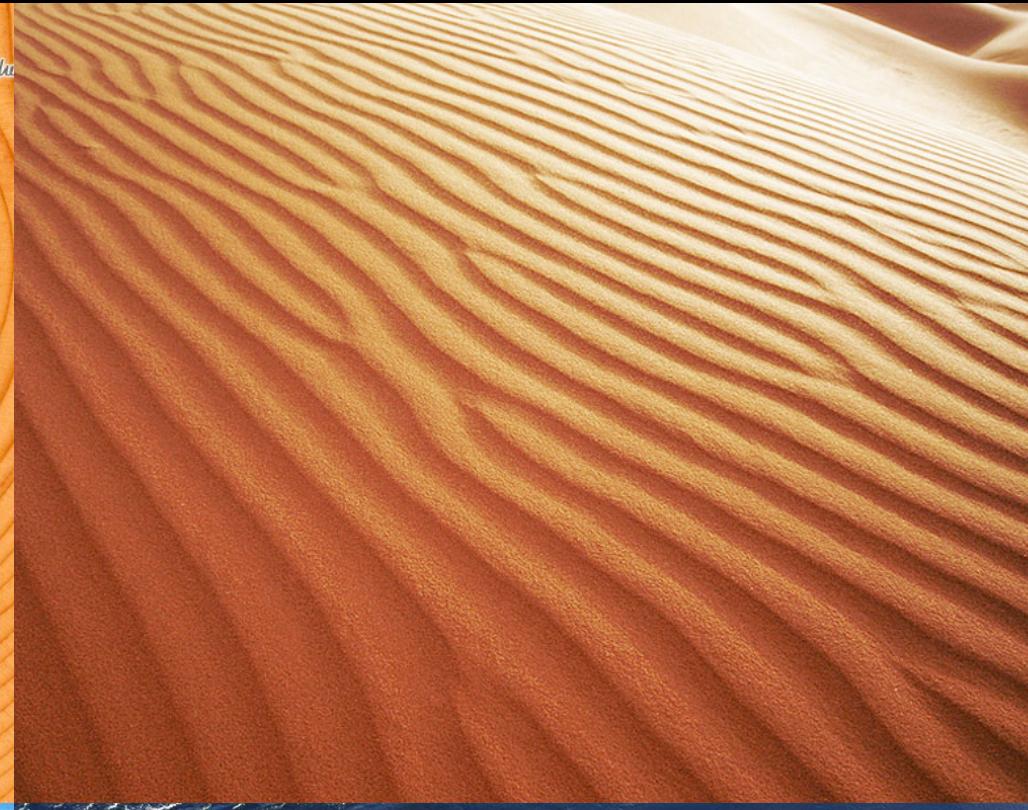
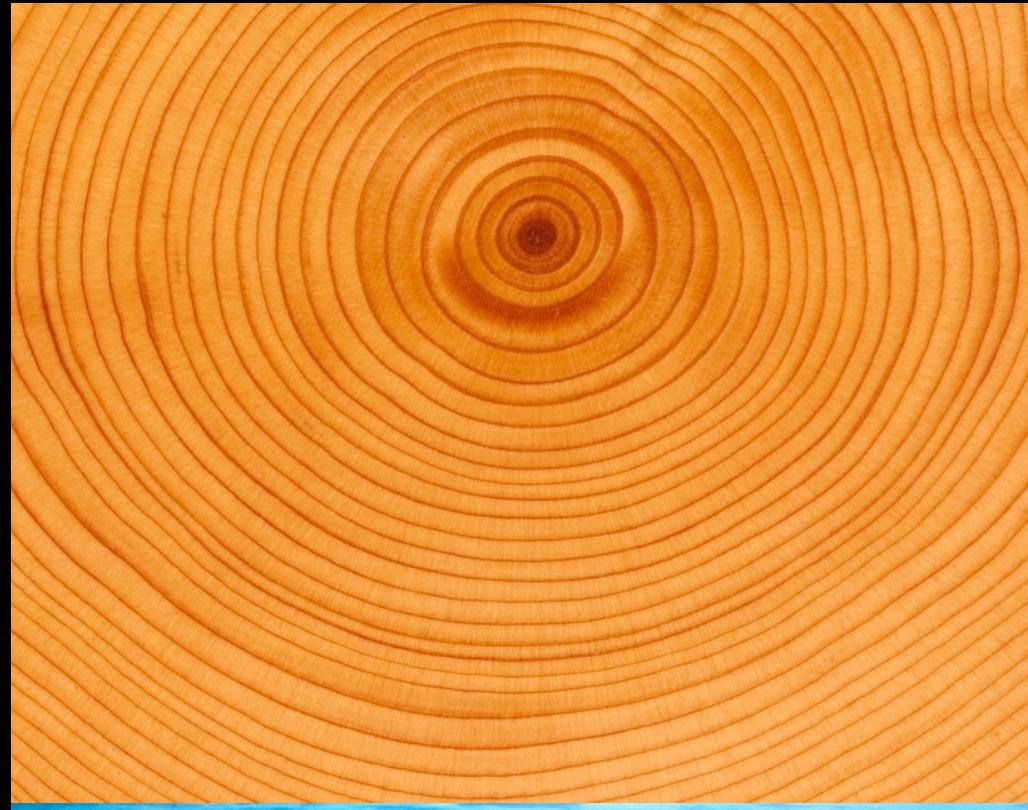


DESIGNING VISUALIZATIONS

	A	B	C
1	Query	Searches	Volume
3	pga	5244	11.08230719
4	pga.com	2583	6.610499028
5	freegolfinfo	64	4.147764096
6	golf tips	1884	3.046014258
7	golf	176386	1.62022035
8	pga tour	4142	1.360985094
9	michigan football	5105	0.777705768
10	golf swing	1596	0.777705768
11	pga golf	1406	0.712896954
12	pga championship	504	0.583279326
13	mgoblue	311	0.583279326
14	putting tips	133	0.518470512
15	golf shank	22	0.453661698
16	michigan wolverines	2587	0.453661698
17	golf lessons	463	0.453661698
18	us open	6077	0.388852884
19	online golf tips	8	0.388852884
20	university of michigan	4948	0.32404407
21	golf schools	1657	0.32404407
22	how to play golf	394	0.32404407
23	free video golf lessons	5	0.32404407
25	stratton	976	0.259235256
26	swing plane	15	0.259235256



Travel Pictures

PATTERNS





4321
543211
76543211
876543211
9887653211
99887653211
9998764321
88998754321
7789998764321
5678999876544333
3467899988765544333223

1122345555543
1122345555543
1122345666654
112345677665
11235667765
11234556655
11223444444
11223333333
11222222222

7	2	5	2	8	3	1	7	4	0	9	7	9	3	5	2	1	7	2	5	6	6	4
4	3	2	6	1	6	8	1	9	1	4	2	5	7	2	1	6	1	4	6	1	6	9
3	6	2	6	3	8	0	5	9	2	6	3	6	5	2	1	8	3	6	2	6	3	6
8	4	7	2	2	6	8	2	1	9	6	4	5	3	2	9	6	0	4	0	4	5	3
7	5	2	4	1	7	3	4	6	8	3	9	2	4	9	6	4	2	8	5	2	1	8
2	8	3	6	1	3	8	0	9	5	7	4	2	4	7	2	9	7	3	6	3	6	3
6	8	3	4	1	8	5	8	5	8	6	3	9	4	7	5	9	2	5	8	4	6	8
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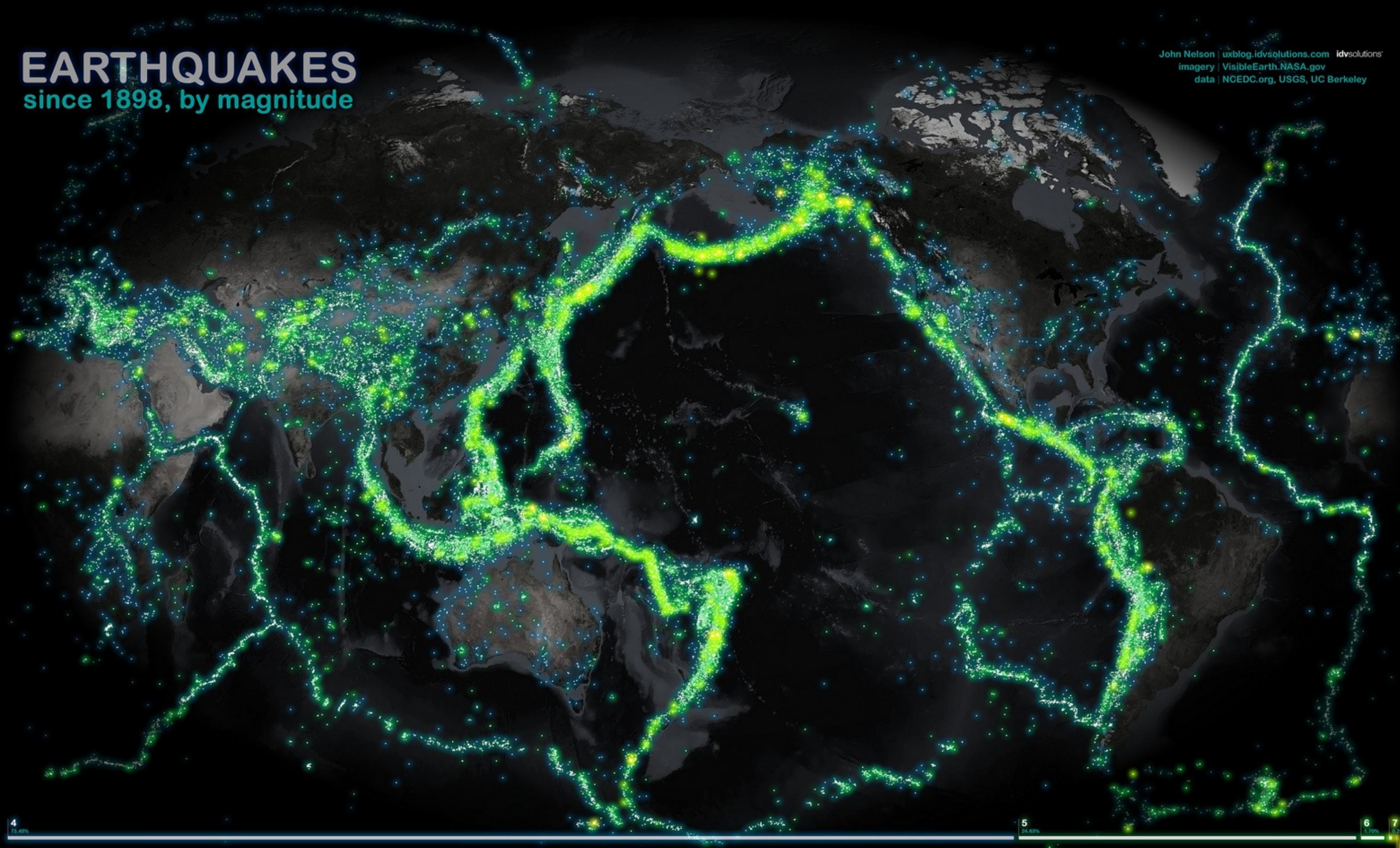
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6	8	3	4	1	8	5	8	5	8	6	3	9	4	7	5	9	2	5	8	4	6	8	
5	8	4	2	8	9	5	0	7	8	2	6	4	7	3	6	9	5	8	5	2	4	7	

The purpose of visualization
is insight, not pictures

-- Ben Shneiderman

EARTHQUAKES since 1898, by magnitude

John Nelson | uxblog.idvsolutions.com idvsolutions'
Imagery | VisibleEarth.NASA.gov
Data | NCEDC.org, USGS, UC Berkeley



THE ART OF COMMUNICATION



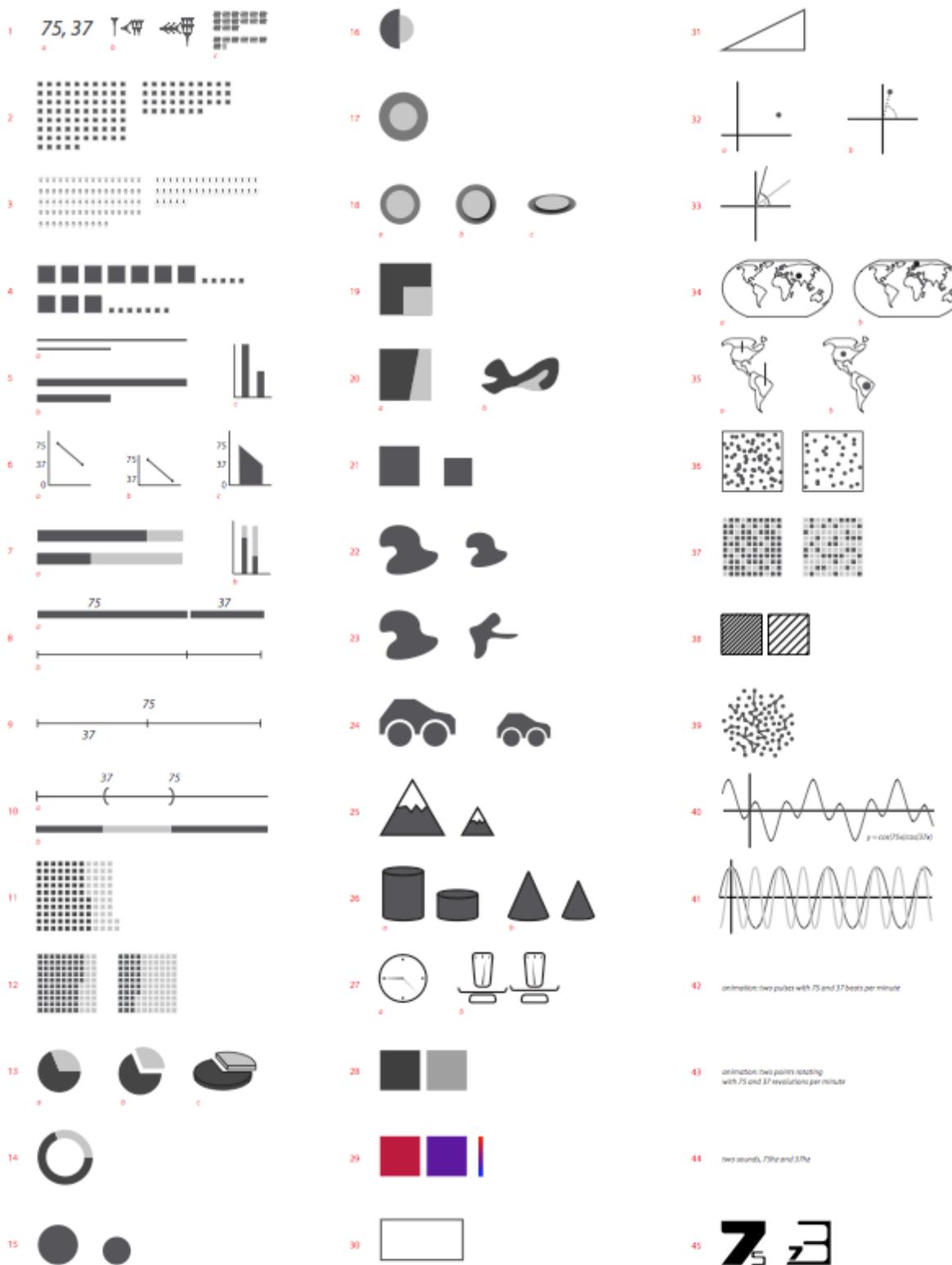
**COMMUNICATE
CLEARLY AND EFFECTIVELY**

**STIMULATE
ENGAGE THE VIEWER ATTENTION**

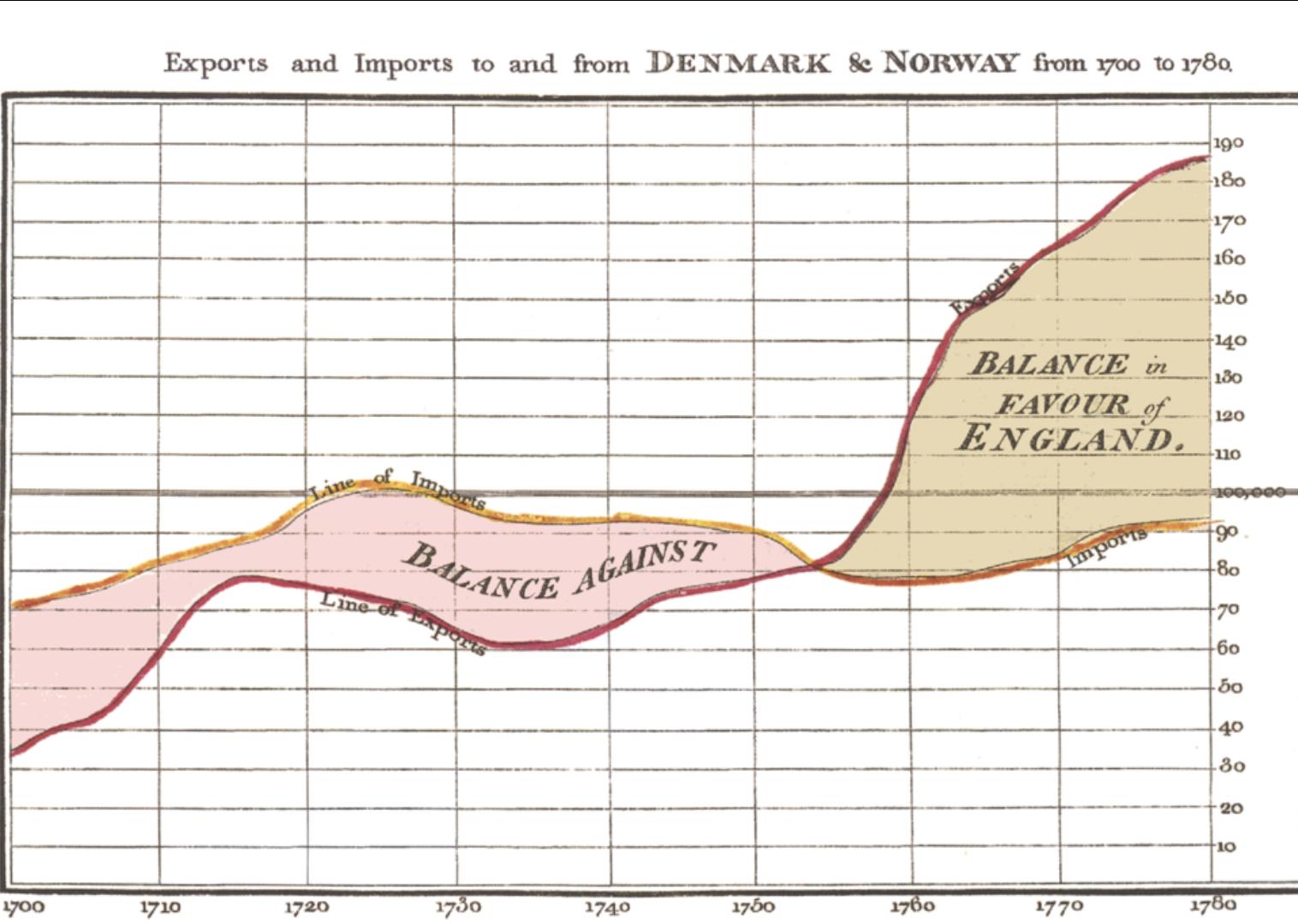


A VISUAL LANGUAGE

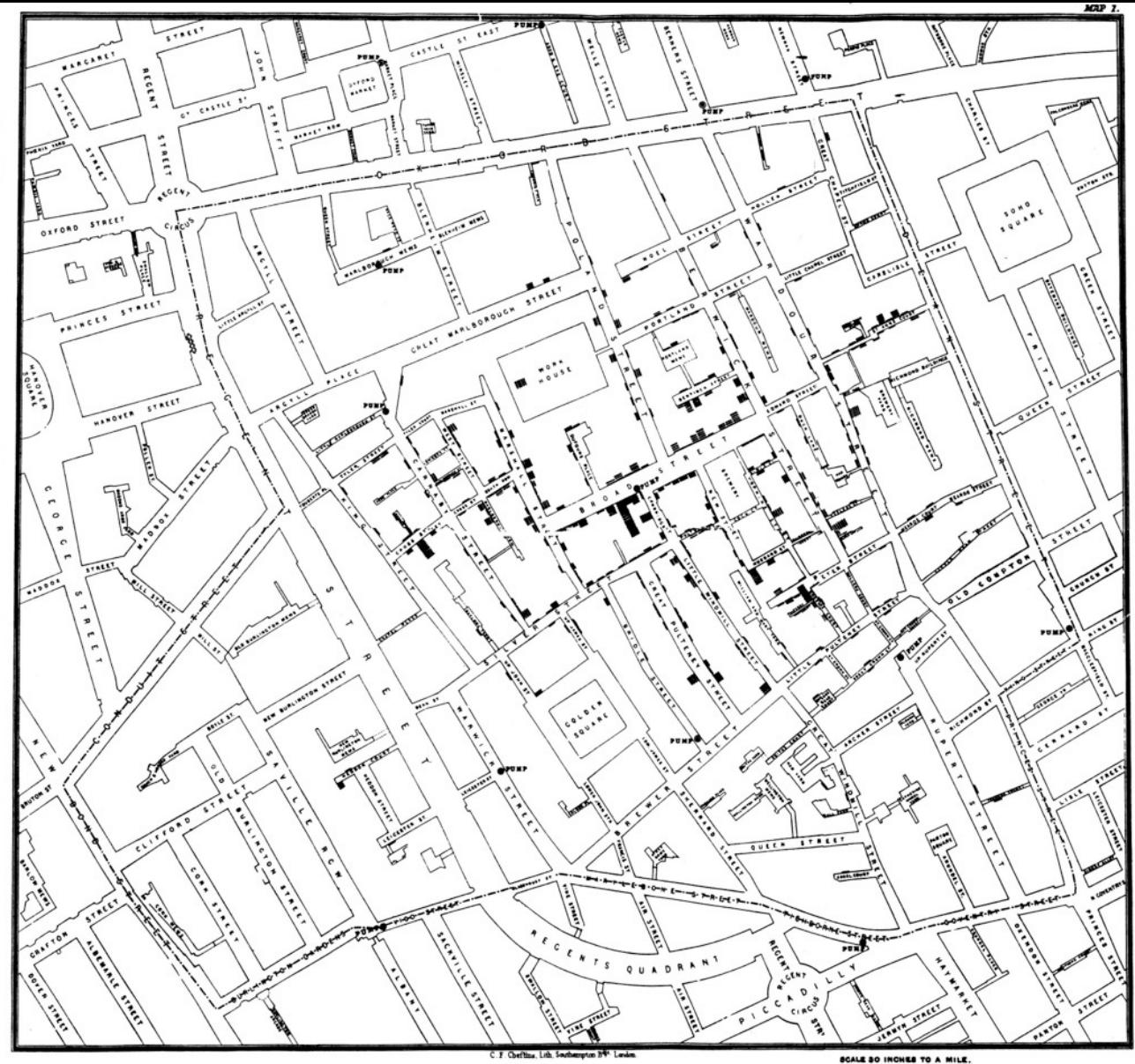
75, 37 multiple ways to communicate two quantities



EARLY DAYS



WILLIAM PLAYFAIR | EXPORTS AND IMPORTS OF DENMARK AND NORWAY (1786)



JOHN SNOW | COMMUNICATION OF CHOLERA (1854)

Carte Figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812-1813.

Dessinée par M. Minard, Inspecteur Général des Ponts et Chaussées en retraite Paris, le 20 Novembre 1869.

Les nombres d'hommes présents sont représentés par les largeurs des zones colorées à raison d'un millimètre pour dix mille hommes; ils sont de plus écrits en lettres des zones. Le rouge désigne les hommes qui entrent en Russie, le noir ceux qui en sortent. — Les renseignements qui ont servi à dresser la carte ont été puisés dans les ouvrages de M. M. Chiers, de Séguir, de Fezensac, de Chambray et le journal inédit de Jacob, pharmacien de l'Armée depuis le 28 Octobre.

Pour mieux faire juger à l'œil la diminution de l'armée, j'ai supposé que les corps du Prince Jérôme et du Maréchal Davout qui avaient été détachés sur Minsk en Mohilow et qui rejoignirent Orscha en Witebsk, avaient toujours marché avec l'armée.

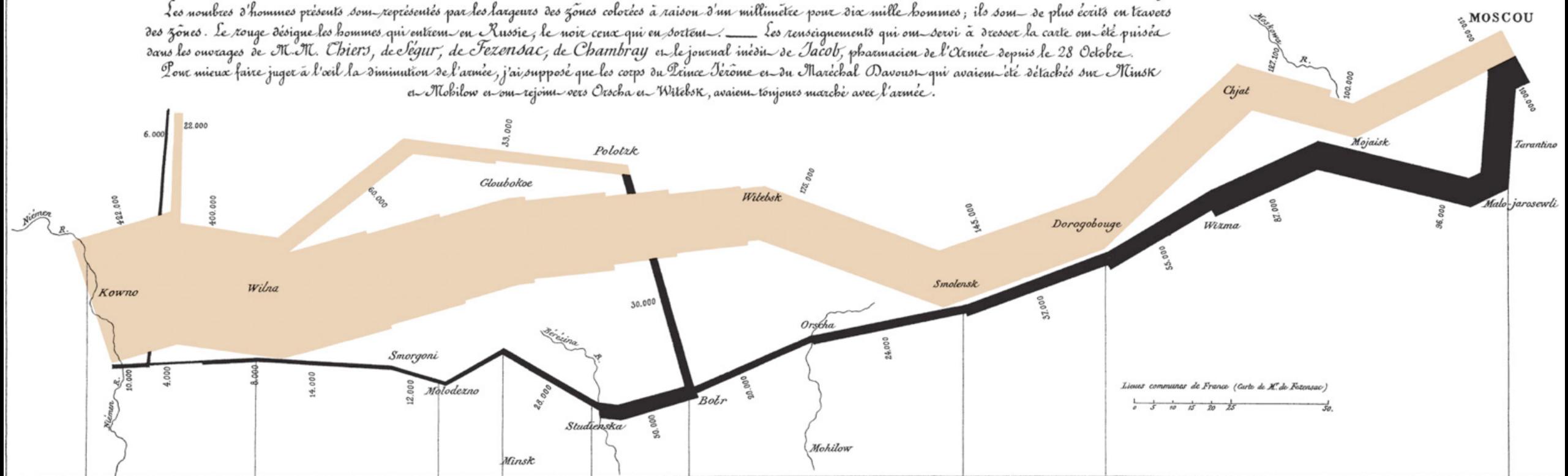


TABLEAU GRAPHIQUE de la température en degrés du thermomètre de Réaumur au dessous de zéro.

Les Cosaques passent au galop
le Niemen gelé.

-26° le 7 X.^{bre}
-30° le 6 X.^{bre}
-24° le 1^{er} X.^{bre}
-20° le 28 9.^{bre}
-11°

Zero le 18 8.^{bre}
-21° le 14 9.^{bre}
-9° le 9 9.^{bre}
Pluie 24 8.^{bre}
30 degrés

Avec la permission de Regnier, 8, Rue St Marie St Gervais à Paris.

Imp. Lith. Regnier et Bourdet.

CHARLES MINARD | MAP OF NAPOLEON'S MARCH (1869)

hydrogen 1 H 1.0079																	helium 2 He 4.0026	
lithium 3 Li 6.941	beryllium 4 Be 9.0122																	
sodium 11 Na 22.990	magnesium 12 Mg 24.305																	
potassium 19 K 39.098	calcium 20 Ca 40.078																	
rubidium 37 Rb 85.468	strontium 38 Sr 87.62																	
caesium 55 Cs 132.91	barium 56 Ba 137.33	57-70 *	lutetium 71 Lu 174.97	hafnium 72 Hf 178.49	tantalum 73 Ta 180.95	tungsten 74 W 183.84	rhenium 75 Re 186.21	osmium 76 Os 190.23	iridium 77 Ir 192.22	platinum 78 Pt 195.08	gold 79 Au 196.97	mercury 80 Hg 200.59	thallium 81 Tl 204.38	lead 82 Pb 207.2	bismuth 83 Bi 208.98	polonium 84 Po [209]	astatine 85 At [210]	radon 86 Rn [222]
francium 87 Fr [223]	radium 88 Ra [226]	89-102 **	lawrencium 103 Lr [262]	rutherfordium 104 Rf [261]	dubnium 105 Db [262]	seaborgium 106 Sg [266]	bohrium 107 Bh [269]	hassium 108 Hs [268]	meitnerium 109 Mt [271]	ununnilium 110 Uun [272]	unununium 111 Uuu [277]	ununbium 112 Uub [277]		ununquadium 114 Uuq [289]				

* Lanthanide series	lanthanum 57 La 138.91	cerium 58 Ce 140.12	praseodymium 59 Pr 140.91	neodymium 60 Nd 144.24	promethium 61 Pm [145]	samarium 62 Sm 150.36	euroium 63 Eu 151.96	gadolinium 64 Gd 157.25	terbium 65 Tb 158.93	dysprosium 66 Dy 162.50	holmium 67 Ho 164.93	erbium 68 Er 167.26	thulium 69 Tm 168.93	ytterbium 70 Yb 173.04
** Actinide series	actinium 89 Ac [227]	thorium 90 Th 232.04	protactinium 91 Pa 231.04	uranium 92 U 238.03	neptunium 93 Np [237]	plutonium 94 Pu [244]	americium 95 Am [243]	curium 96 Cm [247]	berkelium 97 Bk [247]	californium 98 Cf [251]	einsteinium 99 Es [252]	fermium 100 Fm [257]	mendelevium 101 Md [258]	nobelium 102 No [259]

DMITRI MENDELEEV | PERIODIC TABLE OF ELEMENTS (1869)

DON'T

[HTTP://VIZ.WTF/](http://VIZ.WTF/)

A PERIODIC TABLE OF VISUALIZATION METHODS

> < ☼ C continuum	Data Visualization Visual representations of quantitative data in schematic form (either with or without axes)												Strategy Visualization The systematic use of complementary visual representations in the analysis, development, formulation, communication, and implementation of strategies in organizations.												> < ☼ G graphic facilitation
> < ☼ Tb table	> < ☼ Ca cartesian coordinates	> < ☼ Pi pie chart	> < ☼ L line chart	> < ☼ B bar chart	> < ☼ Ac area chart	> < ☼ R radar chart	> < ☼ Pa cobweb	> < ☼ Hy hyperbolic tree	> < ☼ Cy cycle diagram	> < ☼ T timeline	> < ☼ Ve venn. diagram	< > ☼ Mi mindmap	< > ☼ Sq square of oppositions	> < ☼ Cc concentric circles	> < ☼ Ar argument slide	> < ☼ Co communication diagram	> < ☼ Fp flight plan	> < ☼ Cs concept skeleton	> < ☼ Mm metro map	> < ☼ Tm temple	< > ☼ St story template	> < ☼ Tr tree	> < ☼ Ct cartoon		
> < ☼ Hi histogram	> < ☼ Sc scatterplot	> < ☼ Sa sankey diagram	> < ☼ In information lens	> < ☼ E relationship diagram	> < ☼ Pt petri net	> < ☼ Fl flow chart	< > ☼ Cl clustering	> < ☼ Lc layer chart	> < ☼ Py minto pyramid technique	> < ☼ Ce cause-effect chains	> < ☼ Ti toulmin map	> < ☼ Dt decision tree	> < ☼ Cp cpm critical path method	< > ☼ Cf concept fan	> < ☼ Pm perspectives diagram	< > ☼ D dilemma diagram	> < ☼ Pr parameter ruler	> < ☼ Kn knowledge map							
> < ☼ Tk tukey box plot	> < ☼ Sp spectrogram	> < ☼ Da data map	> < ☼ Tp treemap	> < ☼ Cn cone tree	> < ☼ Sy system dyn./ simulation	> < ☼ Df data flow diagram	< > ☼ Se semantic network	> < ☼ So soft system modeling	< > ☼ Sn synergy map	< > ☼ Fo force field diagram	> < ☼ Ib ibis argumentation map	> < ☼ Pr process event chains	> < ☼ Pe pert chart	< > ☼ Ev evocative knowledge map	> < ☼ V vee diagram	< > ☼ Hh heaven 'n' hell chart	> < ☼ Lm learning map								
> < ☼	> < ☼	> < ☼	> < ☼	> < ☼	> < ☼	> < ☼	> < ☼	< > ☼	> < ☼	> < ☼	> < ☼	> < ☼	< > ☼	> < ☼	< > ☼	> < ☼	< > ☼	> < ☼	< > ☼	> < ☼	< > ☼	> < ☼			

Cy Process Visualization

Note: Depending on your location and connection speed it can take some time to load a pop-up picture.

version 1.5

© Ralph Lengler & Martin J. Eppler, www.visual-literacy.org

Hy Structure Visualization

☼ □ Overview Detail

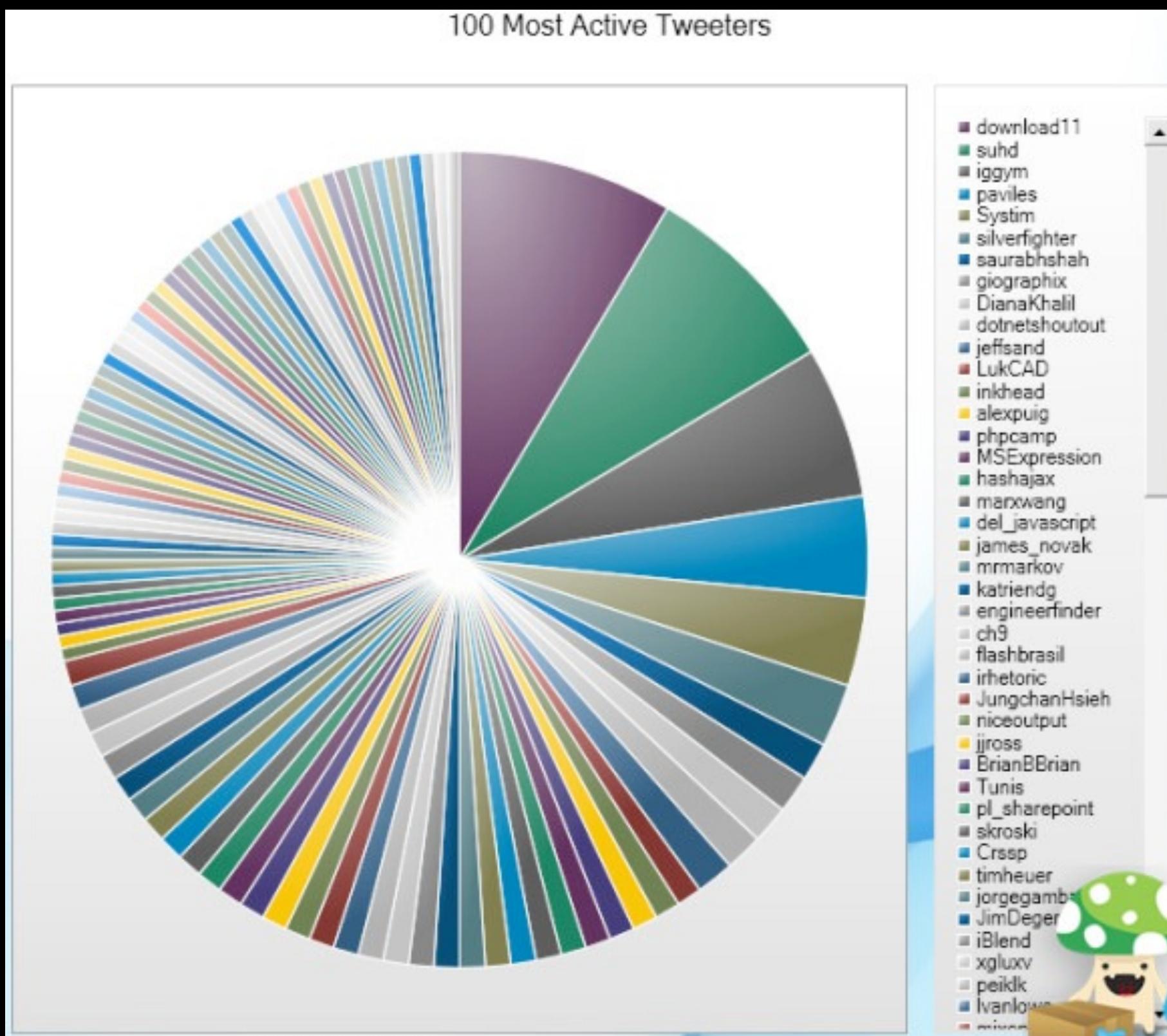
◎ Detail AND Overview

< > Divergent thinking

> < Convergent thinking

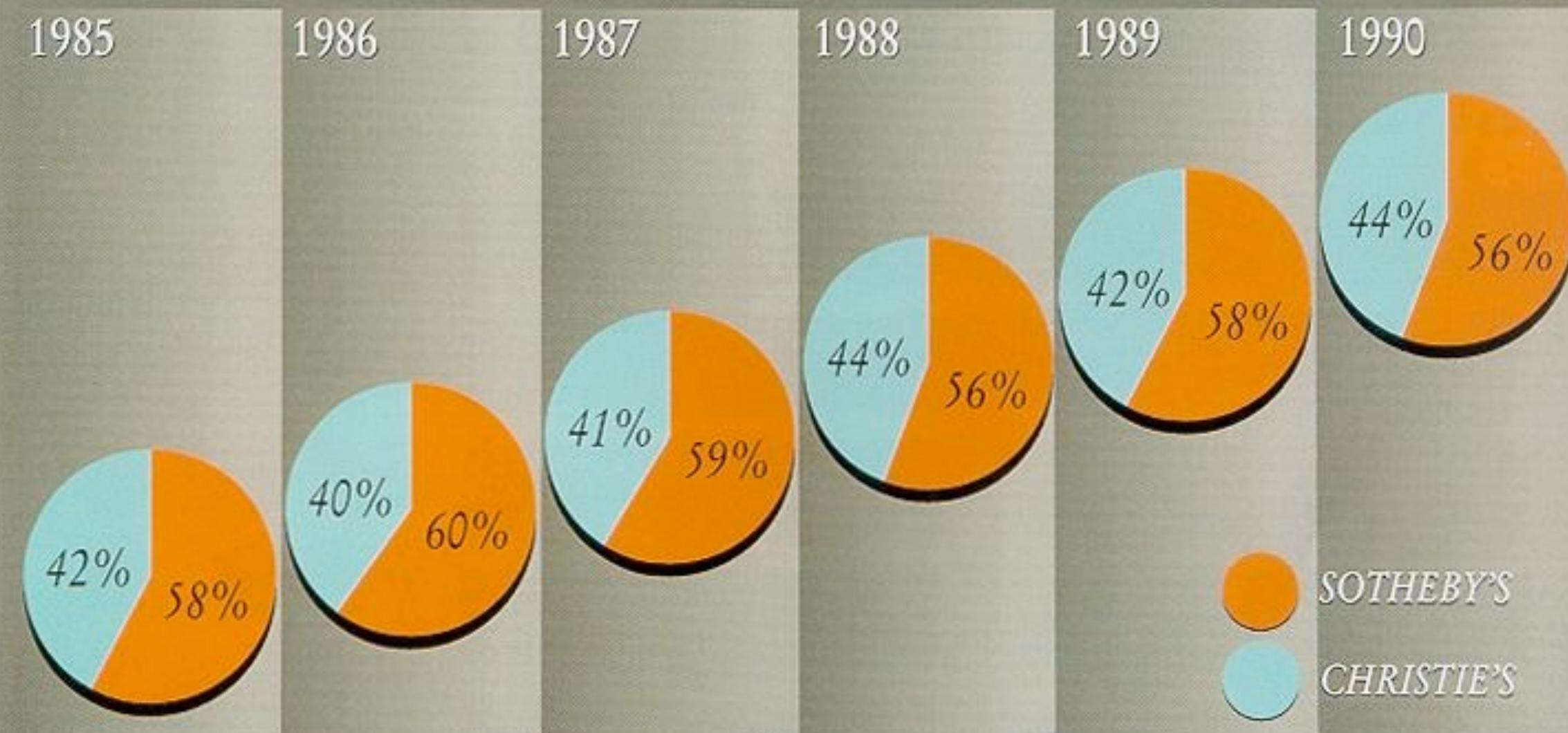
> < ☼ Su supply demand curve	> < ☼ Pc performance charting	> < ☼ St strategy map	> < ☼ Oc organisation chart	< > ☼ Ho house of quality	> < ☼ Fd feedback diagram	□ Ft failure tree	> < ☼ Mq magic quadrant	> < ☼ Ld life-cycle diagram	> < ☼ Po porter's five forces	< > ☼ S s-cycle	> < ☼ Sm stakeholder map	< > ☼ Is ishikawa diagram	> < ☼ Tc technology roadmap
> < ☼ Ed edgeworth box	> < ☼ Pf portfolio diagram	> < ☼ Sg strategic game board	> < ☼ Mz mintzberg's organigraph	< > ☼ Z zwicky's morphological box	< > ☼ Ad affinity diagram	□ De decision discovery diagram	> < ☼ Bm bcg matrix	> < ☼ Stc strategy canvas	> < ☼ Vc value chain	< > ☼ Hy hype-cycle	> < ☼ Sr stakeholder rating map	> < ☼ Ta taps	< > ☼ Sd spray diagram

100 Most Active Tweeters



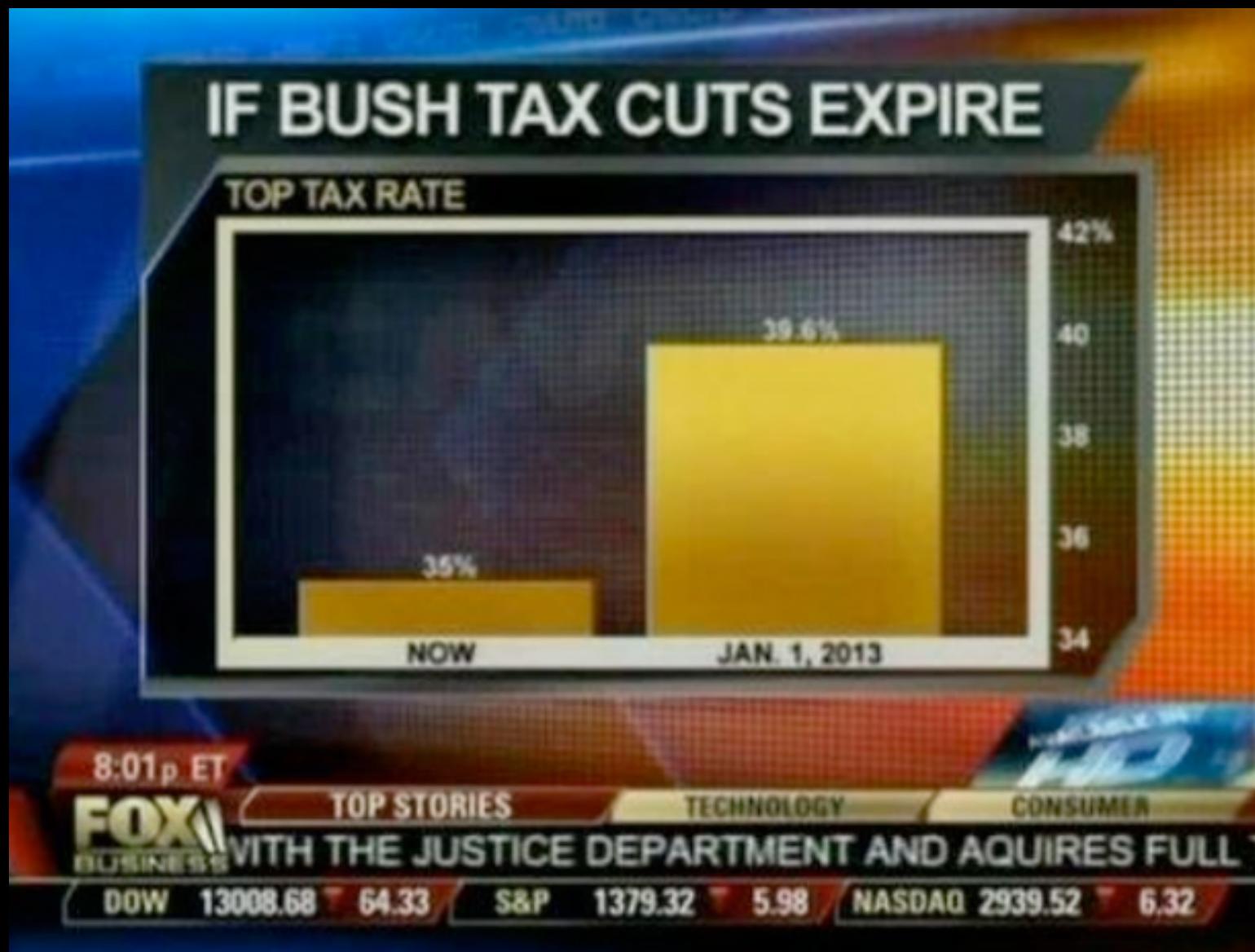
Sotheby's / Christie's

Worldwide Sales Market Share Analysis



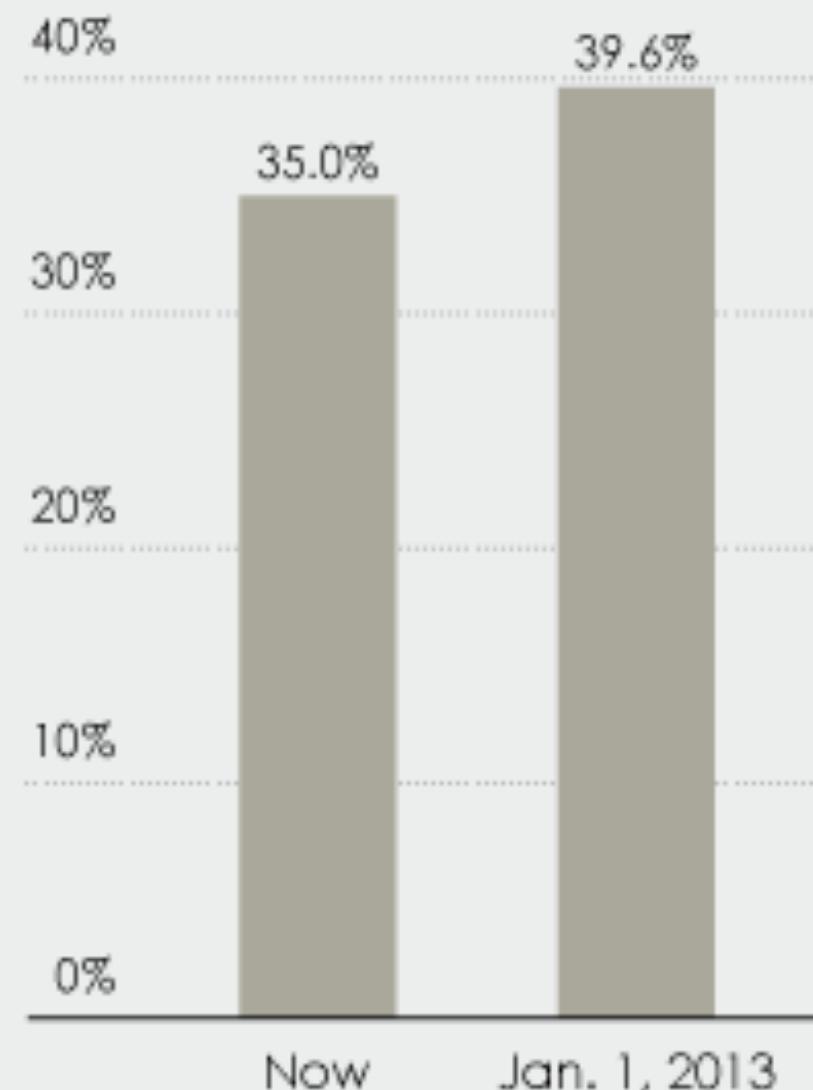
Market Share Analysis With Buyer's Premium

INTELLECTUAL RESPONSIBILITY

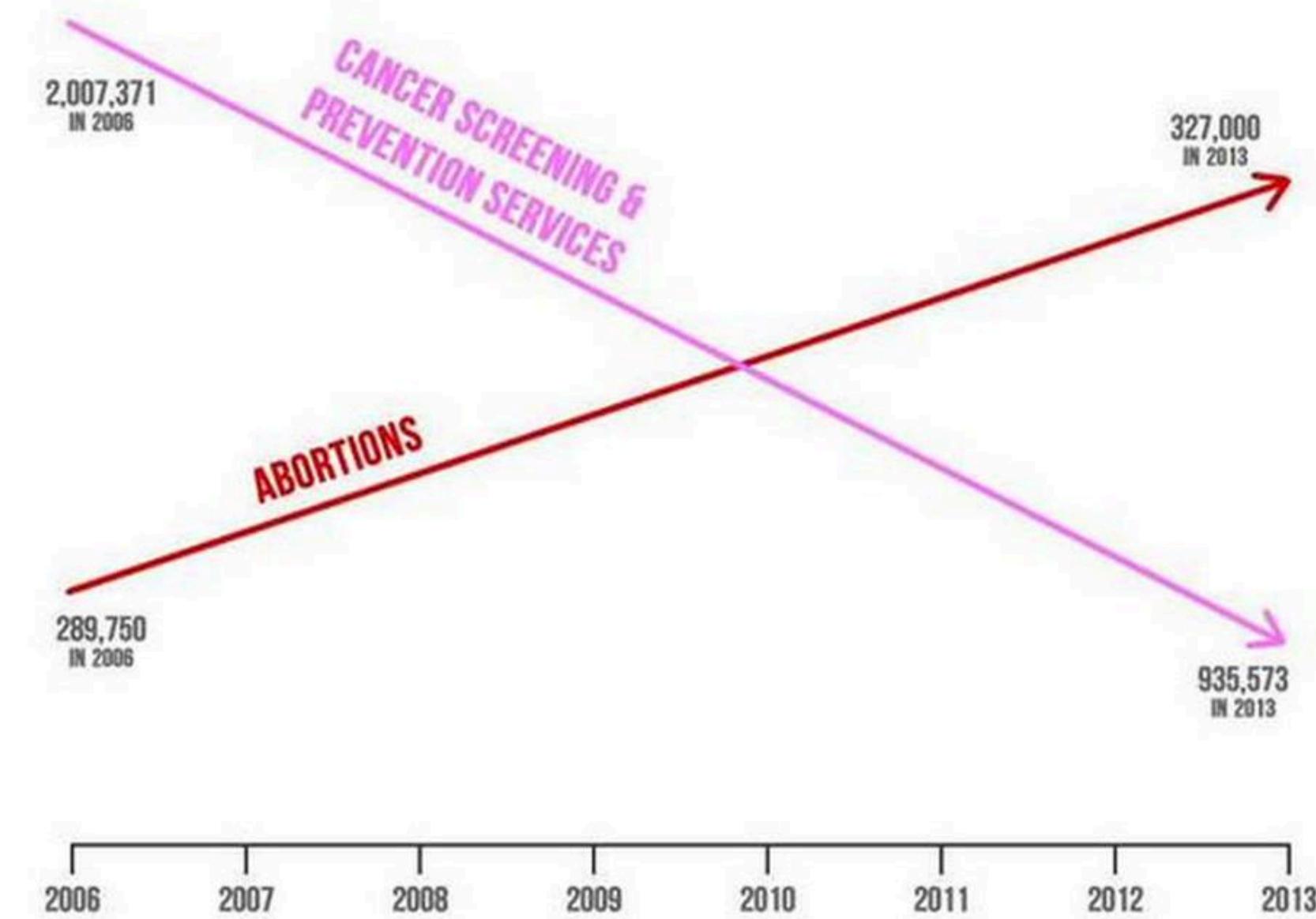


If Bush tax cuts expire...

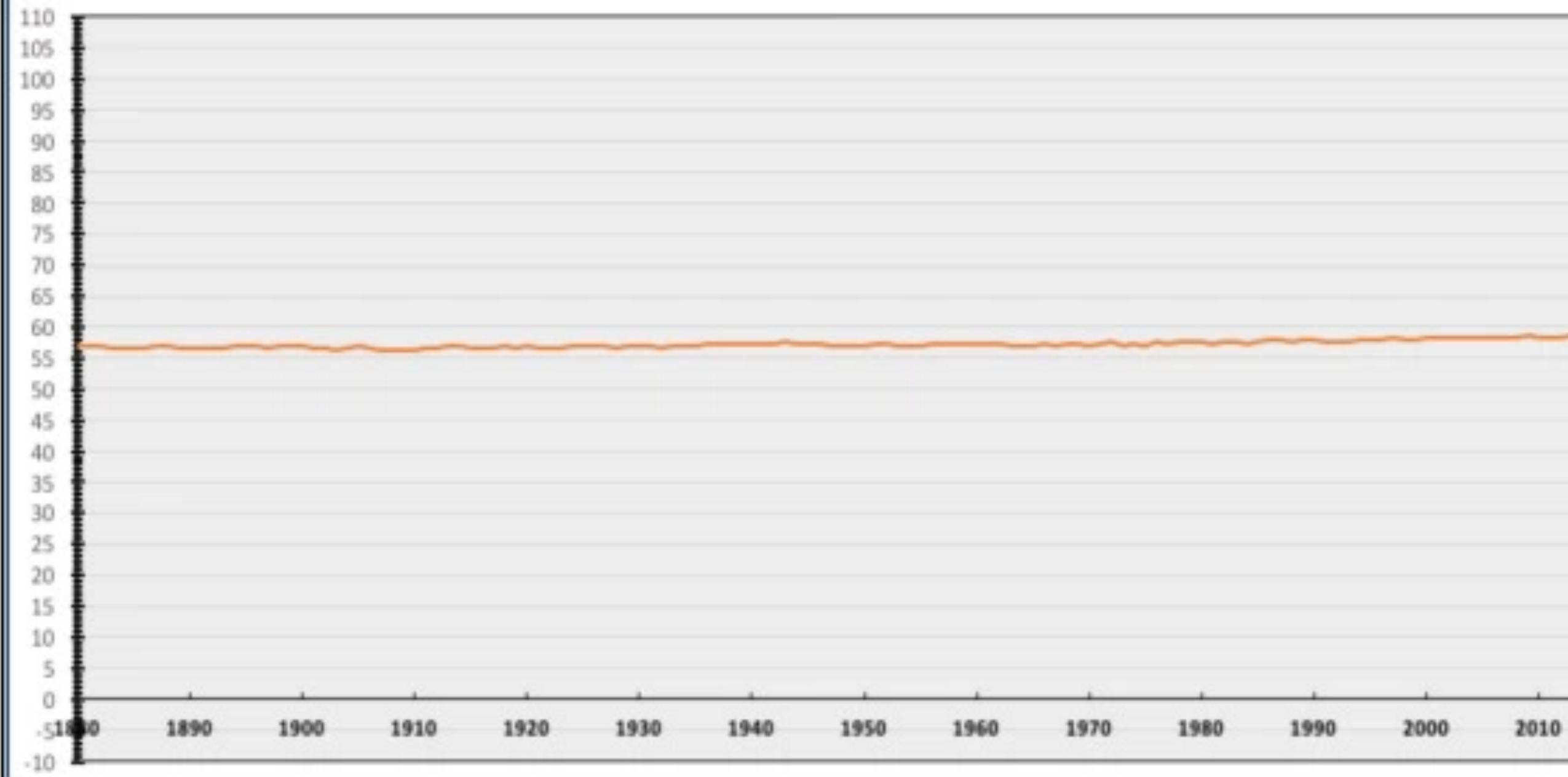
Top tax rate



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



Average Annual Global Temperature in Fahrenheit 1880-2015

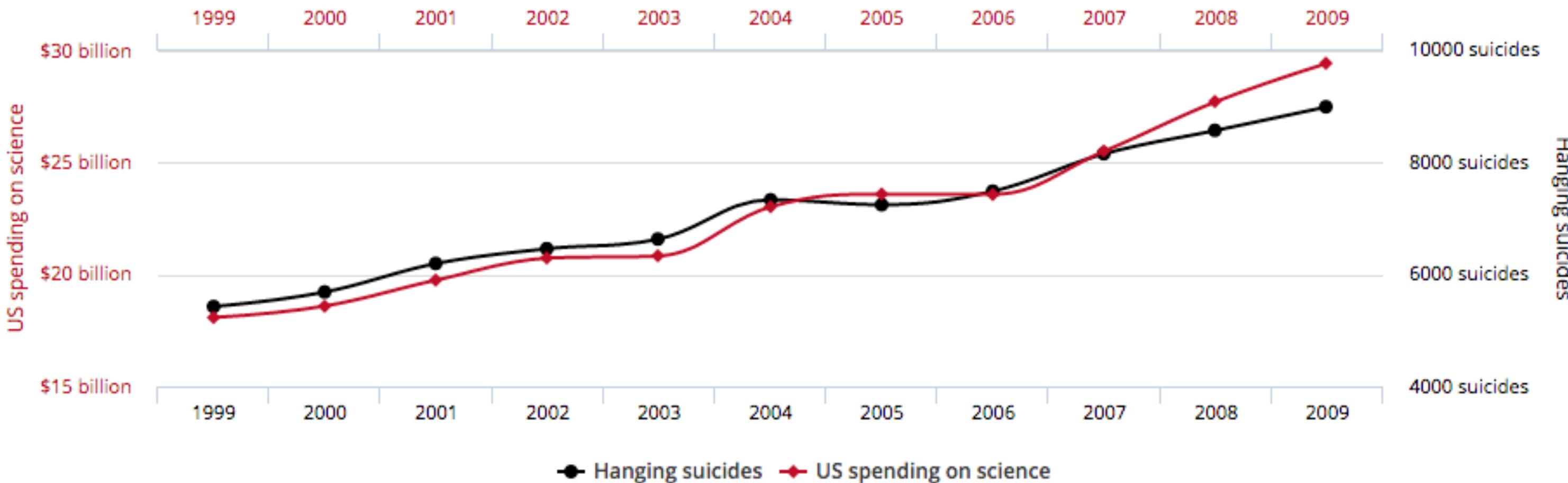


CORRELATION IS NOT CAUSATION

US spending on science, space, and technology correlates with Suicides by hanging, strangulation and suffocation



Correlation: 99.79% ($r=0.99789126$)

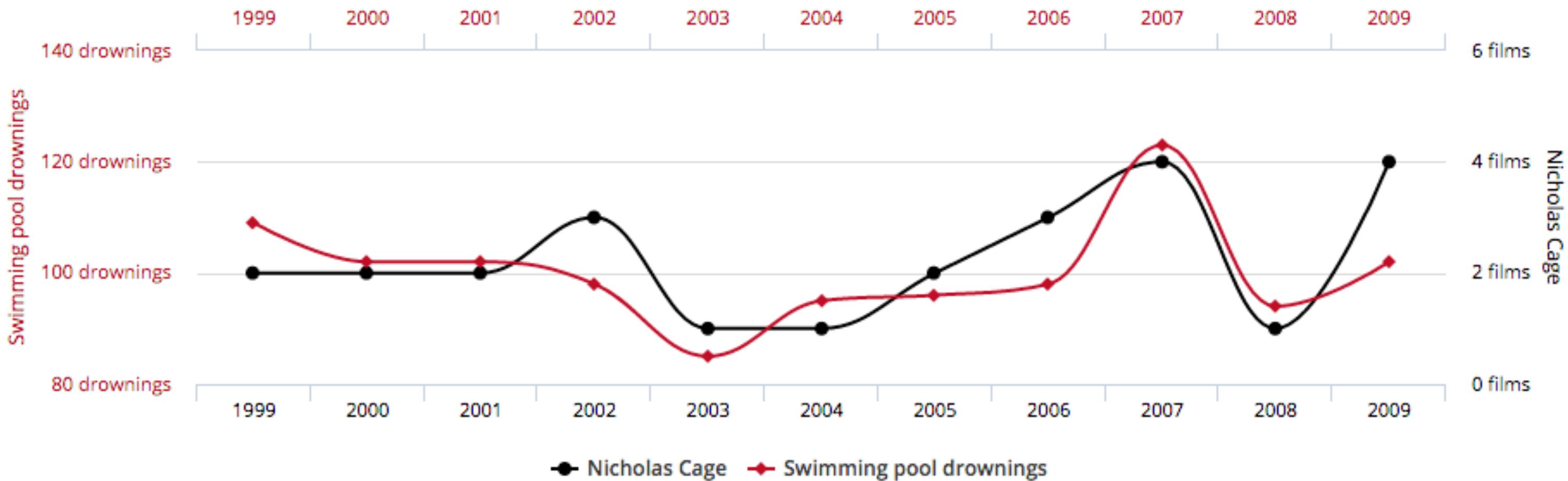


Data sources: U.S. Office of Management and Budget and Centers for Disease Control & Prevention

tylervigen.com

Number of people who drowned by falling into a pool correlates with Films Nicolas Cage appeared in

Correlation: 66.6% ($r=0.666004$)



Data sources: Centers for Disease Control & Prevention and Internet Movie Database

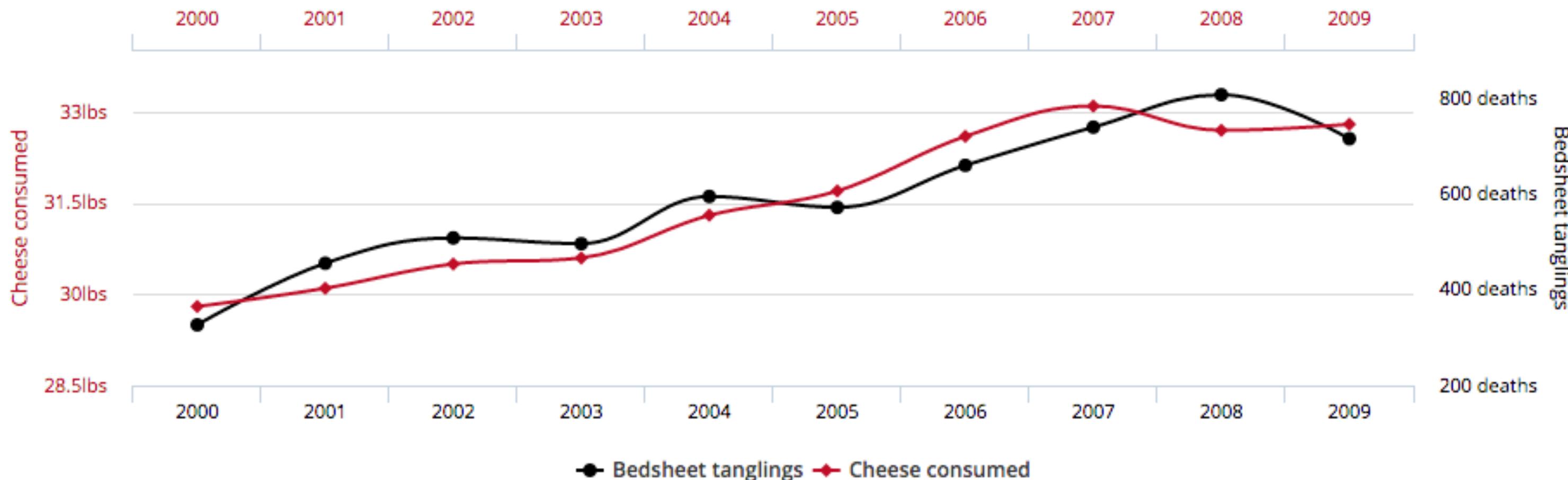
tylervigen.com

Per capita cheese consumption

correlates with

Number of people who died by becoming tangled in their bedsheets

Correlation: 94.71% ($r=0.947091$)



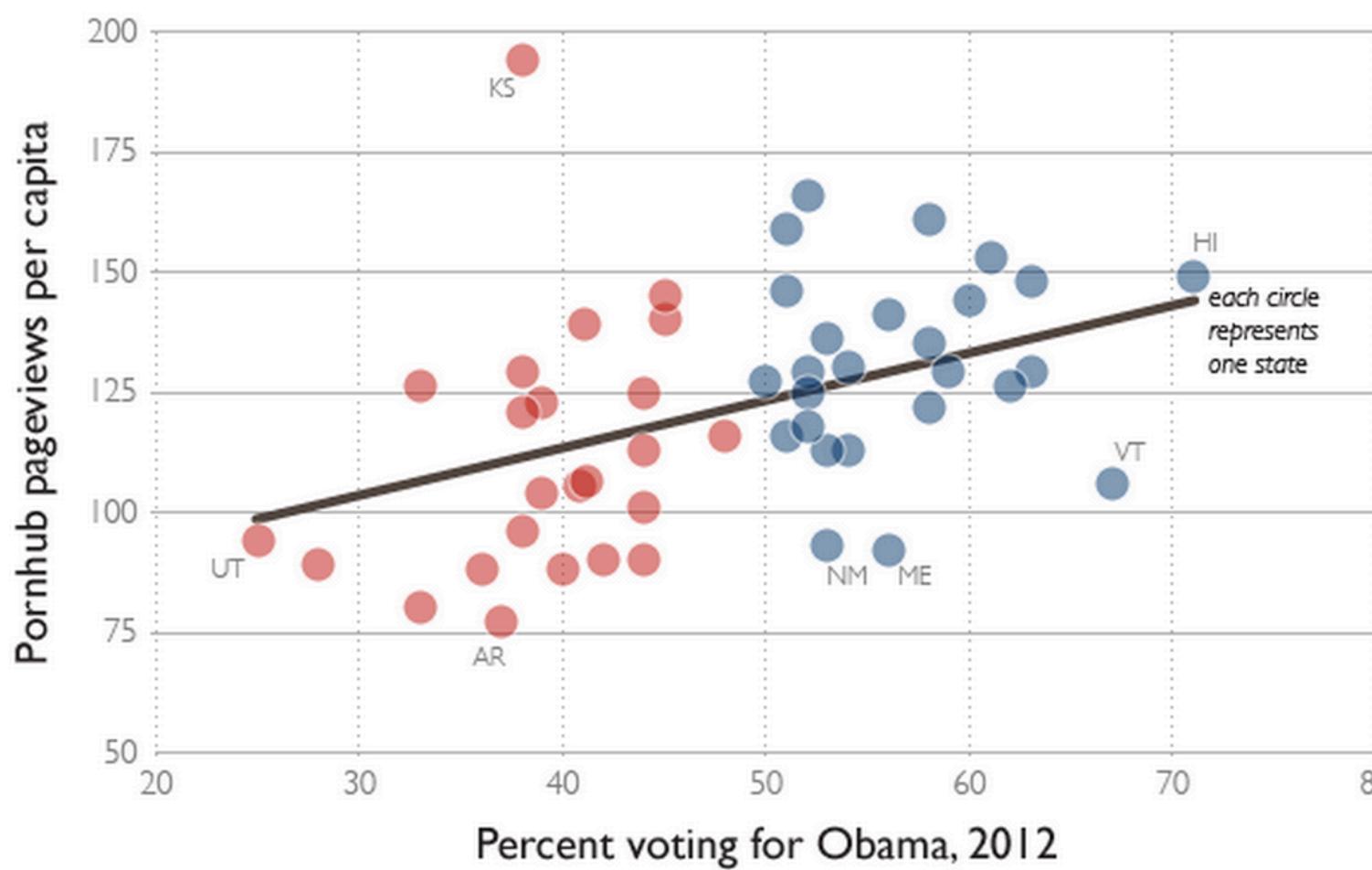
Data sources: U.S. Department of Agriculture and Centers for Disease Control & Prevention

tylervigen.com

NEVER TRUST DATA AT FACE VALUE

Kansas is the nation's porn capital, according to Pornhub

Presidential politics and porn per capita



SOURCE: Pornhub Insights, Wikipedia

WONKVIZ.TUMBLR.COM

KANSAS HISTORICAL MARKER

THE GEOGRAPHIC CENTER

In a park three miles north and one mile west is the exact geographic center of the 48 contiguous states. The location has been officially established by the U.S. Geological Survey. It is the point where a plane map of the 48 states would balance if it were of uniform thickness. Transcontinental highway mileages are:



Erected by
Kansas Historical Society
and State Highway Commission

DOMAIN EXPERTS ARE ESSENTIAL

Demographics of Japan

From Wikipedia, the free encyclopedia

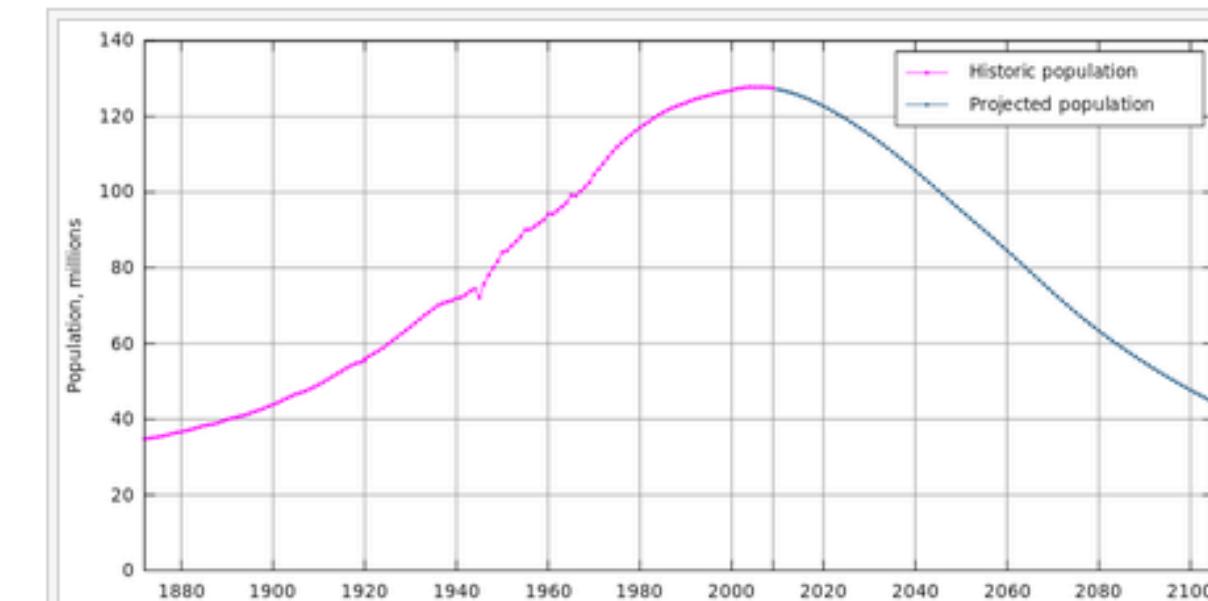
The [demographic](#) features of the [population of Japan](#) include [population density](#), [ethnicity](#), education level, health of the populace, economic status, religious affiliations and other aspects regarding the population.

Based on the census from October 2010, [Japan's population](#) was at one of its peaks – 128,057,352.

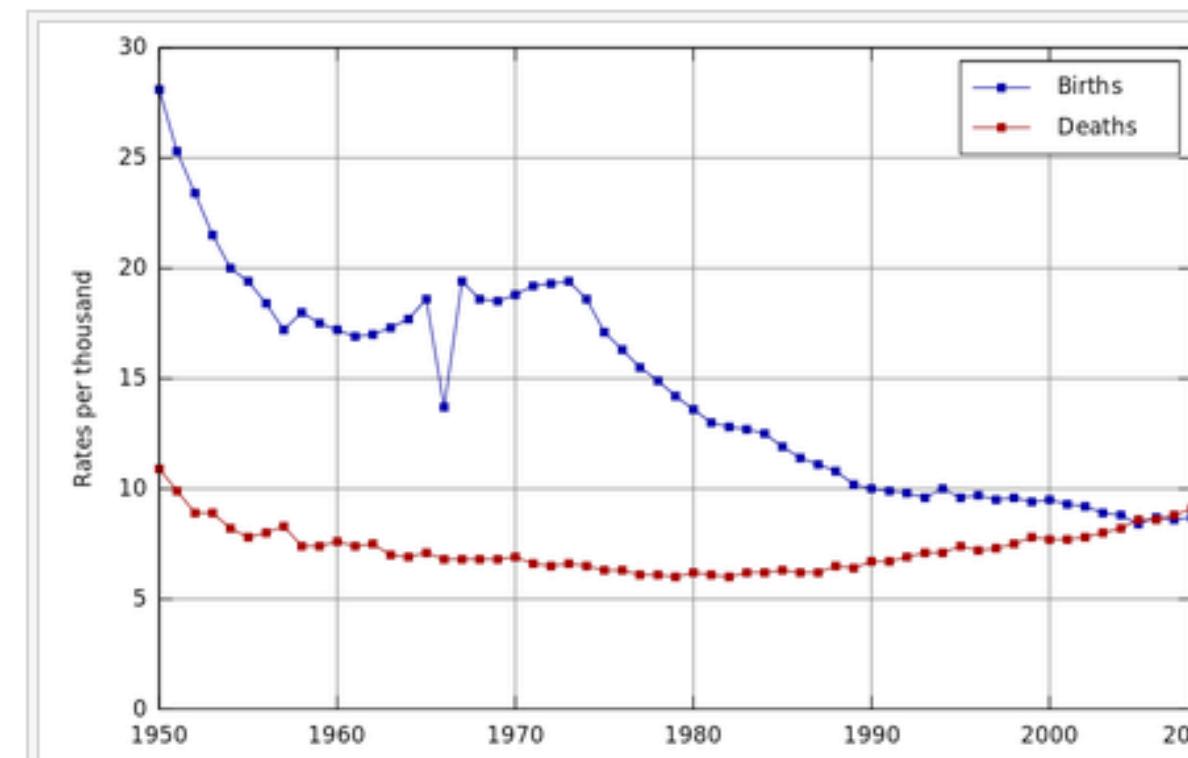
As of March 2012 the population estimate was 127,650,000^[1] making it the world's [tenth-most populous](#) country. Current statistics do not indicate much difference in population numbers.^[2] Japan's population size can be attributed to high growth rates experienced during the late 19th and early 20th centuries.

In recent years, Japan has experienced net population loss due to falling [birth rates](#) and almost no [immigration](#), despite having one of the highest [life expectancies](#) in the world at 81.25 years of age as of 2006.^[3] Using the annual estimate for October of each year, the population peaked in 2008 at 128,083,960 and had fallen 285,256 by October 2011.^[4] Japan's population density was 336 people per square kilometer.

Based on the latest data from the National Institute of Population and Social Security Research, Japan's population will keep declining by about one million people every year in the coming decades, which will leave Japan with a population of 86 million in 2060.^[5] By that time, more than 40% of the population is expected to be over age 65.^[6] In 2012, the population had for six consecutive years



Changes in Japan's population.



Japanese birth and death rates since 1950

In Japan, strong belief in astrology has led to dramatic changes in the fertility rate and the number of abortions in the years of Fire Horse.

Adherents believe that women born in hinoeuma years are unmarriageable and bring bad luck to their father or husband. In 1966, the number of babies born in Japan dropped by over 25% as parents tried to avoid the stigma of having a daughter born in the hinoeuma year.

THE PURPOSE IS KING

TERRORISM VS GUN VIOLENCE

WWW.NYTIMES.COM

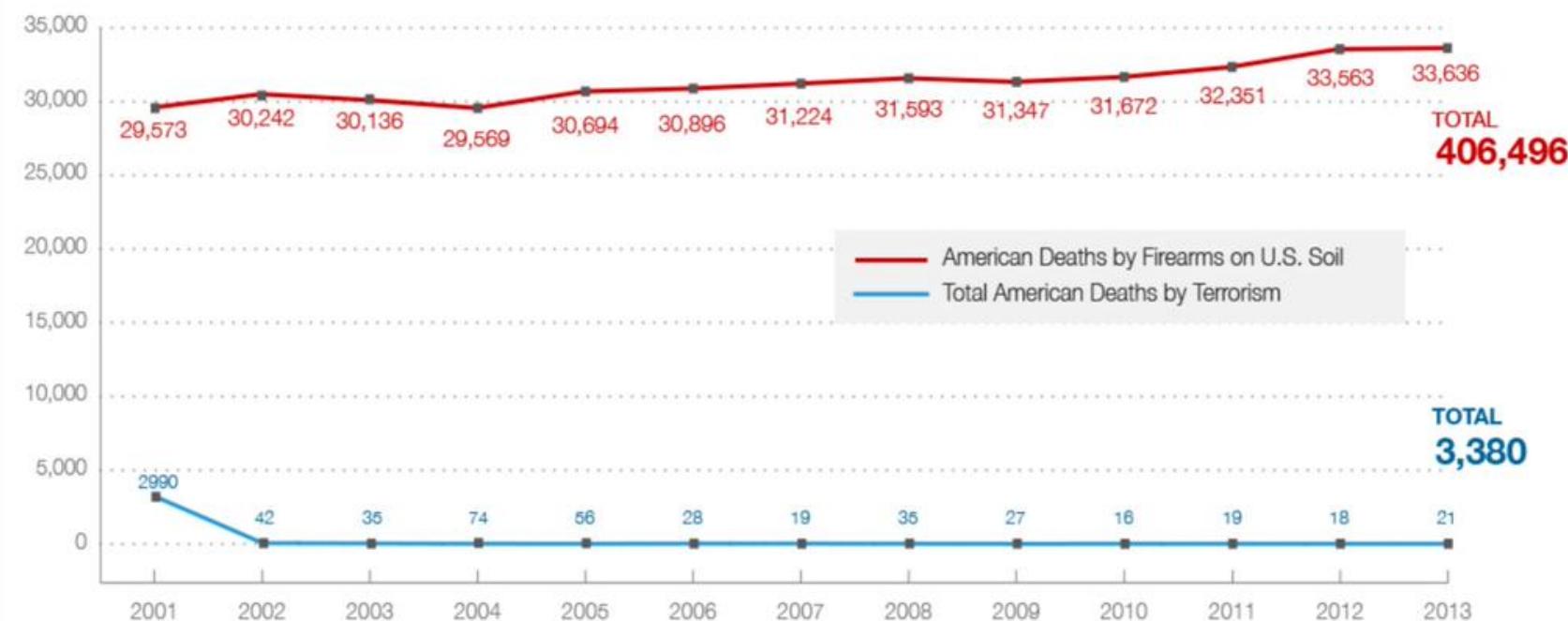


London, United Kingdom 13°



NUMBER OF AMERICAN DEATHS CAUSED BY TERRORISM VS. GUN VIOLENCE

For every American killed by terrorism in the U.S. and around the world, more than 1,000 died from firearms inside the U.S. during the most recent decade for which comparative data is available. The gun fatalities cover all manners of death, including homicide, accident and suicide.



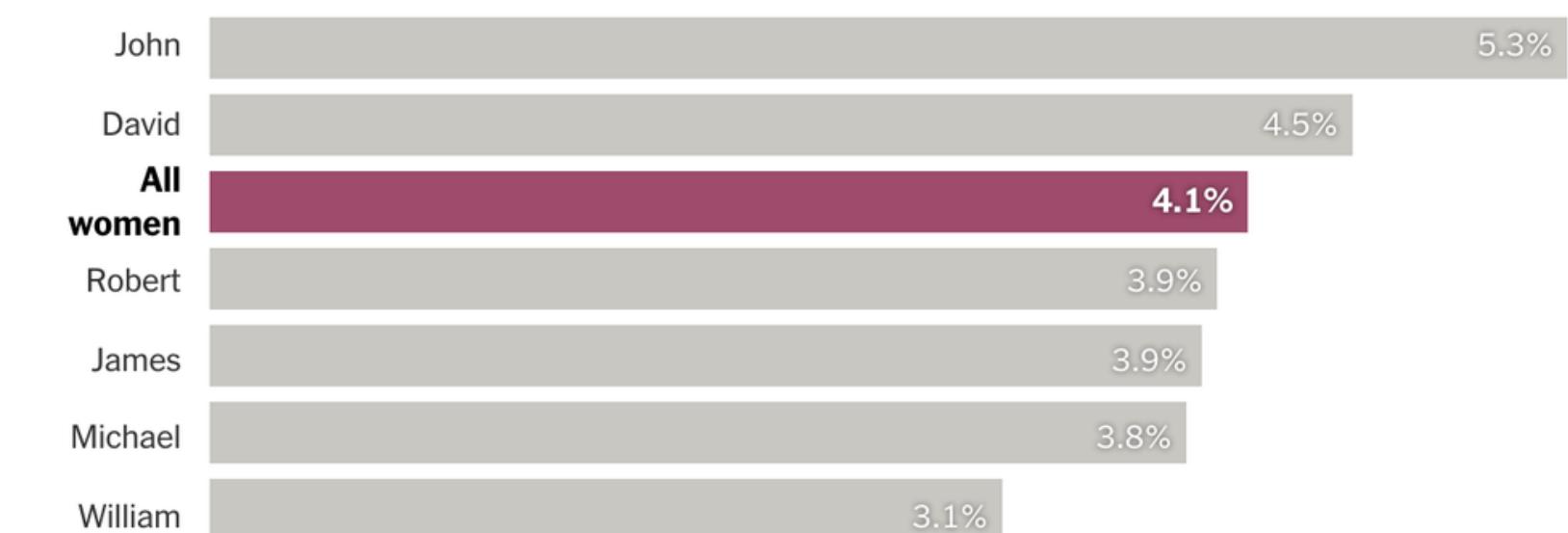
Source: Centers for Disease Control and Prevention, U.S. State Department

FEWER WOMEN RUN BIG COMPANIES THAN MEN NAMED JOHN

[EDITION.CNN.COM](#)

Guys Named John, and Gender Inequality

Share of C.E.O.s of S.&P. 1500 companies by C.E.O. name



Source: Execucomp

THE TOLL OF HUMAN CASUALTIES IN QATAR

WWW.WASHINGTONPOST.COM

An unprecedented death toll in Qatar

1 worker death

London

2012 Olympics



Vancouver

2010 Olympics



South Africa

2010 World Cup



Brazil

2014 World Cup



Sochi

2014 Olympics



Beijing

2008 Olympics



Qatar

2022 World Cup (so far)



WAPO.ST/WONKBLOG

Sources: The Guardian, Building and Wood Workers International, WorkSafe British Columbia, Al Jazeera, The New York Times, International Trade Union Confederation