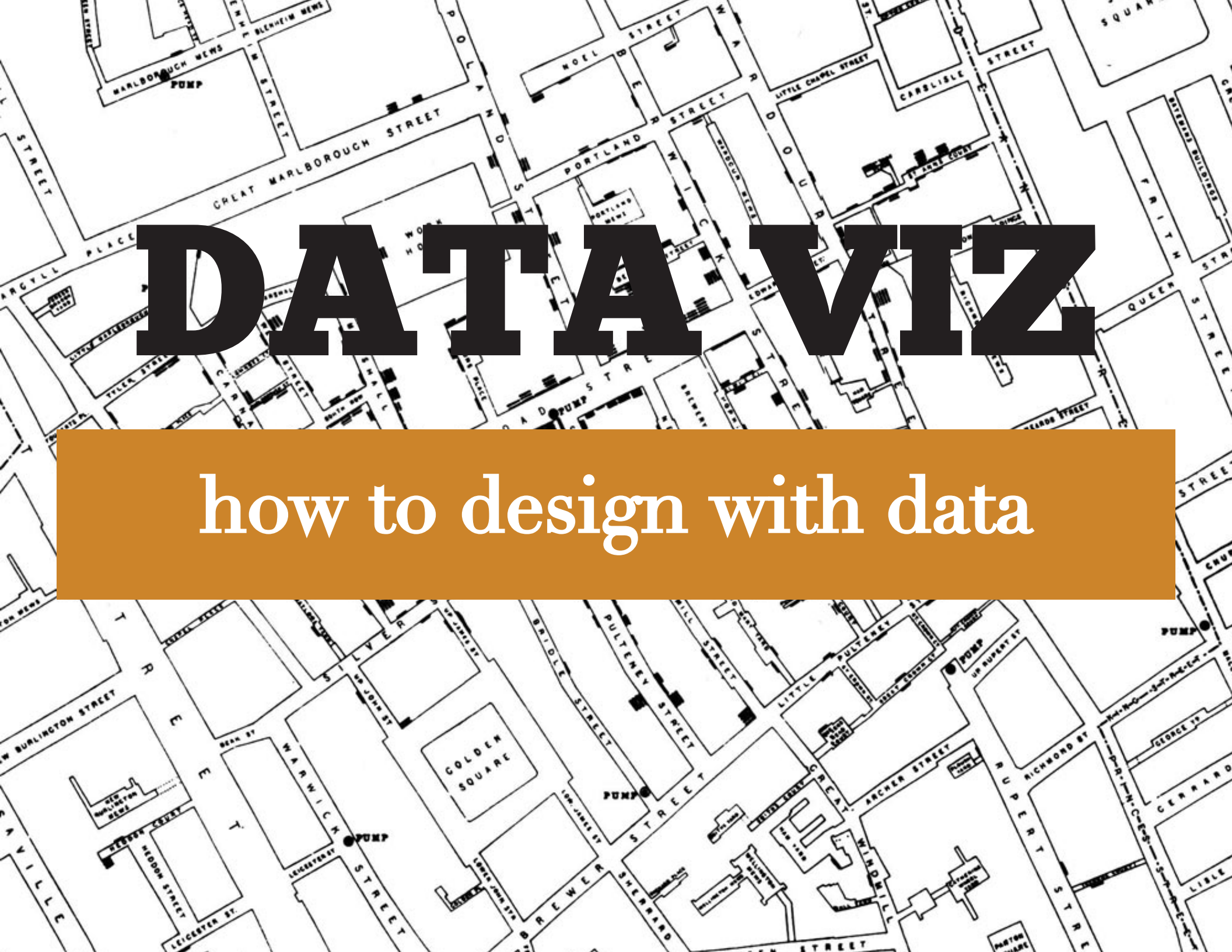


DATA VIZ

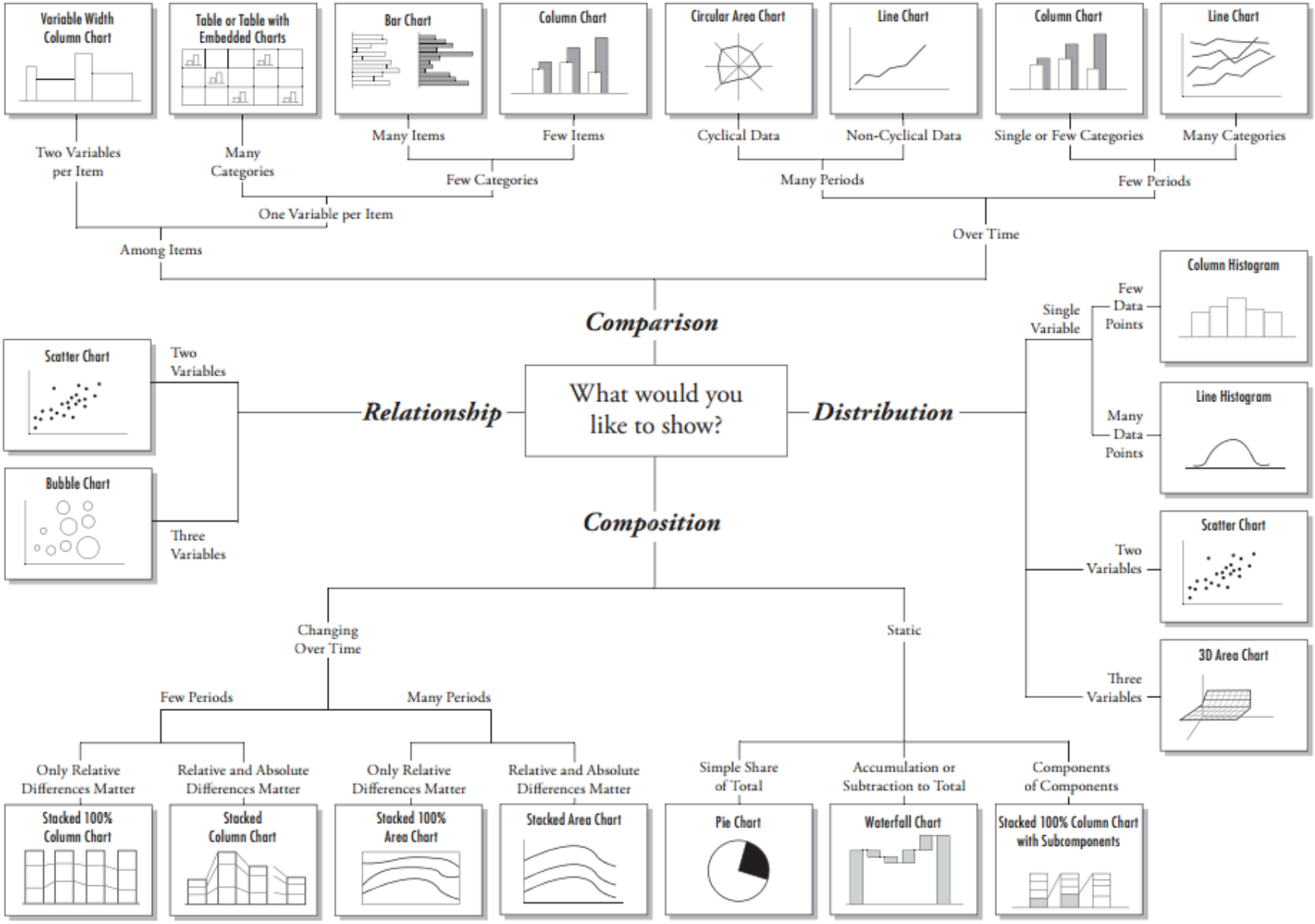
how to design with data

1

PICK A FORM THAT FITS

Reveal what's unique about the data

Chart Suggestions—A Thought-Starter



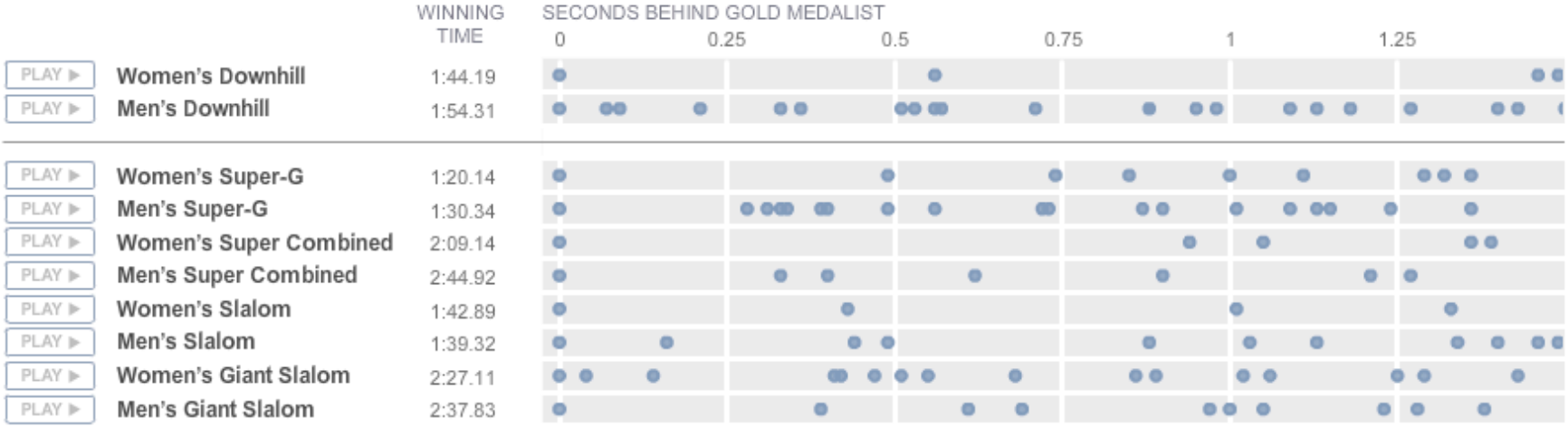
www.ExtremePresentation.com
© 2009 A. Abela — a.v.abela@gmail.com

Fractions of a Second: An Olympic Musical

At the Olympics, the blink of an eye can be all that separates the gold medalist from the 10th-place finisher. In some events, this is obvious. But in others, with athletes racing one by one, the closeness of the race is harder to perceive. Listen to the differences below.

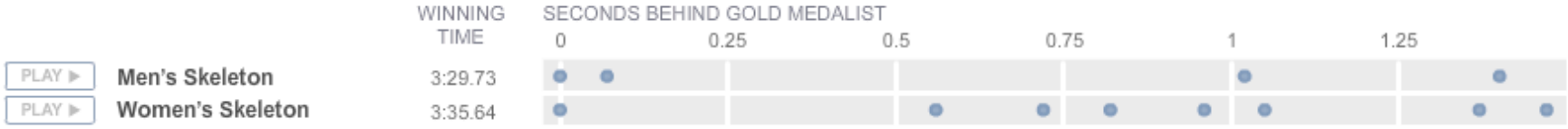
Alpine skiing

The women's downhill course was extremely tiring, and, because it was more challenging than the men's course, it ended up separating the skiers by much larger margins. This pattern appears in the two speed events: the downhill and the super-G.



Skeleton, Bobsled and Luge

In percentage terms, the men's skeleton had one of the tightest finishes in Vancouver, with only .07 of a second separating the top two finishers across a three-and-a-half-minute run. But the difficult track produced speeds higher than expected, and many sliding events had relatively large gaps between gold and silver.



↑ Fashion stuff!

Where the Heat and the Thunder Hit Their Shots

The shooting patterns for the players on the Miami Heat and the Oklahoma City Thunder reveal where they are most dangerous on the court. Below, compare each player's strengths using court maps and analysis by Kirk Goldsberry, a geography professor at Michigan State. Related Article »

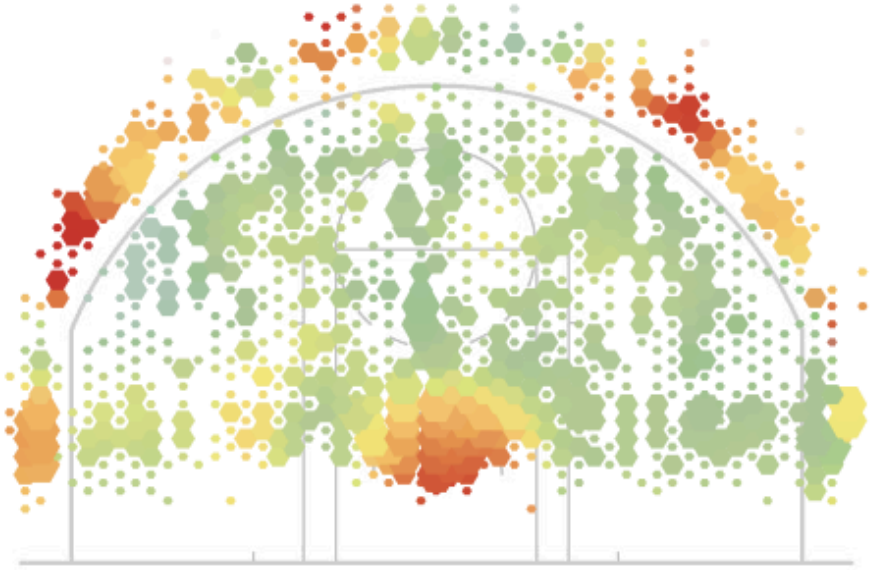
All Shots | 3-Pointers | Midrange | Close Range

Number of attempts
Low ○ ⬡ ⬡ High

Points per region
Low High

Miami Heat

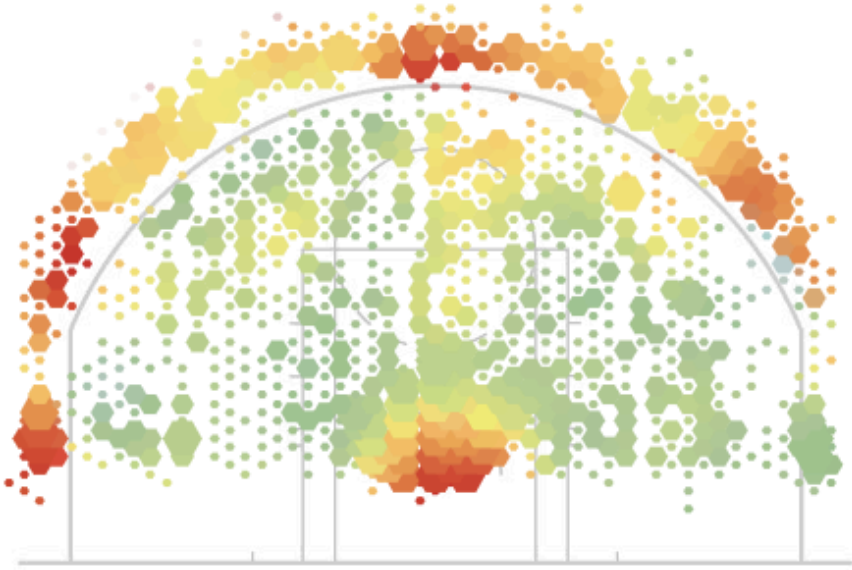
TOTAL SHOTS **5,209** | POINTS PER SHOT **1.01** | F.G. PERCENT **47%**



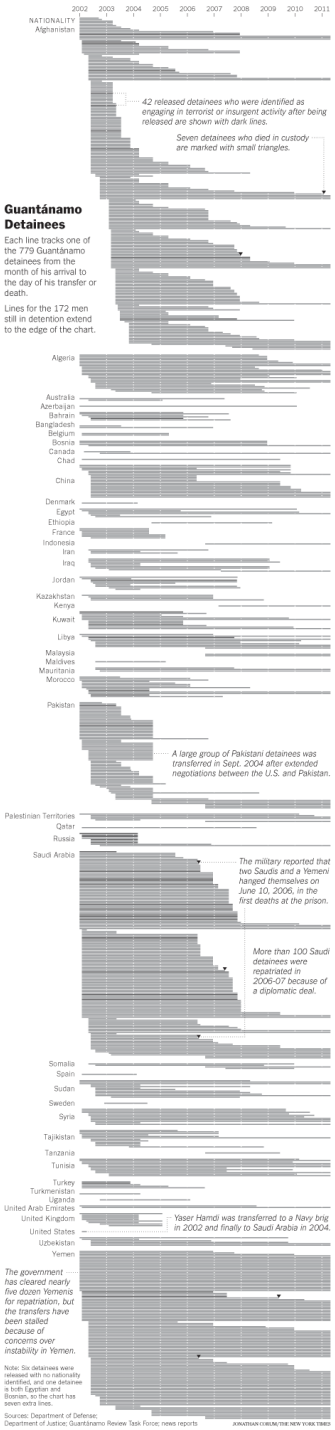
The Heat rely on player positioning to create isolation plays for LeBron James and Dwyane Wade, often on the left side. The Heat take many fewer 3-point shots than the Thunder.

Oklahoma City Thunder

TOTAL SHOTS **5,228** | POINTS PER SHOT **1.03** | F.G. PERCENT **47.1%**



The Thunder are effective from almost any area on the court and shoot many more 3-point shots than the league average. Kevin Durant and James Harden are potent from the top of the arc.



Guantánamo Detainees

Each line tracks one of the 779 Guantánamo detainees from the month of his arrival to the day of his transfer or death.

Lines for the 172 men still in detention extend to the edge of the chart.

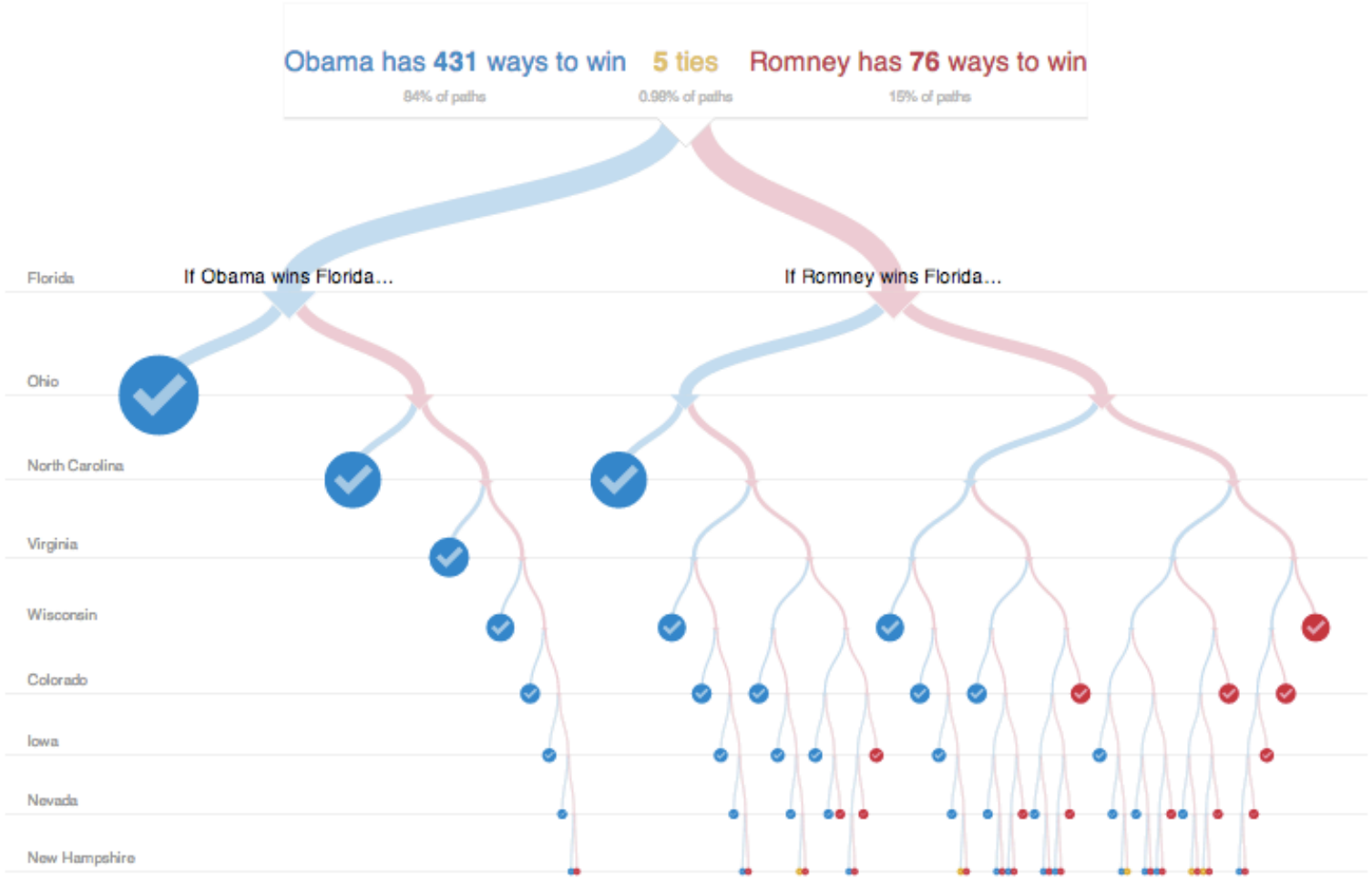
Paths to the White House

FACEBOOK TWITTER

Map | Big Board | **Scenarios** | Exit Polls

President Obama won a clear victory, but his popular vote margin in several battleground states was very thin. Select a winner in the most competitive states below to explore alternate electoral outcomes.

Fla.		Ohio		N.C.		Va.		Wis.		Colo.		Iowa		Nev.		N.H.	
Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep
50%	49%	50%	48%	48%	51%	51%	48%	53%	46%	51%	47%	52%	46%	52%	46%	52%	46%



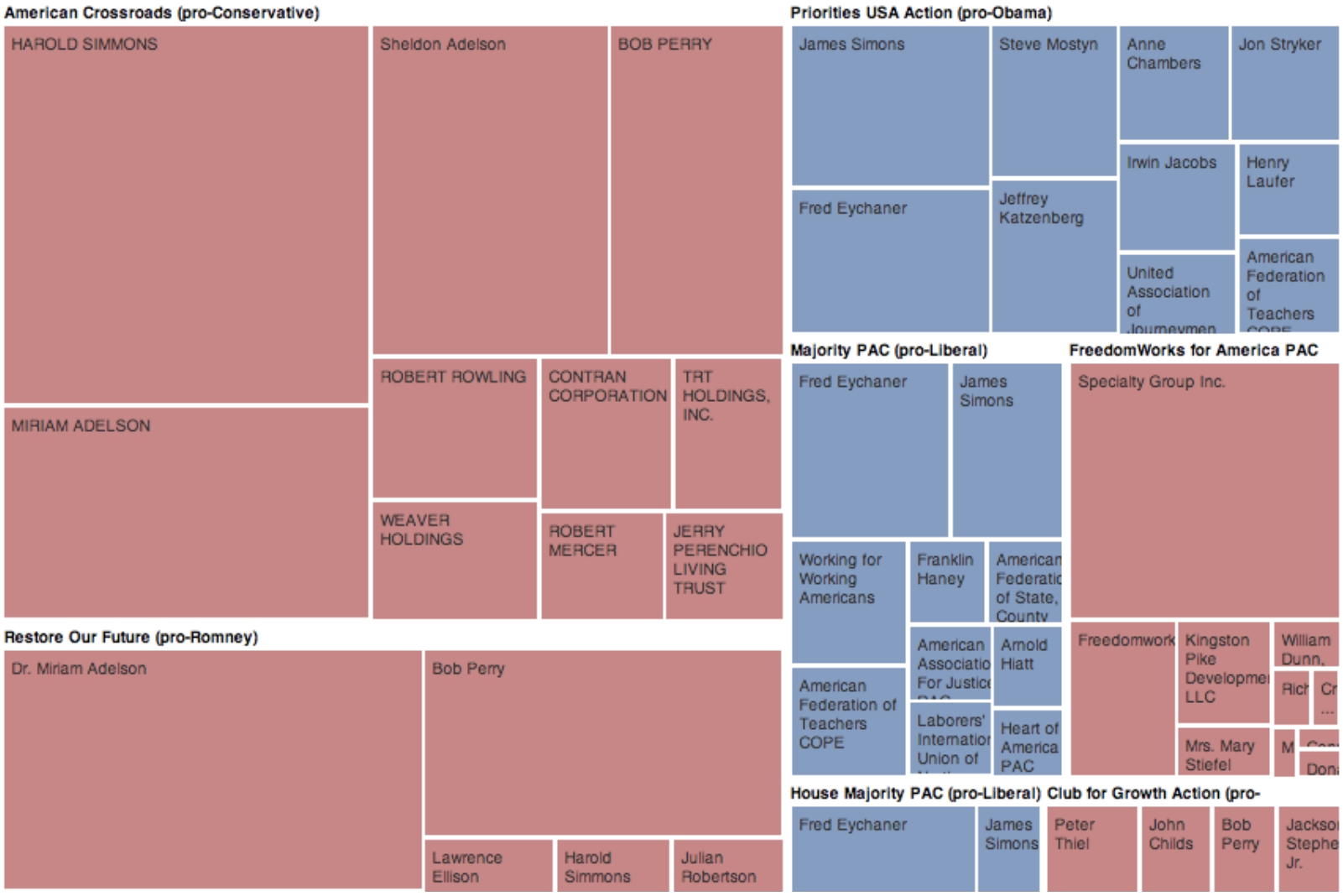
Who are the Super PACs' Biggest Donors?

By Al Shaw, ProPublica. Updated December 7, 2012

This chart shows the share of all contributions given by the top ten donors to super PACs still active in the 2012 election, through November, 2012. Some corporations are affiliated with individual donors, such as the Contran Corporation, which is owned by Harold Simmons | See all contributions at PAC Track »

Hover over each super PAC's name to see the total raised by its top ten donors, and hover over each donor to see how much they gave. Click a month to see top donors' contributions as of that month.

« PREVIOUS | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | NEXT »



Acetaminophen Around the World

See how much acetaminophen you can buy in the United States compared to England, Germany, and Mexico. Each jar contains the maximum amount of acetaminophen allowed in a single package. Each gram is the equivalent of two Extra Strength Tylenol tablets.

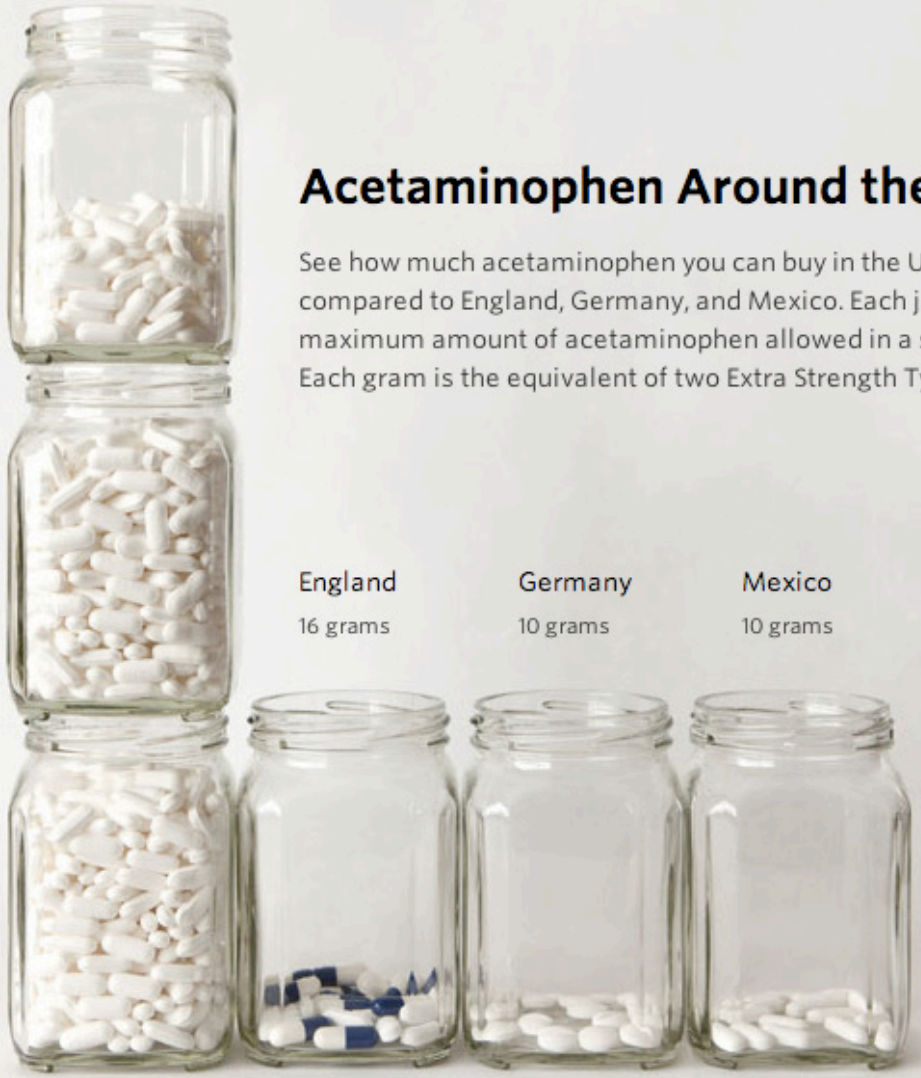


PHOTO: LARS KLOVE FOR PROPUBLICA

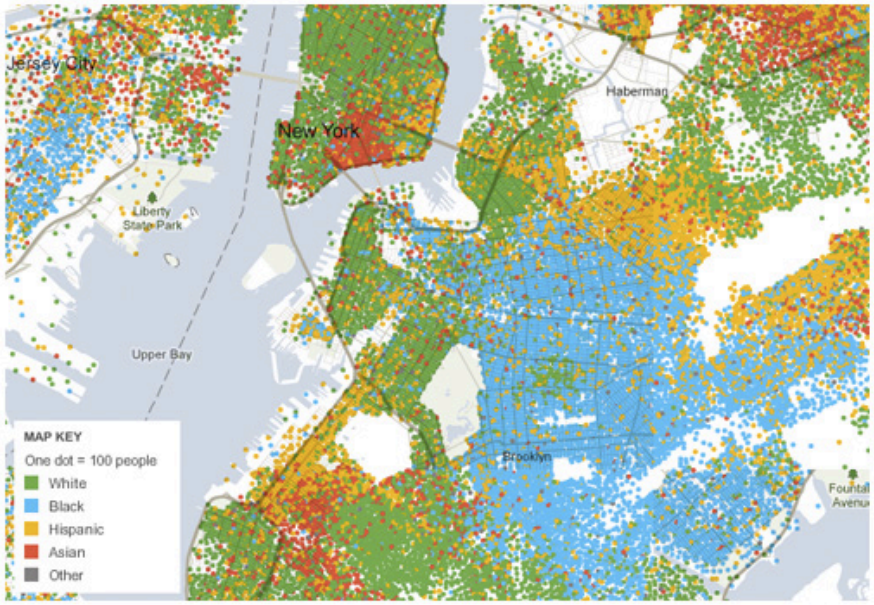
2

ITS NOT ALWAYS A MAP

Sometimes maps shouldn’t be maps

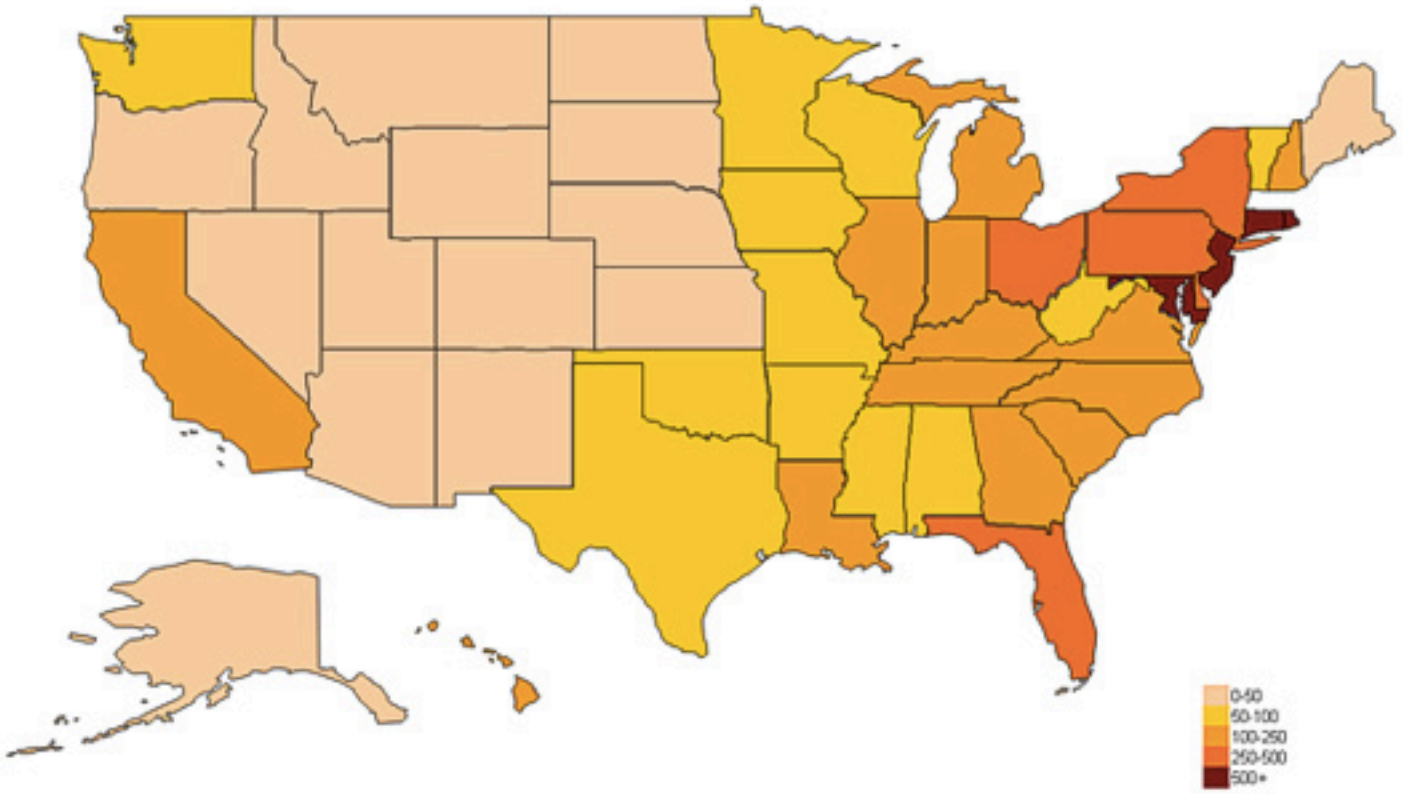
When Maps Shouldn't Be Maps

Fri Oct 14 2011 11:12 AM EDT | 21 Comments



Often, when you get data that is organized by geography — say, for example, food stamp rates in every county, high school graduation rates in every state, election results in every House district, racial and ethnic distributions in each census tract — the impulse is since the data **CAN** be mapped, the best way to present the data **MUST** be a map. You plug the data into ArcView, join it up with a shapefile, export to Illustrator, clean up the styles and voilà! Instant graphic ready to be published.

POPULATION DENSITY BY STATE



193 Democrats

0 undecided

Republicans 242

-63 Seats

218 for majority

255 Dems. before election

Seats +63
Need +39 seats for control

Show results for: All Districts

GAIN WIN LEAD

Democrats expected to win easily

District	Dem.	Rep.	% Rpt.
Ala. 7	72%	28%	100%
Ariz. 4	67%	28%	100%
Calif. 1	63%	31%	100%
Calif. 5	72%	25%	100%
Calif. 6	66%	30%	100%
Calif. 7	68%	32%	100%
Calif. 8	80%	15%	100%
Calif. 9	84%	11%	100%
Calif. 10	59%	38%	100%
Calif. 12	76%	22%	100%
Calif. 13	72%	28%	100%
Calif. 14	69%	28%	100%
Calif. 15	68%	32%	100%
Calif. 16	68%	24%	100%
Calif. 17	67%	26%	100%
Calif. 23	58%	38%	100%
Calif. 27	65%	35%	100%
Calif. 28	70%	22%	100%
Calif. 29	65%	32%	100%
Calif. 30	65%	32%	100%
Calif. 31	84%	16%	100%
Calif. 32	71%	29%	100%
Calif. 33	86%	14%	100%
Calif. 34	77%	23%	100%
Calif. 35	79%	21%	100%
Calif. 36	60%	35%	100%

Democrats expected to win narrowly

District	Dem.	Rep.	% Rpt.
Ark. 4	58%	40%	100%
Calif. 18	58%	42%	100%
Calif. 20	52%	48%	100%
Calif. 47	53%	39%	100%
Colo. 7	53%	42%	100%
Conn. 4	53%	47%	100%
Conn. 5	54%	46%	100%
Del. 1	57%	41%	100%
Ga. 12	57%	43%	100%
Iowa 1	50%	48%	100%
Iowa 2	51%	46%	100%
Iowa 3	51%	47%	100%
Ill. 8	48%	48%	100%
Ill. 10	49%	51%	100%
Ky. 3	55%	44%	100%
La. 2	65%	33%	100%
Mass. 4	54%	43%	100%
Me. 1	57%	43%	100%
Me. 2	55%	45%	100%
Mich. 9	50%	47%	100%
Mich. 15	57%	40%	100%
Minn. 1	49%	44%	100%
Mo. 4	45%	50%	100%
N.C. 2	49%	49%	100%
N.C. 7	54%	46%	100%
N.C. 11	54%	46%	100%

Tossup seats

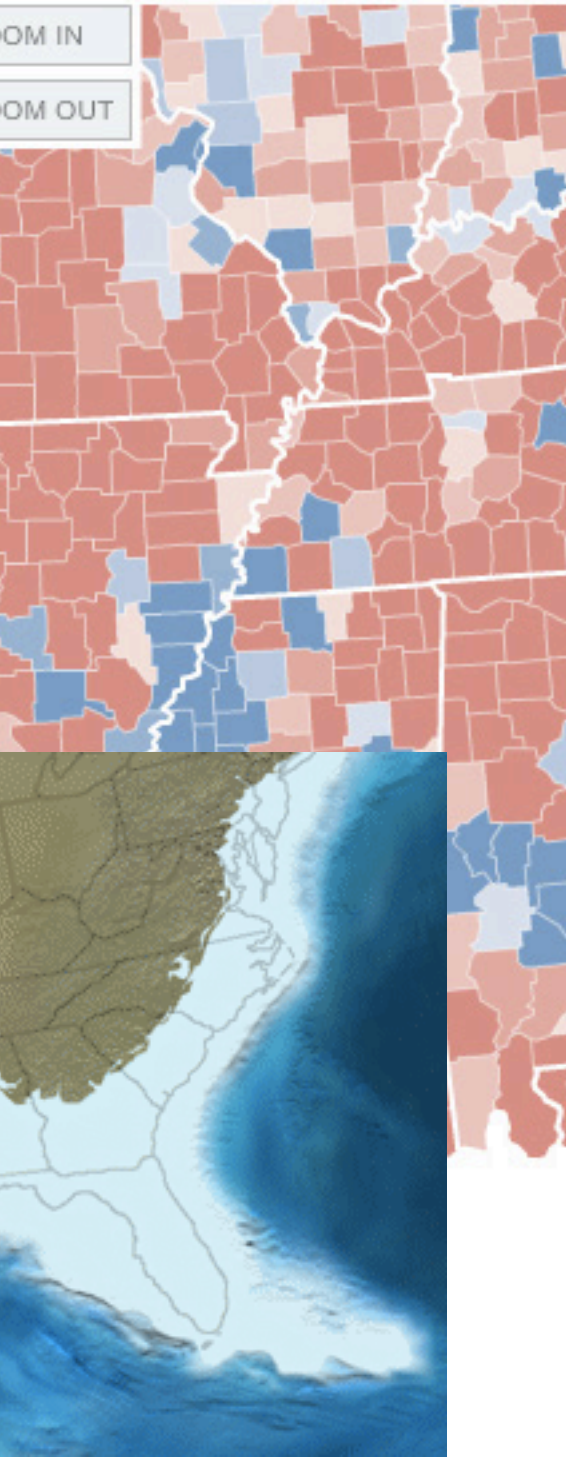
District	Dem.	Rep.	% Rpt.
Ala. 2	49%	51%	100%
Ariz. 5	43%	52%	100%
Ariz. 7	50%	44%	100%
Ariz. 8	49%	47%	100%
Calif. 11	48%	47%	100%
Colo. 3	46%	50%	100%
Fla. 22	46%	54%	100%
Fla. 25	43%	52%	100%
Ga. 2	51%	49%	100%
Ga. 8	47%	53%	100%
Hawaii 1	53%	47%	100%
Idaho 1	41%	51%	100%
Ill. 14	45%	51%	100%
Ill. 17	43%	53%	100%
Ind. 2	48%	47%	100%
Ind. 9	42%	52%	100%
Ky. 6	50%	50%	100%
Mass. 10	47%	42%	100%
Mich. 7	45%	50%	100%
Miss. 4	47%	52%	100%
N.C. 8	53%	44%	100%
N.D. 1	45%	55%	100%
N.H. 2	47%	48%	100%
N.J. 3	47%	50%	100%
Nev. 3	47%	48%	100%
N.Y. 19	47%	53%	100%

Republicans expected to win narrowly

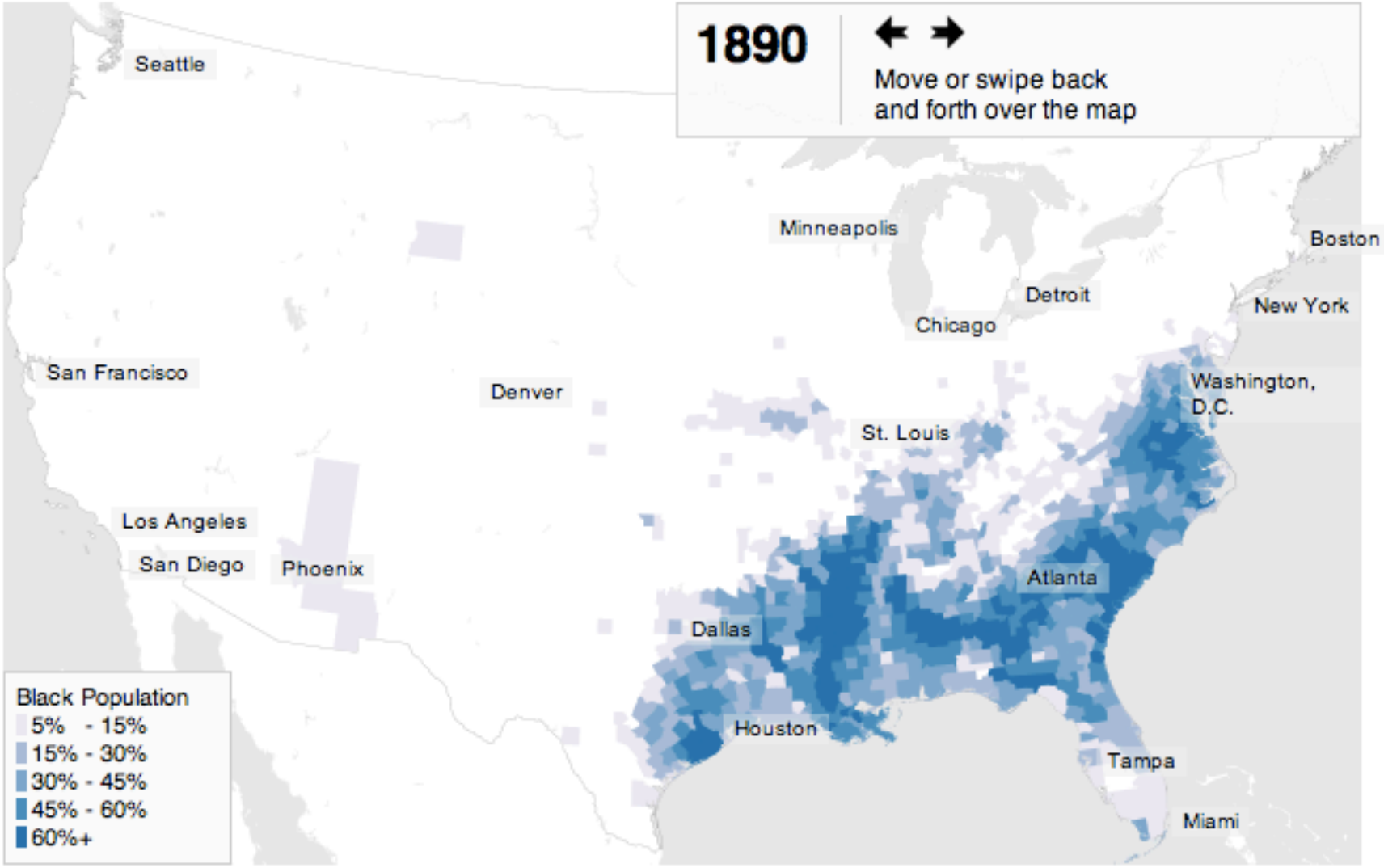
District	Dem.	Rep.	% Rpt.
Ark. 1	44%	52%	100%
Ariz. 1	44%	50%	100%
Ariz. 3	41%	52%	100%
Calif. 3	43%	50%	100%
Colo. 4	41%	52%	100%
Fla. 2	42%	54%	100%
Fla. 8	38%	56%	100%
Fla. 24	40%	60%	100%
Ill. 11	43%	57%	100%
Md. 1	42%	54%	100%
Mich. 1	41%	52%	100%
Minn. 6	40%	53%	100%
Miss. 1	41%	55%	100%
Neb. 2	39%	61%	100%
N.H. 1	42%	54%	100%
N.M. 2	45%	55%	100%
Ohio 1	46%	51%	100%
Ohio 15	41%	54%	100%
Pa. 3	44%	56%	100%
Pa. 6	43%	57%	100%
Pa. 7	44%	55%	100%
Pa. 11	45%	55%	100%
Pa. 15	39%	54%	100%
Tex. 17	37%	62%	100%
Va. 2	42%	53%	100%
Va. 5	47%	51%	100%

Republicans expected to win easily

District	Dem.	Rep.	% Rpt.
Alaska 1	31%	69%	100%
Ala. 1		83%	100%
Ala. 3	41%	59%	100%
Ala. 4		Unc.	
Ala. 5	42%	58%	100%
Ala. 6		Unc.	
Ark. 2	38%	58%	100%
Ark. 3	28%	72%	100%
Ariz. 2	31%	65%	100%
Ariz. 6	29%	66%	100%
Calif. 2	43%	57%	100%
Calif. 4	31%	61%	100%
Calif. 19	35%	65%	100%
Calif. 21		Unc.	
Calif. 22		Unc.	
Calif. 24	40%	60%	100%
Calif. 25	38%	62%	100%
Calif. 26	37%	54%	100%
Calif. 40	33%	67%	100%
Calif. 41	37%	63%	100%
Calif. 42	32%	62%	100%
Calif. 44	44%	56%	100%
Calif. 45	42%	51%	100%
Calif. 46	38%	62%	100%
Calif. 48	36%	60%	100%
Calif. 49	31%	63%	100%


OOM IN
OOM OUT

Living Apart: How the Government Betrayed a Landmark Civil Rights Law



332 ✓

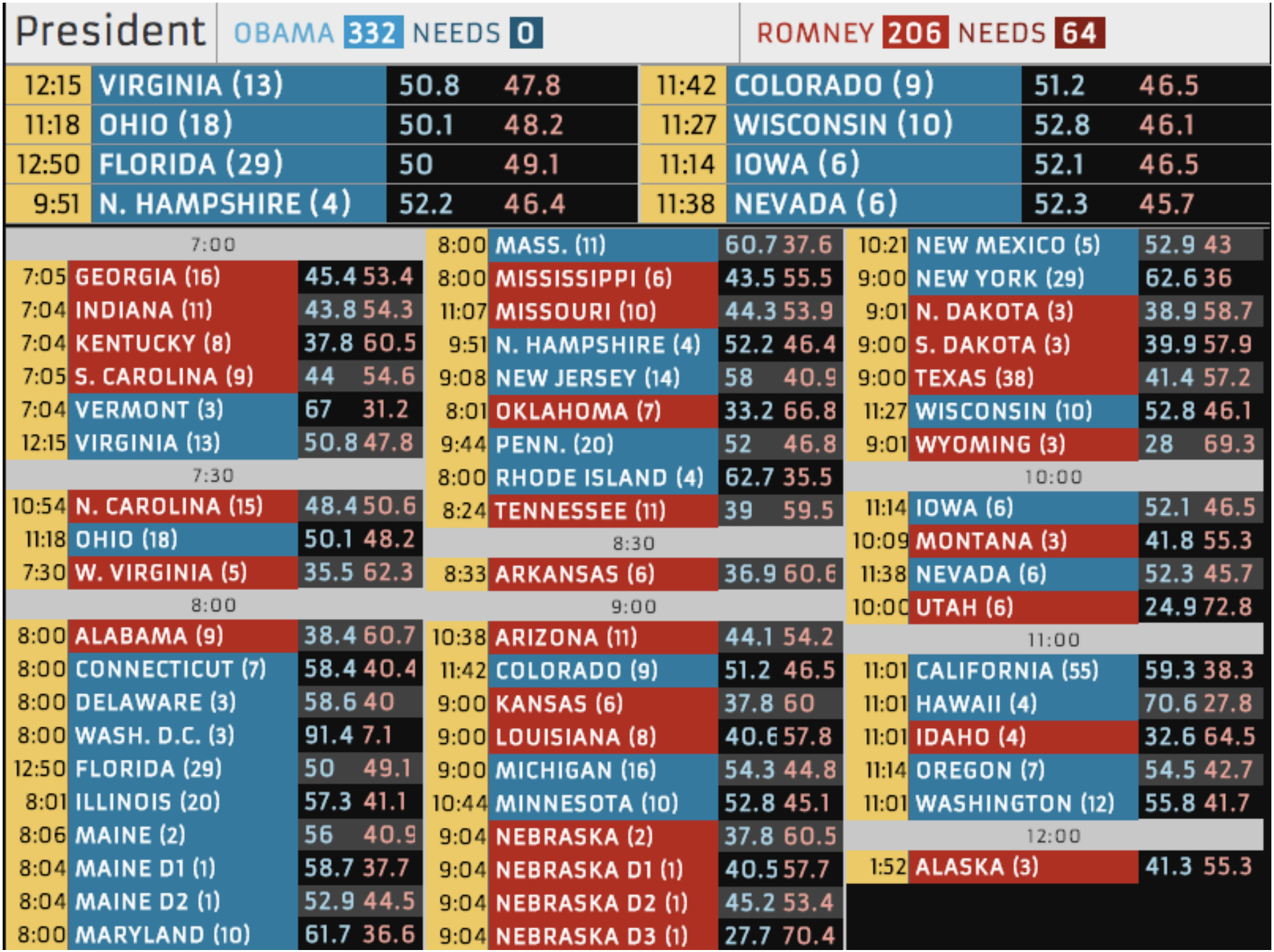
ELECTORAL VOTES

206

ELECTORAL VOTES

270 TO WIN

Wash.
Ore.
Calif.
Idaho
Nev.
Mont.
Wyo.
Utah
Ariz.
Colo.
N.M.
N.D.
S.D.
Neb.
Kan.
Okla.
Texas
Minn.
Iowa
Mo.
Ark.
La.
Wis.
Ill.
Mich.
Ind.
Ohio
Ky.
W.Va.
Tenn.
Miss.
Ala.
Ga.
Fla.
S.C.
N.C.
Va.
Pa.
N.Y.
Maine
N.H.
Vt.
Mass.
R.I.
Conn.
N.J.
Del.
Md.
D.C.
Alaska
Hawaii


President
OBAMA 332 NEEDS 0
ROMNEY 206 NEEDS 64
12:15 VIRGINIA (13) 50.8 47.8
11:18 OHIO (18) 50.1 48.2
12:50 FLORIDA (29) 50 49.1
9:51 N. HAMPSHIRE (4) 52.2 46.4
11:42 COLORADO (9) 51.2 46.5
11:27 WISCONSIN (10) 52.8 46.1
11:14 IOWA (6) 52.1 46.5
11:38 NEVADA (6) 52.3 45.7
7:00
7:05 GEORGIA (16) 45.4 53.4
7:04 INDIANA (11) 43.8 54.3
7:04 KENTUCKY (8) 37.8 60.5
7:05 S. CAROLINA (9) 44 54.6
7:04 VERMONT (3) 67 31.2
12:15 VIRGINIA (13) 50.8 47.8
7:30
10:54 N. CAROLINA (15) 48.4 50.6
11:18 OHIO (18) 50.1 48.2
7:30 W. VIRGINIA (5) 35.5 62.3
8:00
8:00 ALABAMA (9) 38.4 60.7
8:00 CONNECTICUT (7) 58.4 40.4
8:00 DELAWARE (3) 58.6 40
8:00 WASH. D.C. (3) 91.4 7.1
12:50 FLORIDA (29) 50 49.1
8:01 ILLINOIS (20) 57.3 41.1
8:06 MAINE (2) 56 40.9
8:04 MAINE D1 (1) 58.7 37.7
8:04 MAINE D2 (1) 52.9 44.5
8:00 MARYLAND (10) 61.7 36.6
8:00 MASS. (11) 60.7 37.6
8:00 MISSISSIPPI (6) 43.5 55.5
11:07 MISSOURI (10) 44.3 53.9
9:51 N. HAMPSHIRE (4) 52.2 46.4
9:08 NEW JERSEY (14) 58 40.9
8:01 OKLAHOMA (7) 33.2 66.8
9:44 PENN. (20) 52 46.8
8:00 RHODE ISLAND (4) 62.7 35.5
8:24 TENNESSEE (11) 39 59.5
8:30
8:33 ARKANSAS (6) 36.9 60.6
9:00
10:38 ARIZONA (11) 44.1 54.2
11:42 COLORADO (9) 51.2 46.5
9:00 KANSAS (6) 37.8 60
9:00 LOUISIANA (8) 40.6 57.8
9:00 MICHIGAN (16) 54.3 44.8
10:44 MINNESOTA (10) 52.8 45.1
9:04 NEBRASKA (2) 37.8 60.5
9:04 NEBRASKA D1 (1) 40.5 57.7
9:04 NEBRASKA D2 (1) 45.2 53.4
9:04 NEBRASKA D3 (1) 27.7 70.4
10:21 NEW MEXICO (5) 52.9 43
9:00 NEW YORK (29) 62.6 36
9:01 N. DAKOTA (3) 38.9 58.7
9:00 S. DAKOTA (3) 39.9 57.9
9:00 TEXAS (38) 41.4 57.2
11:27 WISCONSIN (10) 52.8 46.1
9:01 WYOMING (3) 28 69.3
10:00
11:14 IOWA (6) 52.1 46.5
10:09 MONTANA (3) 41.8 55.3
11:38 NEVADA (6) 52.3 45.7
10:00 UTAH (6) 24.9 72.8
11:00
11:01 CALIFORNIA (55) 59.3 38.3
11:01 HAWAII (4) 70.6 27.8
11:01 IDAHO (4) 32.6 64.5
11:14 OREGON (7) 54.5 42.7
11:01 WASHINGTON (12) 55.8 41.7
12:00
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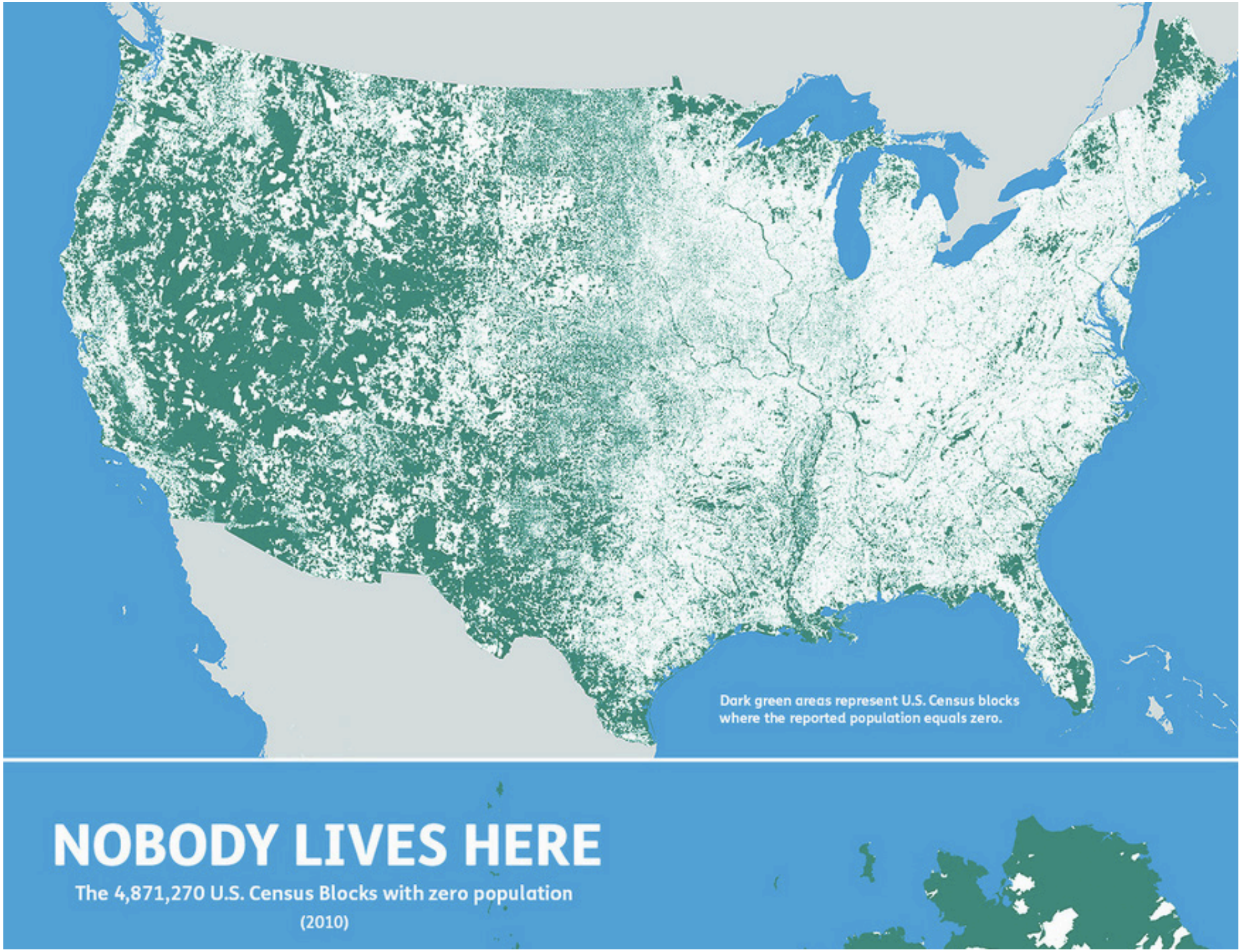

Dark green areas represent U.S. Census blocks
where the reported population equals zero.
NOBODY LIVES HERE
The 4,871,270 U.S. Census Blocks with zero population
(2010)

Areas with population density over 5 people per square kilometer.

5 100 200 300 400 500

3

SHOW THE NEAR AND FAR

The big picture & then all the details

JCA MATSURI
A TASTE OF JAPANESE CULTURE
SAT 05 TH APRIL
@ LIST ART CENTER
1PM OPENING SPEECH
1-1:15 PM ALISSA ON THE HISTORY OF KOTO
1:45-2 PM KOTO PERFORMANCE BY RYOKO MIZUTANI
2-2:30 RISD
2 PM A CAPPELLA
2:30- SHIATSU TALK AND DEMONSTRATION
:30- SHOZO SATO
ON GENERAL JAPANESE ART IN THE US WITH SAMPLE SHAKESPEARE
KABUKI
SPONSORS
JAPANESE CENTENNIAL FUND OF BROWN UNIVERSITY
SHOZO SATO
ON GENERAL JAPANESE
US WITH SAMPLE SHAKE
KABUK
6 KENNY
ENDO
TF
PM SOCIA
BROWN
TAIK

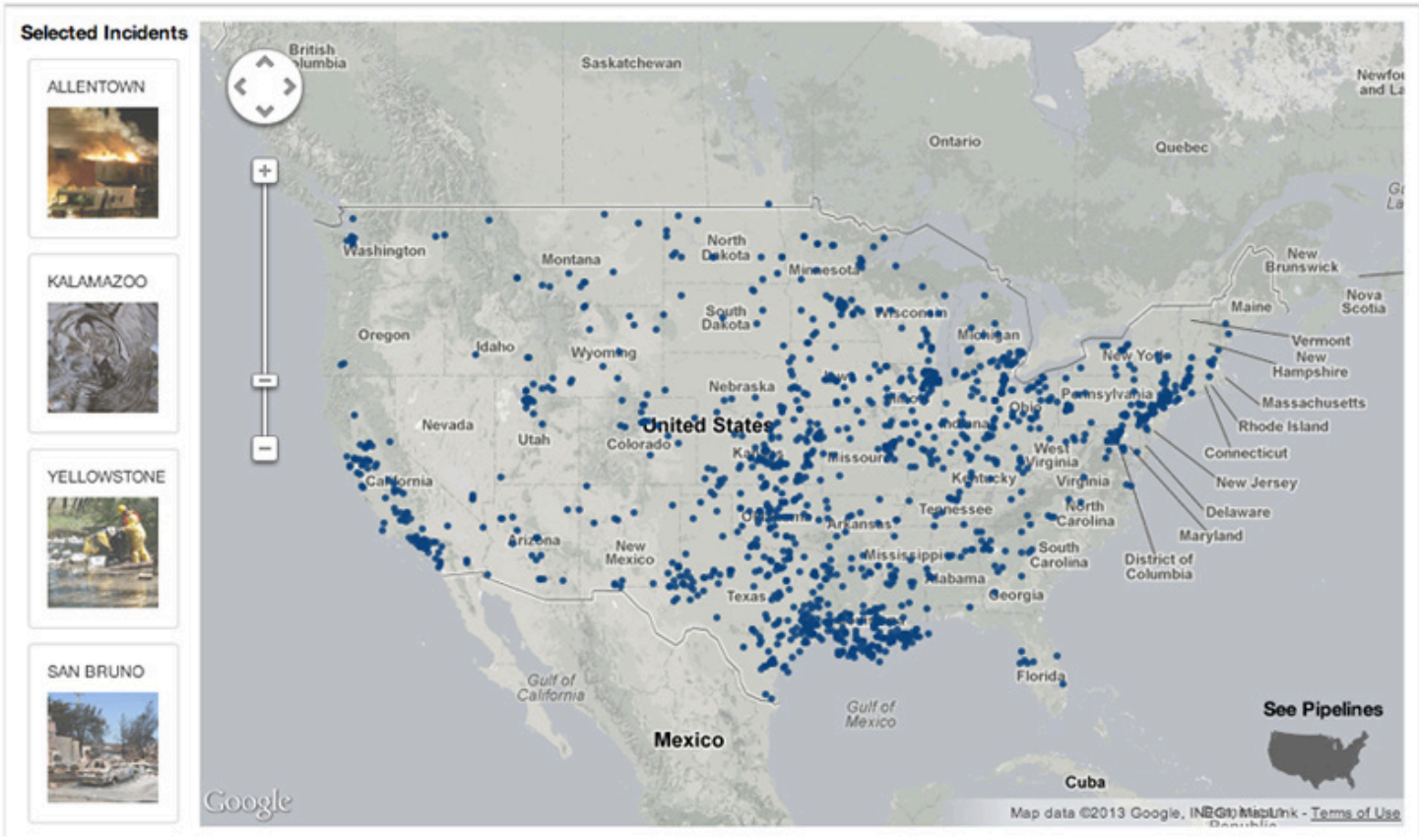
Pipeline Safety Tracker

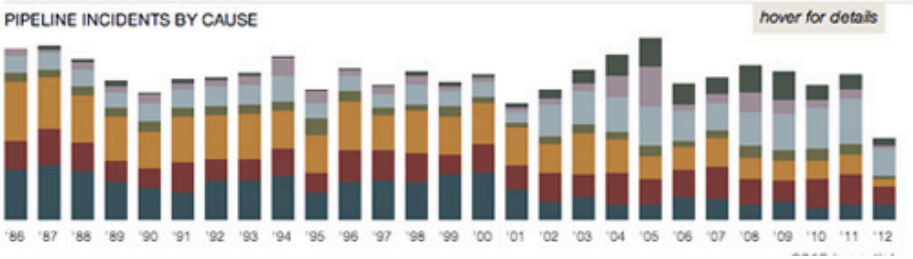
Find the Accidents Near You

Tweet 405 Like 738

By Lena Groeger, ProPublica, Nov. 15, 2012

Although they carry the vast majority of our oil and natural gas, the nation's 2.5 million miles of pipelines remain largely invisible to the public. And while they're much safer than alternatives such as trucks, pipelines suffer hundreds of ruptures and spills every year. Critics blame minimal oversight and old pipes for accidents that could have been prevented; operators maintain that they're committed to continuous improvement. Here we map accidents that regulators labeled "significant incidents" from 1986 to the present. | **Related Story »**





Pipeline Safety Tracker
Find the Accidents Near You

Tweet 405 Like 738

Pipeline Safety Tracker » West Virginia

West Virginia

53	5	30	$15.4M	50	3
Incidents	Fatalities	Injuries	Property Damages	Gas Incidents	Hazardous Liquid Incidents

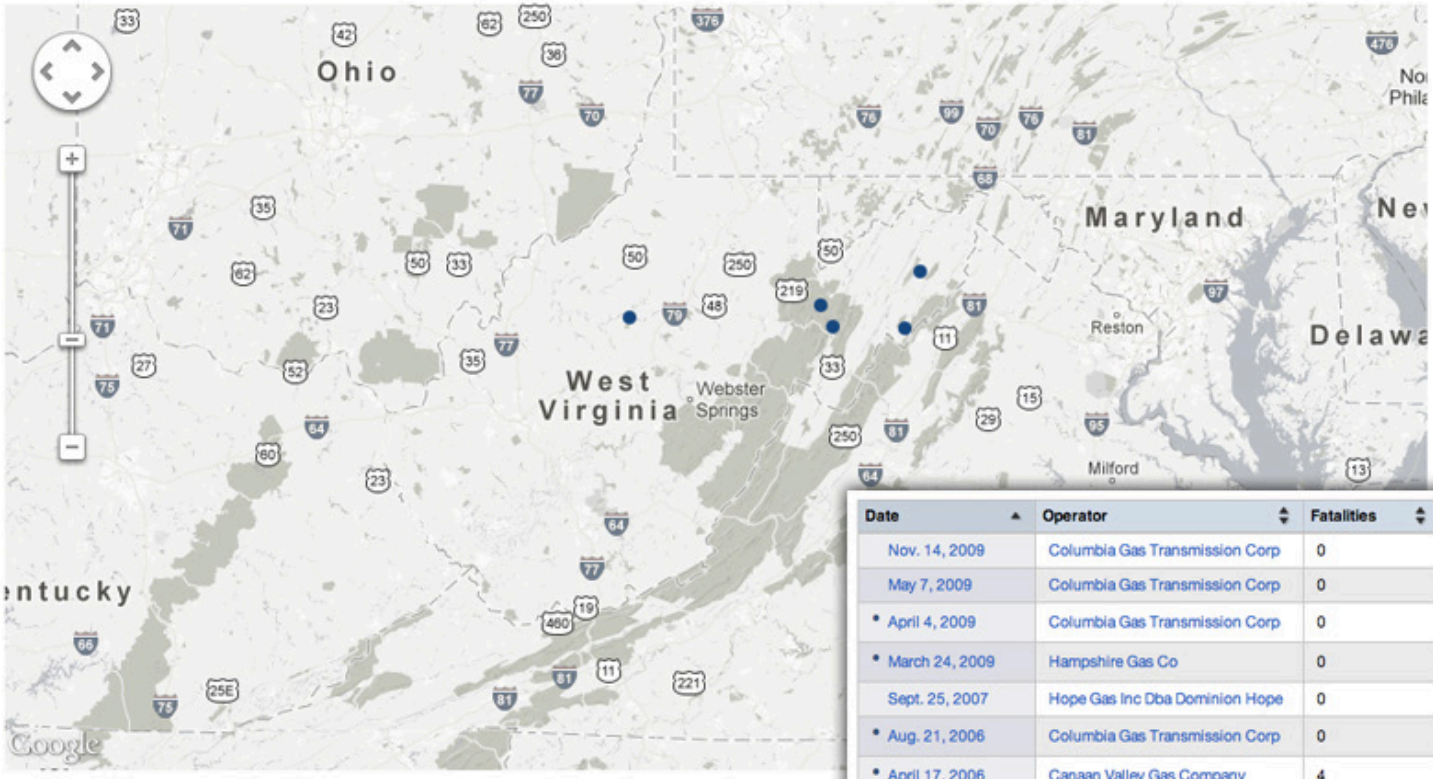
Read the West Virginia Pipeline profile from the US DOT

Find Pipeline Incidents

State, City or Operator (e.g., Alabama, Houston, Chevron)

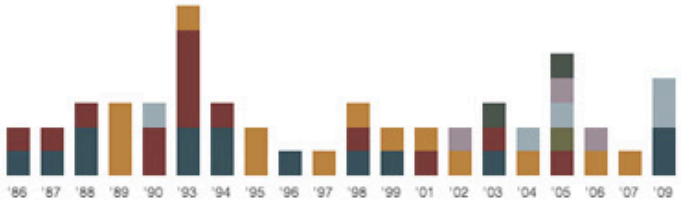
Search

Or see incidents by year: All Years



Date	Operator	Fatalities	Injuries	Property Damage
Nov. 14, 2009	Columbia Gas Transmission Corp	0	0	$5.74M
May 7, 2009	Columbia Gas Transmission Corp	0	0	$744K
• April 4, 2009	Columbia Gas Transmission Corp	0	0	$104K
• March 24, 2009	Hampshire Gas Co	0	1	$0
Sept. 25, 2007	Hope Gas Inc Dba Dominion Hope	0	1	$67.5K
• Aug. 21, 2006	Columbia Gas Transmission Corp	0	0	$147K
• April 17, 2006	Canaan Valley Gas Company	4	1	$0
• Oct. 6, 2005	Equitrans, Lp	0	2	$0
Aug. 18, 2005	Columbia Gas Transmission Corp	0	0	$106K
July 30, 2005	Dominion Transmission, Inc	0	0	$634K
June 17, 2005	Welch Gas Cooperative Association	0	0	$235K
April 4, 2005	Columbia Gas Transmission Corp	0	0	$578K
Sept. 25, 2004	Union Oil & Gas Inc	0	1	$0
Jan. 26, 2004	Columbia Gas Transmission Corp	0	0	$199K

Pipeline Incidents by Cause



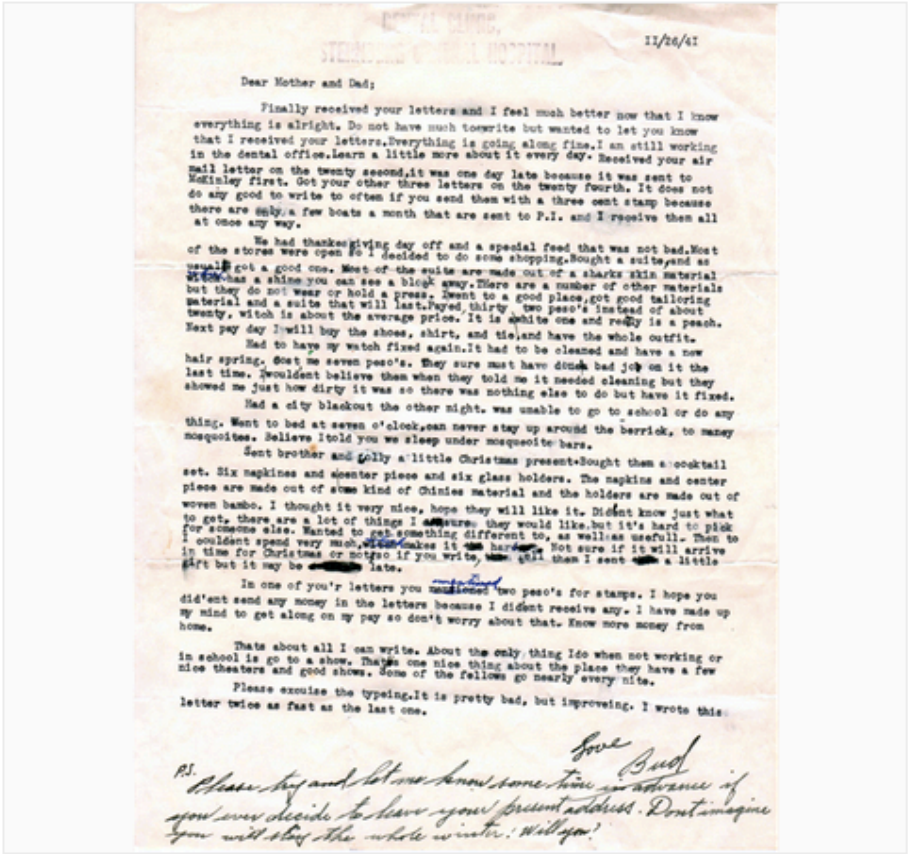
Bud's Story, from the Records

By Megan McCloskey and Sisi Wei, ProPublica, March 6, 2014, 7 a.m.

Private Arthur 'Bud' Kelder died as a POW in the Philippines during World War II. His parents always hoped that his body would eventually be sent home. But despite clues, the military has never recovered his remains. Here are letters and others documents from his case from 1941 to 1950. The documents and photographs below are either from the National Archive or courtesy of John Eakin.

Timeline **Back to Story »**

Nov. 26, 1941



11/26/41

Dear Mother and Dad;

Finally received your letters and I feel much better now that I know everything is alright. Do not have much toswrite but wanted to let you know that I received your letters.Everything is going along fine.I am still working in the dental office.Learn a little more about it every day. Received your air mail letter on the twenty second,it was one day late because it was sent to McKinley first. Got your other three letters on the twenty fourth. It does not do any good to write to often if you send them with a three cent stamp because there are only a few boats a month that are sent to P.I. and I receive them all at once any way.

We had thanksgiving day off and a special feed that was not bad.Most of the stores were open so I decided to do some shopping.Bought a suite,and as usual got a good one. Most of the suits are made out of a sharks skin material [redacted] has a shine you can see a block away.There are a number of other materials but they do not wear or hold a press. Went to a good place,got good tailoring material and a suite that will last.Payed thirty two peso's instead of about twenty, witch is about the average price. It is white one and really is a peach. Next pay day I will buy the shoes, shirt, and tie,and have the whole outfit.

Had to have my watch fixed again.It had to be cleaned and have a new hair spring. Cost me seven peso's. They sure must have done a bad job on it the last time. Wouldent believe them when they told me it needed cleaning but they showed me just how dirty it was so there was nothing else to do but have it fixed.

Had a city blackout the other night. was unable to go to school or do any thing. Went to bed at seven o'clock,can never stay up around the berrick, to many mosquoites. Believe I told you we sleep under mosquesite bars.

Sent brother and family a little Christmas present.Bought them a cocktail set. Six napkines and center piece and six glass holders. The napkins and center piece are made out of some kind of Chinies material and the holders are made out of woven bambo. I thought it very nice, hope they will like it. Didnt know just what to get, there are a lot of things I am sure they would like,but it's hard to pick for someone else. Wanted to get something different to, as well as usefull. Then to I couldent spend very much, which makes it [redacted] harder. Not sure if it will arrive in time for Christmas or not,so if you write, [redacted] that I sent [redacted] a little gift but it may be [redacted] late.

In one of you'r letters you mentioned two peso's for stamps. I hope you did'ent send any money in the letters because I didnt receive any. I have made up my mind to get along on my pay so don't worry about that. Know more money from home.

Thats about all I can write. About the only thing I do when not working or in school is go to a show. There is one nice thing about the place they have a few nice theaters and good shows. Some of the fellows go nearly every nite.

Please excuse the typeing.It is pretty bad, but improveing. I wrote this letter twice as fast as the last one.

Love Bud

P.S. Please drop and let me know some time in advance if you ever decide to leave your present address. Don't imagine you will stay the whole winter. Will you?

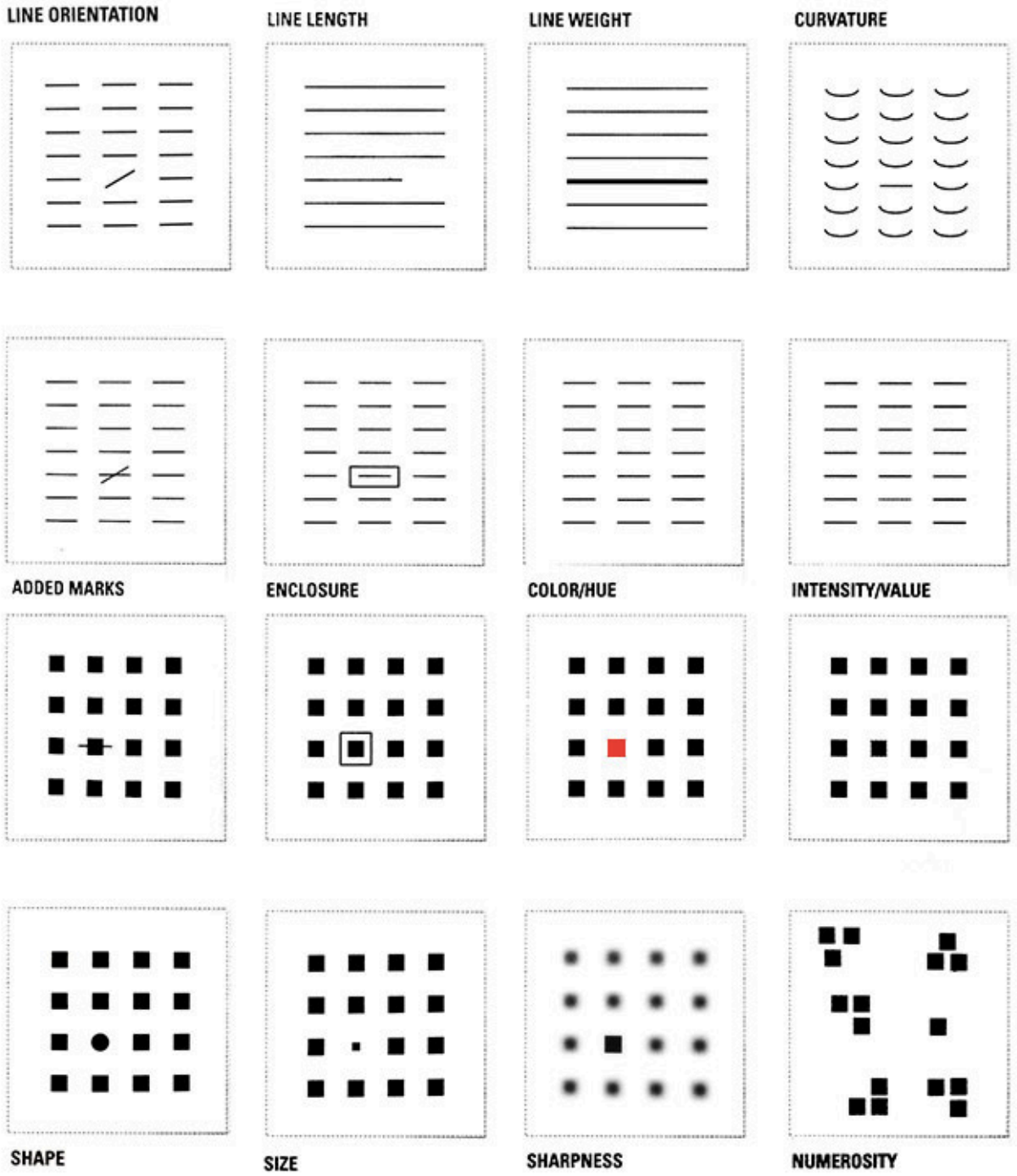
NOV. 26, 1941

Bud writes home from Manila

4

USE MENTAL TRICKS

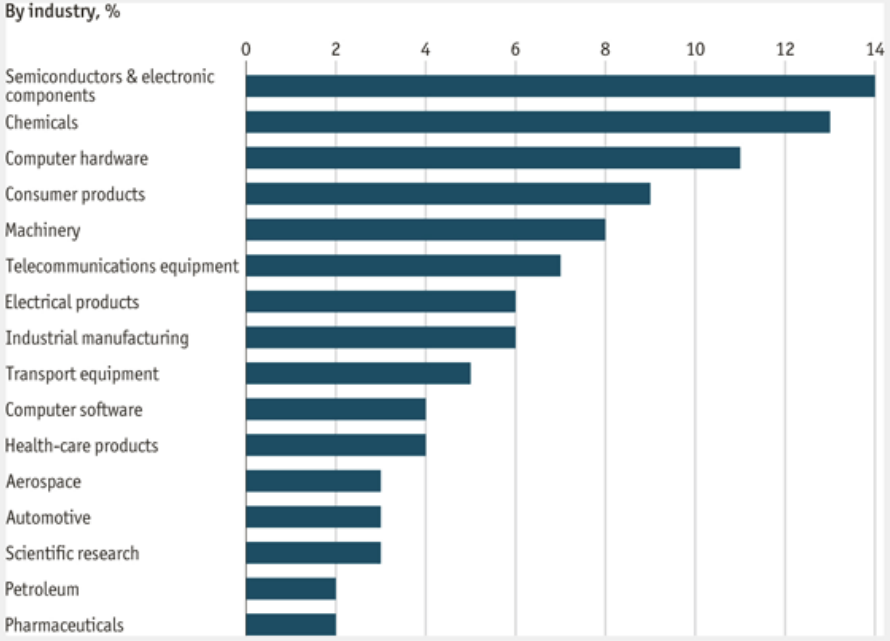
Take advantage of the way the visual system works to get your point across



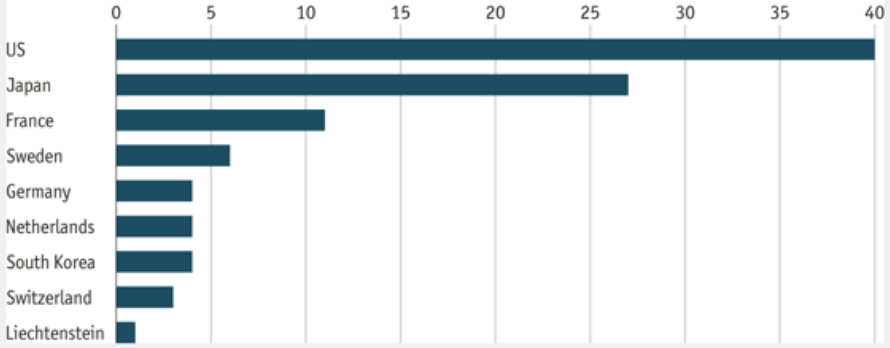
Preattentive Features

100 most innovative companies, 2011

By industry, %



By country, %

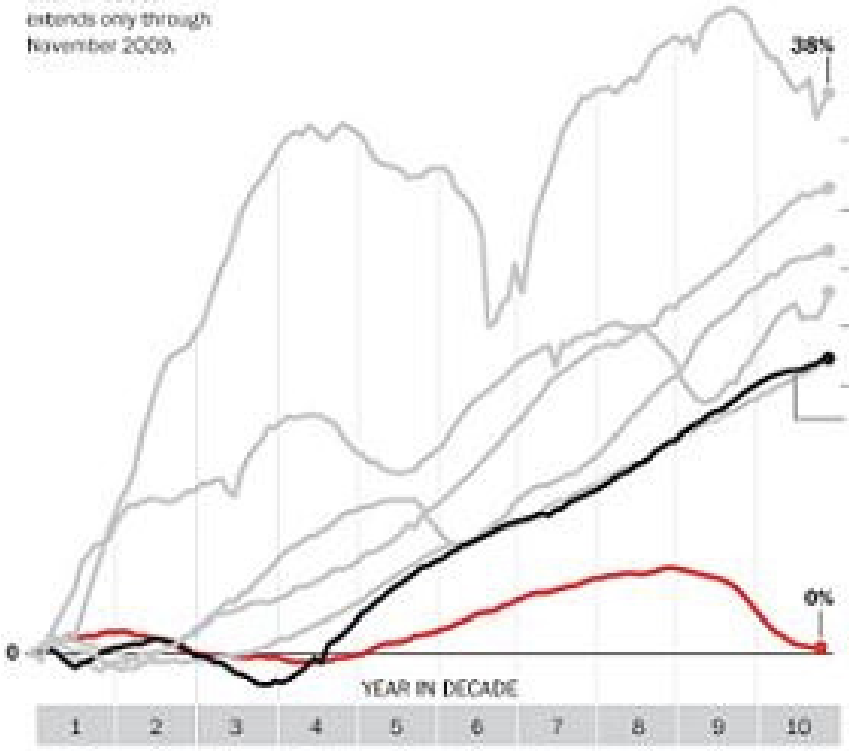


Source: Thomson Reuters

Job growth, by decade

PERCENT CHANGE IN TOTAL NON-FARM PAYROLL EMPLOYMENT

Data for 2000s extends only through November 2009.



Stacking Up the Administration's Drone Claims

by Lena Groeger and Cora Currier, ProPublica
Sept. 13, 2012, 1:15 p.m.

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Administration officials—often unnamed—frequently seem to celebrate drone strikes that kill suspected militants. But the administration has also worked against disclosures of less positive aspects of the CIA's program, including how many civilians have been killed. We've laid out four years of statements by current and former officials discussing the CIA's drone program, both on and off the record. (Most of these stories also include a "no comment" from the CIA or the White House.) Highlighted in red are the CIA's legal stances refusing to even acknowledge the program in response to Freedom of Information Act requests. | **Related:** How the Gov't Talks About a Drone Program it Won't Acknowledge Exists

Hover over (or touch) a line of text to read the quote and click that same line to read the original article.

Kepler's Tally of Planets

NASA's Kepler mission has discovered more than 950 confirmed planets orbiting distant stars. Planets with a known size and orbit are shown below, including Kepler 186f, an Earth-size planet in the habitable zone. Related Article »

Relative size of planets

Earth · Neptune · Jupiter

Relative size of Mercury's orbit

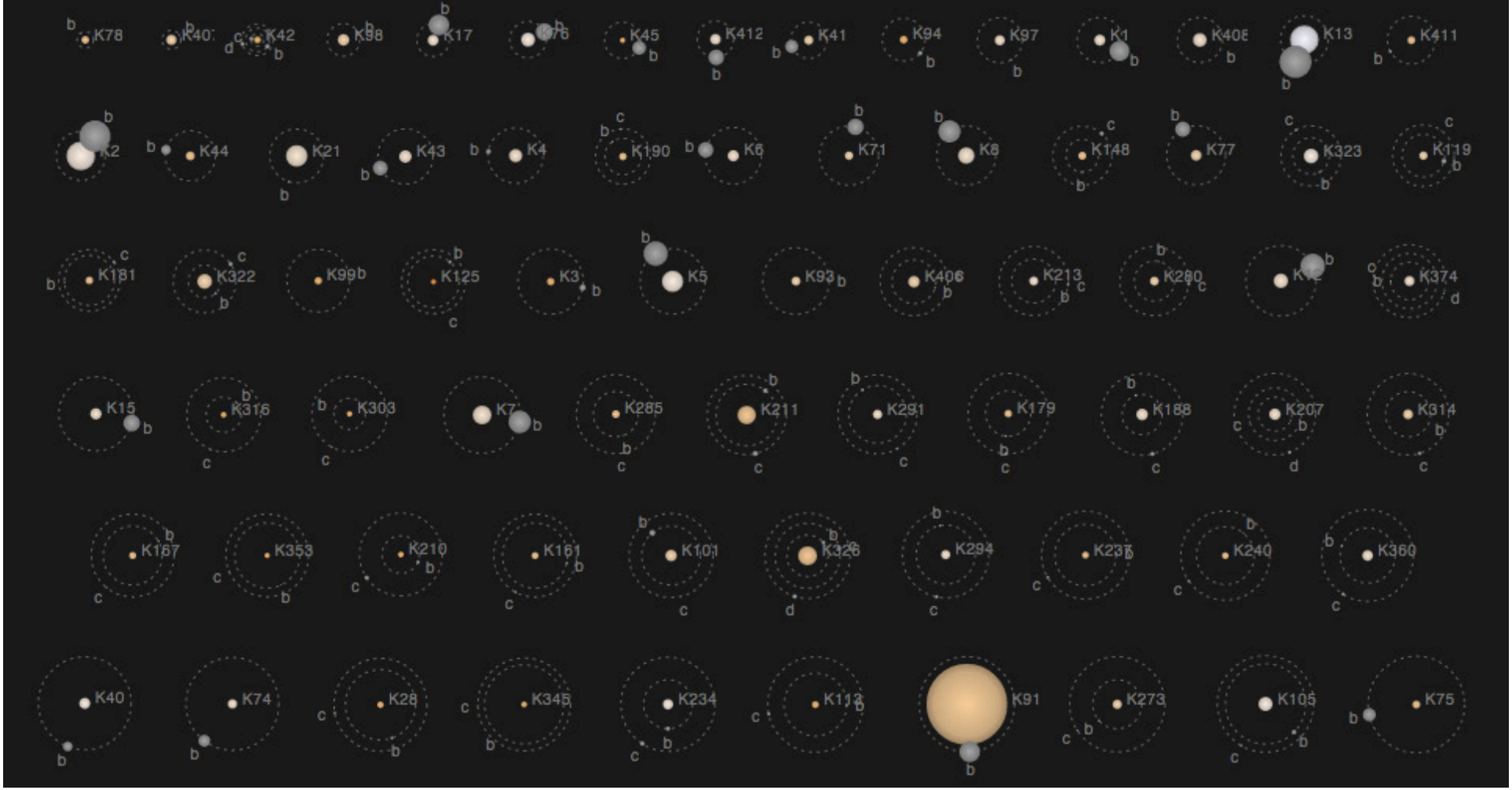
Sun · Mercury

Stars and planets are enlarged for visibility.

Relative size of stars

Sun · 2 times · 3 times as wide

Star temperature

6,500° — 16,000° F

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