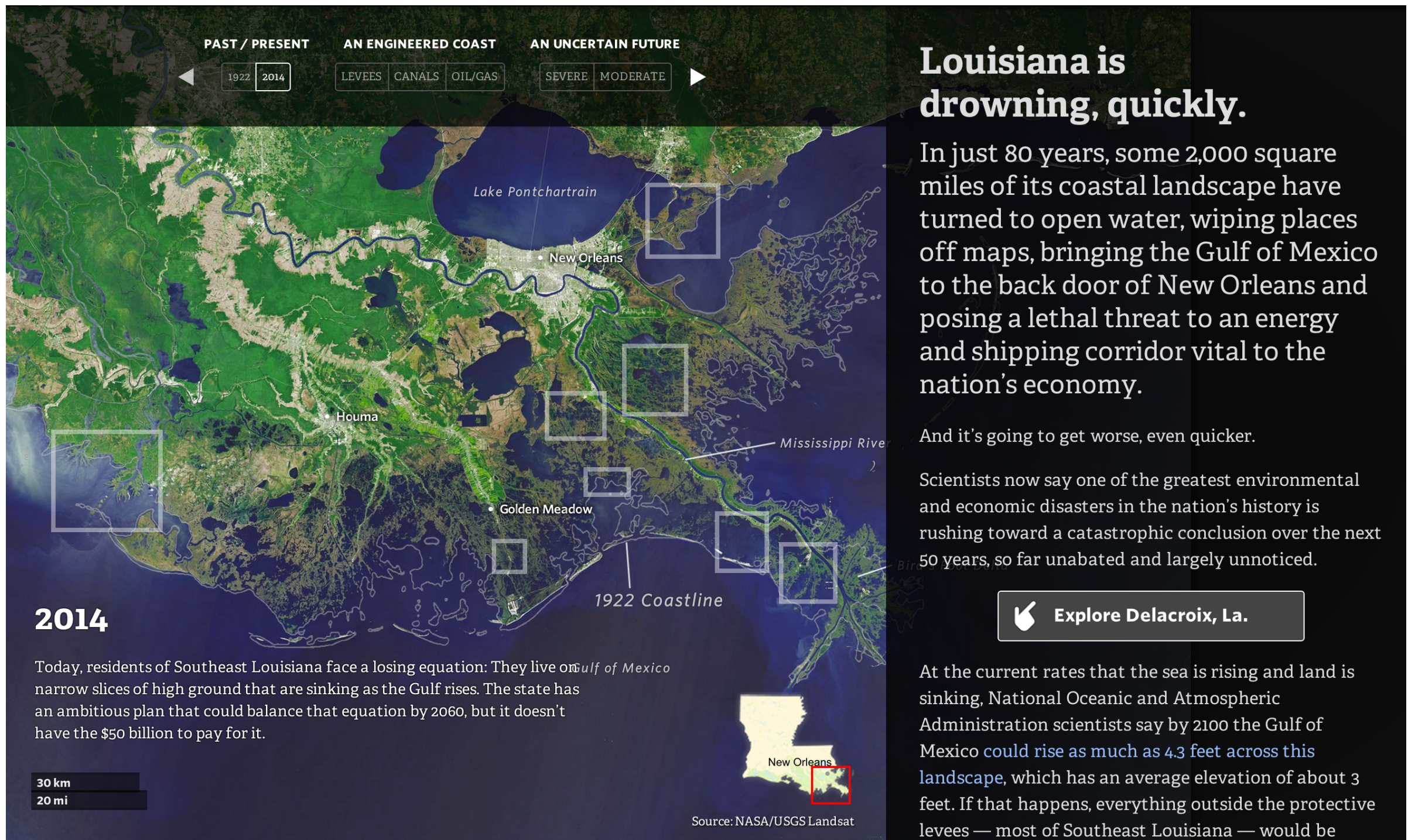
A good example



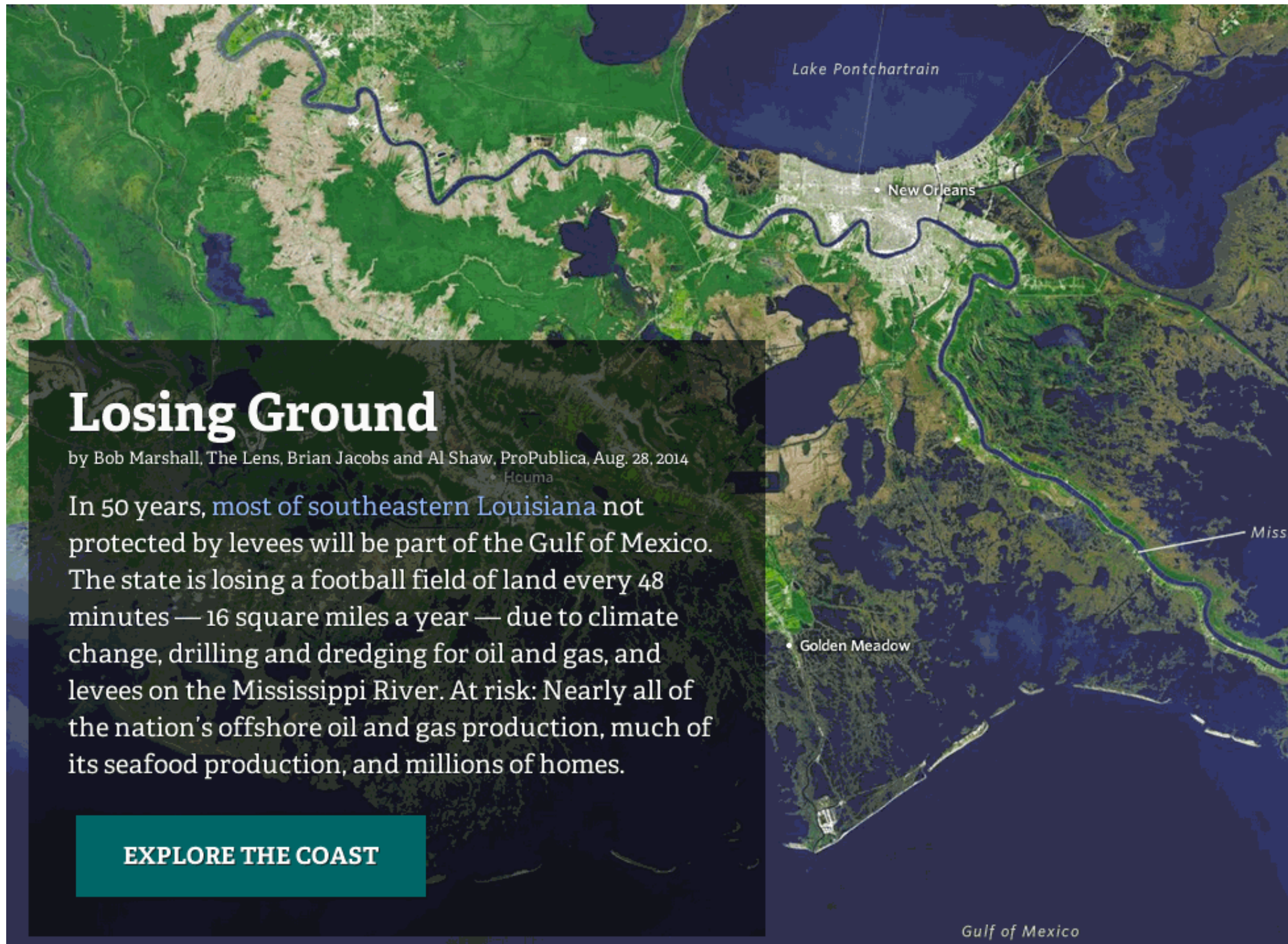
1

DON'T DESIGN FOR LIKES

A good example



A good example



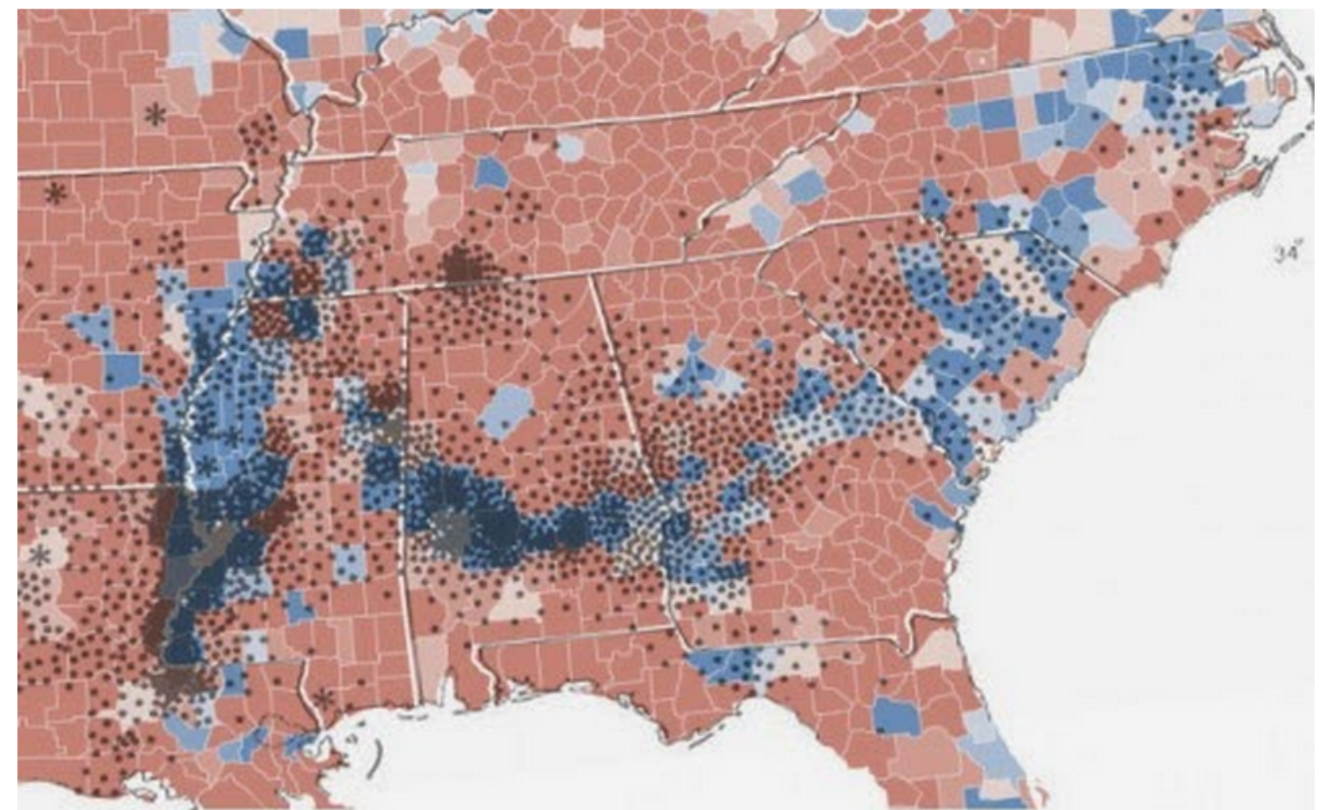
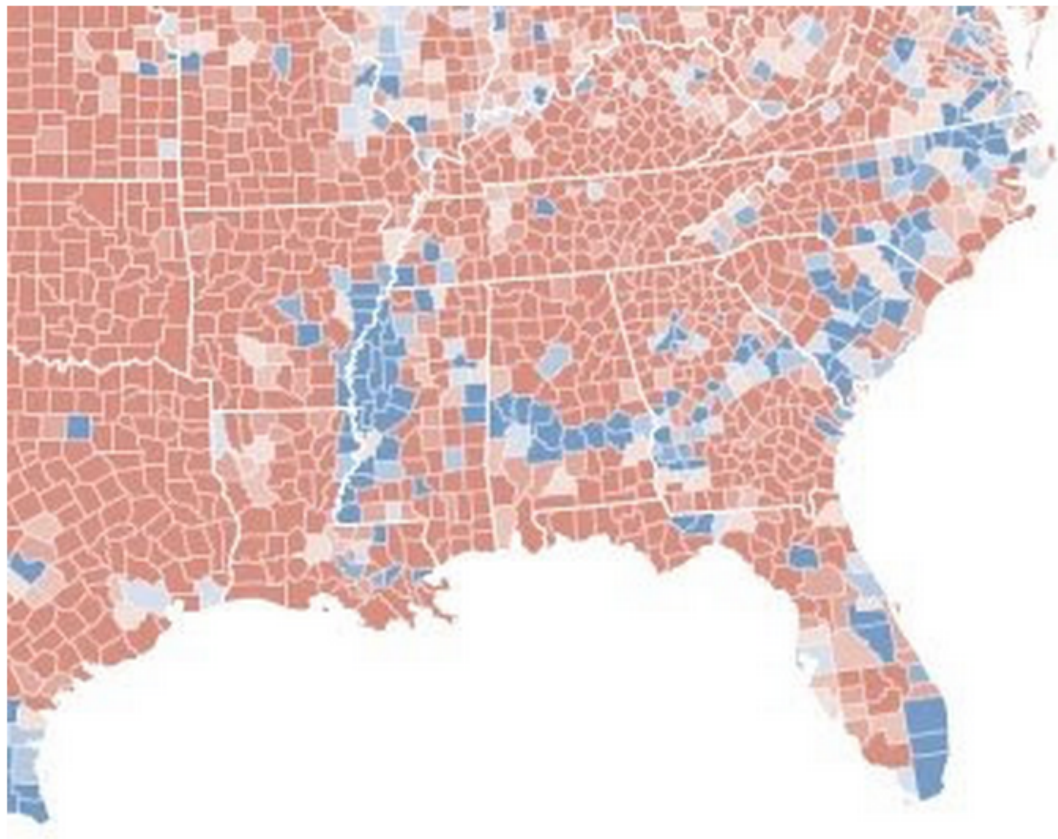
1

DON'T DESIGN FOR LIKES

A good example

MONDAY, NOVEMBER 17, 2008

THE BLACK BELT: HOW SOIL TYPES DETERMINED THE 2008 ELECTION IN THE DEEP SOUTH



1

DON'T DESIGN FOR LIKES

A good example

MONDAY, NOVEMBER 17, 2008

THE BLACK BELT: HOW SOIL TYPES DETERMINED THE 2008 ELECTION IN THE DEEP SOUTH





We love maps

1

**Don't design for likes /
Unnecessary 3d / Breaking
rules of perception / Design
complexity reflects data
complexity / Unnecessary
animation / Unnecessary
maps**

1

**Don't design for likes/
Unnecessary 3d / Breaking
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2

**Advertisers
manipulate,
journalists inform**

2

**Advertisers
manipulate,
journalists inform/
Emotional design**







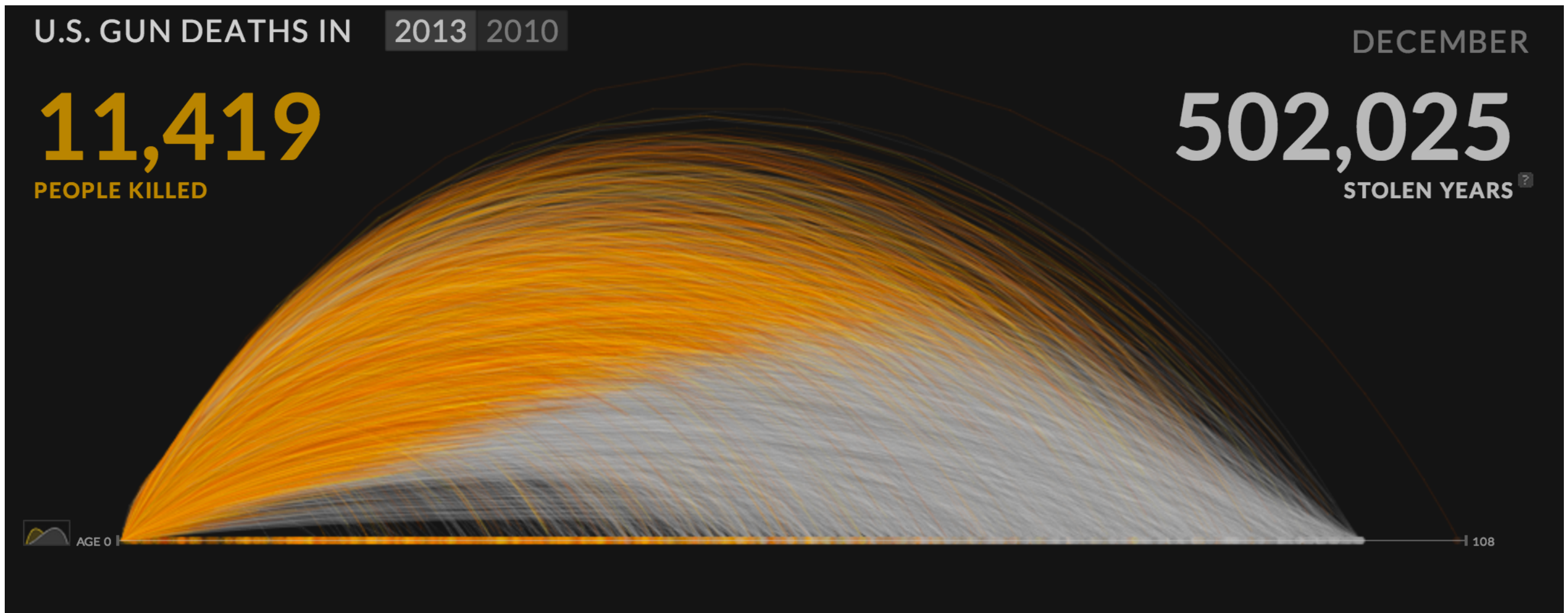


Emotional design



ADVERTISERS MANIPULATE, JOURNALISTS INFORM

2 **Emotional Design**



2

ADVERTISERS MANIPULATE, JOURNALISTS INFORM

Emotional Design

U.S. GUN DEATHS IN

2013 2010

DECEMBER

11,419

PEOPLE KILLED

502,025

STOLEN YEARS [?]

Art ≠ Journalism



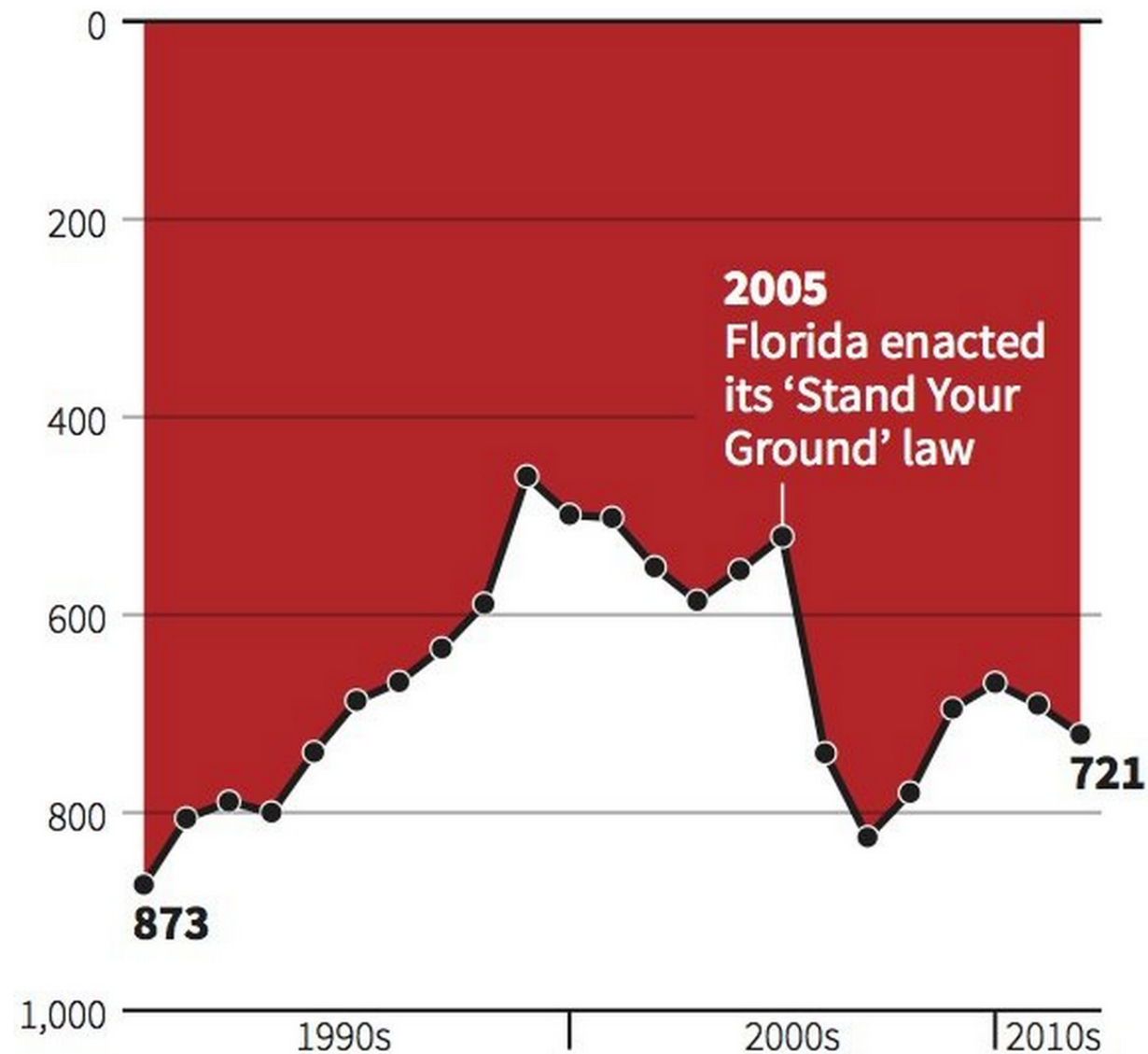
AGE 0 |

| 108

Emotional design

Gun deaths in Florida

Number of murders committed using firearms



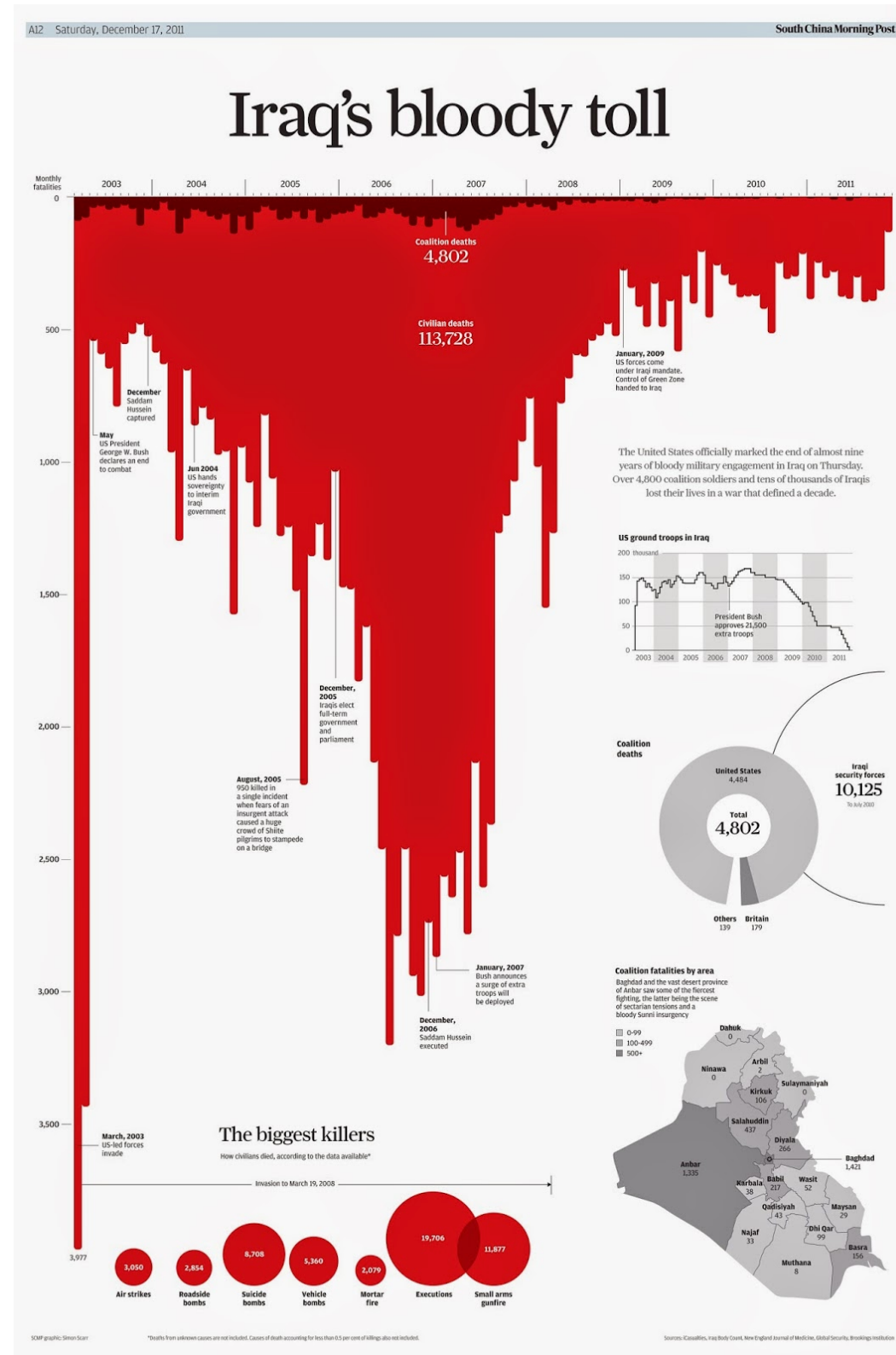
Source: Florida Department of Law Enforcement

2

**Advertisers
manipulate,
journalists inform/**

A good example

A good example





Outkast!

2

**Advertisers
manipulate,
journalists inform/**

**Causation vs.
correlation**

Causation vs. correlation

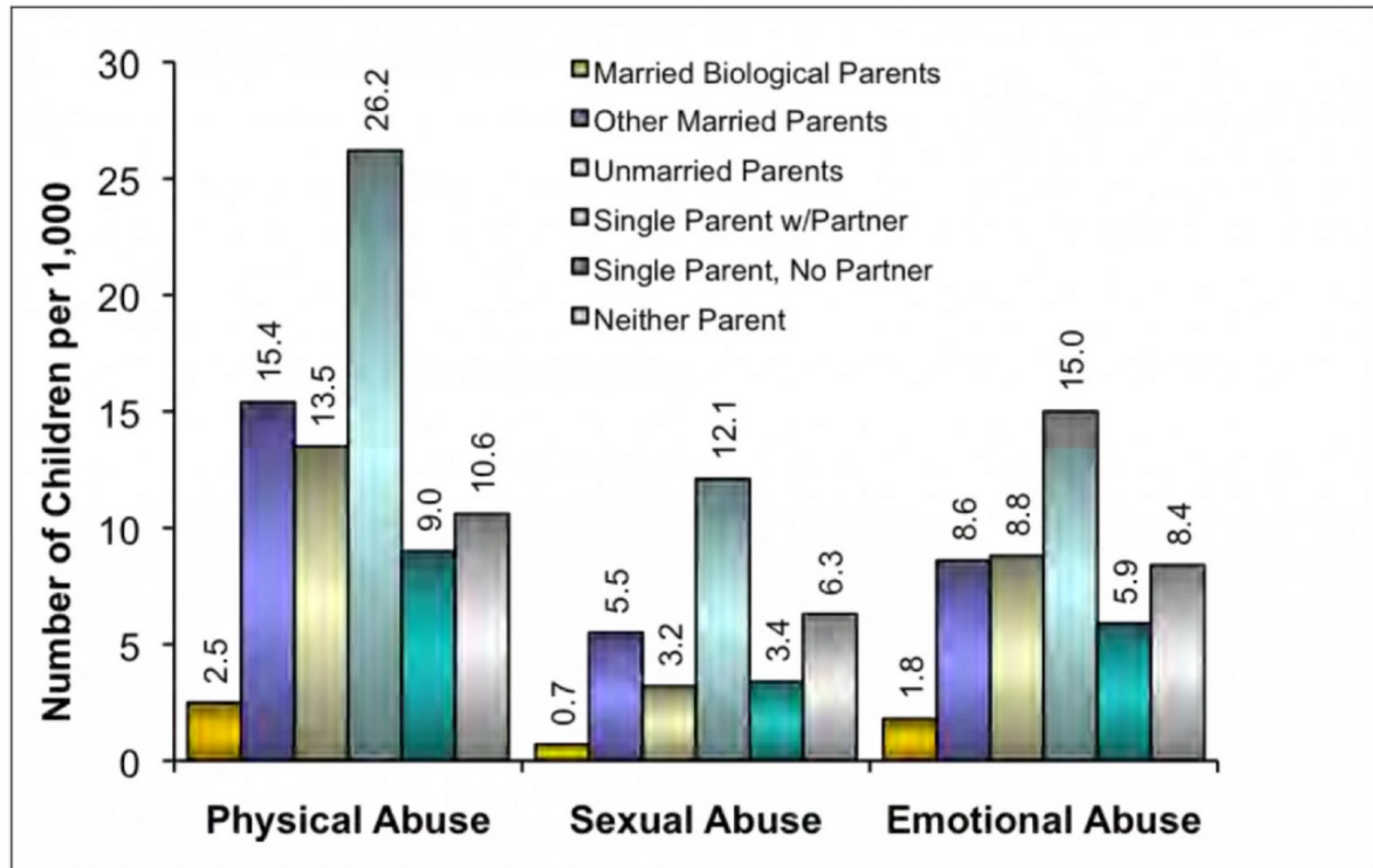


Figure 5–10. Incidence of Endangerment Standard Abuse by Family Structure and Living Arrangement.

Causation vs. correlation

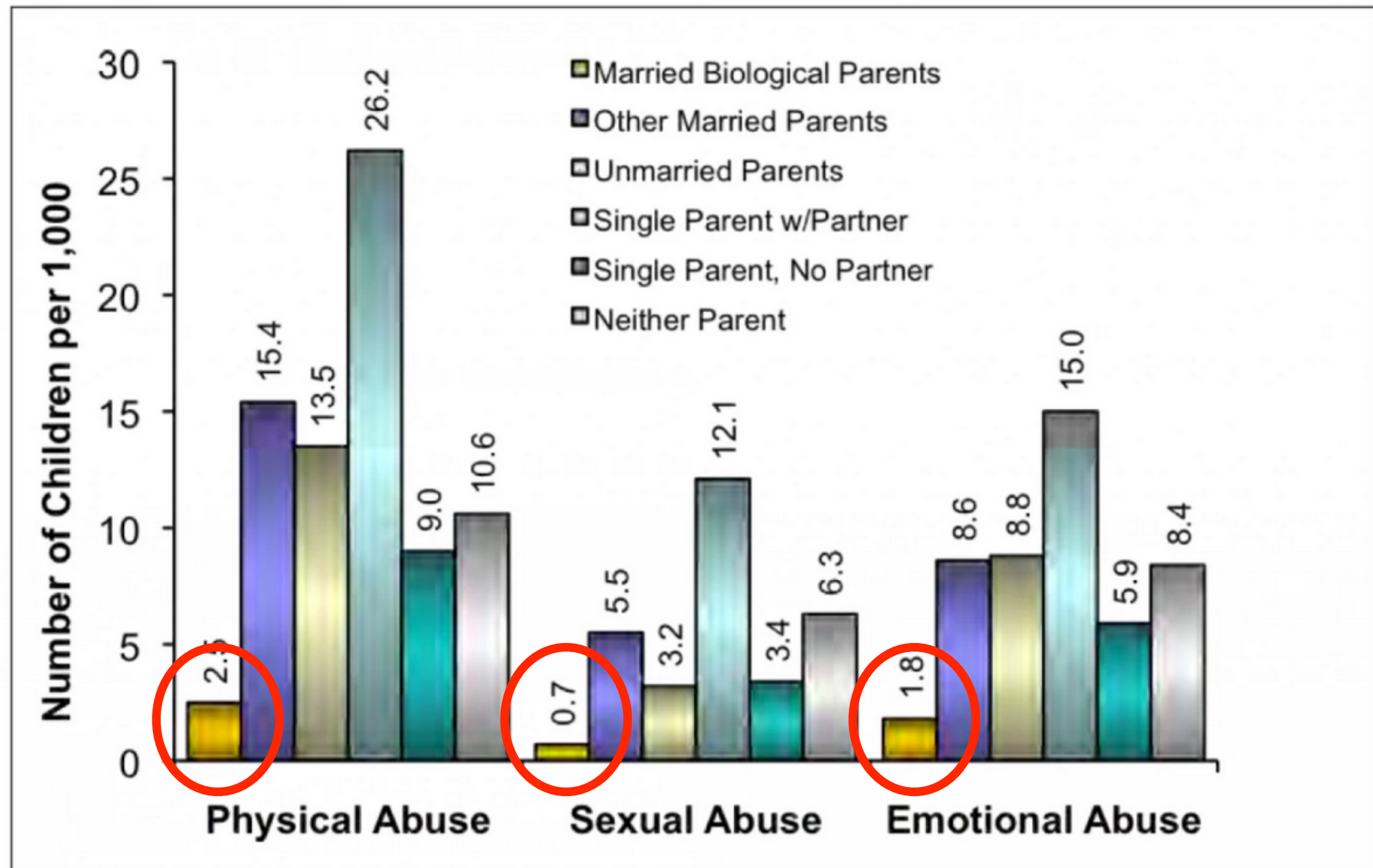


Figure 5–10. Incidence of Endangerment Standard Abuse by Family Structure and Living Arrangement.

2

**Advertisers manipulate,
journalists inform /**

Emotional design /

Causation vs. correlation

2

**Advertisers manipulate,
journalists inform/
Emotional design/
Causation vs. correlation**

2

**Advertisers manipulate,
journalists inform/
Emotional design/
Causation vs. correlation**

3

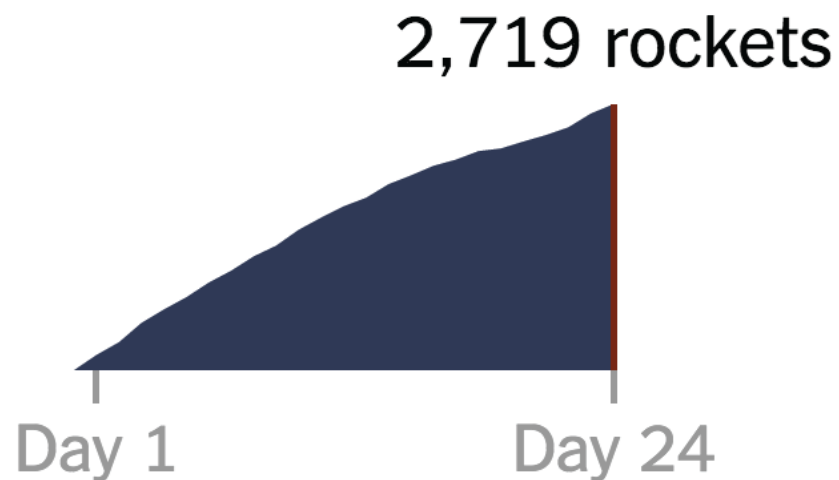
**When good design
goes bad: your
power as a designer**

Introduction

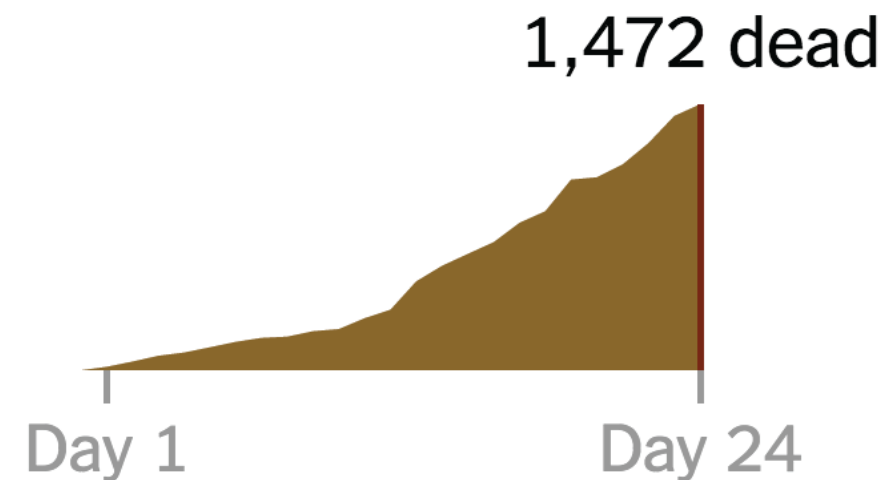
The New York Times

In Gaza, a Pattern of Conflict

Cumulative rockets fired
at Israel from Gaza

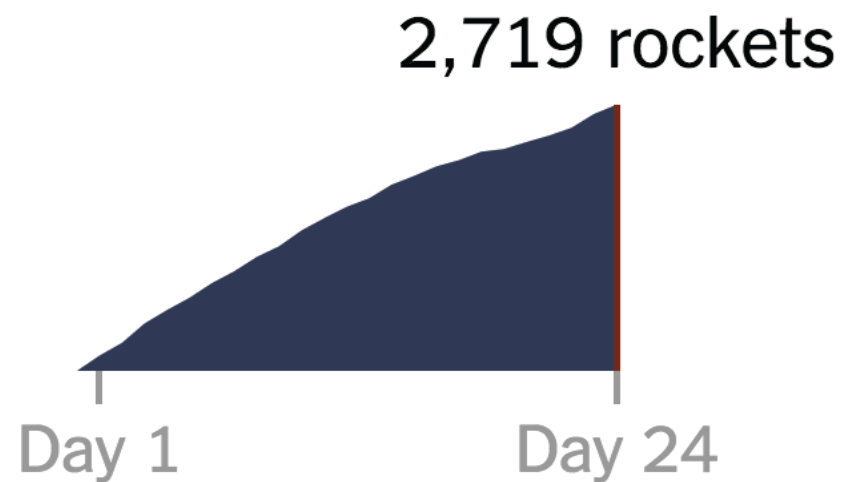


Cumulative
deaths

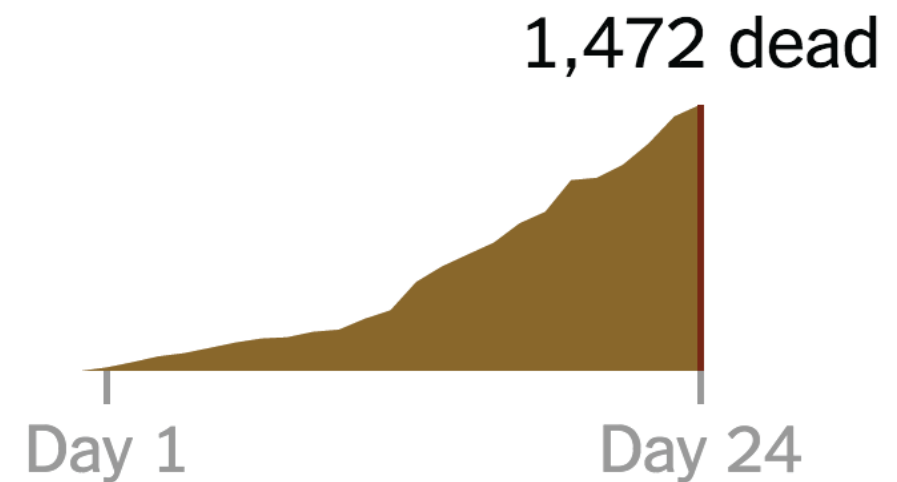


Using proximity to suggest false association

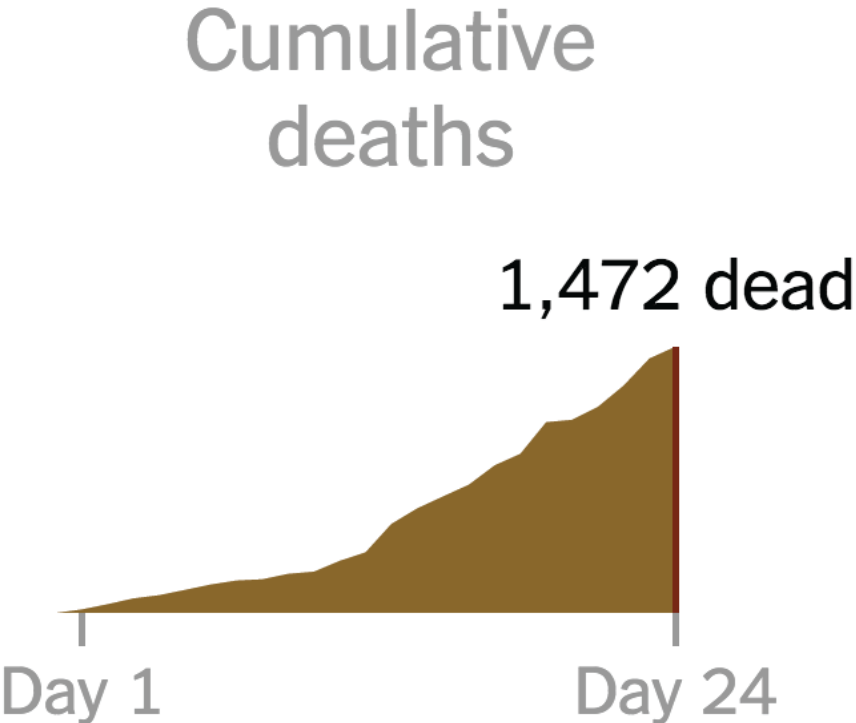
Cumulative rockets fired
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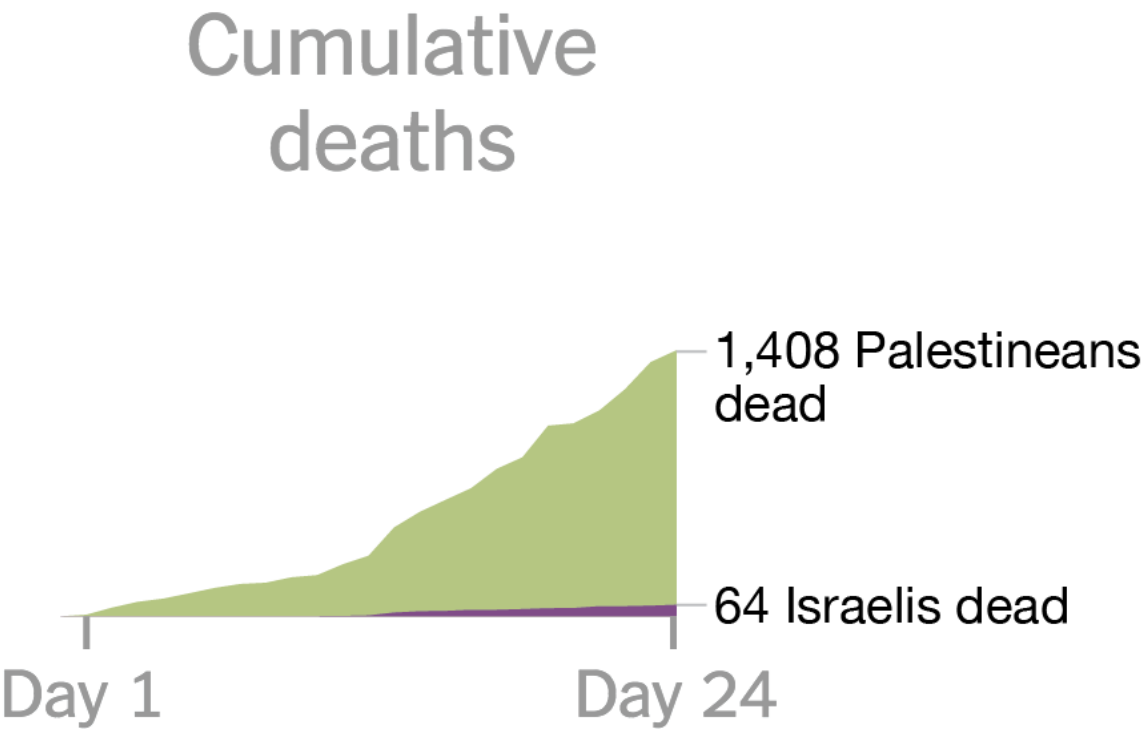
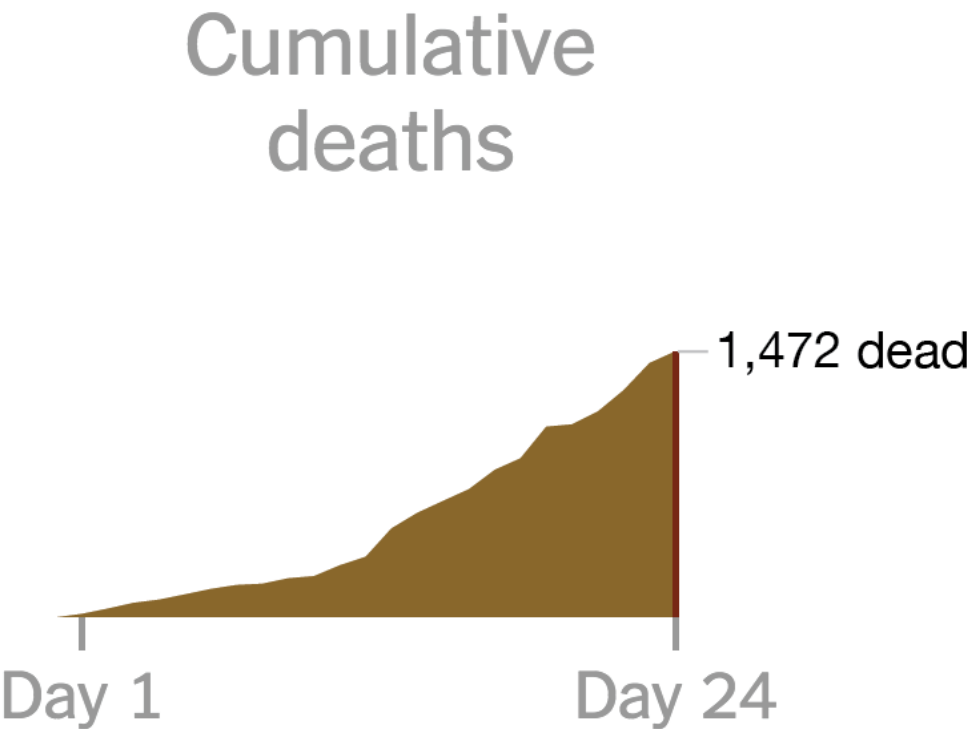
Cumulative
deaths



Hiding inconvenient data



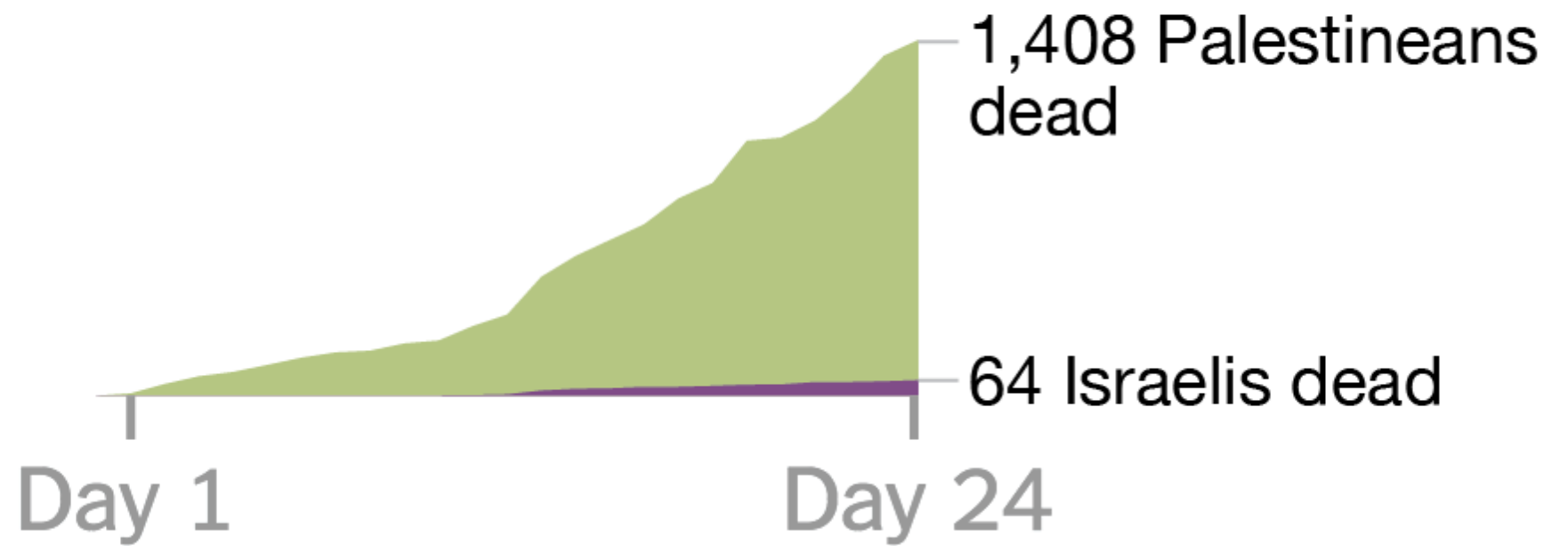
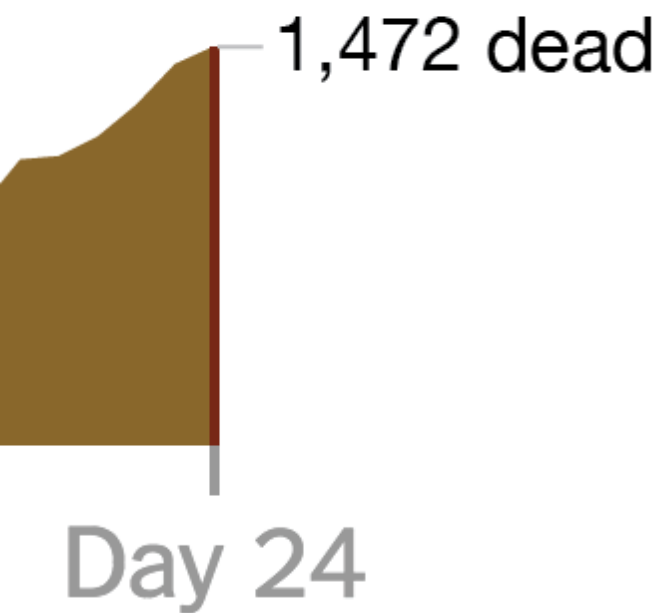
Hiding inconvenient data



Hiding inconvenient data

/e

Cumulative deaths

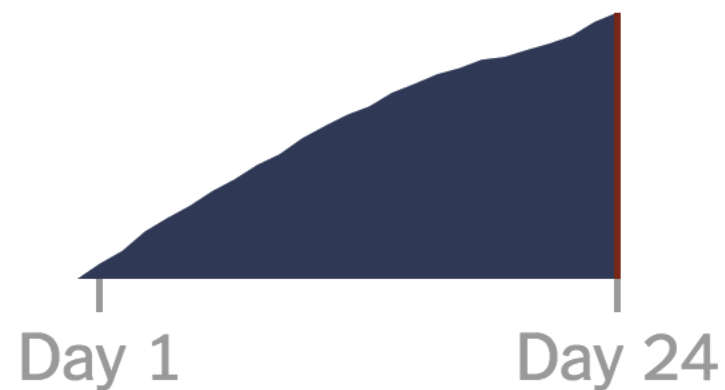


Hiding inconvenient data

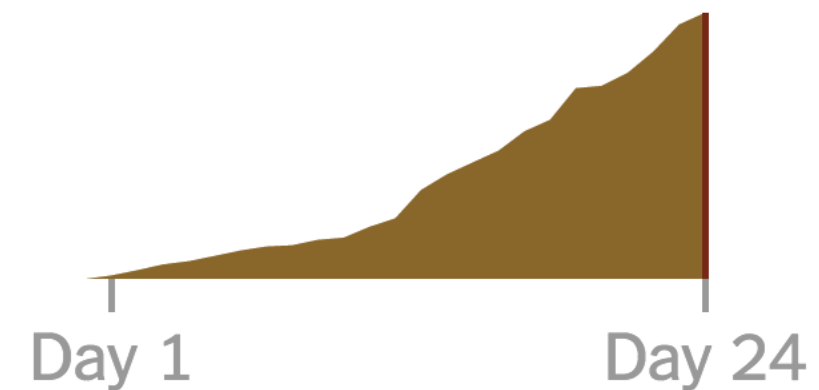
Cumulative Israeli
airstrikes/ground attacks

WHERE IS
THIS DATA?

Cumulative rockets fired
at Israel from Gaza



Cumulative
deaths



Hiding inconvenient data



Patrick Leddy @LeddyPatrick · Aug 9

@declankenny94 Hamas is 100% of the time the aggressor. Israel has no problem living in peace. nyti.ms/1ofzY43



[View summary](#)

Hiding inconvenient data



Mohammed Haddad @haddadme · Aug 3

@albertocairo Less impressive @nytgraphics showing Hamas' rockets side-by-side with deaths (killed by Israel's army) [nytimes.com/interactive/20...](https://www.nytimes.com/interactive/2023/08/03/middleeast/hamas-rockets-deaths.html)



KAnt @konstantinosant · Aug 3

Hamas rockets fired and deaths side by side on a @nytgraphics graph. Why do I assume the rockets killed those people? [nytimes.com/interactive/20...](https://www.nytimes.com/interactive/2023/08/03/middleeast/hamas-rockets-deaths.html)



[View summary](#)



CPierre67 @CPierre67 · Aug 3

@nytimes did it again [nyti.ms/1m8Y6Wr](https://www.nytimes.com/2023/08/03/middleeast/hamas-rockets-deaths.html). As if #Israel, the "victim" par excellence, did not start the conflict.



[View summary](#)

Manipulating data to back up your narrative

After persistent rocket fire from Gaza, Israel **launches air campaign** and threatens ground invasion.

2008-9 **Day 1** of 23

Airstrikes kill more than 300 Palestinians — the highest one-day toll in decades. Israeli officials say the strikes are the start of an operation to force Hamas to end its rocket barrages and could include ground forces.



2012 **Day 1** of 8

Israel unleashes a ferocious air assault on Gaza, killing a top military commander of Hamas, and warns that a ground invasion could be coming.



2014 **Day 1**

Source: The New York Times

00 targets — including senior
ling tunnels and rocket
Is up army reserves in

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Cumulative rockets fired at Israel from Gaza



Cumulative deaths



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When good design goes bad /
Using proximity to suggest false association /
Hiding inconvenient data /
Manipulating data to back up your narrative

3

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When good design goes bad/
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**When good design goes bad/Using proximity to suggest false association/
Hiding inconvenient data/
Manipulating data to back up your narrative**

Thank you

ANNA FLAGG

Al Jazeera+

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Wikimedia Foundation

@moizsyed

