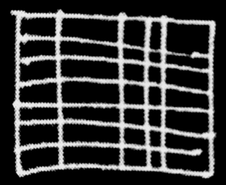
Diagram Types



table

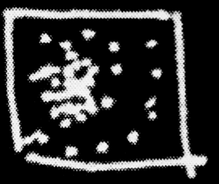
scatter plot

line graph

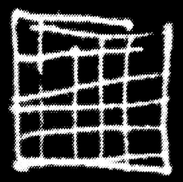
bar graph

box plot

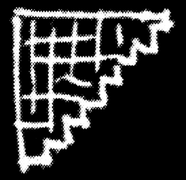
physical map



heat map



numeric matrix



half matrix

tree

graph

histogram

dendogram

parallel coordinates (linear)

star plot

permutation matrix

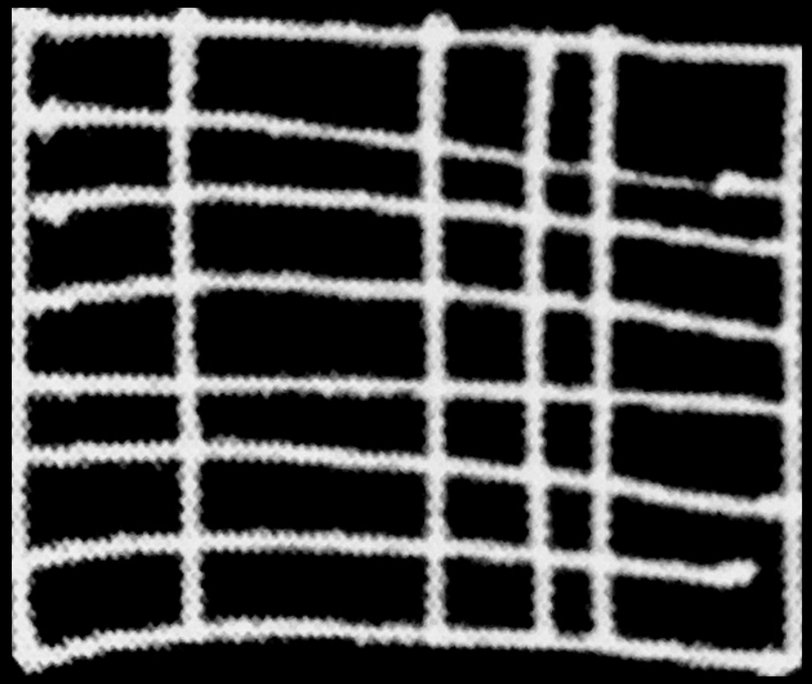
survey plot/ table lens

rubber sheet

2d/3d isosurfaces

tree map

visual diff



Table

The display of tables from a database or spreadsheet is the standard form for two dimensional quantitative data. Tables are useful for showing all the data, but when too many rows or columns are required they are quickly cumbersome. The inven-tion of the spreadsheet (in the form of VisiCalc, inven ted by Dan Bricklin) in the very late 70s was a major invention that allowed users to show “sheets” of their data spread across multiple pages of printouts or on-screen.

	Case$_i$	**Case$_j$**	**Case$_k$**	
Variable$_x$	Value$_{ix}$	Value$_{jx}$	Value$_{kx}$	...
Variable$_y$	Value$_{iy}$	Value$_{jy}$	Value$_{ky}$	...
...	...	...	...	...

Case	Case$_i$	Case$_j$	Case$_k$	...
Variable$_x$	Value$_{ix}$	Value$_{jx}$	Value$_{kx}$	...
Variable$_y$	Value$_{iy}$	Value$_{jy}$	Value$_{ky}$	...
...	...	...	...	...

CRIMINAL ACTIVITY OF GOVERNMENT INFORMANTS

CRIME	CARDINALE	LOFARO	MALONEY	POLISI	SENATORE	FORONJY	CURRO
MURDER	X	X					
ATTEMPTED MURDER		X	X				
HEROIN POSSESSION AND SALE	X	X		X			X
COCAINE POSSESSION AND SALE	X		X	X			
MARIJUANA POSSESSION AND SALE							X
GAMBLING BUSINESS		X		X		X	
ARMED ROBBERIES	X		X	X	X		X
LOANSHARKING		X		X			
KIDNAPPING			X	X			
EXTORTION			X	X			
ASSAULT	X		X	X			X
POSSESSION OF DANGEROUS WEAPONS	X	X	X	X	X		X
PERJURY		X				X	
COUNTERFEITING					X	X	
BANK ROBBERY			X	X			
ARMED HIJACKING				X	X		
STOLEN FINANCIAL DOCUMENTS			X	X	X		
TAX EVASION				X		X	
BURGLARIES	X	X		X	X		
BRIBERY		X		X			
THEFT: AUTO, MONEY, OTHER			X	X	X	X	X
BAIL JUMPING AND ESCAPE			X	X			
INSURANCE FRAUDS					X	X	
FORGERIES				X	X		
PISTOL WHIPPING A PRIEST	X						
SEXUAL ASSAULT ON MINOR							X
RECKLESS ENDANGERMENT							X

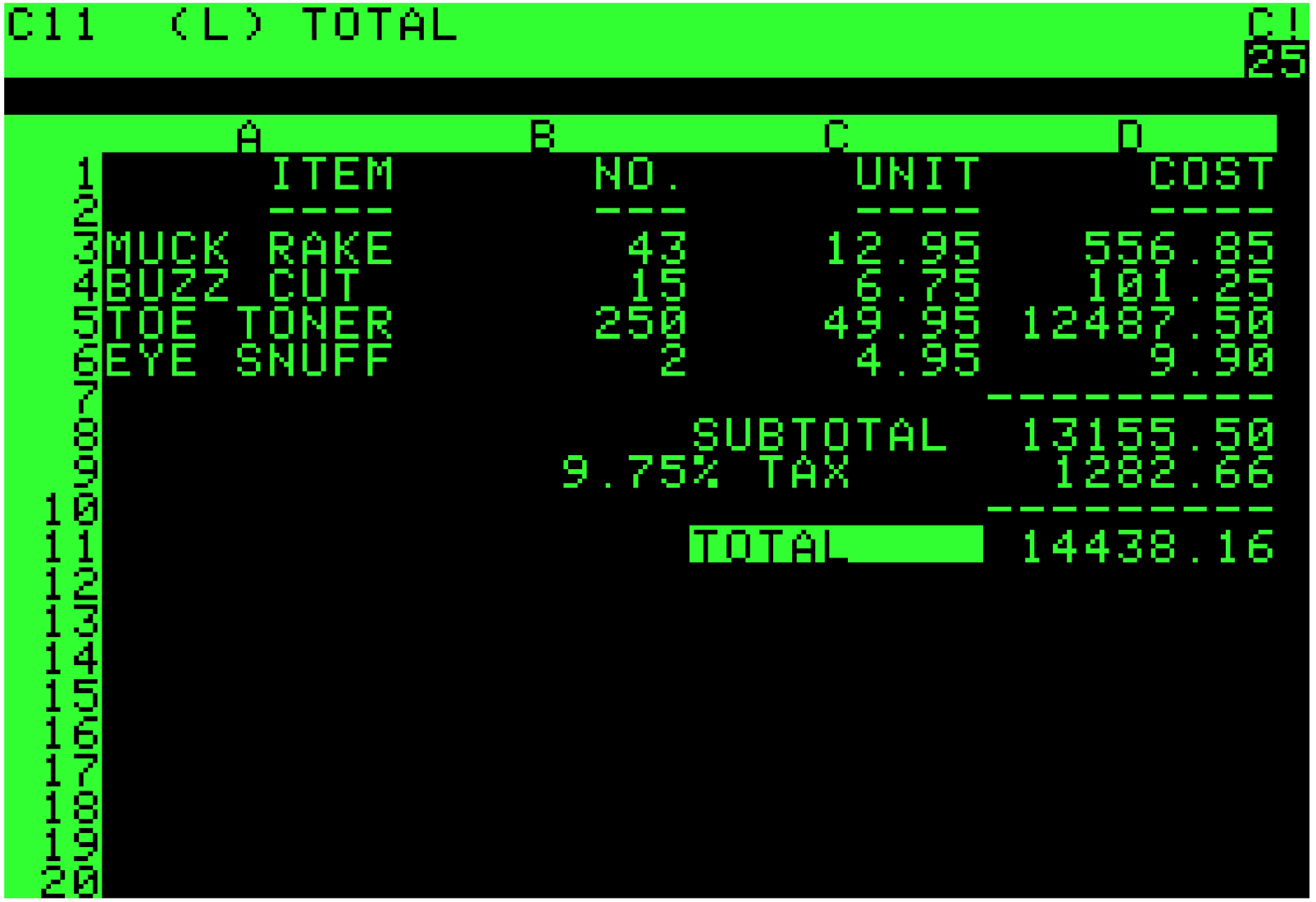
No. 1450. Steel Products—Net Shipments, by Market Classes: 1960 to 1978

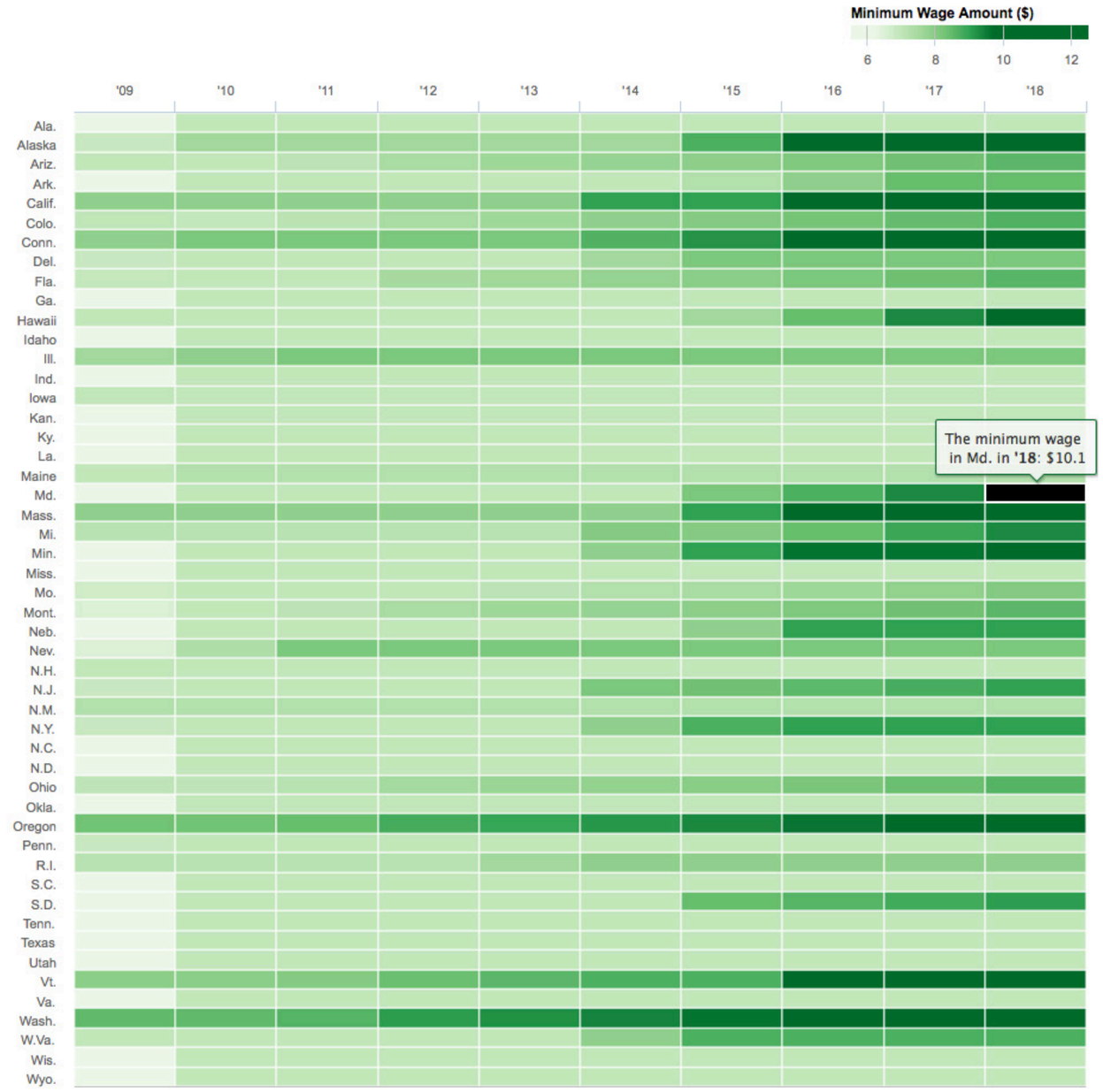
[**In thousands of short tons.** Comprises carbon, alloy, and stainless steel. "N.e.c." means not elsewhere classified]

MARKET CLASS	1960	1965	1970	1973	1974	1975	1976	1977	1978
Total [1]	**71,149**	**92,666**	**90,798**	**111,430**	**109,472**	**79,957**	**89,447**	**91,147**	**97,935**
Steel for converting and processing	2,928	3,932	3,443	4,714	4,486	3,255	4,036	3,679	4,612
Independent forgers, n.e.c	841	1,250	1,048	1,213	1,339	1,098	952	998	1,192
Industrial fasteners [2]	1,071	1,234	1,005	1,278	1,331	675	912	848	870
Steel service centers, distributors	11,125	14,813	16,025	20,383	20,400	12,700	14,615	15,346	17,333
Construction, incl. maintenance	9,664	11,836	8,913	10,731	11,360	8,119	7,508	7,553	9,612
Contractors' products	3,602	5,018	4,440	6,459	6,249	3,927	4,502	4,500	3,480
Automotive	14,610	20,123	14,475	23,217	18,928	15,214	21,351	21,490	21,253
Rail transportation	2,525	3,805	3,098	3,228	3,417	3,152	3,056	3,238	3,549
Freight cars, passenger cars, locomotives	1,763	2,875	2,005	1,997	2,097	1,794	1,428	1,709	2,188
Rails and all other [3]	762	930	1,093	1,231	1,320	1,358	1,628	1,529	1,361
Shipbuilding and marine equip	622	1,051	859	1,019	1,339	1,413	969	869	845
Aircraft and aerospace	78	94	56	69	79	69	59	63	60
Oil and gas industries	1,759	1,936	3,550	3,405	4,210	4,171	2,653	3,650	4,140
Mining, quarrying, and lumbering	288	392	497	534	644	596	536	486	508
Agricultural, incl. machinery	1,003	1,483	1,126	1,772	1,859	1,429	1,784	1,743	1,805
Machinery, industrial equip., tools	3,958	5,873	5,169	6,351	6,440	5,173	5,180	5,566	5,992
Electrical equipment	2,078	2,985	2,694	3,348	3,242	2,173	2,671	2,639	2,811
Appliances, utensils, and cutlery	1,760	2,179	2,160	2,747	2,412	1,653	1,950	2,129	2,094
Other domestic commercial equip	1,959	2,179	1,778	1,990	1,941	1,390	1,813	1,846	1,889
Containers, packaging, shipping	6,429	7,331	7,775	7,811	8,218	6,053	6,914	6,714	6,595
Cans and closures	4,976	5,867	6,239	6,070	6,349	4,859	5,290	5,173	4,950
Ordnance and other military	165	289	1,222	918	654	405	219	193	207
Exports (reporting companies only)	2,563	2,078	5,985	3,138	3,961	1,755	1,839	1,076	1,224

[1] Total includes nonclassified shipments, and, beginning 1970, data include estimates for a relatively small number of companies which report raw steel production but not shipments. [2] Bolts, nuts, rivets, and screws. [3] Includes railways, rapid transit systems, railroad rails, trackwork, and equipment.

5.06	7.17	8.28	9.31	10.40	11.57	13.12	14.28	15.45	16.52	17.53	18.45	19.40	20.39	21.51	23.36
5.18	7.23	8.30	9.33	10.45	11.59	13.17	14.32	15.48	16.59	17.55	18.48	19.43	20.41	21.58	23.47
5.31	7.26	8.32	9.41	10.49	12.05	13.19	14.37	15.52	17.01	17.57	18.53	19.45	20.46	22.01	23.54
5.40	7.30	8.38	9.43	10.54	12.08	13.25	14.39	15.57	17.04	18.01	18.55	19.47	20.50	22.09	24.03
5.46	7.35	8.40	9.50	10.57	12.12	13.28	14.45	15.59	17.10	18.03	18.57	19.51	20.52	22.11	24.15
5.58	7.38	8.42	9.53	11.00	12.17	13.32	14.48	16.05	17.12	18.05	19.01	19.53	20.58	22.17	24.21
6.04	7.40	8.50	9.57	11.05	12.19	13.37	14.52	16.08	17.14	18.07	19.04	19.55	21.01	22.21	24.23
6.12	7.45	8.52	10.01	11.08	12.25	13.39	14.57	16.09	17.19	18.13	19.06	20.00	21.06	22.29	
6.18	7.47	8.54	10.03	11.12	12.28	13.45	14.59	16.16	17.22	18.15	19.08	20.02	21.09	22.32	
6.21	7.49	9.00	10.07	11.17	12.32	13.48	15.05	16.18	17.24	18.17	19.13	20.04	21.11	22.39	
6.30	7.54	9.02	10.11	11.19	12.37	13.52	15.08	16.21	17.26	18.21	19.15	20.10	21.18	22.44	
6.38	7.56	9.04	10.12	11.25	12.39	13.57	15.12	16.27	17.30	18.23	19.17	20.12	21.21	22.51	
6.41	7.58	9.10	10.17	11.28	12.45	13.59	15.17	16.29	17.32	18.25	19.20	20.14	21.26	22.53	
6.49	8.03	9.12	10.20	11.32	12.48	14.05	15.19	16.32	17.34	18.28	19.23	20.19	21.29	22.59	
6.55	8.06	9.14	10.22	11.37	12.52	14.08	15.25	16.38	17.36	18.33	19.25	20.21	21.31	23.04	
6.59	8.09	9.20	10.26	11.39	12.57	14.12	15.28	16.40	17.40	18.35	19.27	20.23	21.38	23.10	
7.03	8.18	9.22	10.29	11.45	12.59	14.17	15.32	16.42	17.43	18.37	19.32	20.30	21.41	23.14	
7.08	8.20	9.24	10.34	11.48	13.05	14.19	15.37	16.48	17.45	18.41	19.34	20.32	21.46	23.21	
7.14	8.22	9.29	10.37	11.52	13.08	14.25	15.39	16.50	17.47	18.43	19.36	20.34	21.50	23.30	

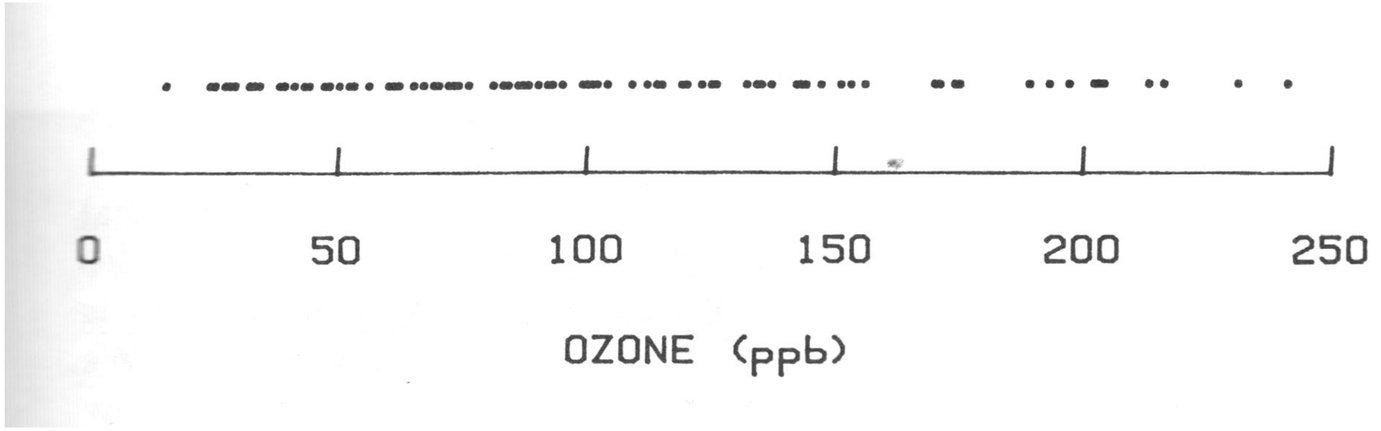

C11 (L) TOTAL
C!
25
A B C D
1 ITEM NO. UNIT COST
2 ---- --- ---- ----
3 MUCK RAKE 43 12.95 556.85
4 BUZZ CUT 15 6.75 101.25
5 TOE TONER 250 49.95 12487.50
6 EYE SNUFF 2 4.95 9.90
7 ----------
8 SUBTOTAL 13155.50
9 9.75% TAX 1282.66
10 ----------
11 TOTAL 14438.16
12
13
14
15
16
17
18
19
20

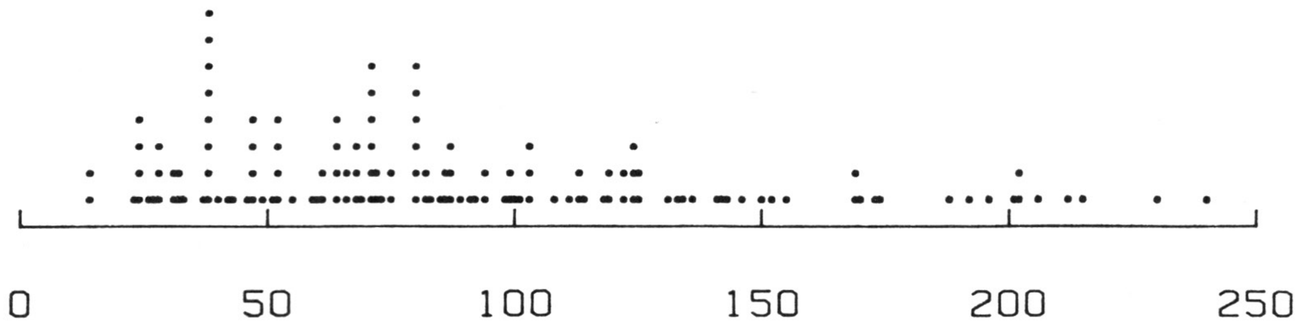

Minimum Wage Amount ($)
6
8
10
12
'09
'10
'11
'12
'13
'14
'15
'16
'17
'18
Ala.
Alaska
Ariz.
Ark.
Calif.
Colo.
Conn.
Del.
Fla.
Ga.
Hawaii
Idaho
Ill.
Ind.
Iowa
Kan.
Ky.
La.
Maine
Md.
Mass.
Mi.
Min.
Miss.
Mo.
Mont.
Neb.
Nev.
N.H.
N.J.
N.M.
N.Y.
N.C.
N.D.
Ohio
Okla.
Oregon
Penn.
R.I.
S.C.
S.D.
Tenn.
Texas
Utah
Vt.
Va.
Wash.
W.Va.
Wis.
Wyo.
The minimum wage in Md. in '18: $10.1

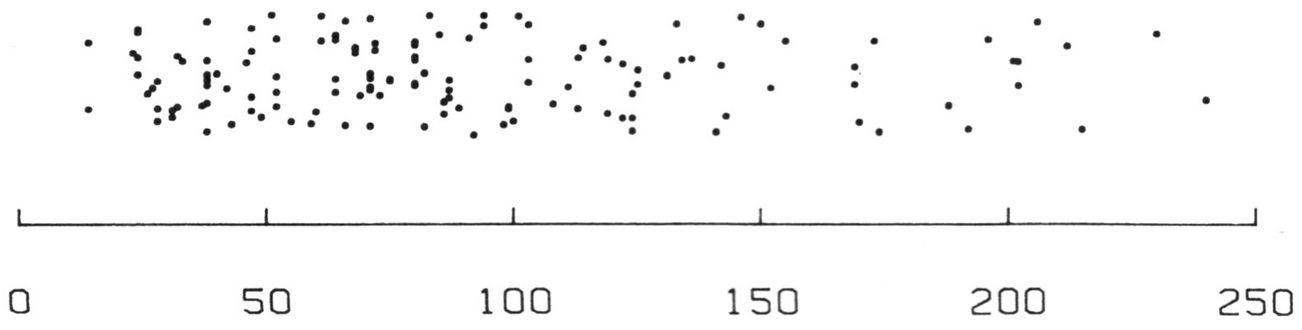
0	98766562
1	97719630
2	69987766544422211009850
3	8766554120995514 26
4	9998844331929433361107
5	97666666554422210097731
6	8986654410777 61065
7	988554311006521 08073
8	653322122937
9	377655421000493
10	0984433165212
11	4963201631
12	45421164
13	47830
14	00
15	676
16	52
17	92
18	5
19	39730

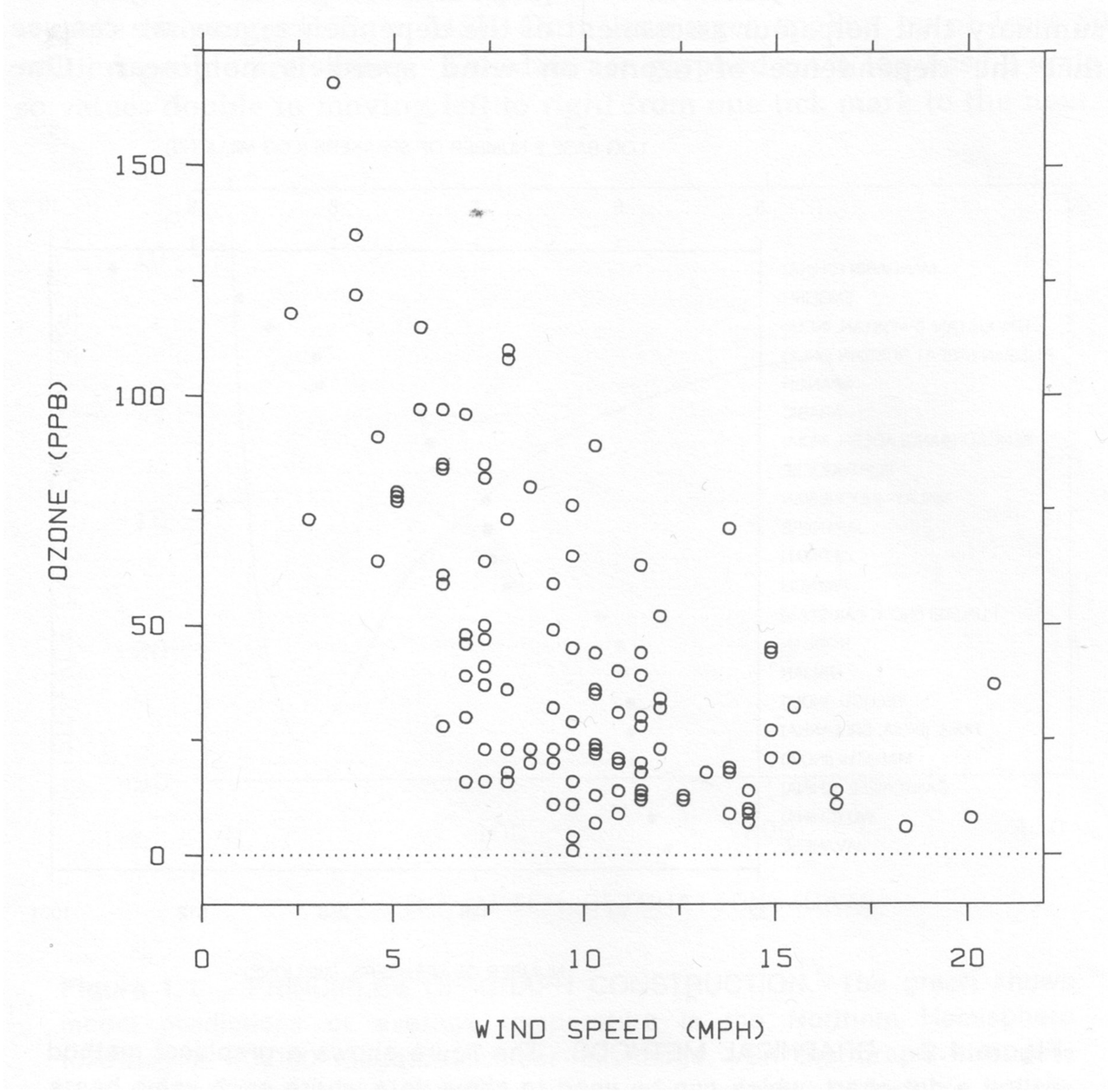
Scatter Plot

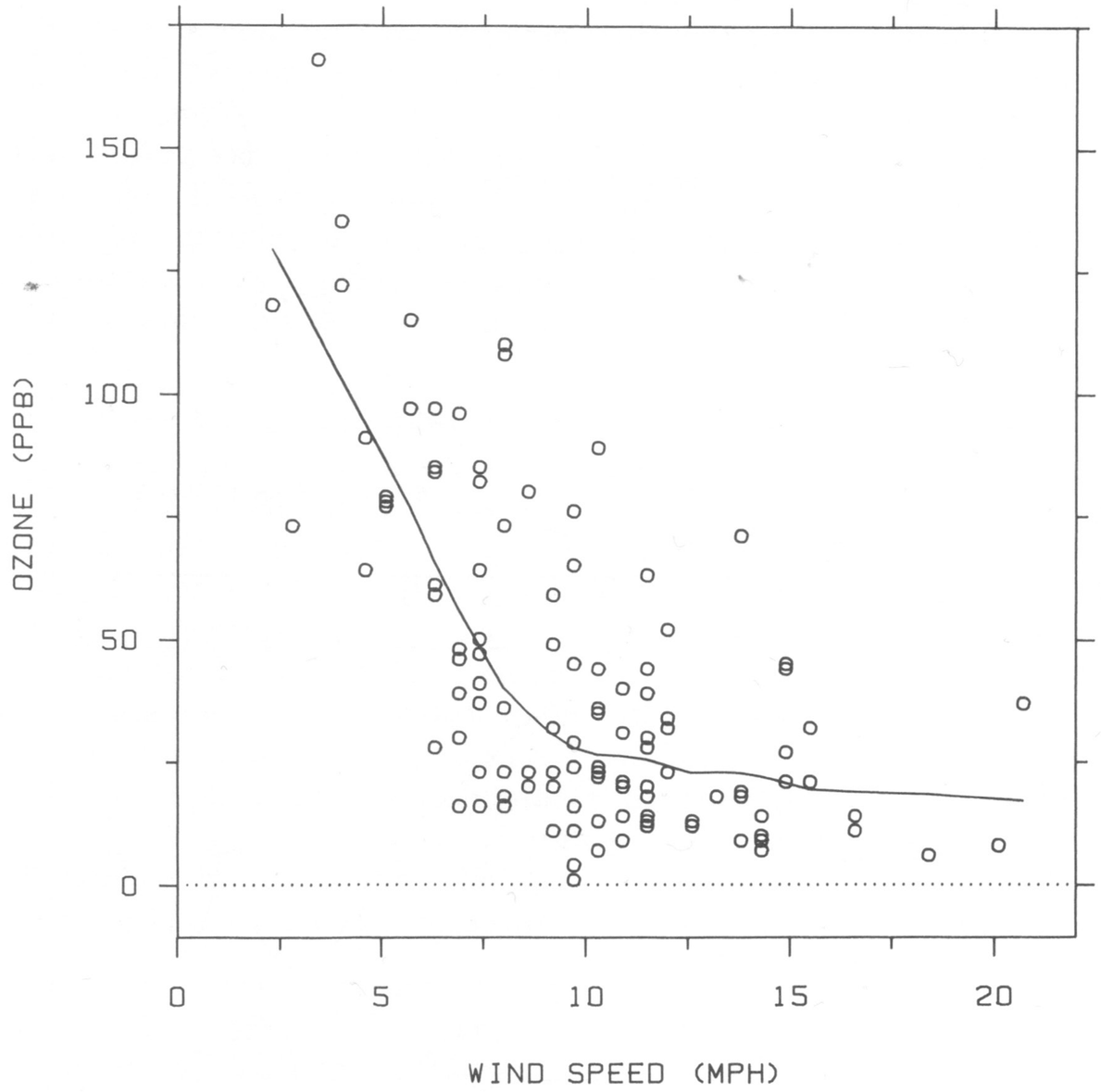
In one dimension, a scatter plot is a disconnected line graph with one axis as the point count. In two dimensions, itis a cloud of with horizontal and vertical locations based on their values. These can be extended to three or more dimensions by transforming down to the two dimensional plane (same as how 3D graphics map a spatial scene to the two dimensional plane of a monitor.) More than two dimensions will require teh ability to swap dimensions, or rotate across dimensions to show how they relate to each other.


0
50
100
150
200
250
OZONE (ppb)

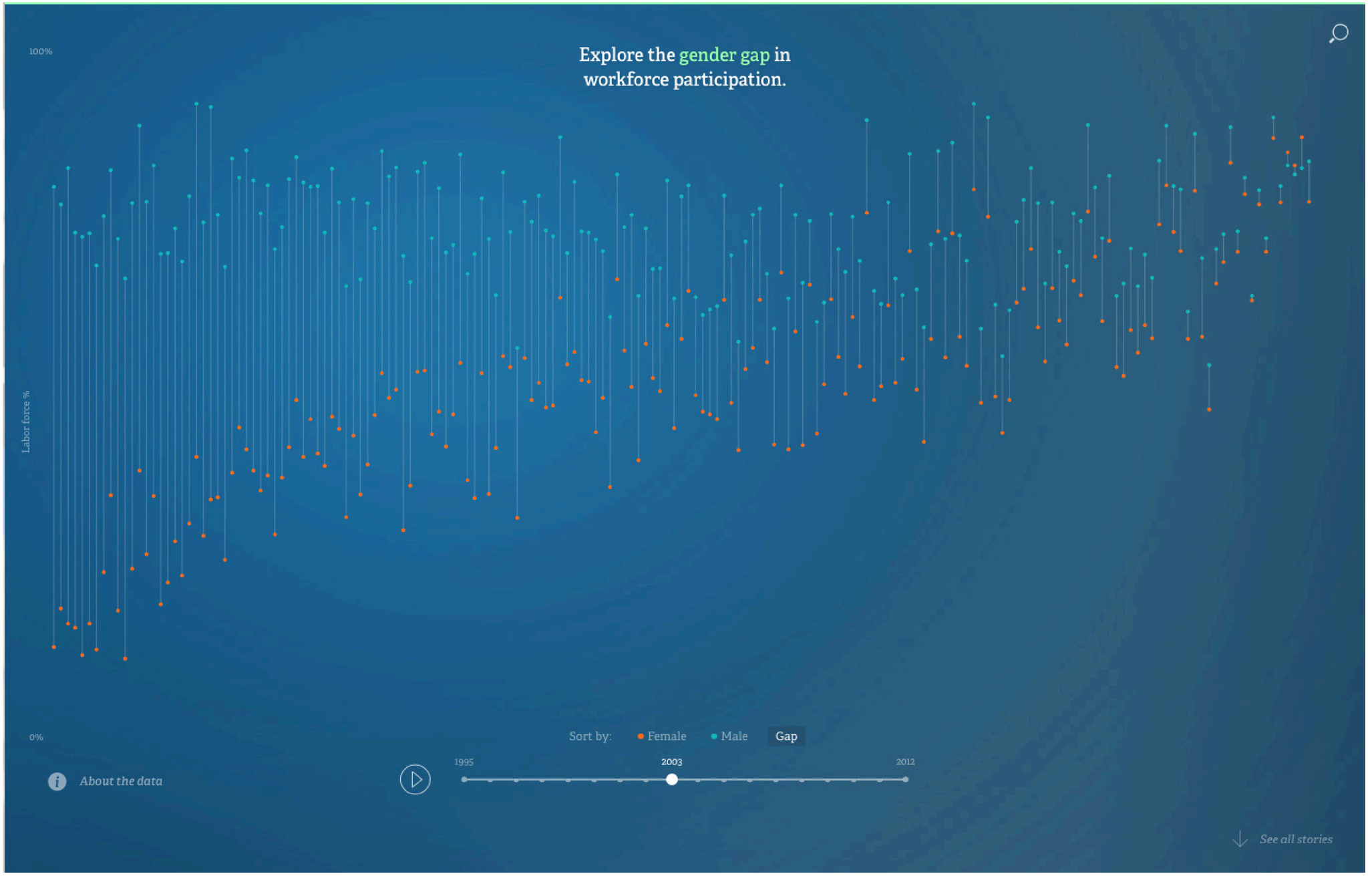

0
50
100
150
200
250
OZONE (ppb)

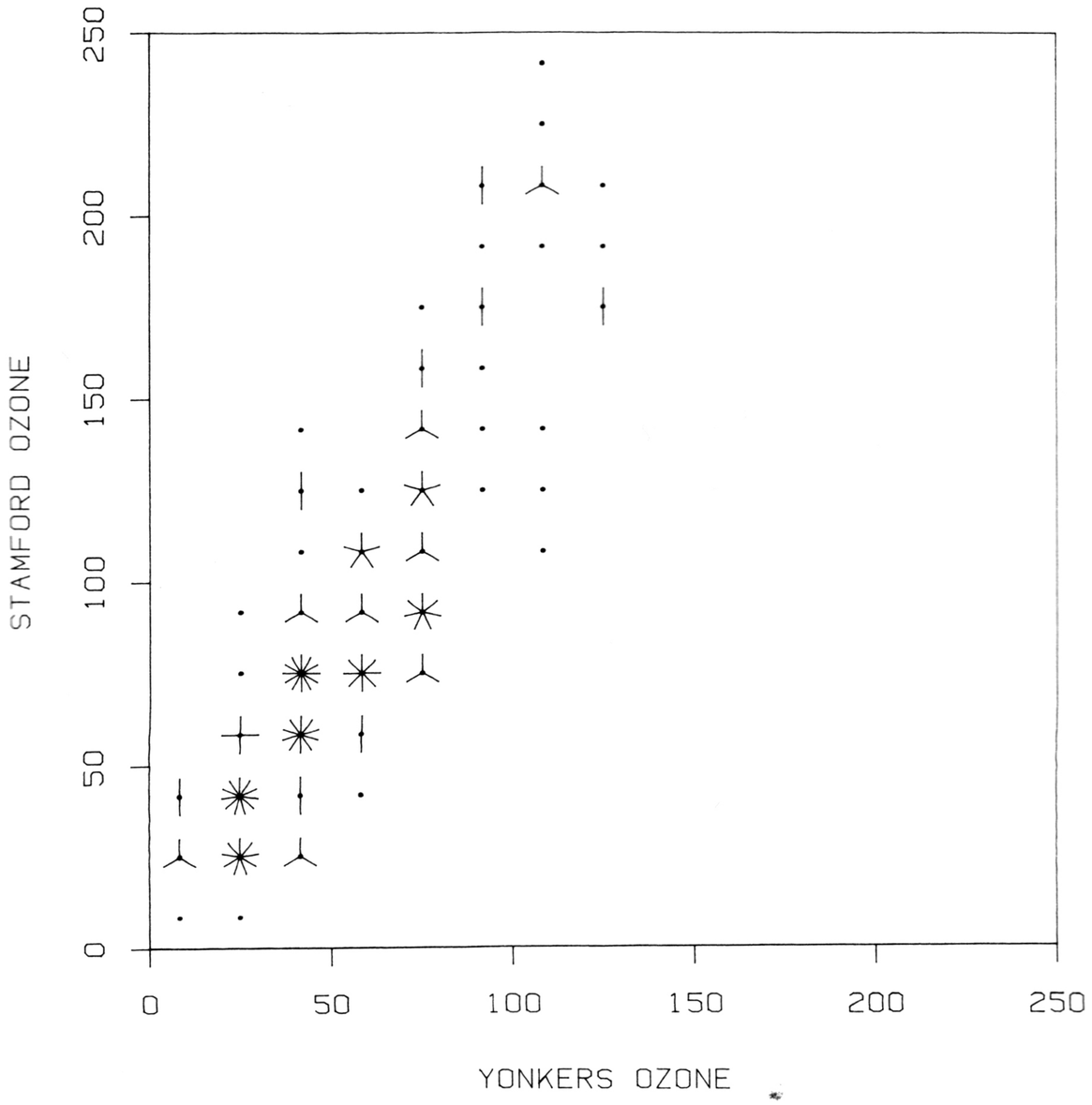

0
50
100
150
200
250
OZONE (ppb)

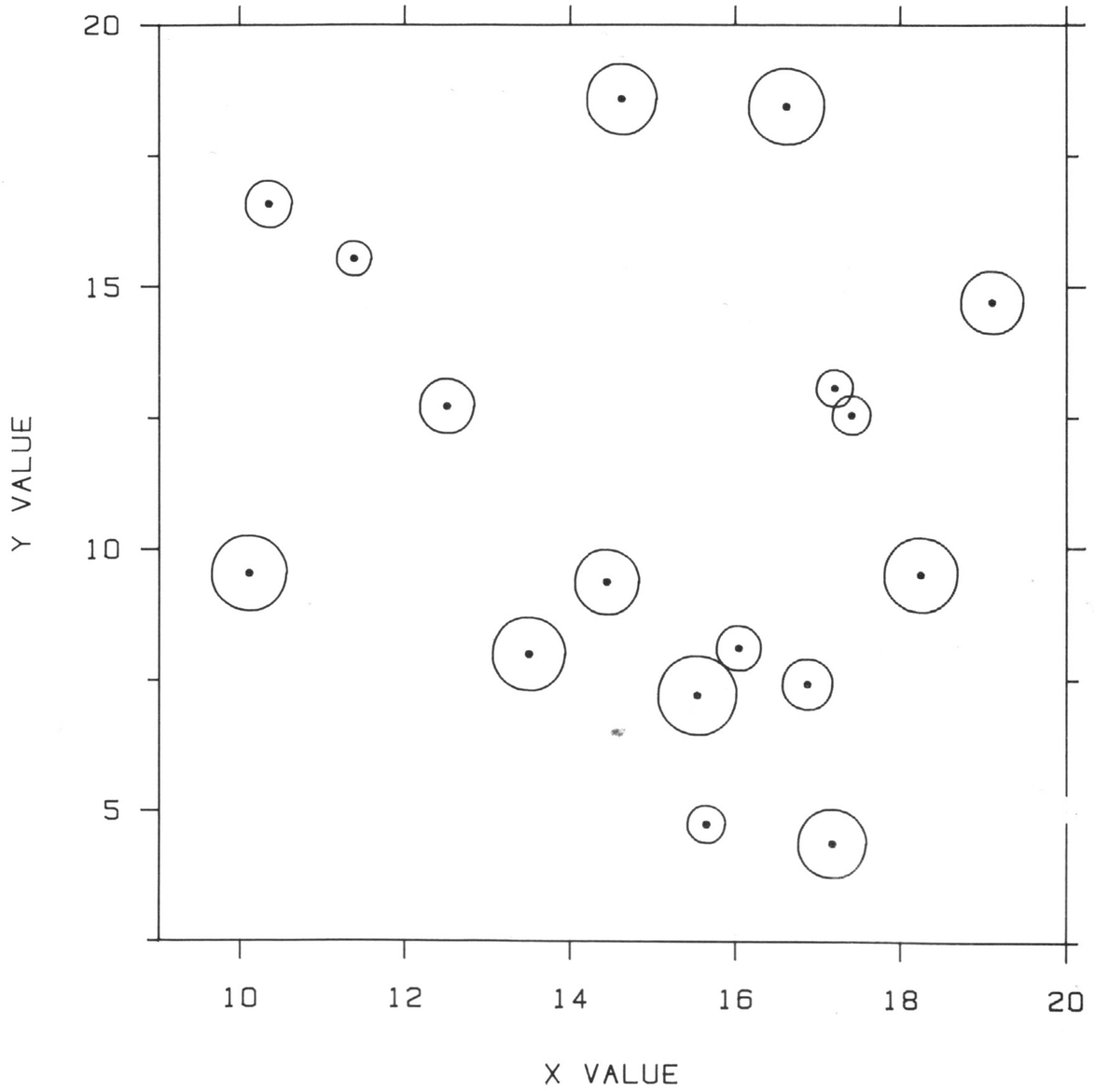

OZONE (PPB)
150
100
50
0
0
5
10
15
20
WIND SPEED (MPH)

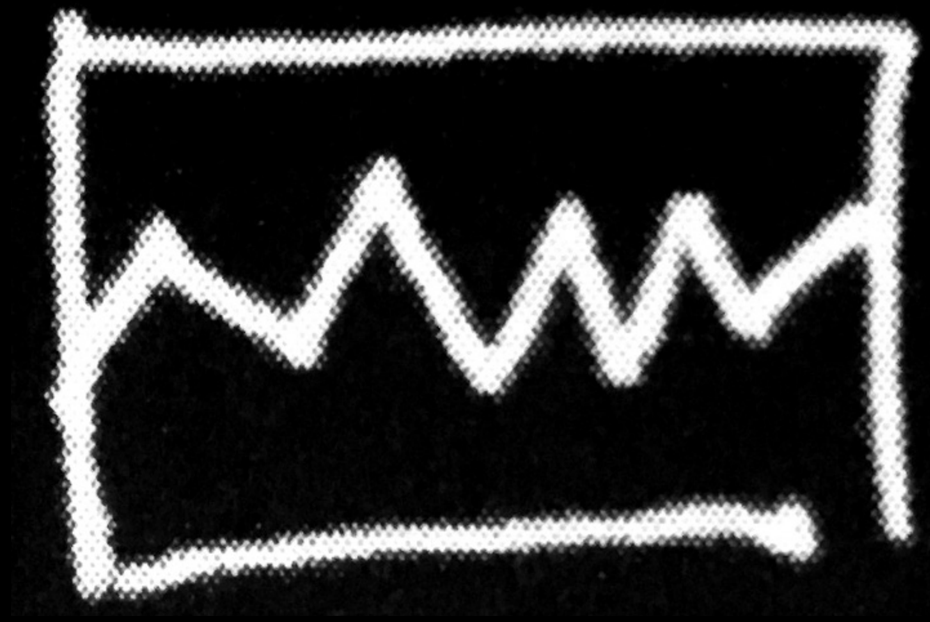

OZONE (PPB)
150
100
50
0
0
5
10
15
20
WIND SPEED (MPH)


Explore the gender gap in workforce participation.
100%
Labor force %
0%
Sort by:
Female
Male
Gap
1995
2012
About the data
See all stories


Explore the gender gap in workforce participation.
100%
Labor force %
0%
Sort by:
Female
Male
Gap
1995
2003
2012
About the data
See all stories


STAMFORD OZONE
0
50
100
150
200
250
0
50
100
150
200
250
YONKERS OZONE


20
15
10
5
Y VALUE
10
12
14
16
18
20
X VALUE

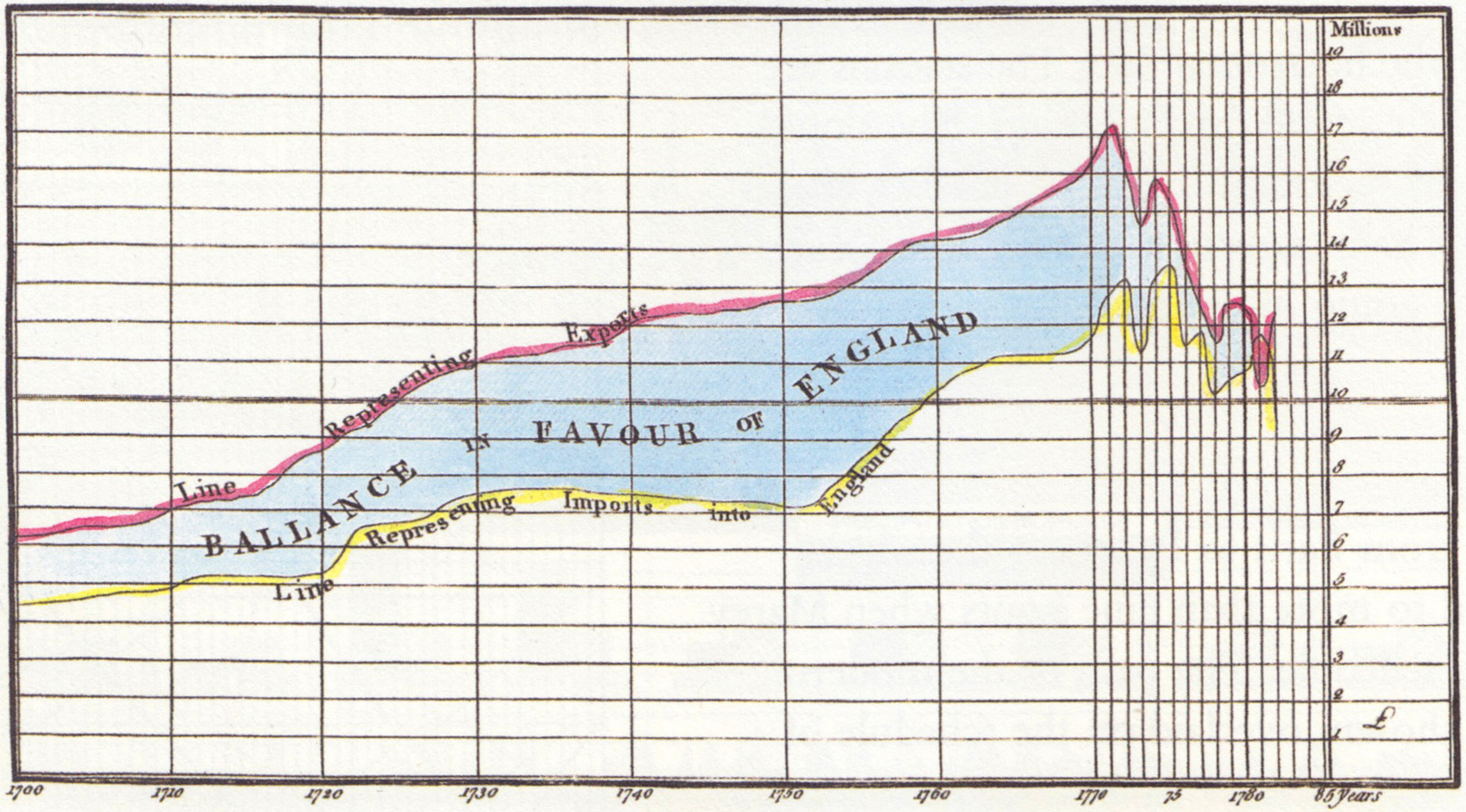


Line Graph

A series of points connected by lines.

CHART of all the IMPORTS and EXPORTS to and from ENGLAND

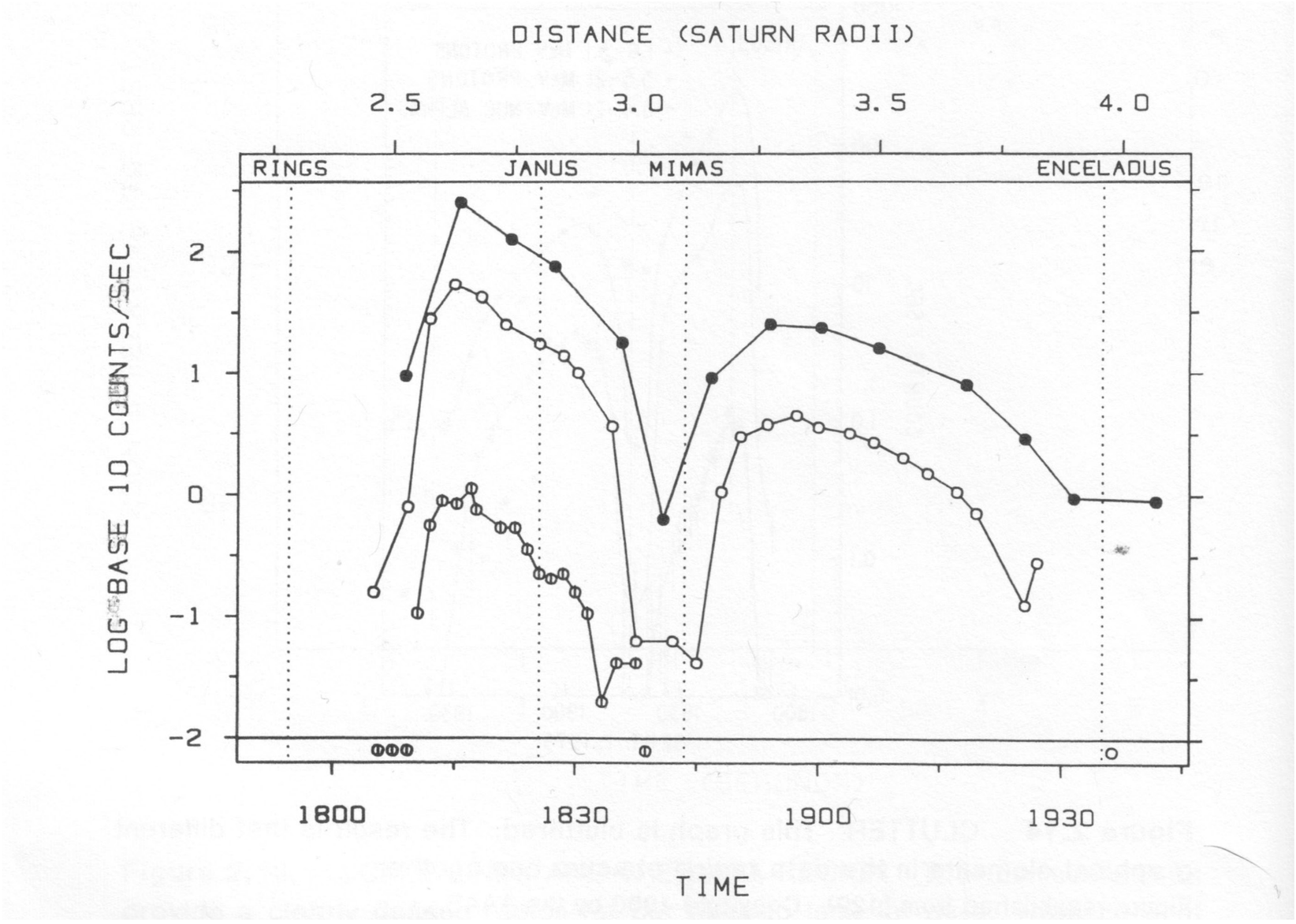
From the Year 1700 to 1782 by W. Playfair



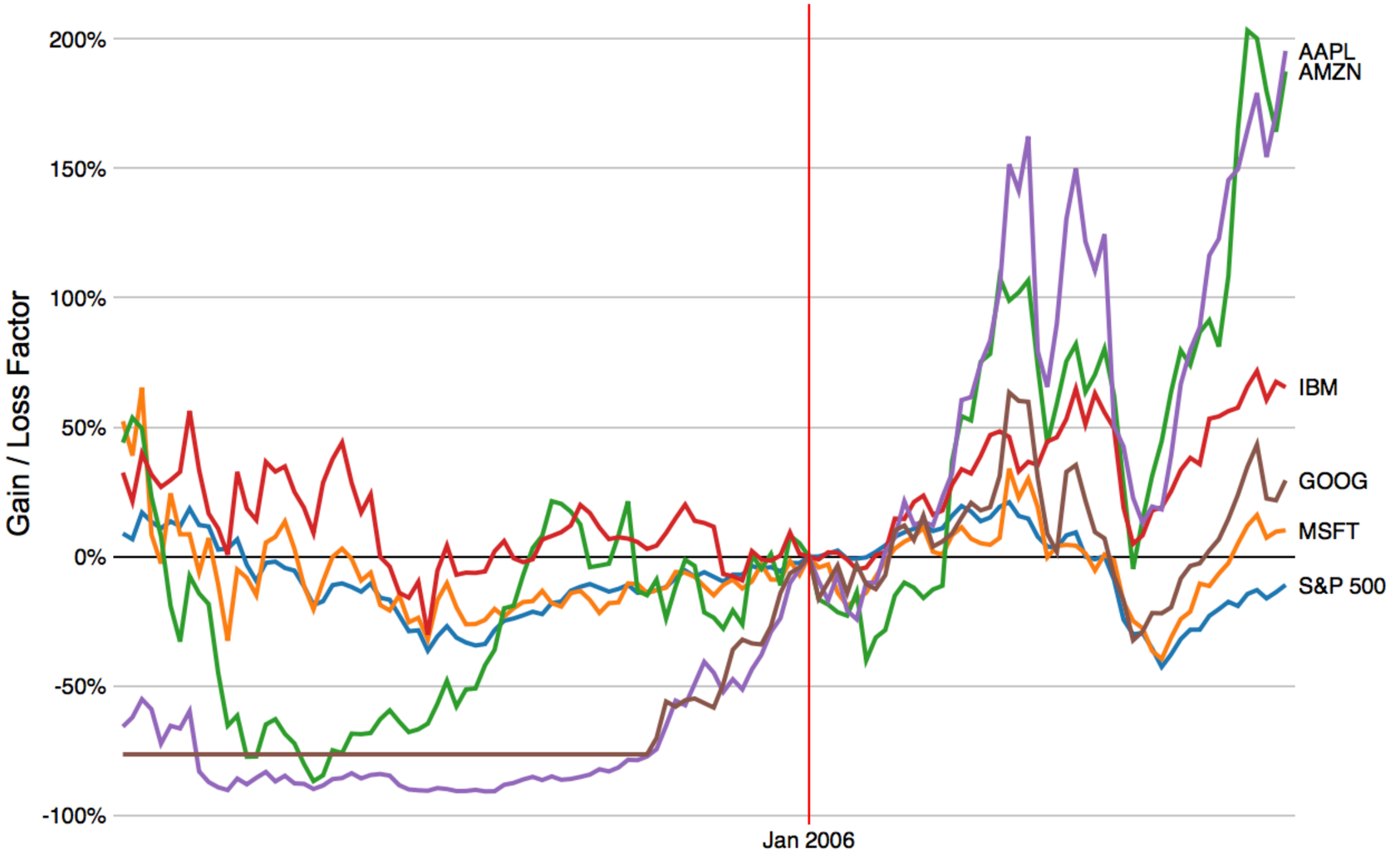
The Divisions at the Bottom, express **YEARS**, *& those on the Right hand,* MILLIONS *of* POUNDS

J. Ainslie Sculp.

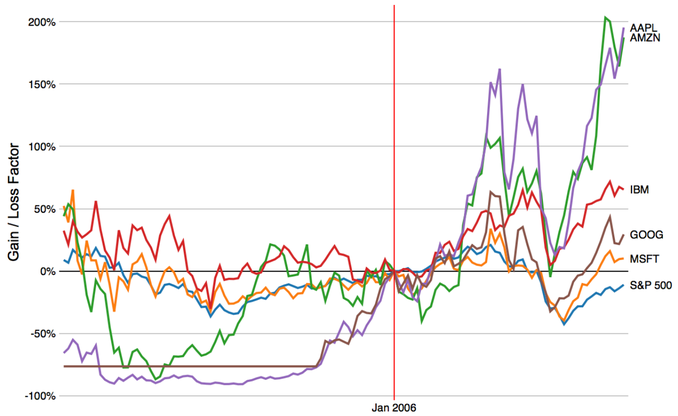
Publish'd as the Act directs. 20.th Aug.t 1785


DISTANCE (SATURN RADII)
2.5
3.0
3.5
4.0
RINGS
JANUS
MIMAS
ENCELADUS
LOG BASE 10 COUNTS/SEC
2
1
0
-1
-2
1800
1830
1900
1930
TIME

Index Chart of Selected Technology Stocks, 2000-2010



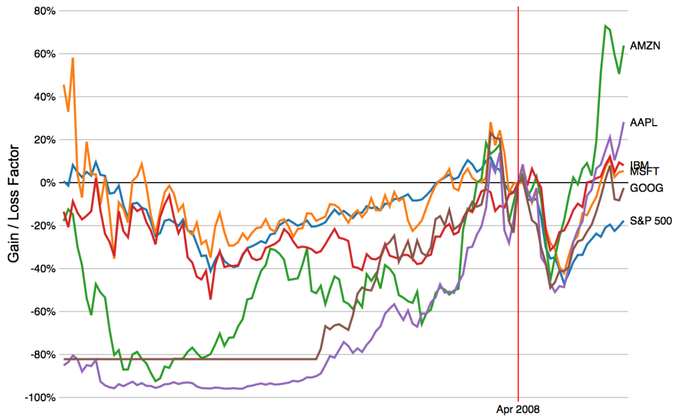
Index Chart of Selected Technology Stocks, 2000-2010



Relative magnitude of gains or losses if money invested during the selected reference month.
Mouse over a point in the chart to set the reference month.

Source: Yahoo! Finance

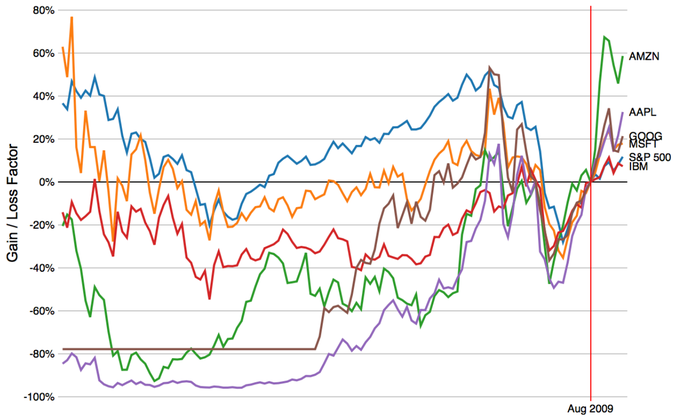
Index Chart of Selected Technology Stocks, 2000-2010



Relative magnitude of gains or losses if money invested during the selected reference month.
Mouse over a point in the chart to set the reference month.

Source: Yahoo! Finance

Index Chart of Selected Technology Stocks, 2000-2010

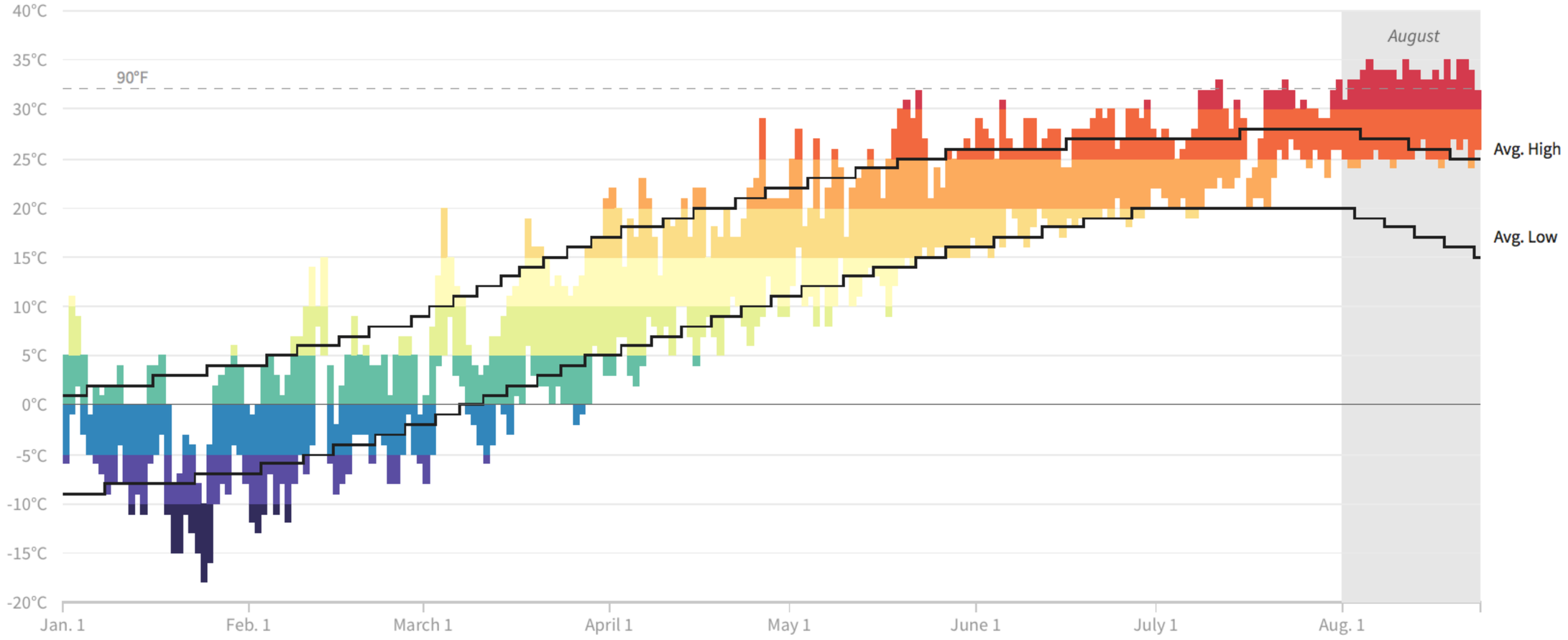


Relative magnitude of gains or losses if money invested during the selected reference month.
Mouse over a point in the chart to set the reference month.

Source: Yahoo! Finance

Seoul Temperatures: 2016

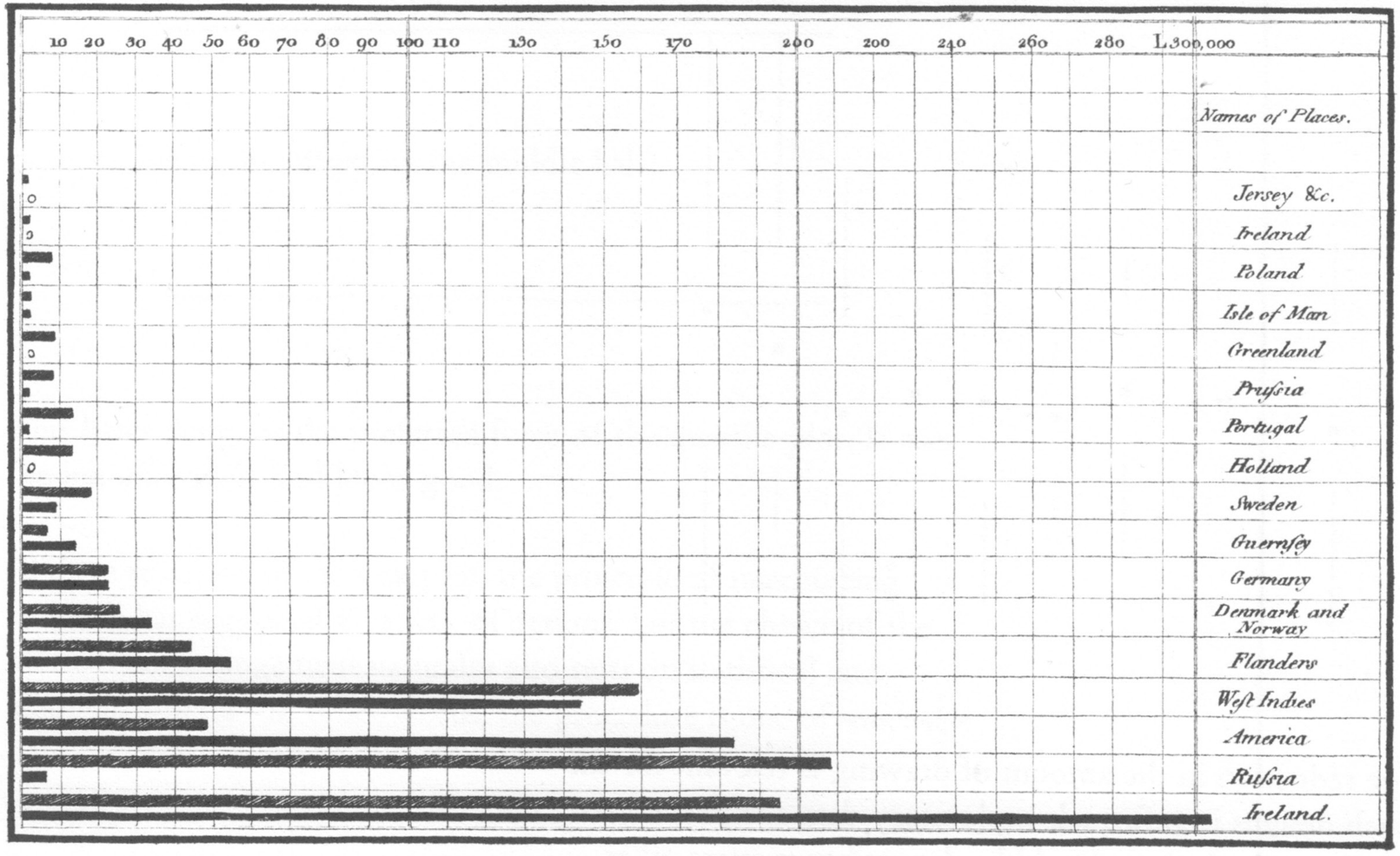
South Korea's capital city has experienced abnormally hot weather this summer, especially during August. Below are observed daily high and low temperatures and the more temperate historical averages.



Bar Graph

Playfair’s invenstion for showing series data (usually done with a line graph) where values where not connected to one another, or had missing data.

Exports and Imports of **SCOTLAND** to and from different parts for one Year from Christmas 1780 to Christmas 1781



The Upright divisions are Ten Thousand Pounds each. The Black Lines are Exports the Ribbed lines Imports

Published as the Act directs June 7.th 1786 by Wm Playfair

Neele sculp.r 352 Strand, London.

GROWTH OF STATES IN POPULATION.

(Based on the Several Census Reports.)

The Original Thirteen States, in Order of Rank in Population at the Census of 1880.

State. Date of the Ratification of the Constitution. State Area Compared with Ohio.	Year	Population
1. DELAWARE, December 7, 1787	1790	59,096
	1800	64,273
	1810	72,674
	1820	72,749
	1830	76,748
	1840	78,085
	1850	91,532
	1860	112,216
	1870	125,015
	1880	146,608
Ohio, Sq. M., 40,760		
Del., " " 1,960		
2. RHODE ISLAND, May 29, 1790	1790	68,825
	1800	69,122
	1810	76,931
	1820	83,015
	1830	97,199
	1840	108,830
	1850	147,545
	1860	174,620
	1870	217,353
	1880	276,531
Ohio, Sq. M., 40,760		
R.I., " " 1,085		
3. NEW HAMPSHIRE, June 21, 1788	1790	141,885
	1800	183,858
	1810	214,460
	1820	244,022
	1830	269,328
	1840	284,574
	1850	317,976
	1860	326,073
	1870	318,300
	1880	346,991
Ohio, Sq. M., 40,760		
N.H., " " 9,000		
4. CONNECTICUT, January 9, 1788	1790	237,946
	1800	251,002
	1810	261,942
	1820	275,148
	1830	297,675
	1840	309,978
	1850	370,792
	1860	460,147
	1870	537,454
	1880	622,700
Ohio, Sq. M., 40,760		
Conn., " " 4,845		
5. MARYLAND, April 8, 1788	1790	319,728
	1800	341,548
	1810	380,546
	1820	407,350
	1830	447,040
	1840	470,019
	1850	583,034
	1860	687,049
	1870	780,894
	1880	934,943
Ohio, Sq. M., 40,760		
Md., " " 9,860		
6. SOUTH CAROLINA, May 23, 1788	1790	249,073
	1800	345,591
	1810	415,115
	1820	502,741
	1830	581,185
	1840	594,398
	1850	668,507
	1860	703,708
	1870	705,606
	1880	995,577
Ohio, Sq. M., 40,760		
S.C., " " 30,170		
7. NEW JERSEY, December 18, 1787	1790	184,139
	1800	211,149
	1810	245,562
	1820	277,426
	1830	320,823
	1840	373,306
	1850	489,555
	1860	672,035
	1870	906,096
	1880	1,131,116
Ohio, Sq. M., 40,760		
N.J., " " 7,455		
8. NORTH CAROLINA, Nov. 21, 1789	1790	393,751
	1800	478,103
	1810	555,500
	1820	638,829
	1830	737,987
	1840	753,419
	1850	869,039
	1860	992,622
	1870	1,071,361
	1880	1,399,750
Ohio, Sq. M., 40,760		
N.C., " " 48,580		
9. VIRGINIA, June 25, 1788	1790	747,610
	1800	880,200
	1810	974,600
	1820	1,065,116
	1830	1,211,405
	1840	1,239,797
	1850	1,421,661
	1860	1,596,318
	1870	1,225,163
	1880	1,512,565
Ohio, Sq. M., 40,760		
Va., " " 40,125		
10. GEORGIA, January 2, 1788	1790	82,548
	1800	162,686
	1810	252,433
	1820	340,985
	1830	516,823
	1840	691,392
	1850	906,185
	1860	1,057,286
	1870	1,184,109
	1880	1,542,180
Ohio, Sq. M., 40,760		
Ga., " " 58,980		
11. MASSACHUSETTS, Feb. 6, 1788	1790	475,327
	1800	574,564
	1810	700,745
	1820	523,159
	1830	610,408
	1840	737,699
	1850	994,514
	1860	1,231,066
	1870	1,457,351
	1880	1,783,085
Ohio, Sq. M., 40,760		
Mass., " " 8,040		
12. PENNSYLVANIA, Dec. 12, 1787	1790	434,373
	1800	602,365
	1810	810,091
	1820	1,047,507
	1830	1,348,233
	1840	1,724,033
	1850	2,311,786
	1860	2,906,215
	1870	3,521,951
	1880	4,282,891
Ohio, Sq. M., 40,760		
Pa., " " 44,985		
13. NEW YORK, January 26, 1788	1790	485,545
	1800	589,051
	1810	959,049
	1820	1,372,111
	1830	1,918,608
	1840	2,428,921
	1850	3,097,394
	1860	3,880,735
	1870	4,382,759
	1880	5,082,871
Ohio, Sq. M., 40,760		
N.Y., " " 47,000		

100,000 Population. 200,000 300,000 400,000 500,000 600,000 700,000 800,000 900,000 1,000,000 1,100,000 1,200,000 1,300,000 1,400,000 1,500,000 1,600,000 1,700,000 1,800,000 1,900,000 2,000,000 2,100,000 2,200,000 2,300,000 2,400,000 2,500,000 2,600,000 2,700,000 2,800,000 2,900,000 3,000,000 3,100,000 3,200,000 3,300,000 3,400,000 3,500,000 3,600,000 3,700,000 3,800,000 3,900,000 4,000,000 4,100,000 4,200,000 4,300,000 4,400,000 4,500,000

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Ala....29 Miss...29
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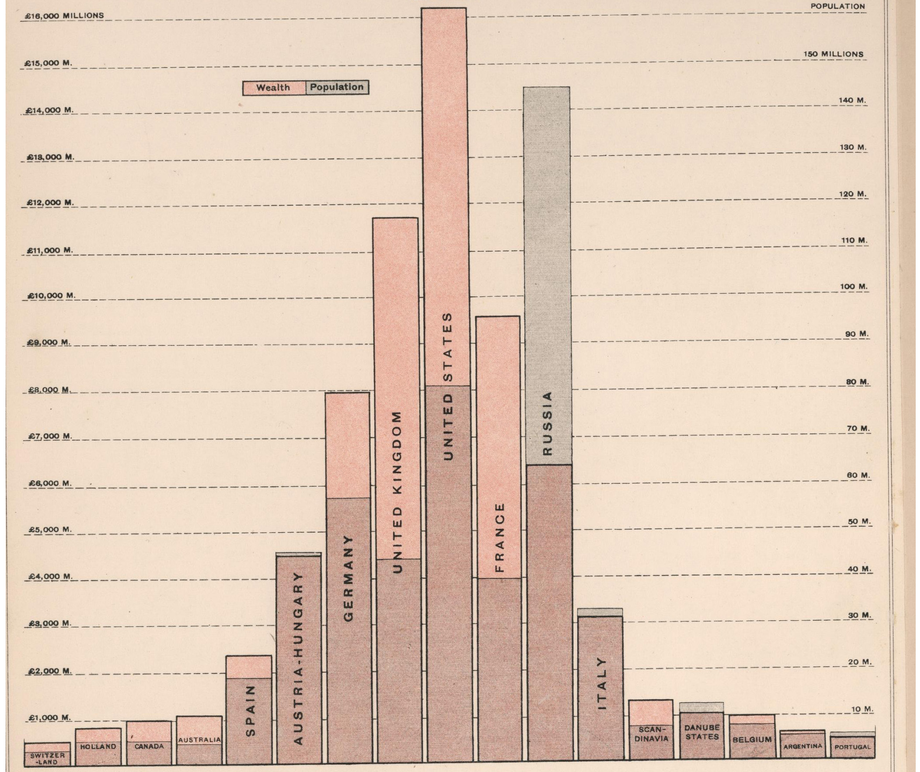
Cal....31 Nebr...37
Colo...38 Nev....36
Conn...4 N.H.....7
Del.....6 N.J.....5
Fla....27 N.Y.....13
Ga.....30 N.C.....9
Ill.....21 Ohio...17
Ind....19 Oreg...33
Iowa...28 Pa.....12
Kans...34 R.I.....2
Ky.....18 S.C.....8
La.....31 Tenn...16
Me.....23 Tex....30
Md.....6 Vt.....14
Mass...11 Va.....9
Mich...20 W.Va..35
Minn...32 Wis...22

WEALTH & POPULATION OF WORLD

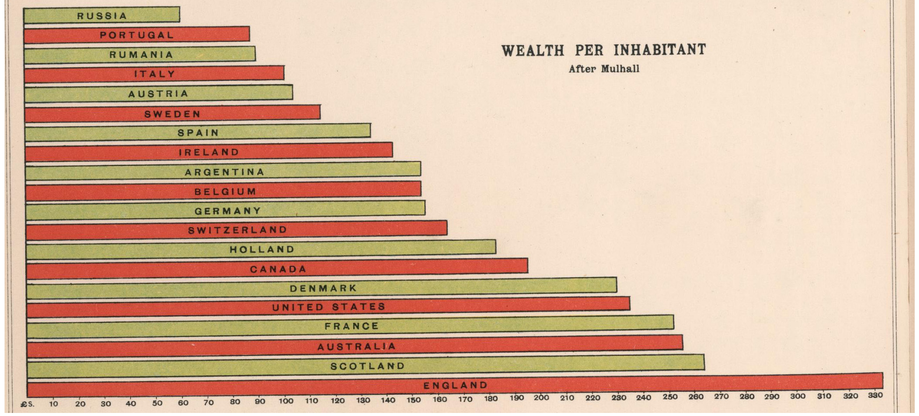
COMPARATIVE WEALTH AND POPULATION OF DIFFERENT NATIONS.

After Mulhall



WEALTH PER INHABITANT

After Mulhall



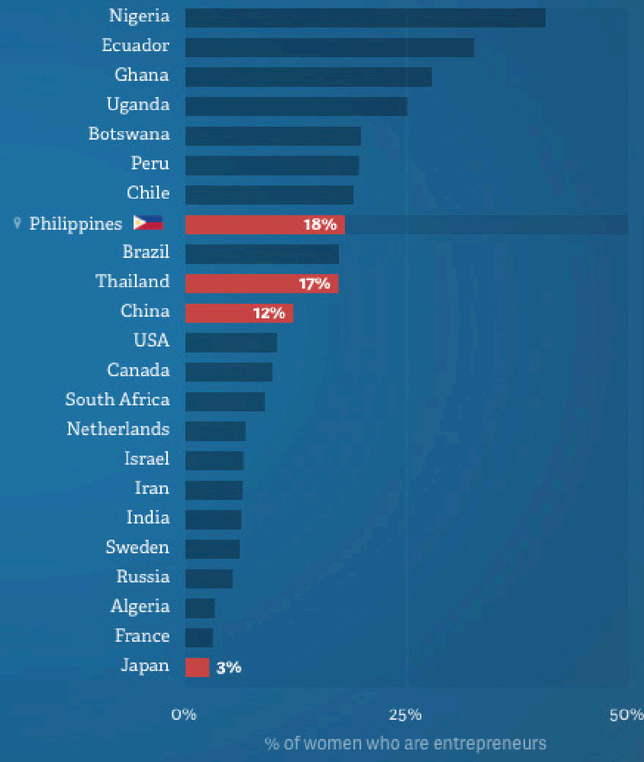
18% of women are entrepreneurs in the Philippines.

Female entrepreneurs are on the rise. Particularly in Sub-Saharan Africa and Latin America, women are making large contributions to the surge of entrepreneurial activity in their countries. As women are influencing development of the larger economy, they are most often receiving financial support from family and friends.

Select countries and regions to see how many women are new entrepreneurs or business owners, and learn where they're receiving financial support.

About the data

Related visualization: We don't have enough female executives



Share of women that received loans from:

Family and friends

37%

Financial institutions

13%

Search countries

East Asia & the Pacific

Europe & Central Asia

Latin America & Caribbean

Middle East & North Africa

North America

South Asia

Sub-Saharan Africa

Show all countries

See all stories

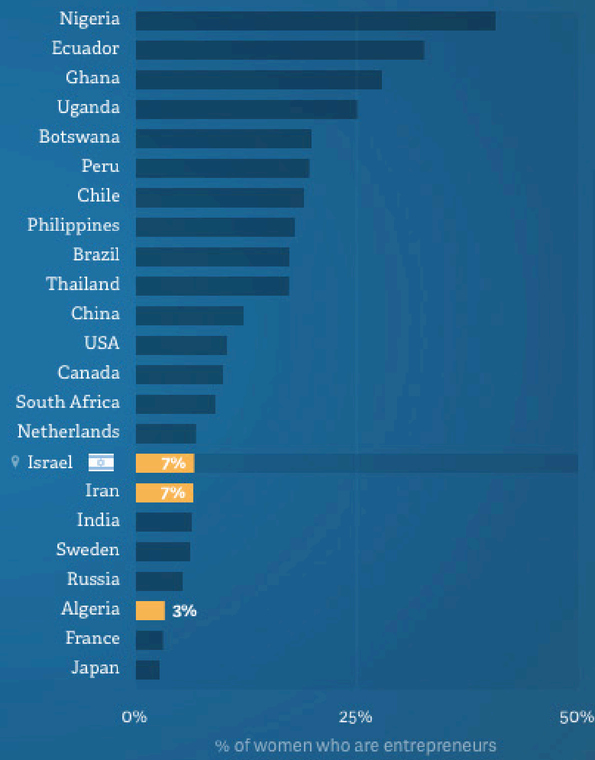
7% of women are entrepreneurs in Israel.

Female entrepreneurs are on the rise. Particularly in Sub-Saharan Africa and Latin America, women are making large contributions to the surge of entrepreneurial activity in their countries. As women are influencing development of the larger economy, they are most often receiving financial support from family and friends.

Select countries and regions to see how many women are new entrepreneurs or business owners, and learn where they're receiving financial support.

About the data

Related visualization: We don't have enough female executives



Share of women that received loans from:

Family and friends

19%

Financial institutions

15%

Search countries

- East Asia & the Pacific
- Europe & Central Asia
- Latin America & Caribbean
- Middle East & North Africa
- North America
- South Asia
- Sub-Saharan Africa

Show all countries

See all stories

Box Plot

A two dimensional plot that shows a point and its first (and sometimes secnd) standard deviation, a useful depiction of yeh fact that data is often not simply discrete points, but rabges if likelyhood. This was invented by John Tukey.

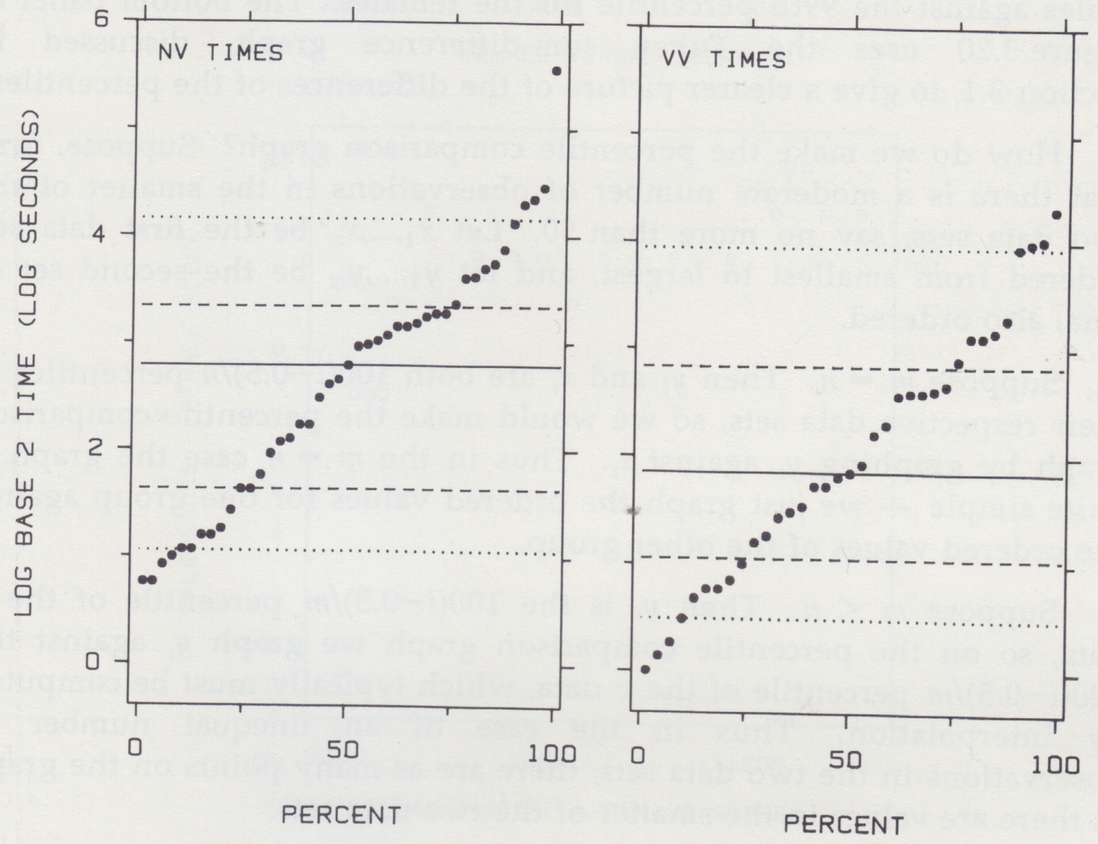
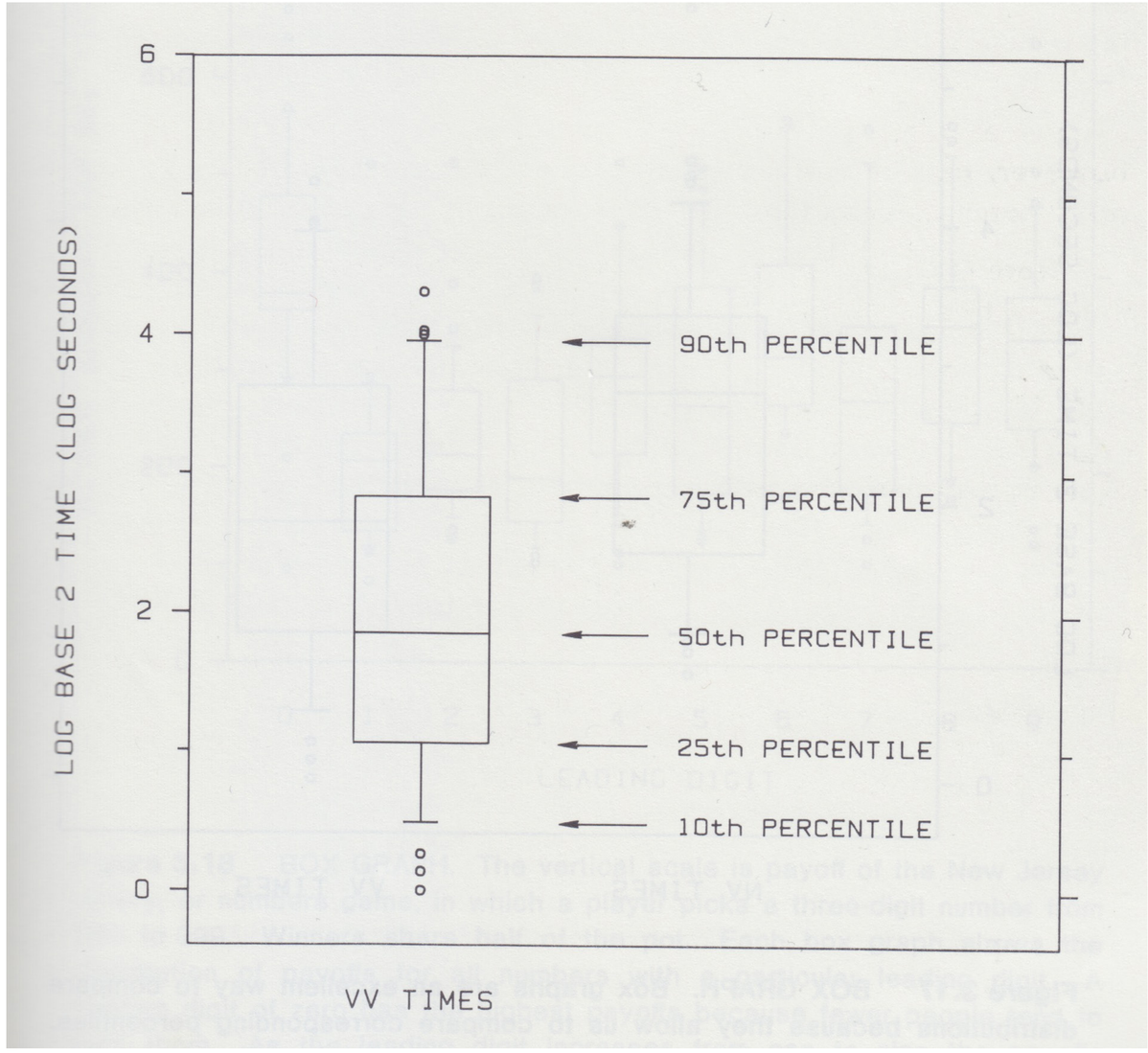


Figure 3.19 PERCENTILE GRAPH WITH SUMMARY. The five percentiles of the box graph are shown on a percentile graph by horizontal lines.



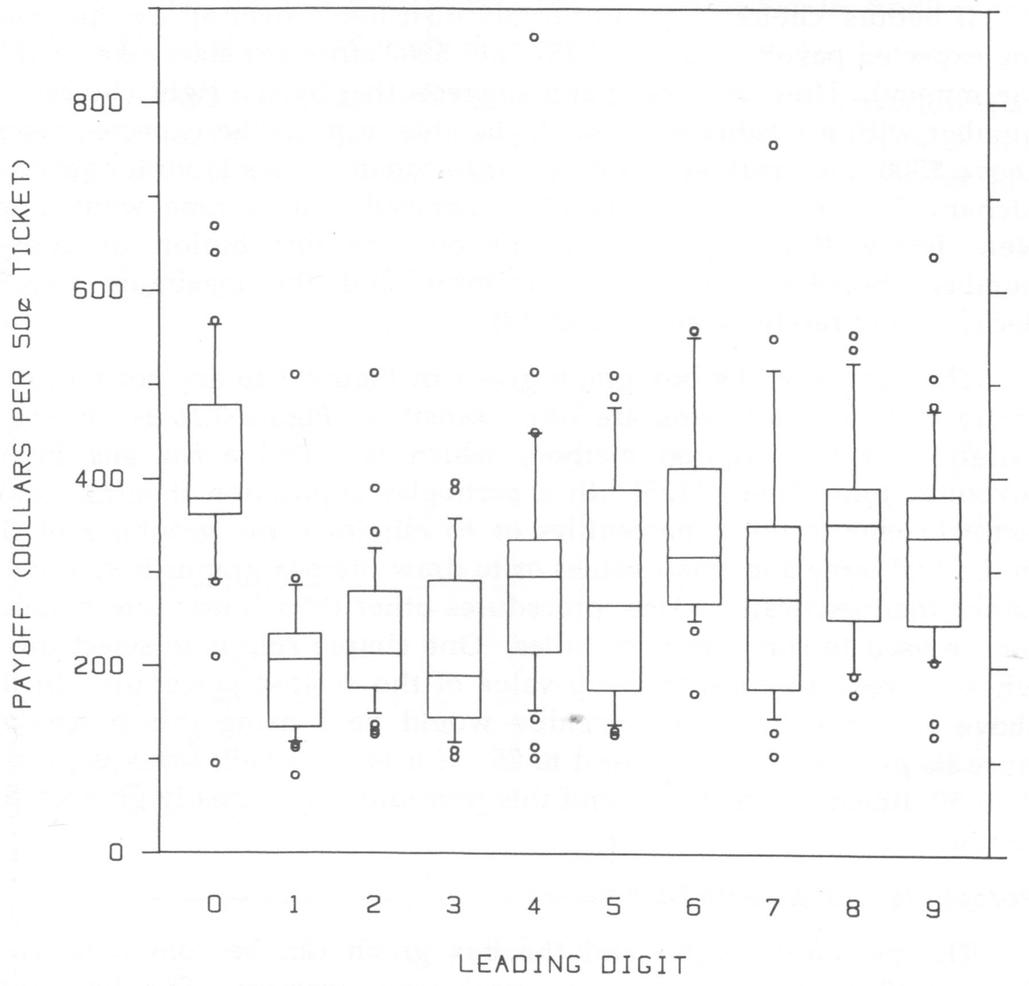
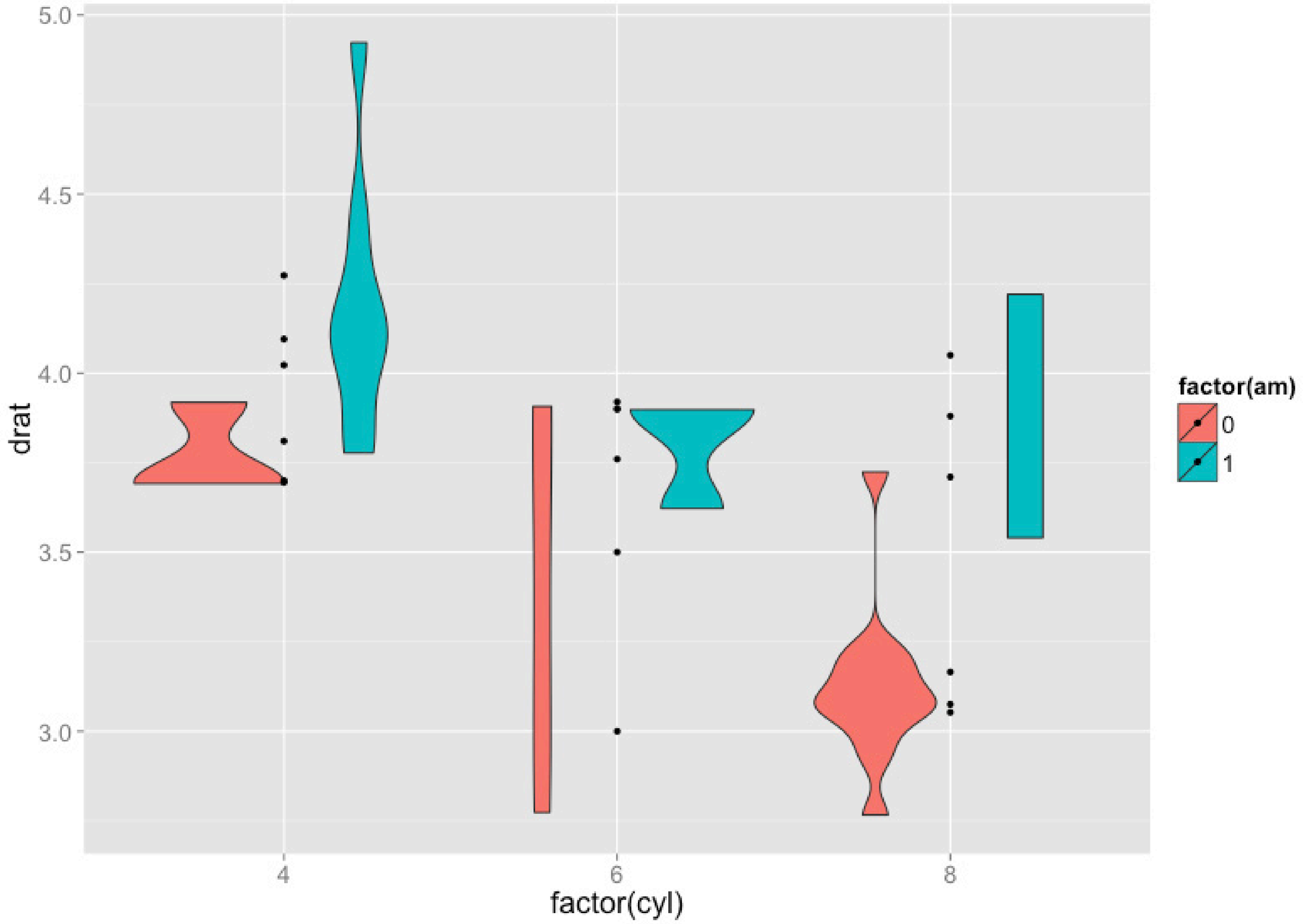
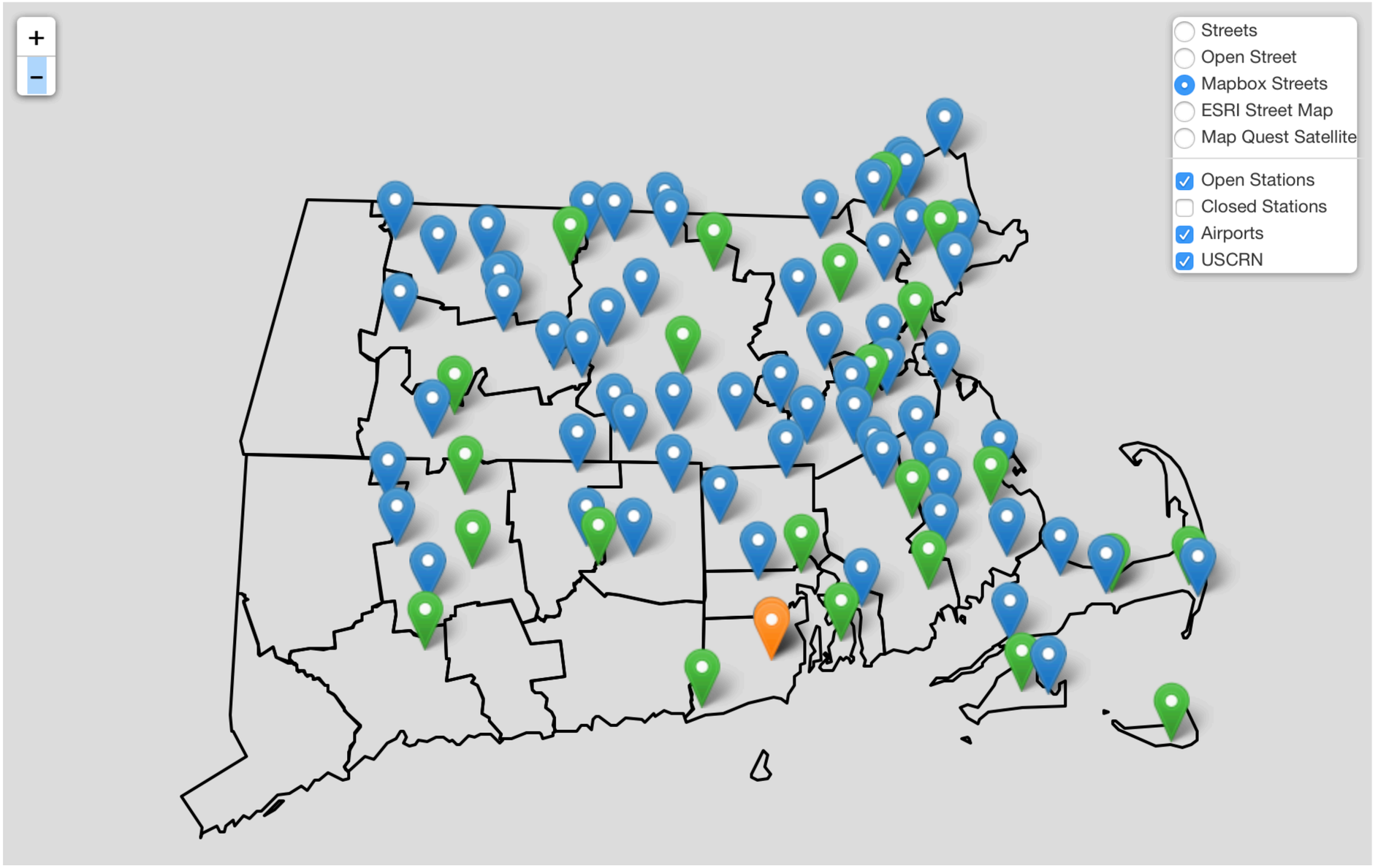


Figure 3.18 BOX GRAPH. The vertical scale is payoff of the New Jersey lottery, or numbers game, in which a player picks a three-digit number from 000 to 999. Winners share half of the pot. Each box graph shows the distribution of payoffs for all numbers with a particular leading digit. A leading digit of zero has the highest payoffs because fewer people tend to pick them. As the leading digit increases from one to nine the payoffs increase in a zigzag fashion, showing odd first digits are preferred to even.


5.0
4.5
4.0
3.5
3.0
drat
4
6
8
factor(cyl)
factor(am)
0
1

Physical Map

Ordering Elements by physical location, such as latitude and longitude points, like the zipcode example.


+
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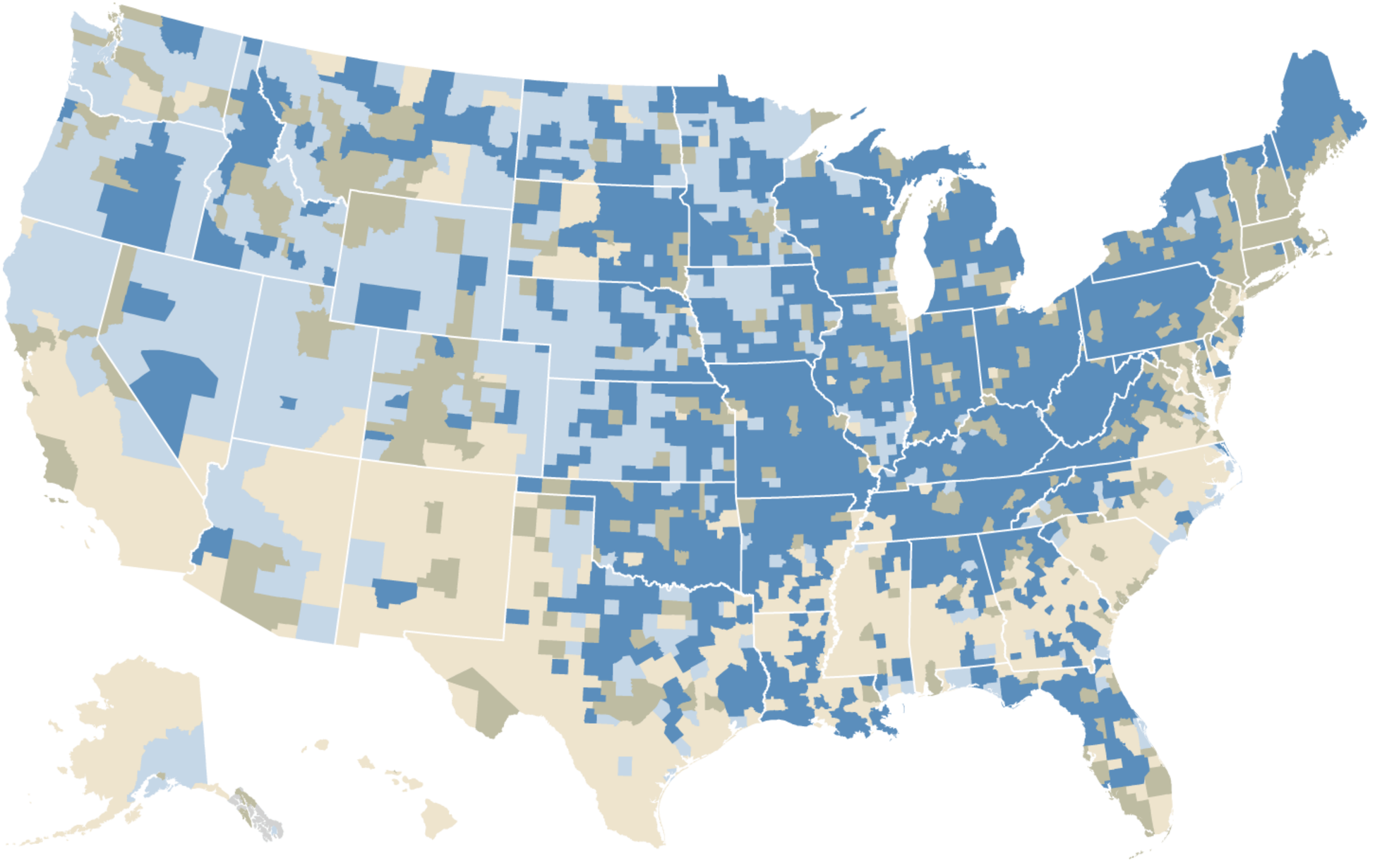
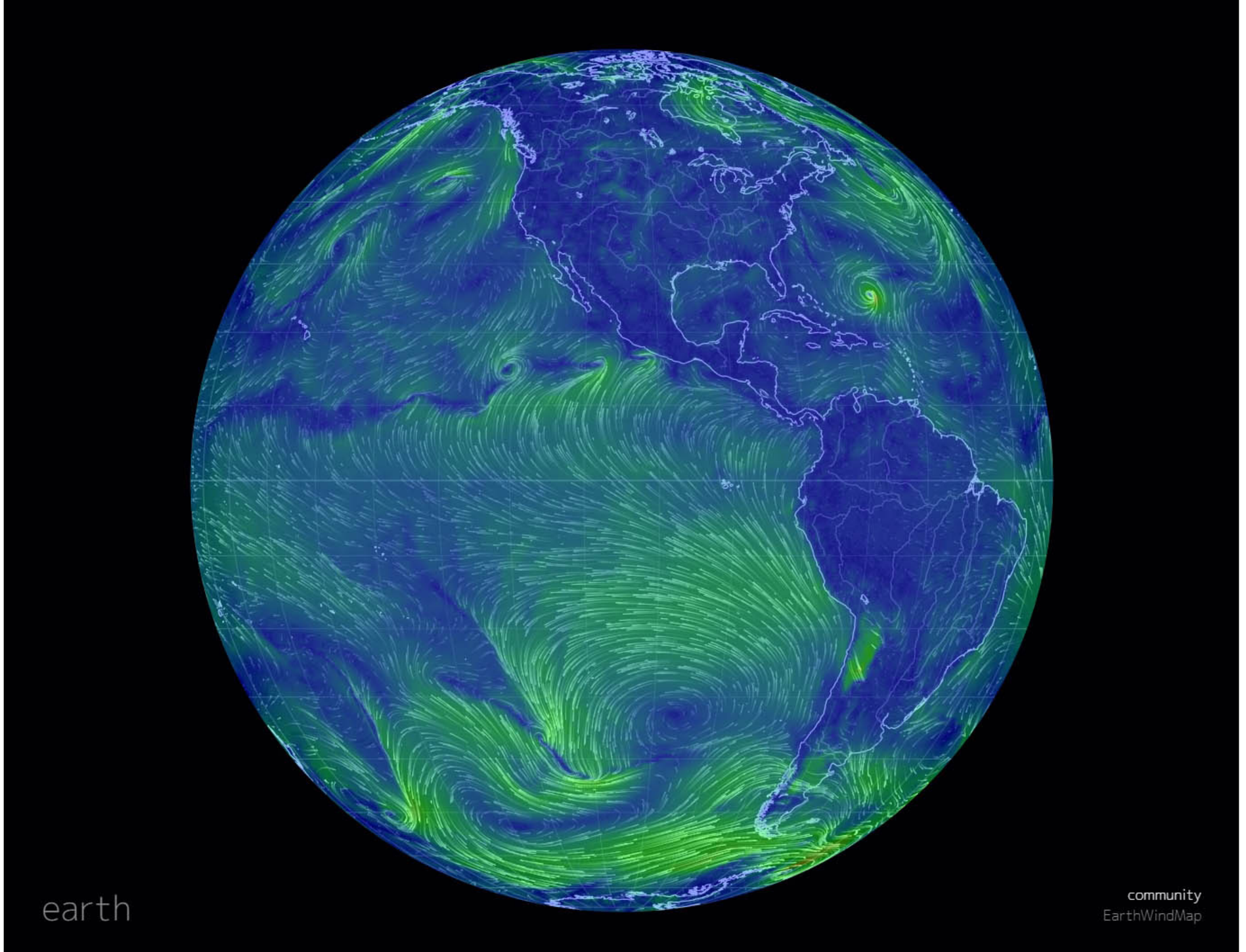
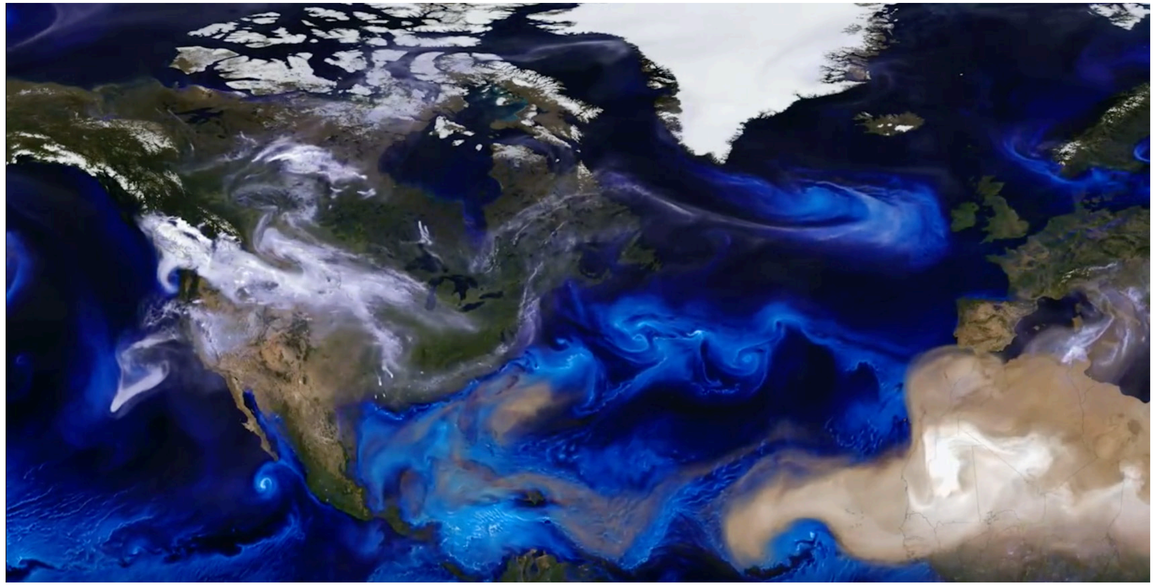
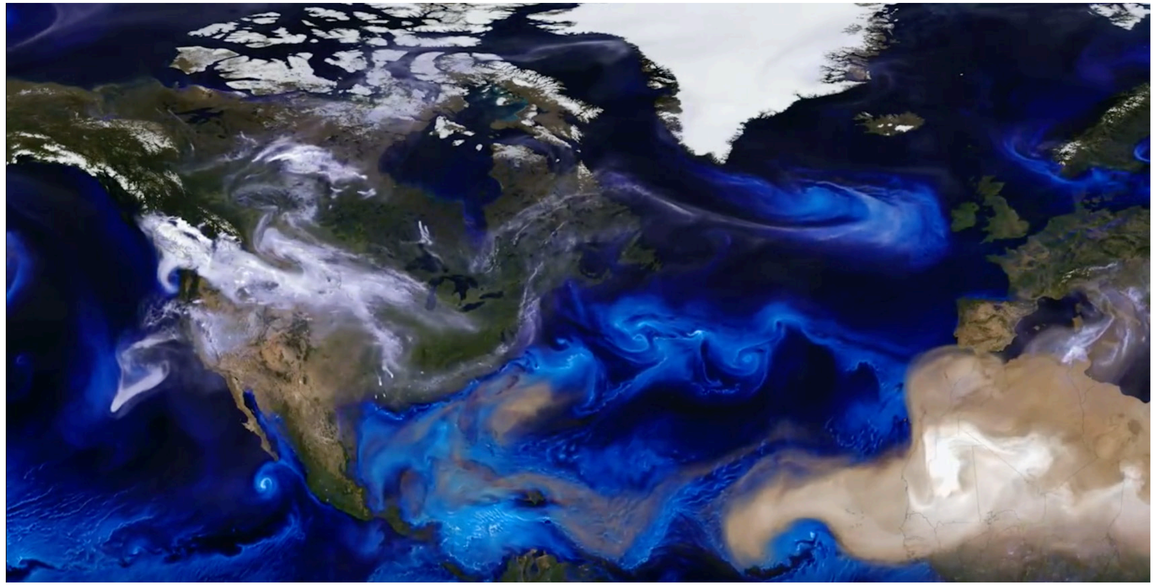
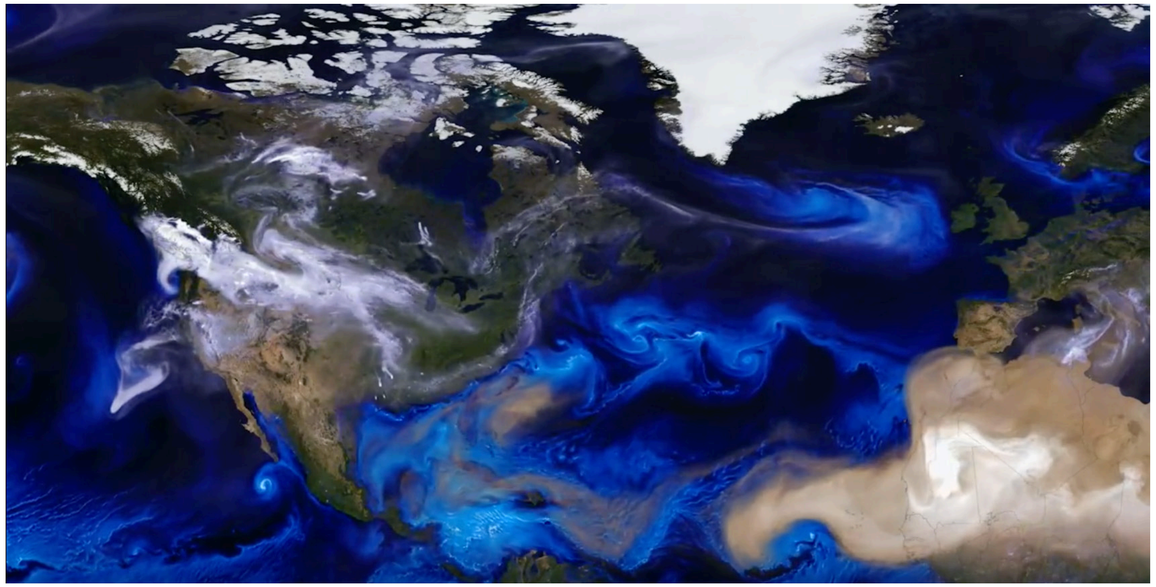
Streets
Open Street
Mapbox Streets
ESRI Street Map
Map Quest Satellite
Open Stations
Closed Stations
Airports
USCRN

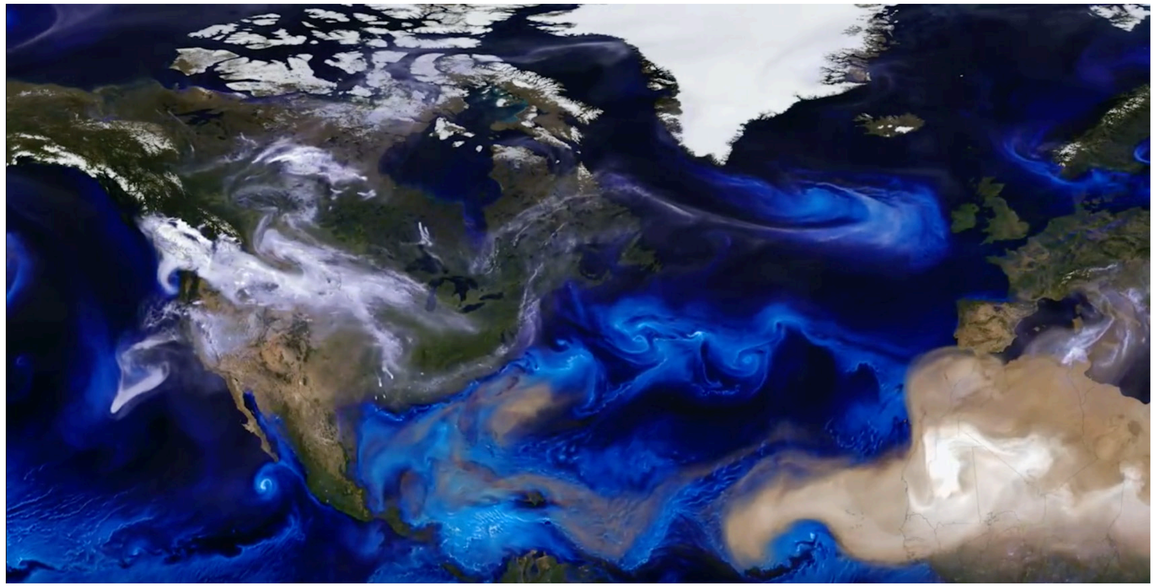



earth
community
EarthWindMap









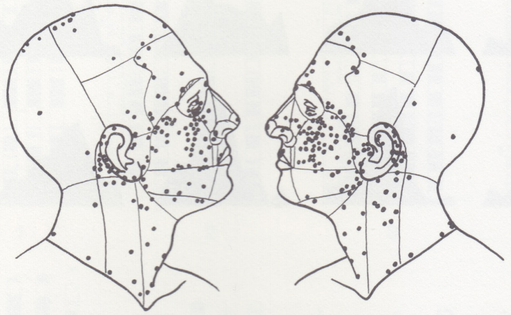


Abb. 1. Verteilung von 269 primären Melanomen auf Kopf und Hals

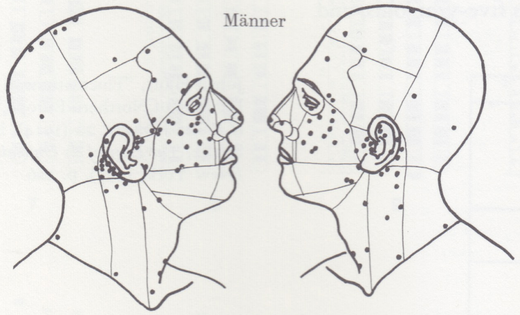


Abb. 2

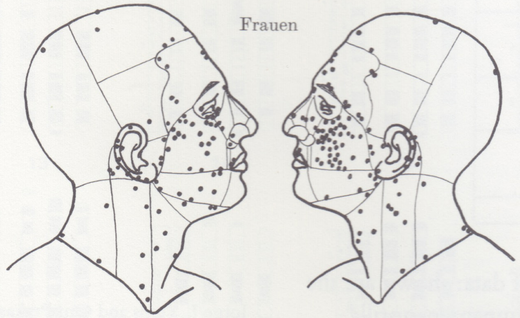
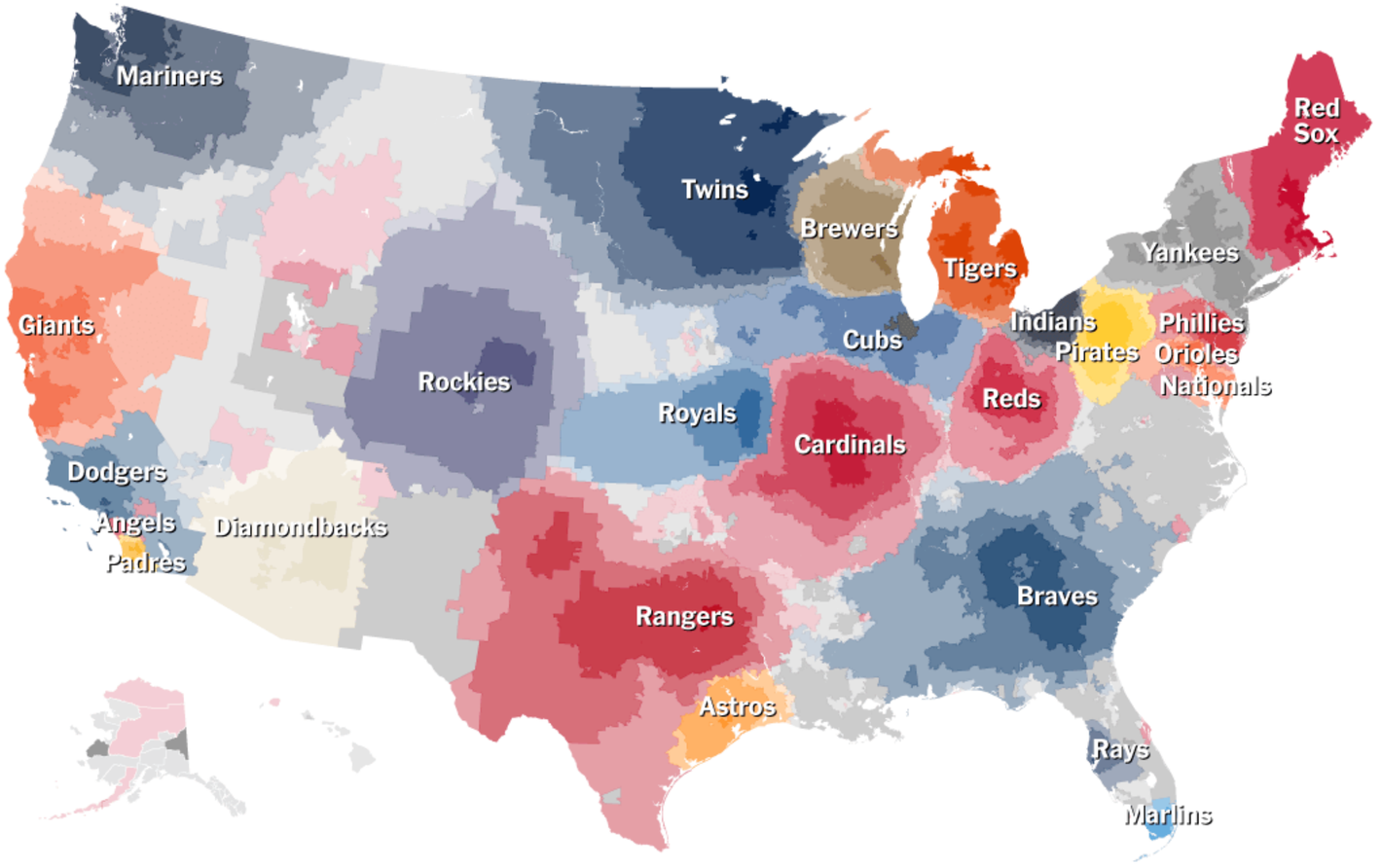


Abb. 3

Abb. 2 u. 3. Differenzierung der Melanomverteilung nach Geschlechtern

Heat Map

A map that uses color or someother feature to show an additional dimension, for instance wa waether map depicting bands of temperature.


Mariners
Twins
Brewers
Tigers
Red Sox
Yankees
Giants
Cubs
Indians
Pirates
Phillies
Orioles
Nationals
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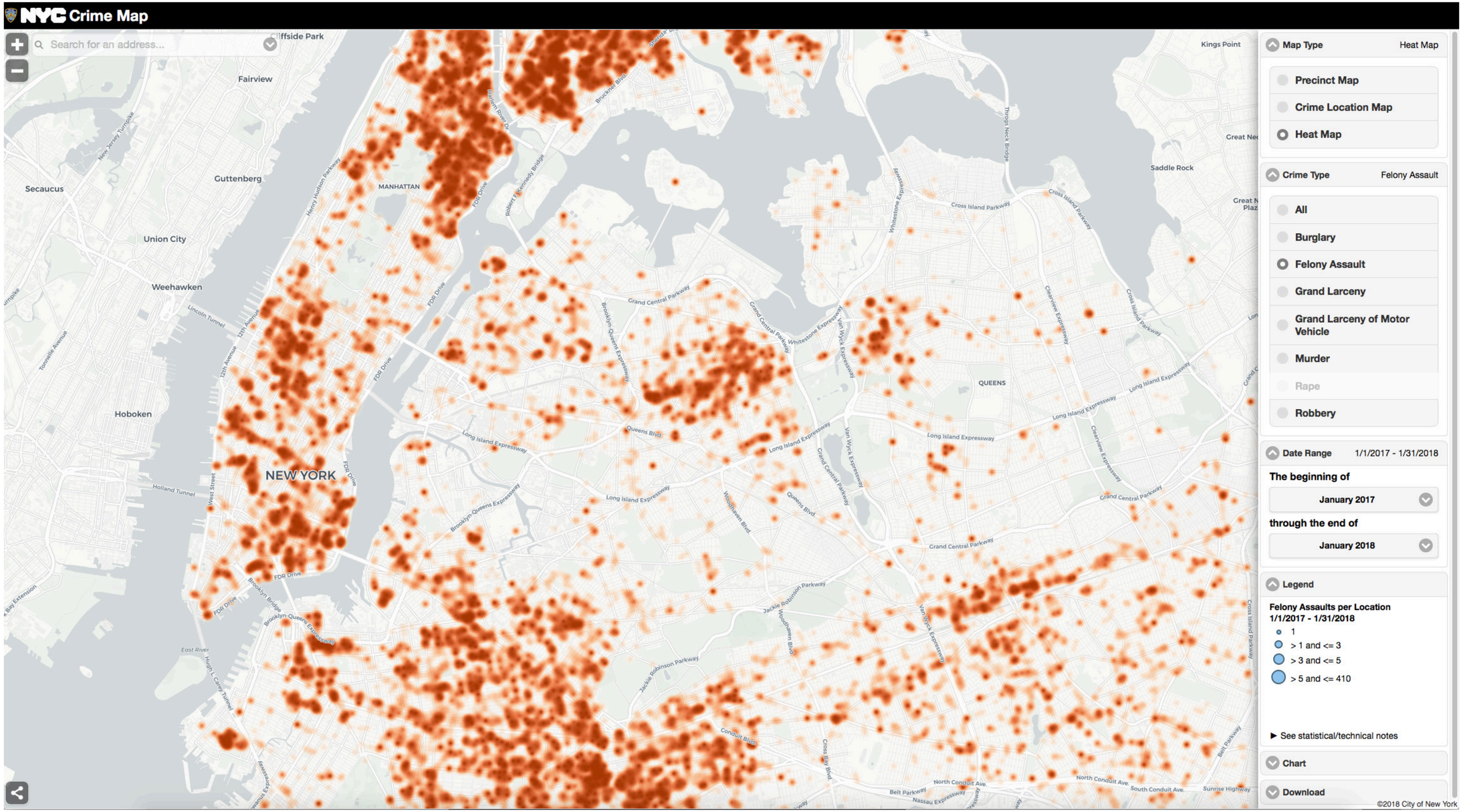
Padres
Diamondbacks
Braves
Rangers
Astros
Rays
Marlins


NYC Crime Map
Search for an address...
Map Type
Heat Map
Precinct Map
Crime Location Map
Heat Map
Crime Type
Felony Assault
All
Burglary
Felony Assault
Grand Larceny
Grand Larceny of Motor Vehicle
Murder
Rape
Robbery
Date Range
1/1/2017 - 1/31/2018
The beginning of
January 2017
through the end of
January 2018
Legend
Felony Assaults per Location
1/1/2017 - 1/31/2018
1
> 1 and <= 3
> 3 and <= 5
> 5 and <= 410
► See statistical/technical notes
Chart
Download
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NEW YORK
MANHATTAN
QUEENS
Hoboken
Union City
Weehawken
Guttenberg
Secaucus
Fairview
Saddle Rock
Kings Point

N.B.A. FINALS

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 »

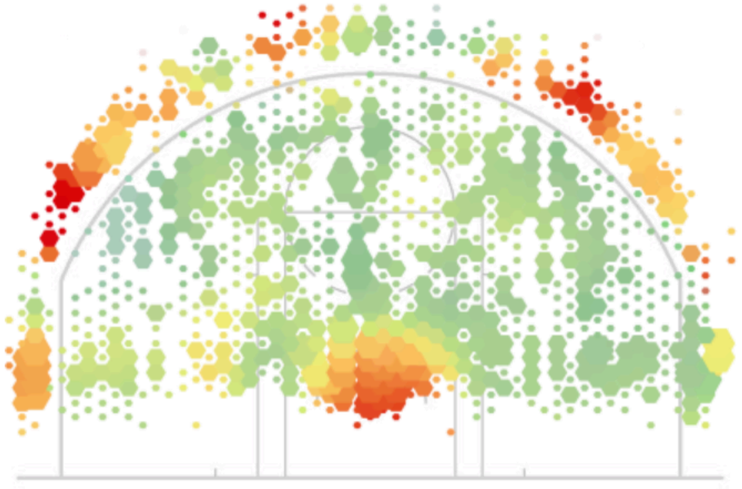
All Shots | 3-Pointers | Midrange | Close Range

Number of attempts Low High

Points per region Low High

Miami Heat

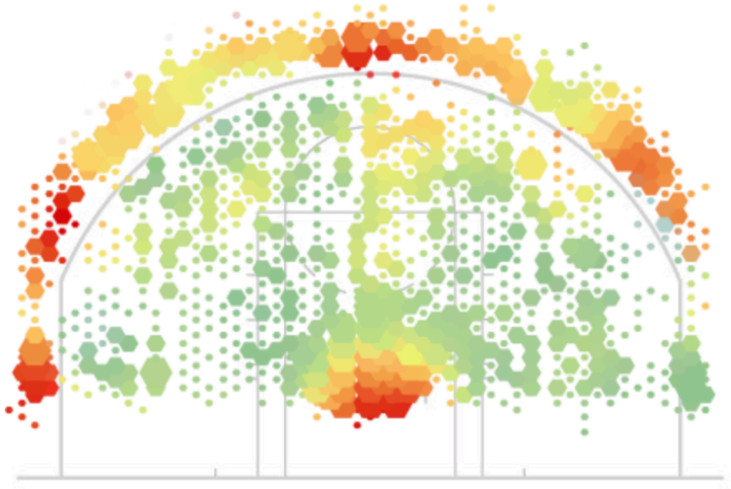
TOTAL SHOTS **5,209** | POINTS PER SHOT **1.01** | F.G. PERCENT **47%**



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.

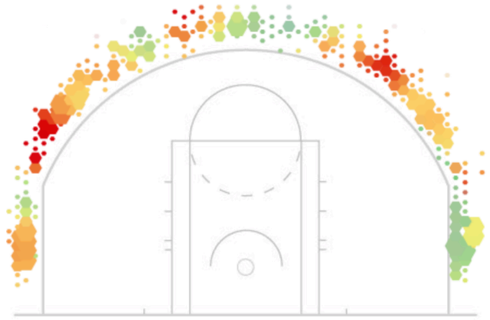
All Shots | 3-Pointers | Midrange | Close Range

Number of attempts Low High

Points per region Low High

Miami Heat

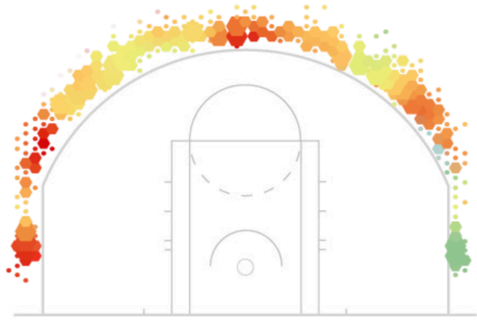
TOTAL SHOTS **1,020** | POINTS PER SHOT **1.08** | F.G. PERCENT **36.1%**



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 **1,329** | POINTS PER SHOT **1.08** | F.G. PERCENT **36.2%**



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.

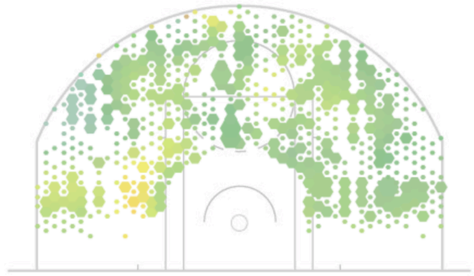
All Shots | 3-Pointers | Midrange | Close Range

Number of attempts Low High

Points per region Low High

Miami Heat

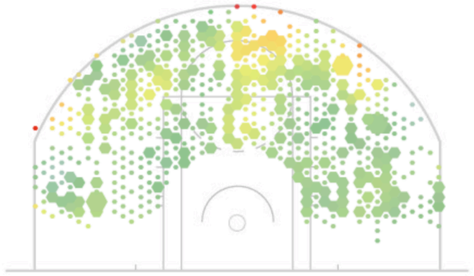
TOTAL SHOTS **2,083** | POINTS PER SHOT **0.8** | F.G. PERCENT **40.1%**



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 **1,791** | POINTS PER SHOT **0.83** | F.G. PERCENT **41.6%**



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.

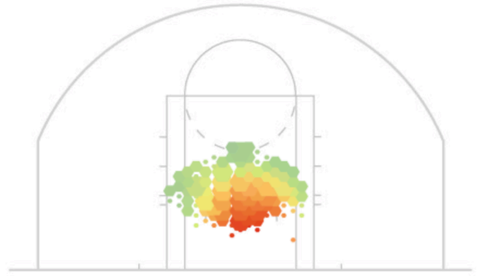
All Shots | 3-Pointers | Midrange | Close Range

Number of attempts Low High

Points per region Low High

Miami Heat

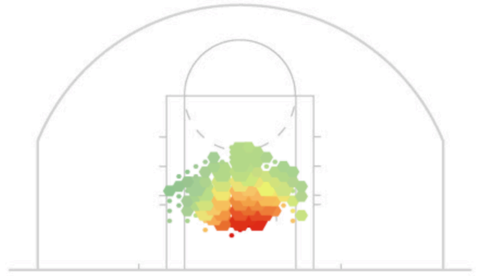
TOTAL SHOTS **2,085** | POINTS PER SHOT **1.19** | F.G. PERCENT **59.4%**



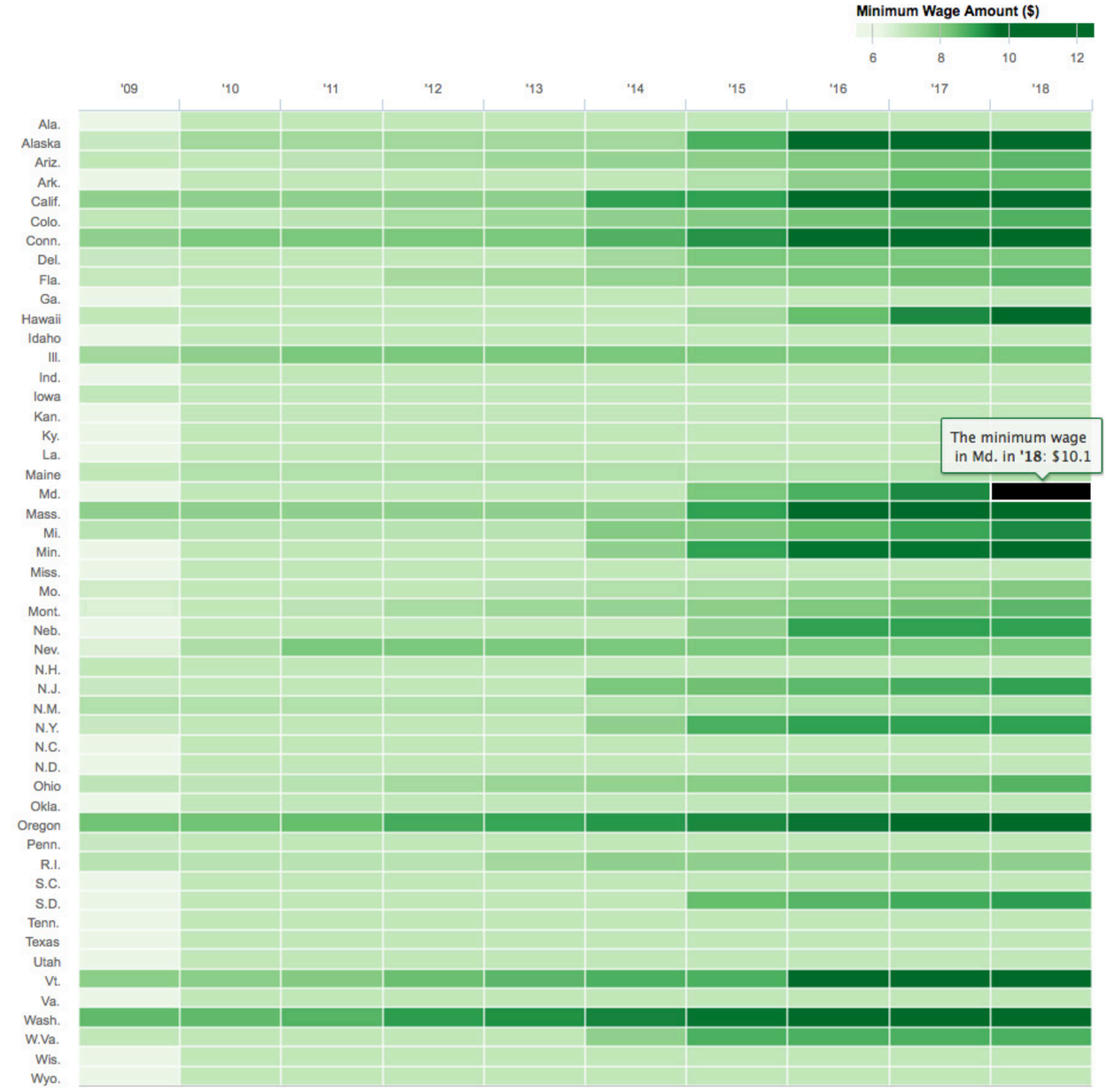
The Heat rely on player positioning to create isolation plays for LeBron James and Dwyane Wade, often on the left side. The Heat take many fewer 3-point shots than the Thunder.

Oklahoma City Thunder

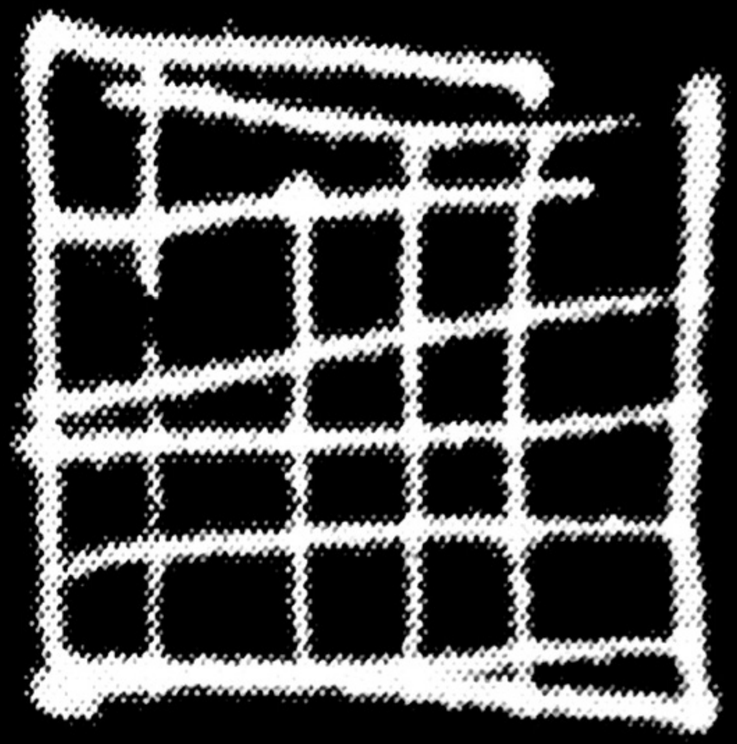
TOTAL SHOTS **2,089** | POINTS PER SHOT **1.18** | F.G. PERCENT **59.2%**



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.

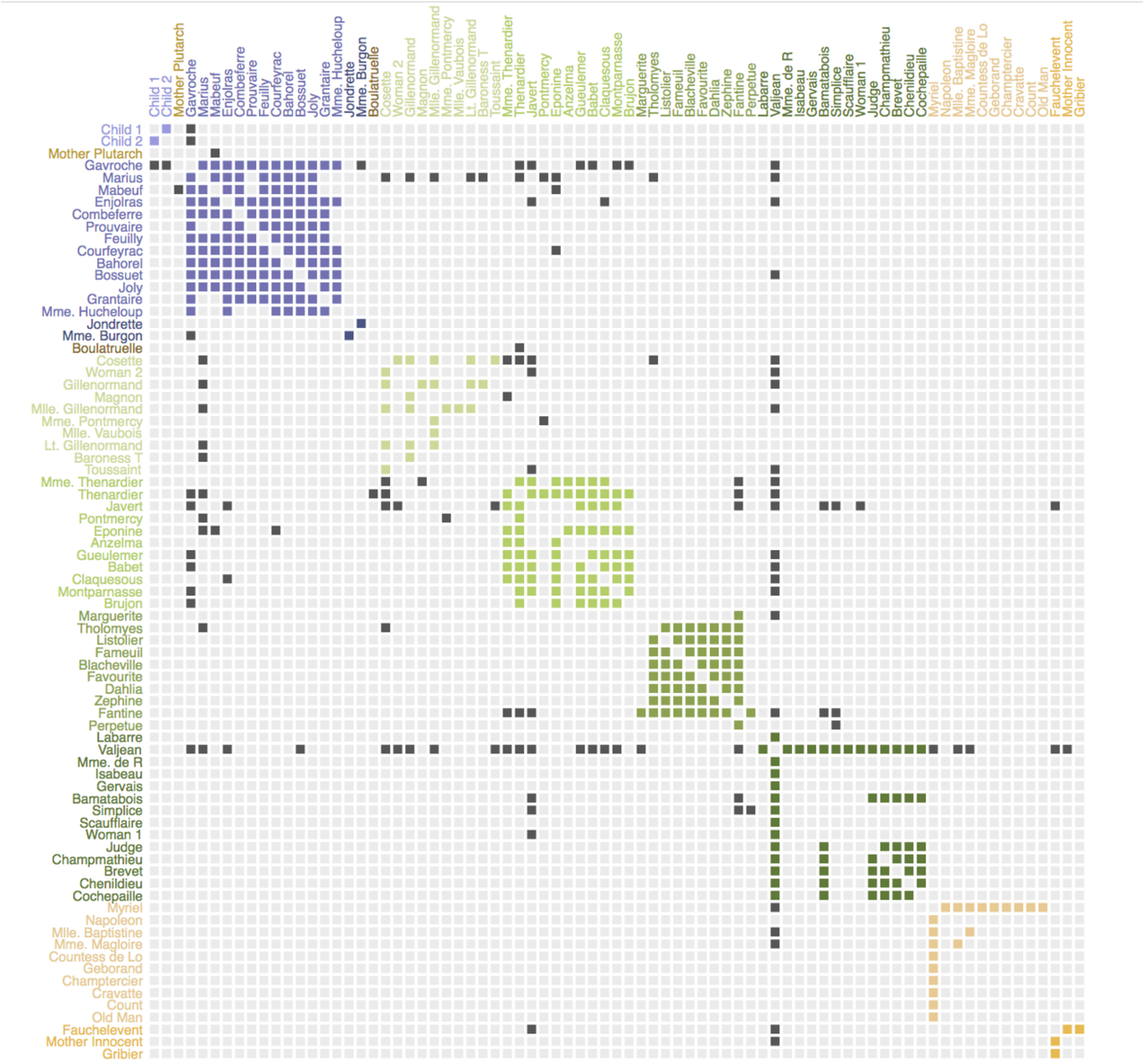


Note: *Wage figures for future years are based on existing laws, approved ballot measures and Congressional Budget Office inflation projections for states with pay floors tied to consumer prices.*

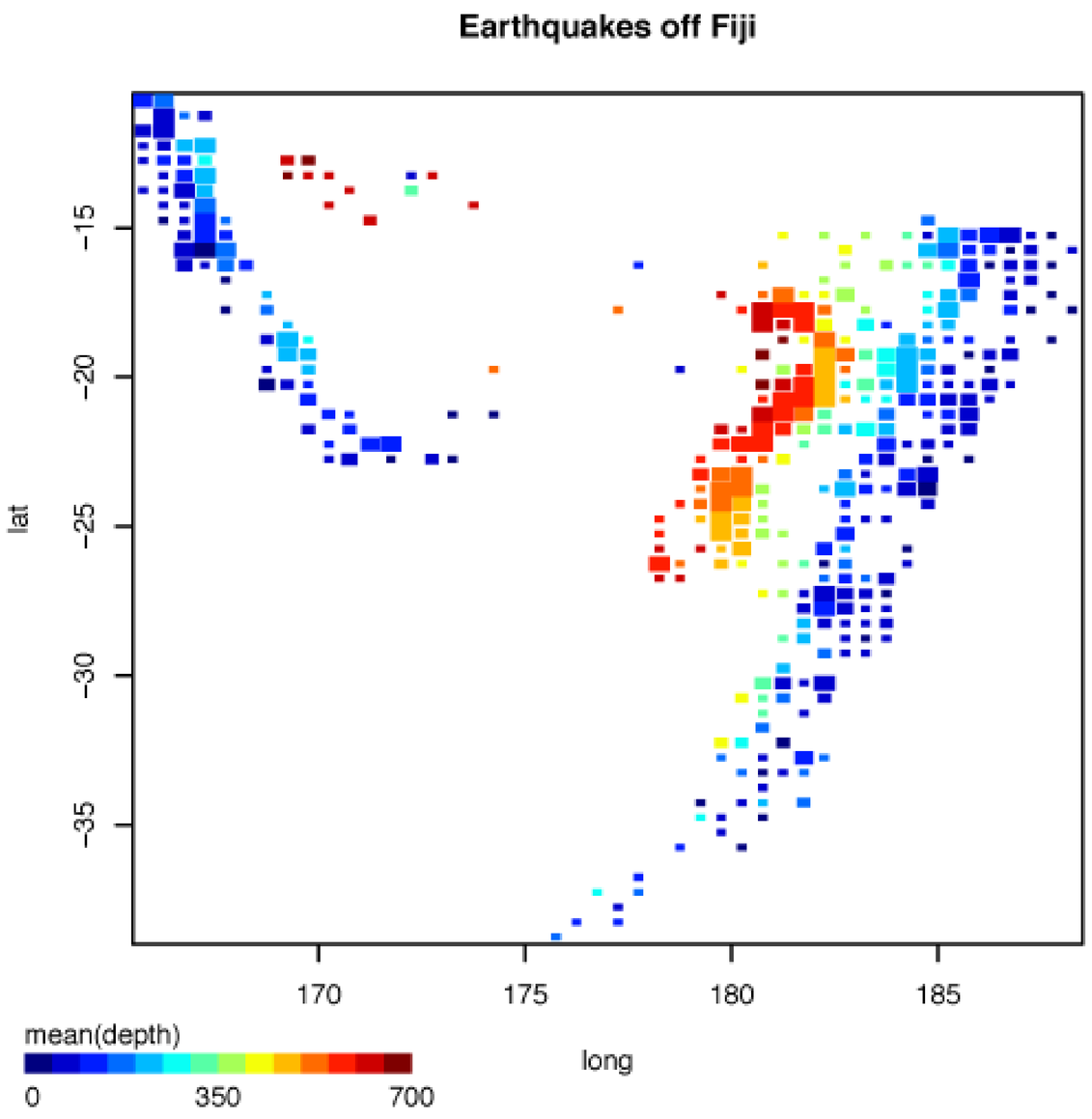


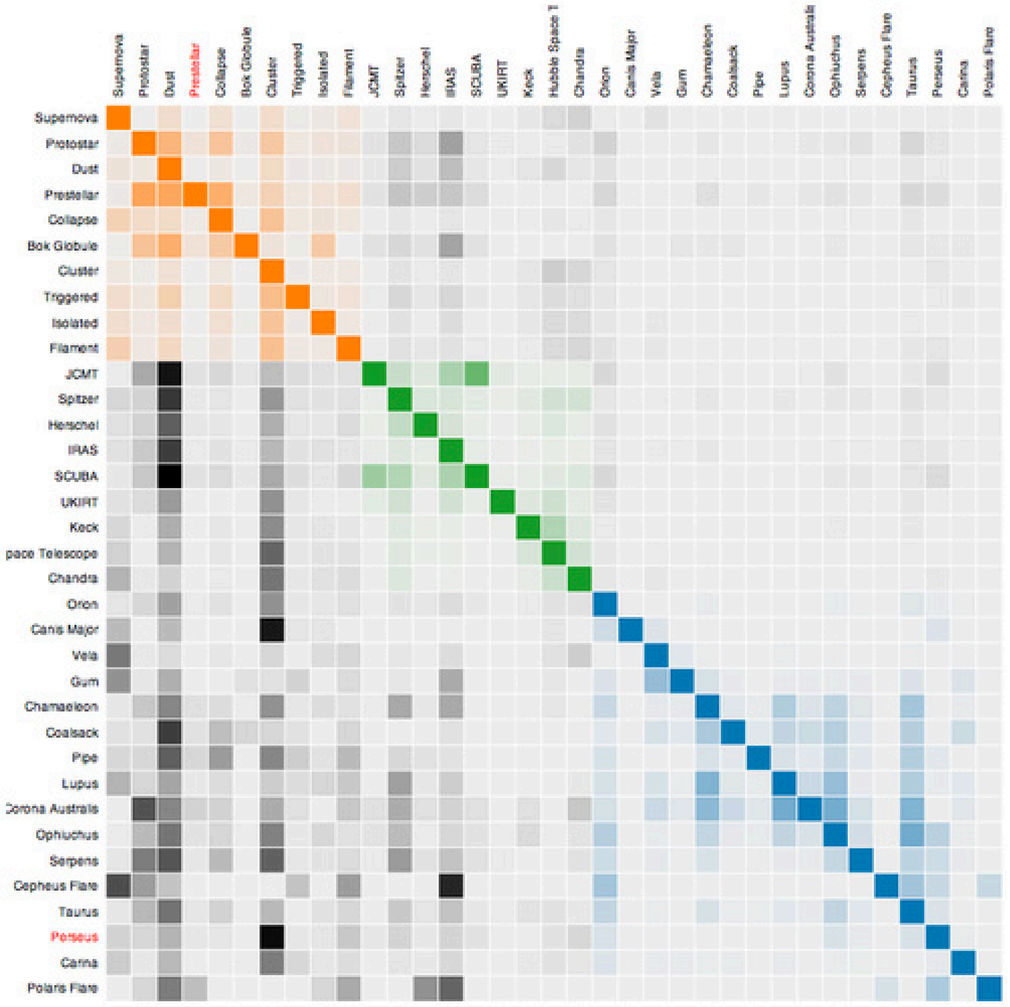
Matrix

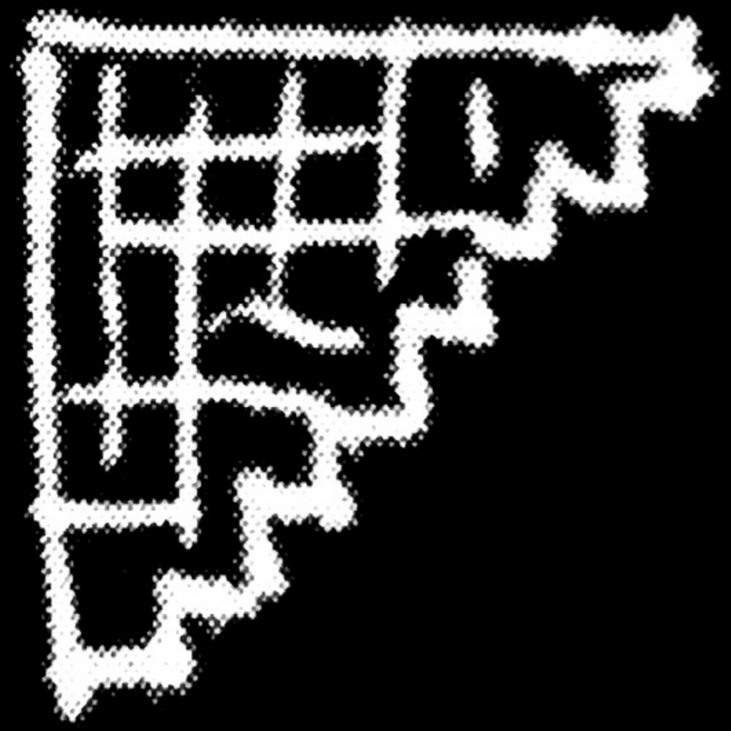
Any two dimensional set of numbers, colors, intensities, sized dots, or other glyphs.



Les Misérables characters presented in an interaction matrix. Each character is represented by a row and a column in the matrix. An entry in the matrix is colored if it's row and column characters interact.

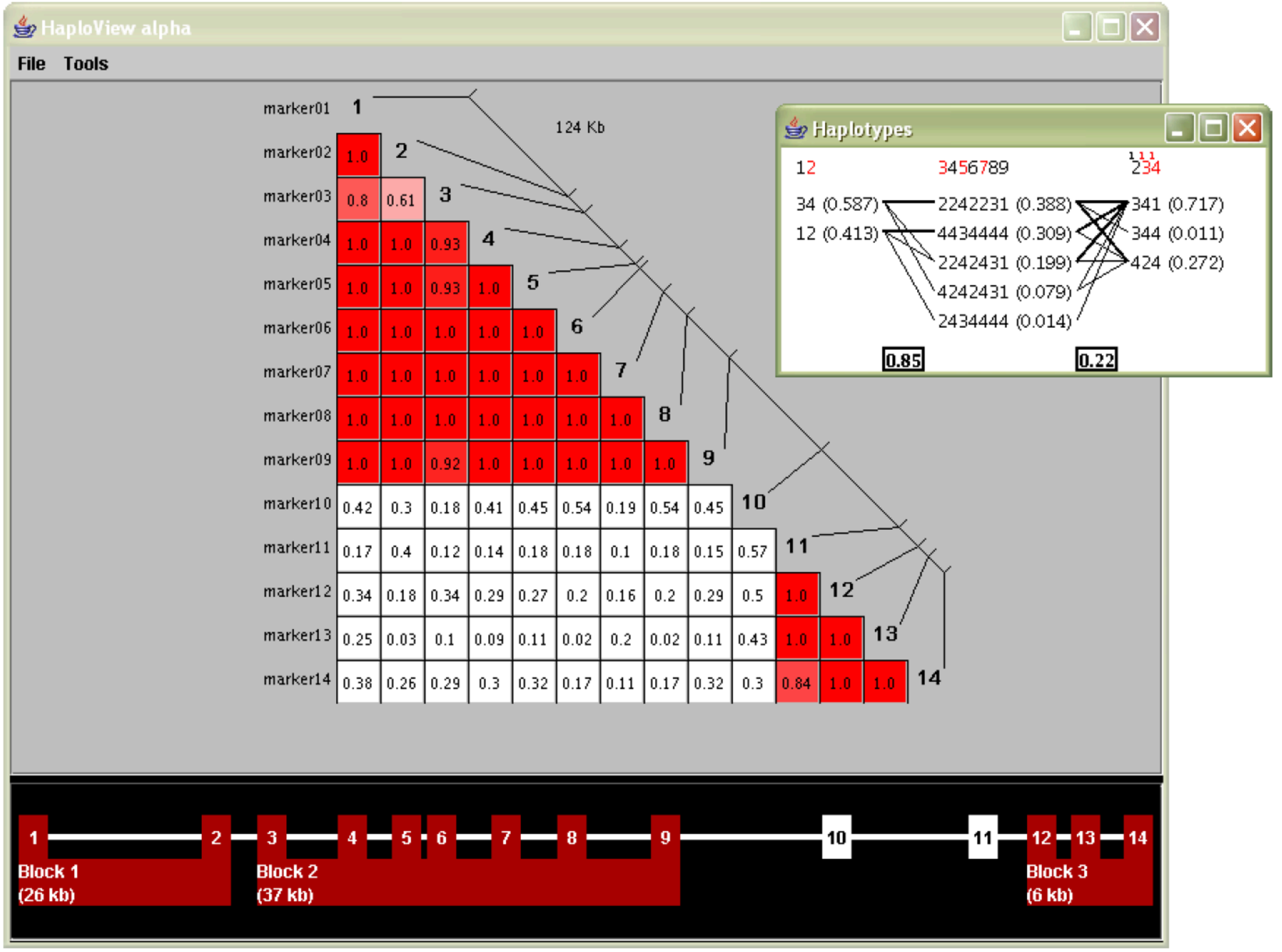

Earthquakes off Fiji
lat
−15
−20
−25
−30
−35
170
175
180
185
long
mean(depth)
0
350
700

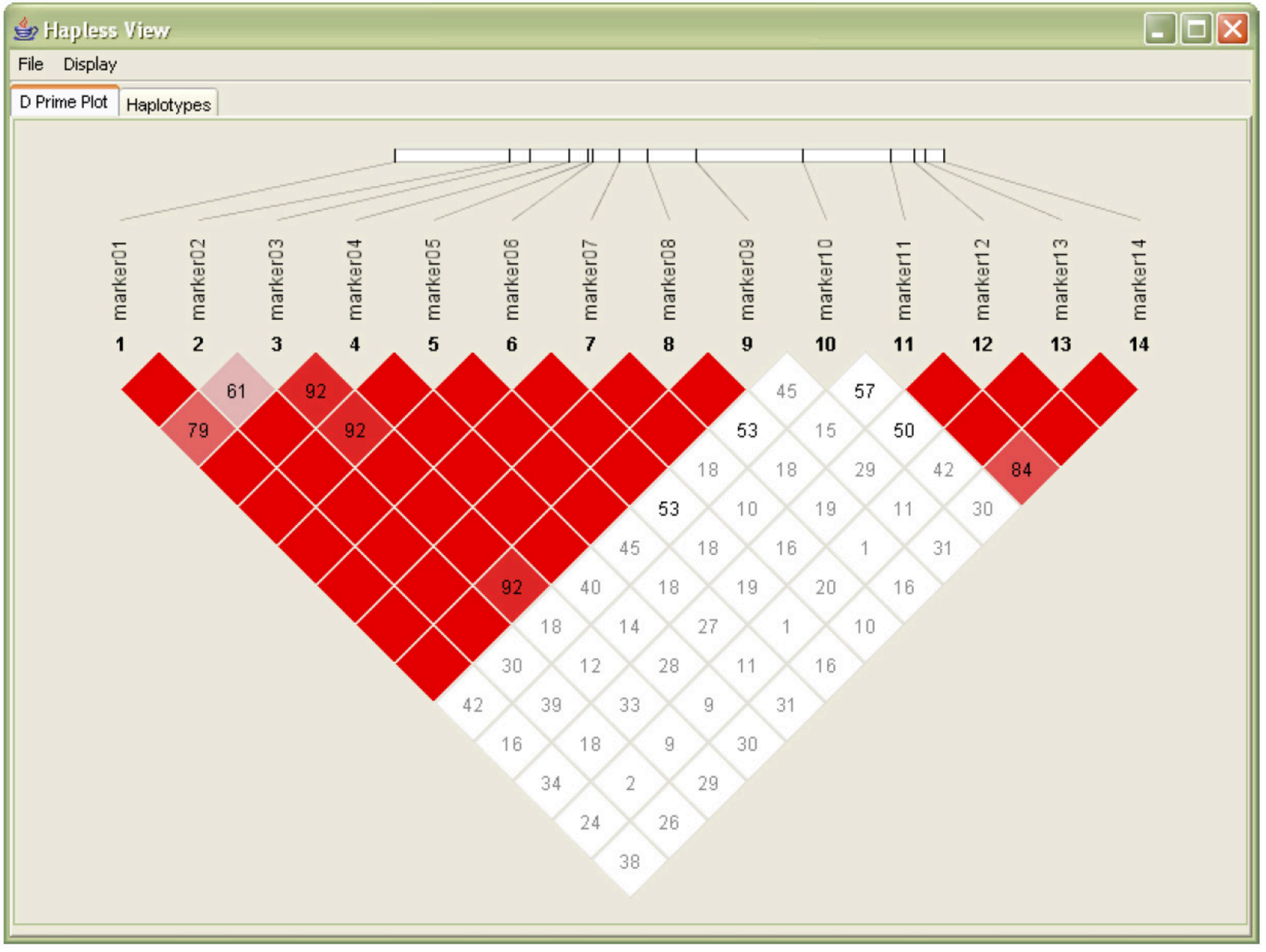

Supernova
Protostar
Dust
Prestellar
Collapse
Bok Globule
Cluster
Triggered
Isolated
Filament
JCMT
Spitzer
Herschel
IRAS
SCUBA
UKIRT
Keck
Hubble Space T
Chandra
Orion
Canis Major
Vela
Gum
Chamaeleon
Coalsack
Pipe
Lupus
Corona Australis
Ophiuchus
Serpens
Cepheus Flare
Taurus
Perseus
Carina
Polaris Flare

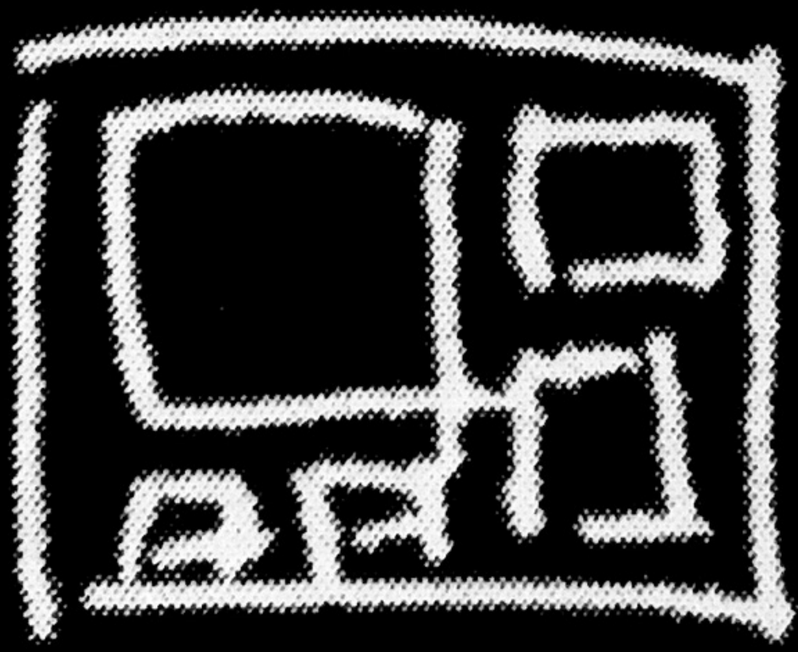


Half Matrix

Where only half a matrix is shown, usually used for similarities, or where two items are being compared against one another (i.e. the D´ table). Only half the matrix is needed because it is the same when reflected across its diagonal.

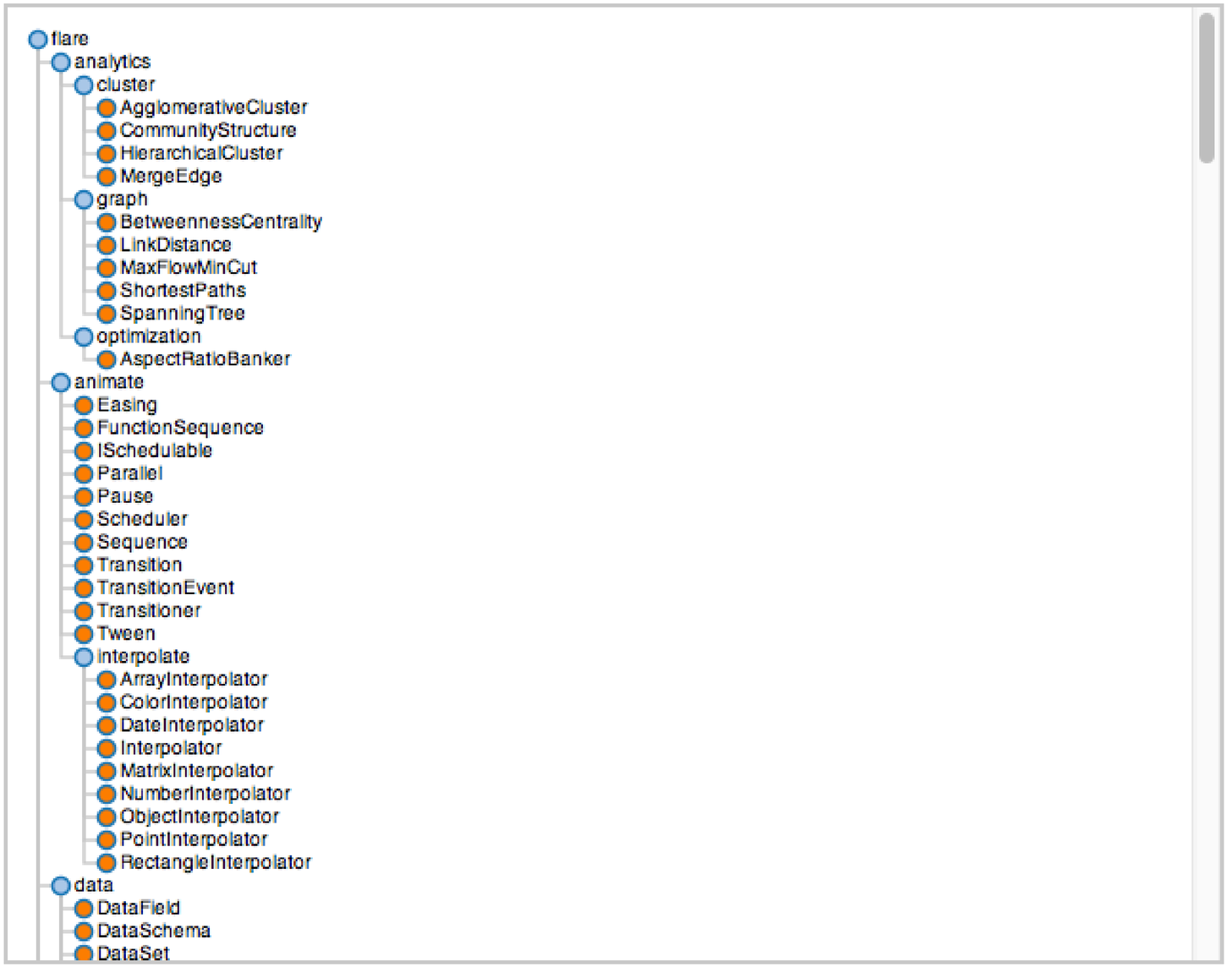

HaploView alpha
File Tools
124 Kb
marker01 1
marker02 1.0 2
marker03 0.8 0.61 3
marker04 1.0 1.0 0.93 4
marker05 1.0 1.0 0.93 1.0 5
marker06 1.0 1.0 1.0 1.0 1.0 6
marker07 1.0 1.0 1.0 1.0 1.0 1.0 7
marker08 1.0 1.0 1.0 1.0 1.0 1.0 1.0 8
marker09 1.0 1.0 0.92 1.0 1.0 1.0 1.0 1.0 9
marker10 0.42 0.3 0.18 0.41 0.45 0.54 0.19 0.54 0.45 10
marker11 0.17 0.4 0.12 0.14 0.18 0.18 0.1 0.18 0.15 0.57 11
marker12 0.34 0.18 0.34 0.29 0.27 0.2 0.16 0.2 0.29 0.5 1.0 12
marker13 0.25 0.03 0.1 0.09 0.11 0.02 0.2 0.02 0.11 0.43 1.0 1.0 13
marker14 0.38 0.26 0.29 0.3 0.32 0.17 0.11 0.17 0.32 0.3 0.84 1.0 1.0 14
Haplotypes
12 3456789 1234
34 (0.587) 2242231 (0.388) 341 (0.717)
12 (0.413) 4434444 (0.309) 344 (0.011)
2242431 (0.199) 424 (0.272)
4242431 (0.079)
2434444 (0.014)
0.85
0.22
1 2 3 4 5 6 7 8 9 10 11 12 13 14
Block 1 (26 kb)
Block 2 (37 kb)
Block 3 (6 kb)

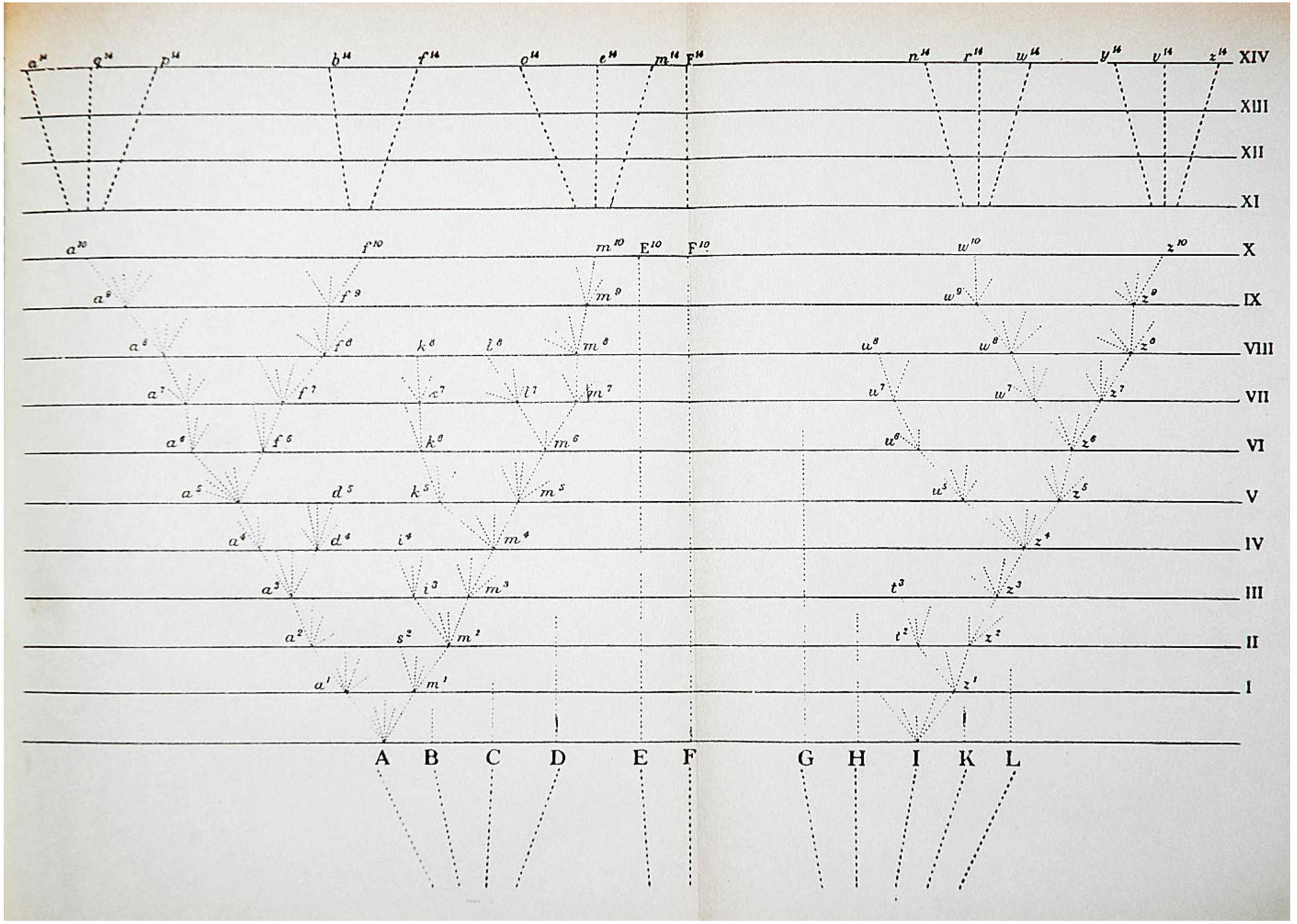

Hapless View
File
Display
D Prime Plot
Haplotypes
marker01
marker02
marker03
marker04
marker05
marker06
marker07
marker08
marker09
marker10
marker11
marker12
marker13
marker14
1
2
3
4
5
6
7
8
9
10
11
12
13
14
61
92
79
92
92
45
57
53
15
50
18
18
29
42
84
53
10
19
11
30
45
18
16
1
31
40
18
19
20
16
18
14
27
1
10
30
12
28
11
16
42
39
33
9
31
16
18
9
30
34
2
29
24
26
38

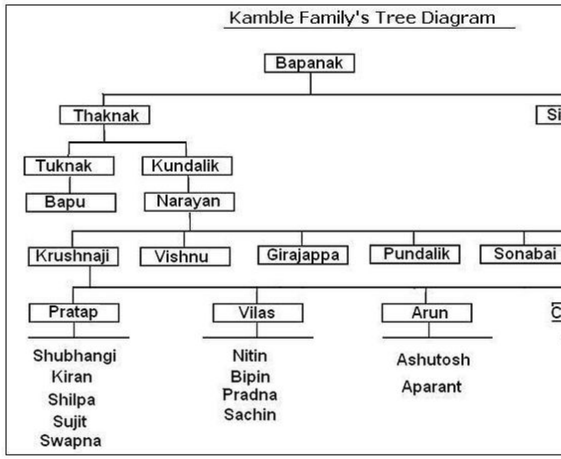


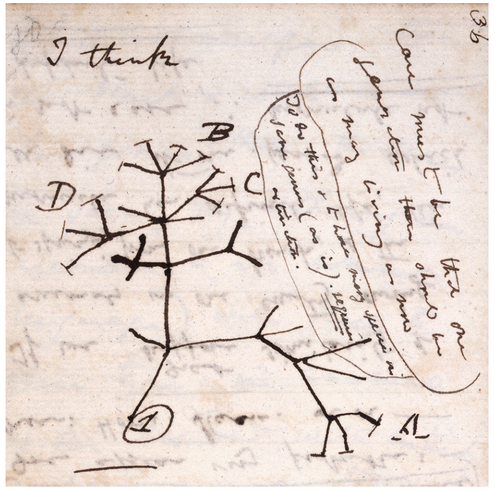
Tree

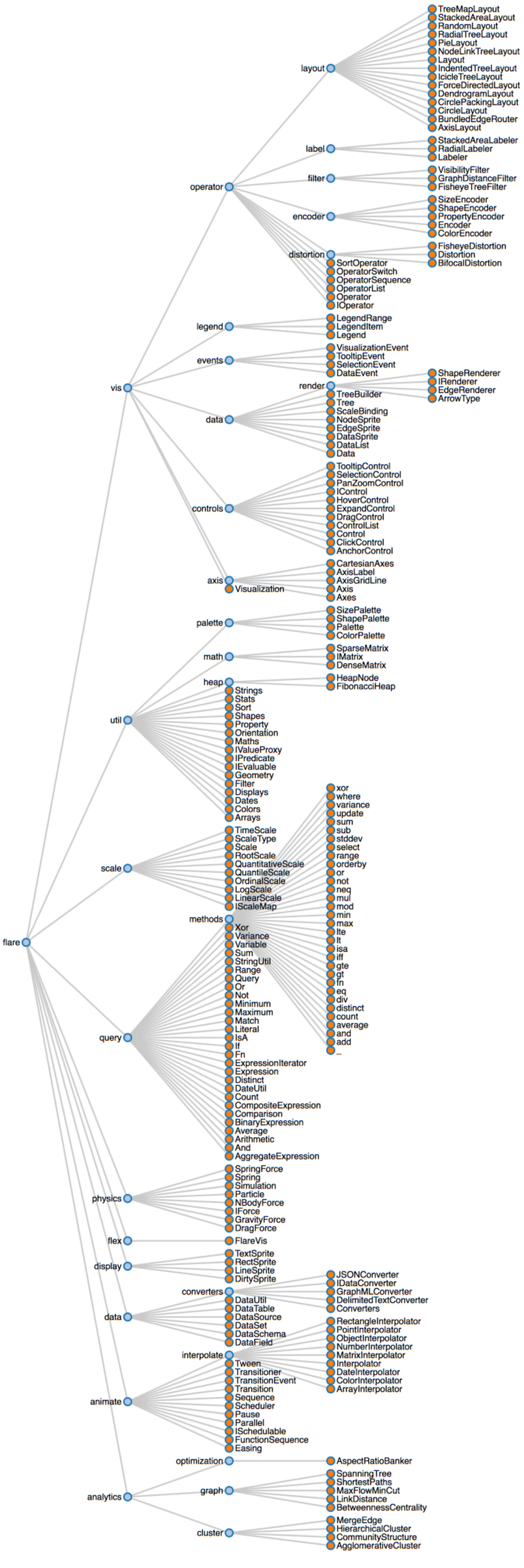
Hierarchically ordered data connected by lines of branches. Trees are very common because so many data sets have a hierarchic structure. However, even though the data is hieararchic, this is not the proper representation, because the understanding sought from the image is not associated with this hierarchy.


flare
analytics
cluster
AgglomerativeCluster
CommunityStructure
HierarchicalCluster
MergeEdge
graph
BetweennessCentrality
LinkDistance
MaxFlowMinCut
ShortestPaths
SpanningTree
optimization
AspectRatioBanker
animate
Easing
FunctionSequence
ISchedulable
Parallel
Pause
Scheduler
Sequence
Transition
TransitionEvent
Transitioner
Tween
interpolate
ArrayInterpolator
ColorInterpolator
DateInterpolator
Interpolator
MatrixInterpolator
NumberInterpolator
ObjectInterpolator
PointInterpolator
RectangleInterpolator
data
DataField
DataSchema
DataSet


XIV
XIII
XII
XI
X
IX
VIII
VII
VI
V
IV
III
II
I
A B C D E F G H I K L


Kamble Family's Tree Diagram
Bapanak
Thaknak
Tuknak
Kundalik
Bapu
Narayan
Krushnaji
Vishnu
Girajappa
Pundalik
Sonabai
Pratap
Vilas
Arun
Shubhangi
Kiran
Shilpa
Sujit
Swapna
Nitin
Bipin
Pradna
Sachin
Ashutosh
Aparant


I think
B
C
D
A

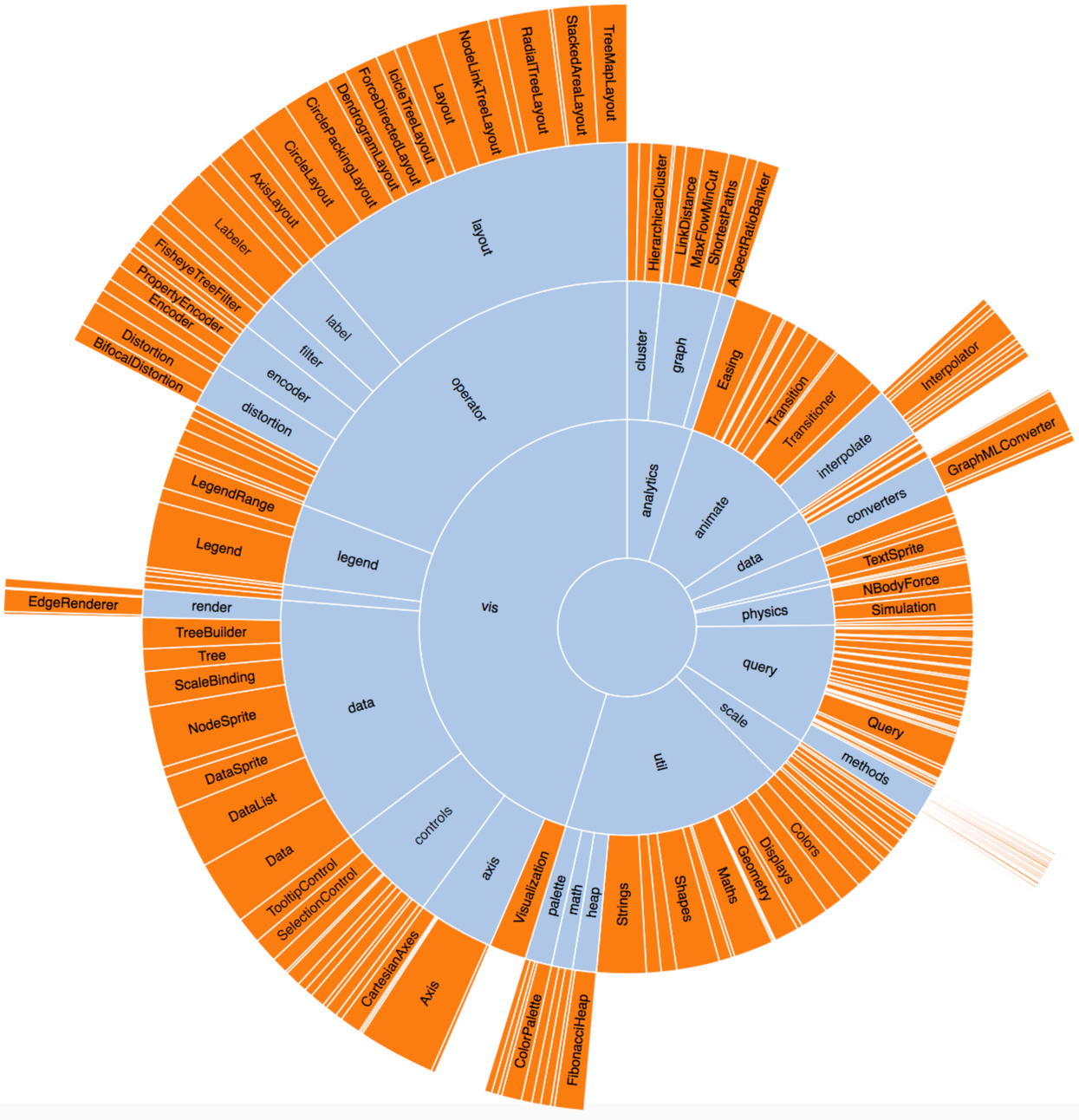


The Flare package tree laid out in horizontal layers. All the nodes in a given layer are at the same package depth.

Source: Flare Visualization Toolkit

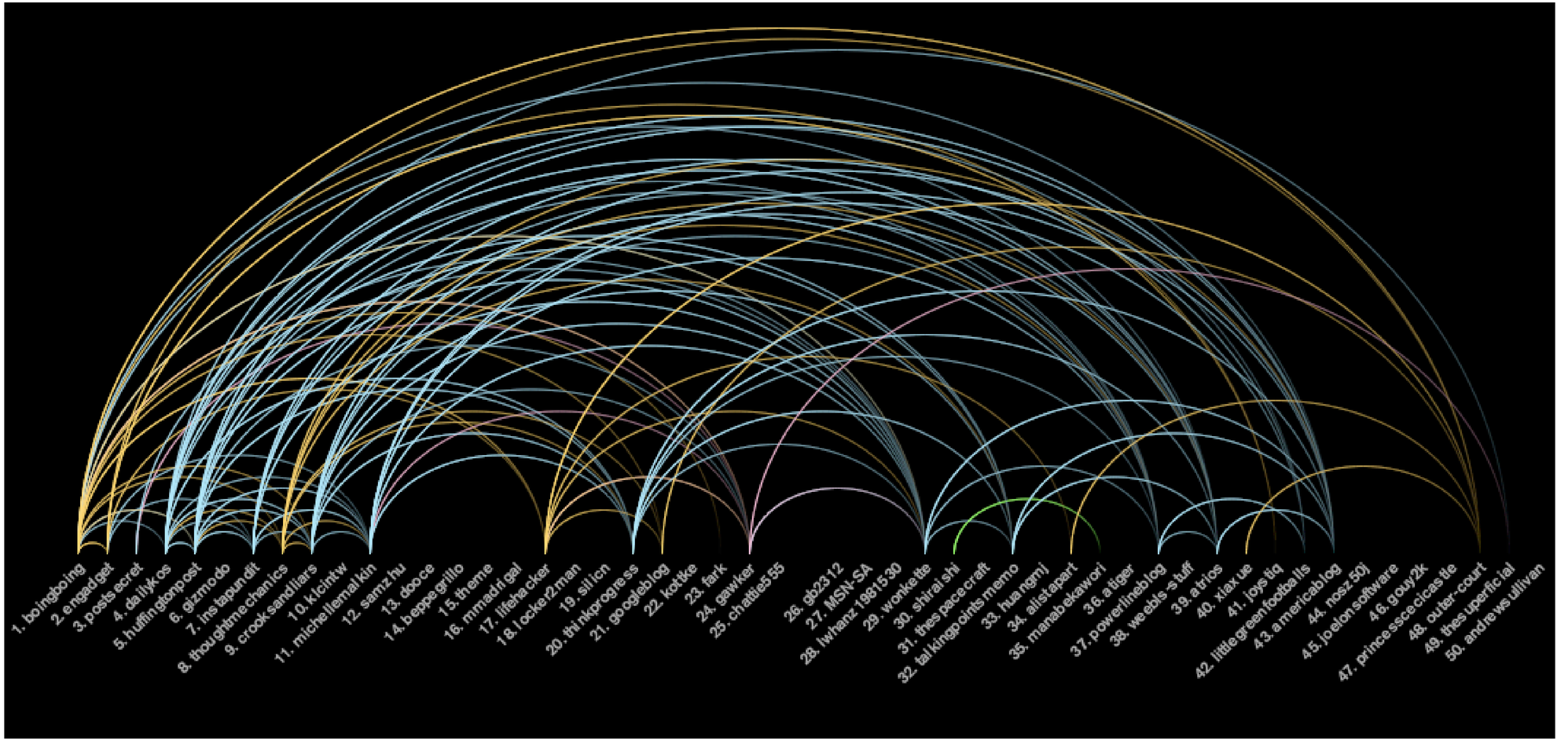
The Flare package tree laid out in horizontal layers. The blocks are sized to correctly partition their containing package block by their size.

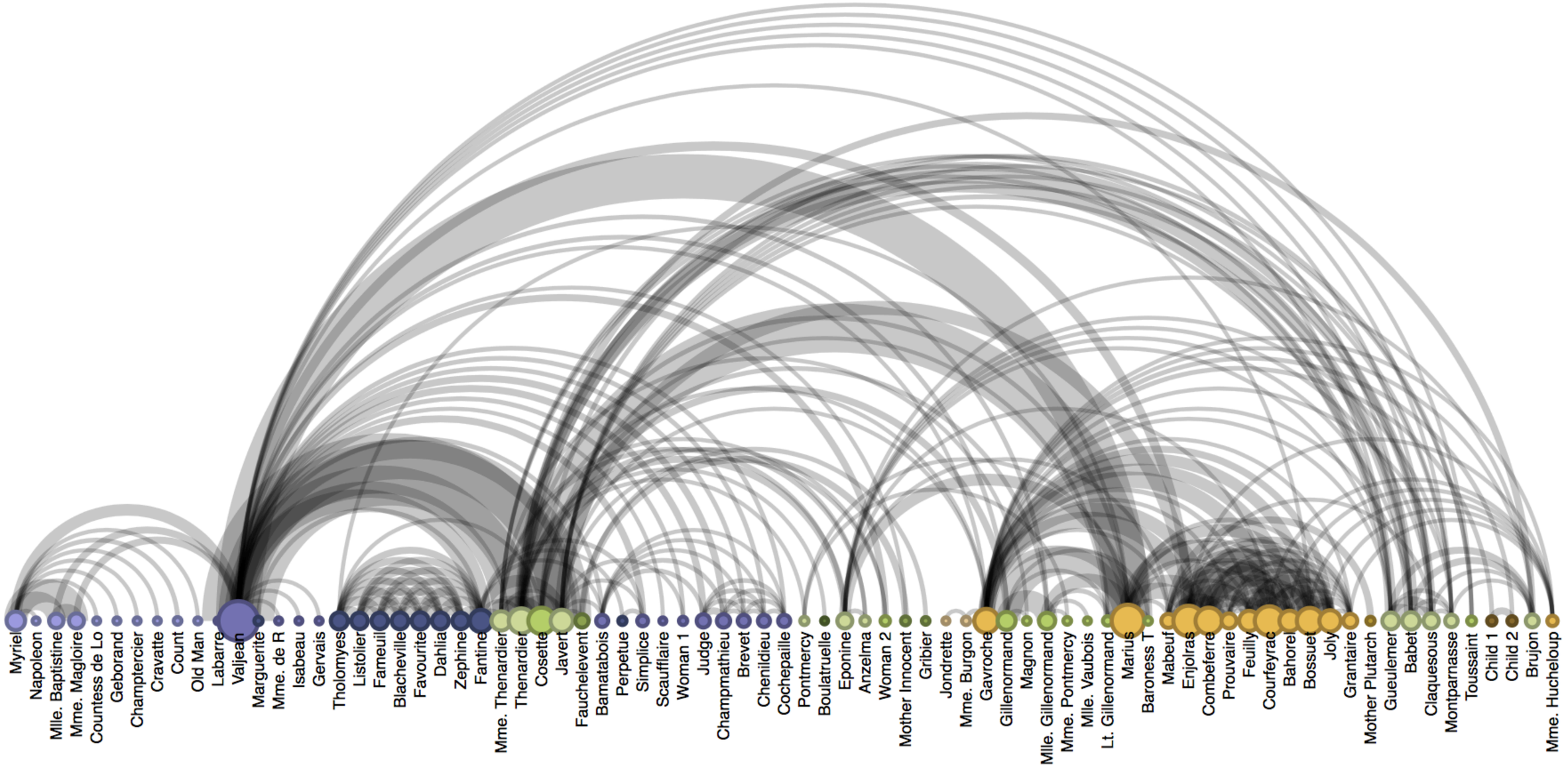
Source: Flare Visualization Toolkit


vis
analytics
cluster
HierarchicalCluster
graph
LinkDistance
MaxFlowMinCut
ShortestPaths
AspectRatioBanker
animate
Easing
Transition
Transitioner
interpolate
Interpolator
converters
GraphMLConverter
data
TextSprite
physics
NBodyForce
Simulation
query
Query
util
methods
scale
Colors
Displays
Geometry
Maths
Shapes
Strings
heap
math
palette
Visualization
ColorPalette
FibonacciHeap
operator
layout
TreeMapLayout
StackedAreaLayout
RadialTreeLayout
NodeLinkTreeLayout
Layout
IcicleTreeLayout
ForceDirectedLayout
DendrogramLayout
CirclePackingLayout
CircleLayout
AxisLayout
Labeler
FisheyeTreeFilter
PropertyEncoder
Encoder
Distortion
BifocalDistortion
label
filter
encoder
distortion
legend
LegendRange
Legend
data
render
EdgeRenderer
TreeBuilder
Tree
ScaleBinding
NodeSprite
DataSprite
DataList
Data
controls
TooltipControl
SelectionControl
axis
CartesianAxes
Axis

Connection Graph

A tree that has less order, and can connect back to itself. Rather than a pure hierarchy, it is a collection of nodes and branches that connect between them.

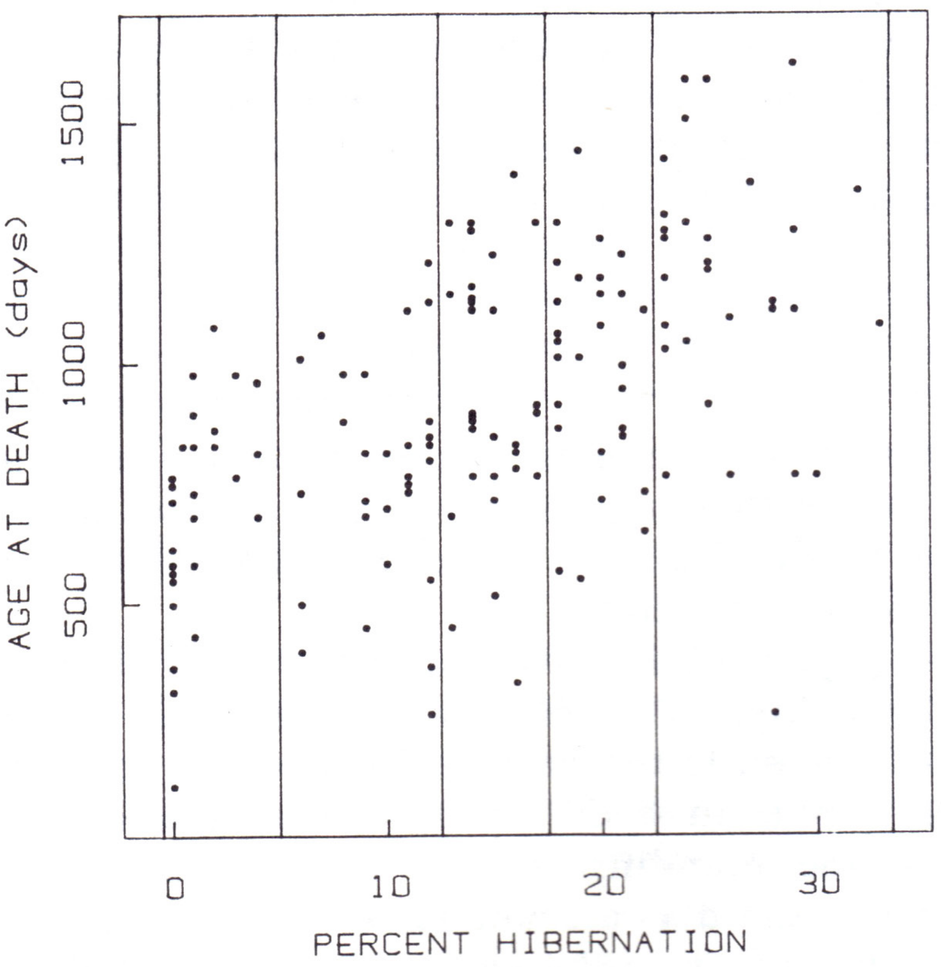

1. boingboing
2. engadget
3. postsecret
4. dailykos
5. huffingtonpost
6. gizmodo
7. instapundit
8. thoughtmechanics
9. crooksandliars
10. kicintw
11. michellemalkin
12. samzhu
13. dooce
14. beppegrillo
15. theme
16. mmadrigal
17. lifehacker
18. locker2man
19. silicn
20. thinkprogress
21. googleblog
22. kottke
23. fark
24. gawker
25. chatties555
26. gb2312
27. MSN-SA
28. iwhanz19891530
29. wonkette
30. shiraishi
31. thespacecraft
32. talkingpoints memo
33. huangmj
34. alistapart
35. manabekawori
36. atiger
37. powerlineblog
38. webbs-stuff
39. atrios
40. xiaxue
41. joystiq
42. littlegreenfootballs
43. americablog
44. nosz50j
45. joelonsoftware
46. gouy2k
47. princessceciastie
48. outer-court
49. thespuerficial
50. andrewsullivan

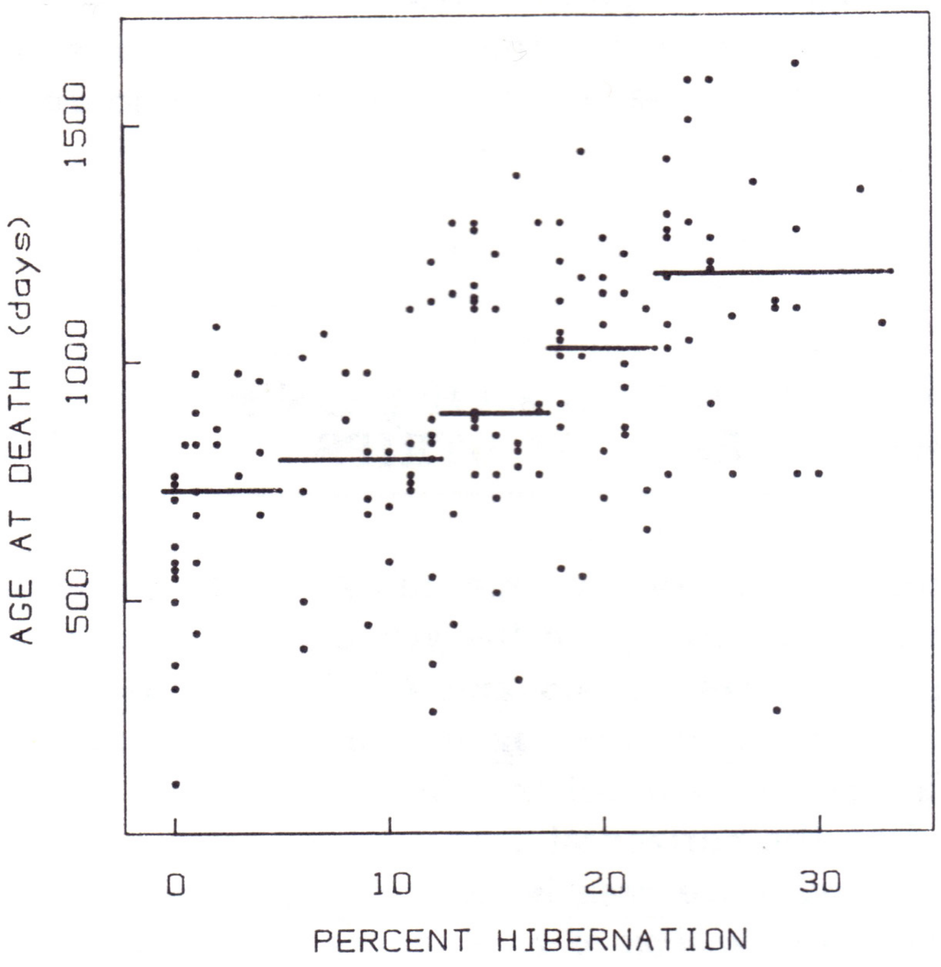


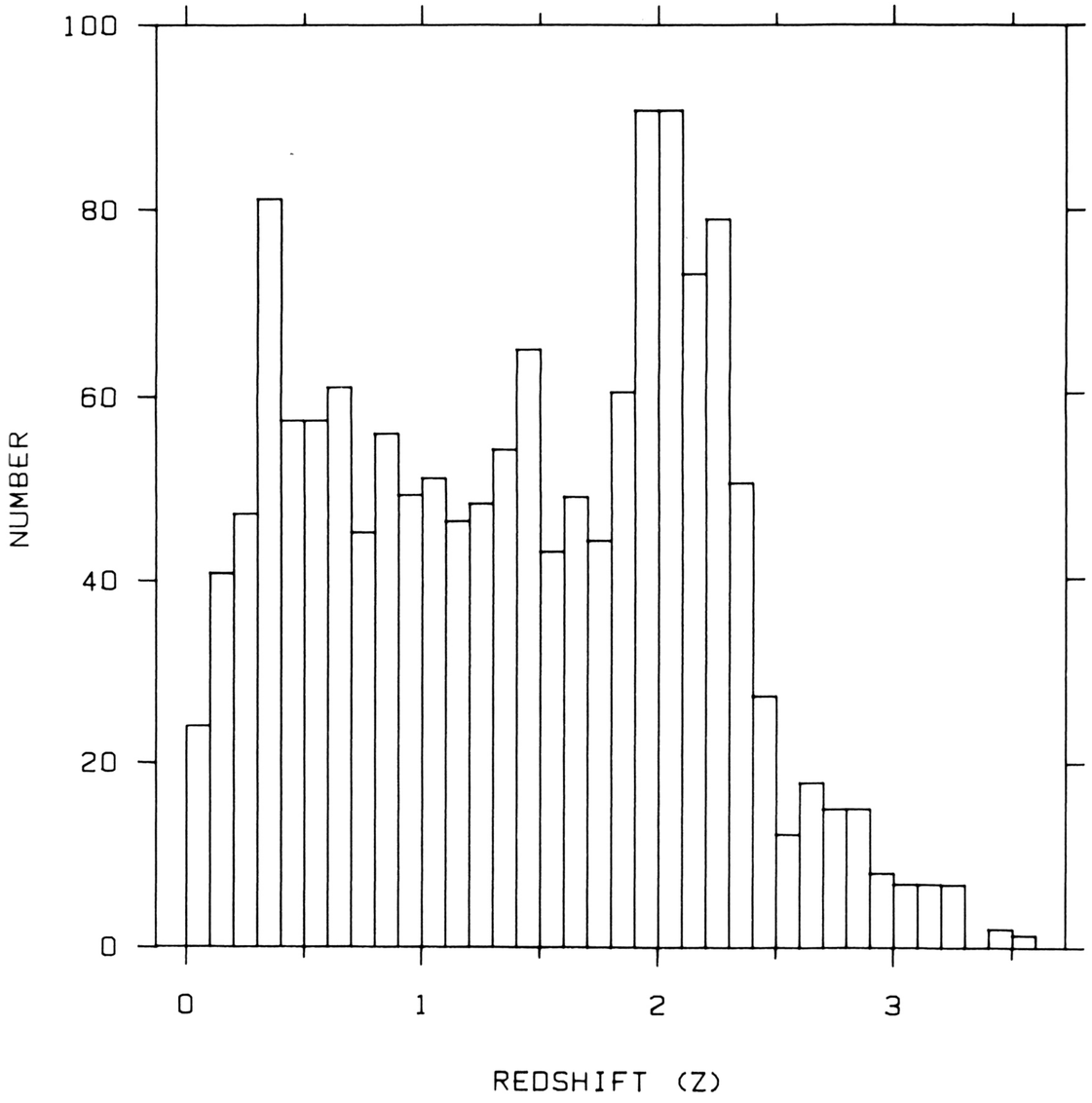
Les Misérables character interaction. Each character is represented by a circle and the connecting arc represents co-occurrence in a chapter. The character's size indicates the number of appearances they have over the entire work.

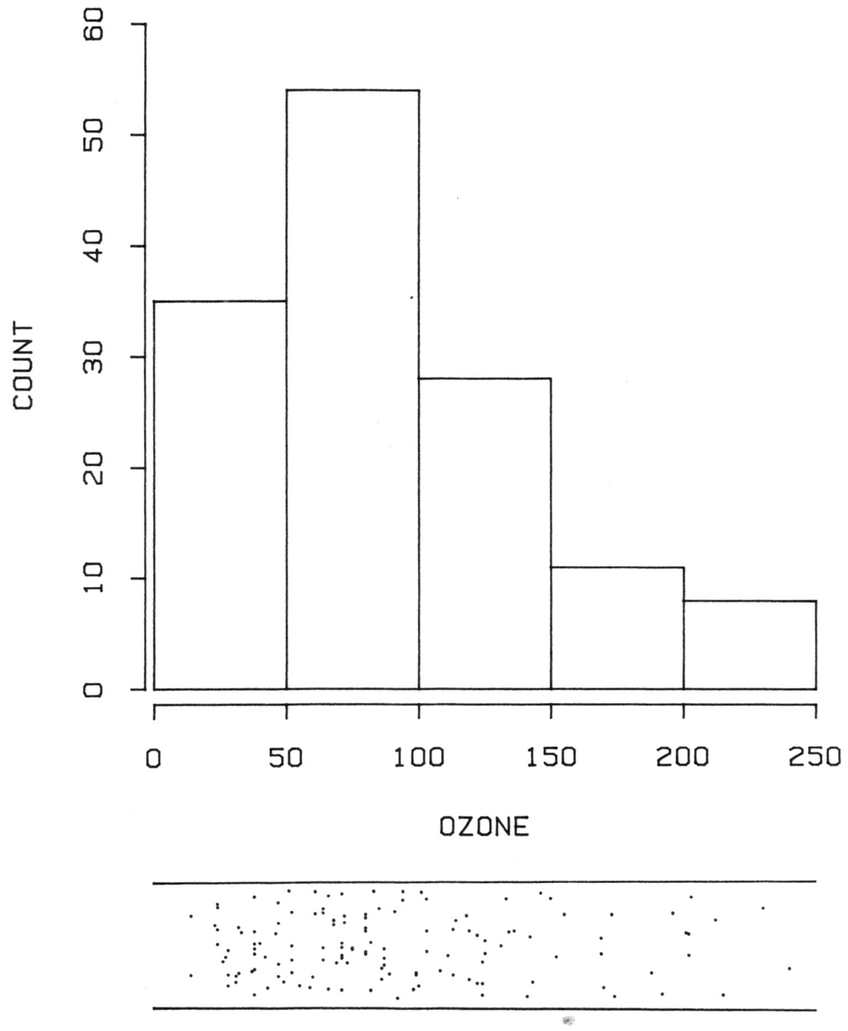
Histogram

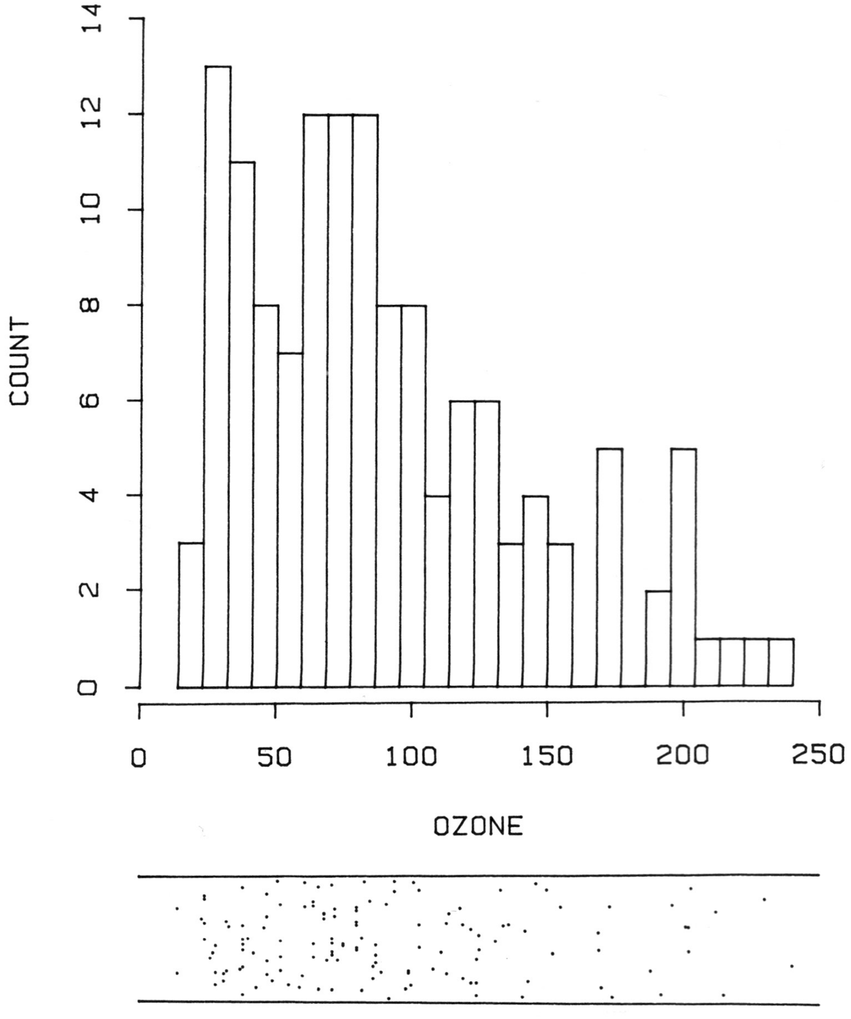
A bar chart that displays how many instances of each value on one axis is found. For example, used with a grayscal e image where the horizontal axis are possible color intensities (0..255) and the vertical is the number of times that each color is found in the image.

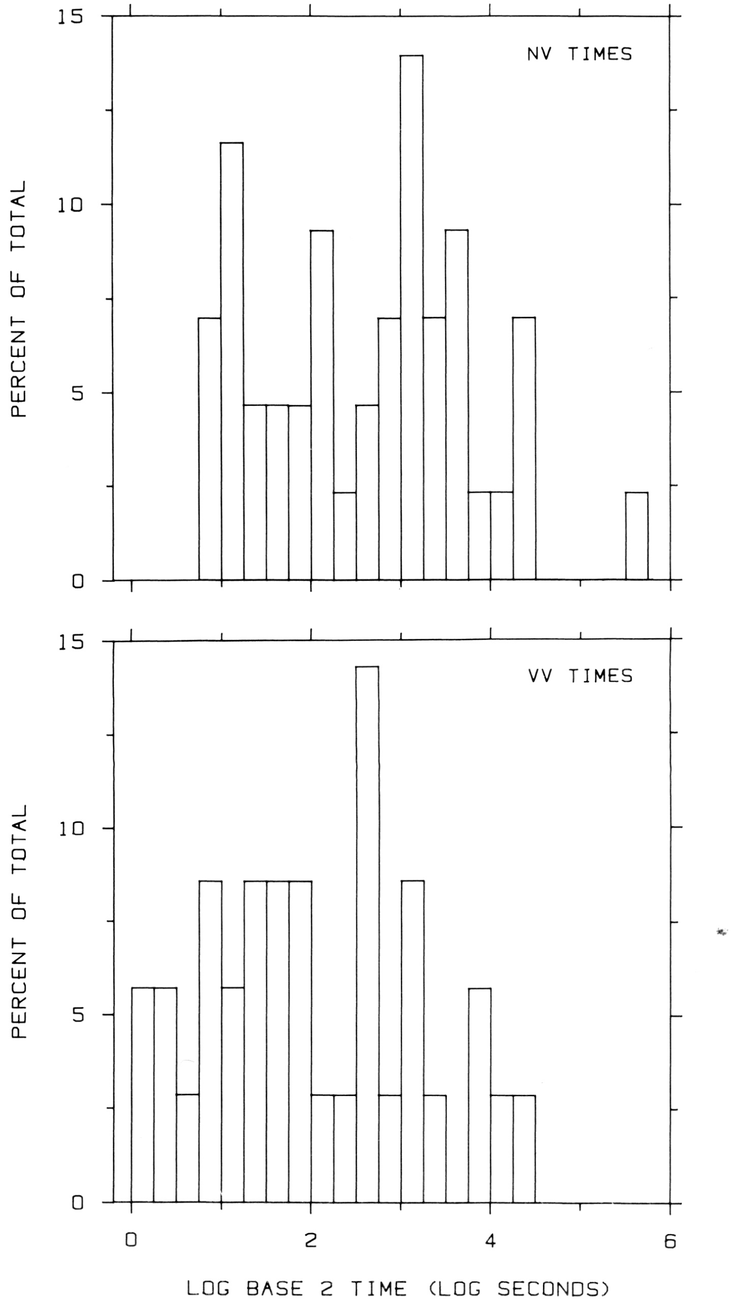

AGE AT DEATH (days)
500
1000
1500
0
10
20
30
PERCENT HIBERNATION


AGE AT DEATH (days)
500
1000
1500
0
10
20
30
PERCENT HIBERNATION

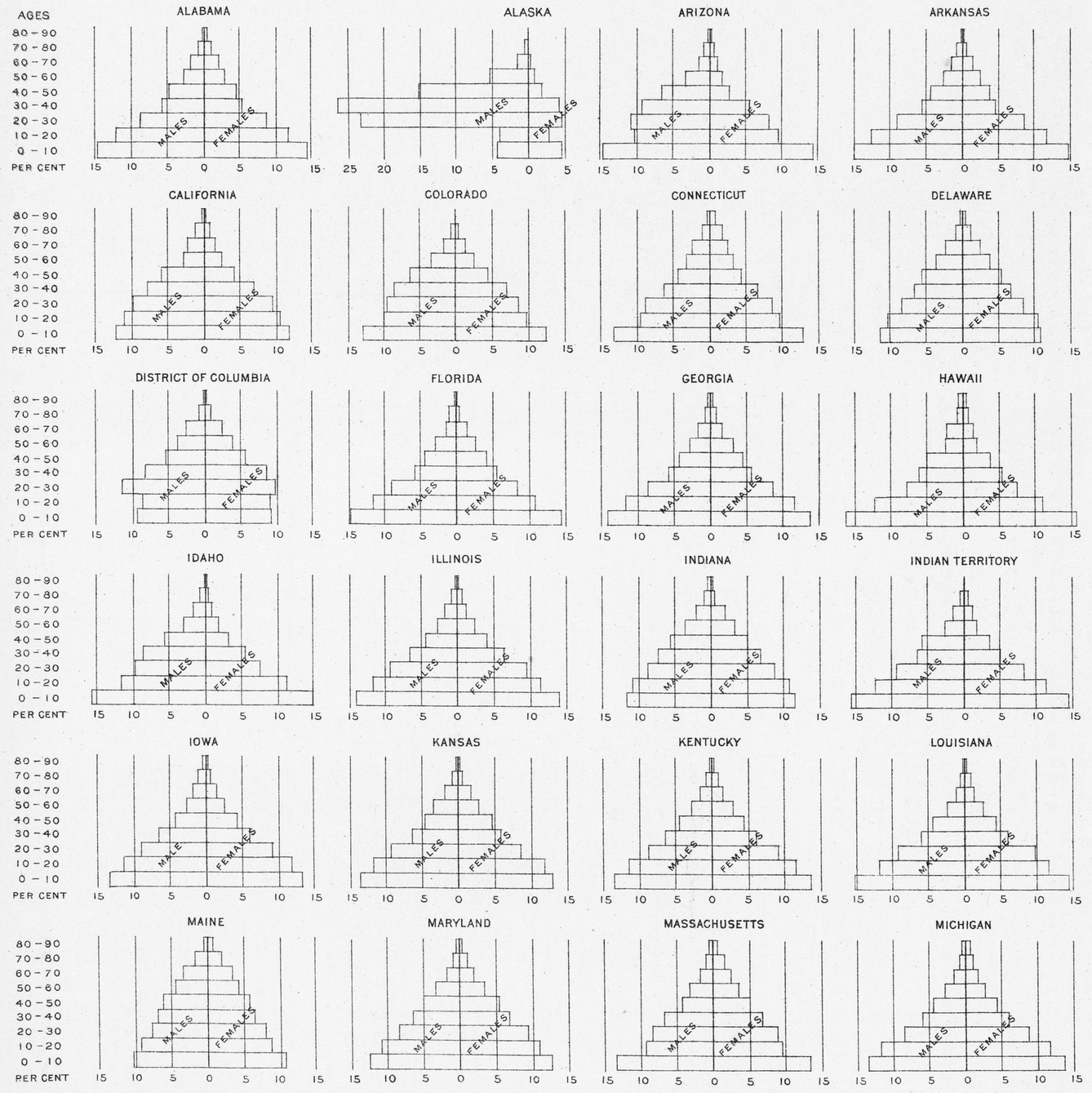

100
80
60
40
20
0
NUMBER
0
1
2
3
REDSHIFT (Z)


COUNT
0
10
20
30
40
50
60
0
50
100
150
200
250
OZONE


COUNT
0
2
4
6
8
10
12
14
0
50
100
150
200
250
OZONE

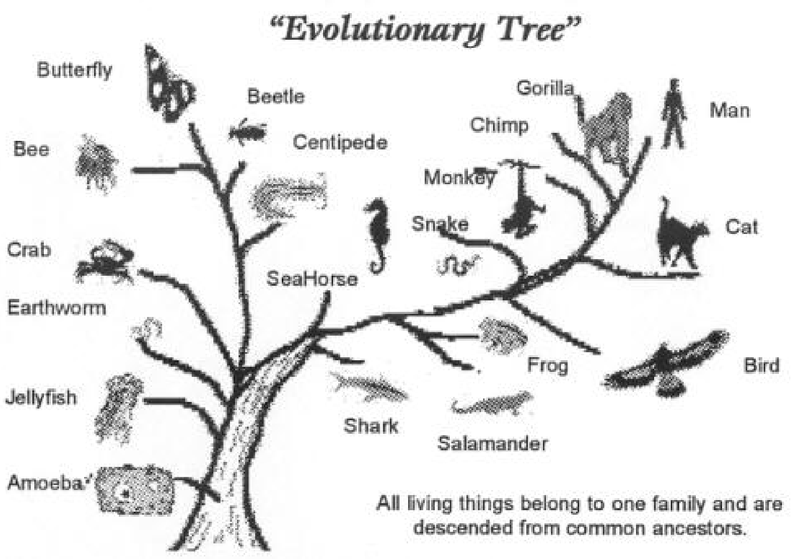

NV TIMES
VV TIMES
PERCENT OF TOTAL
PERCENT OF TOTAL
15
10
5
0
15
10
5
0
0
2
4
6
LOG BASE 2 TIME (LOG SECONDS)

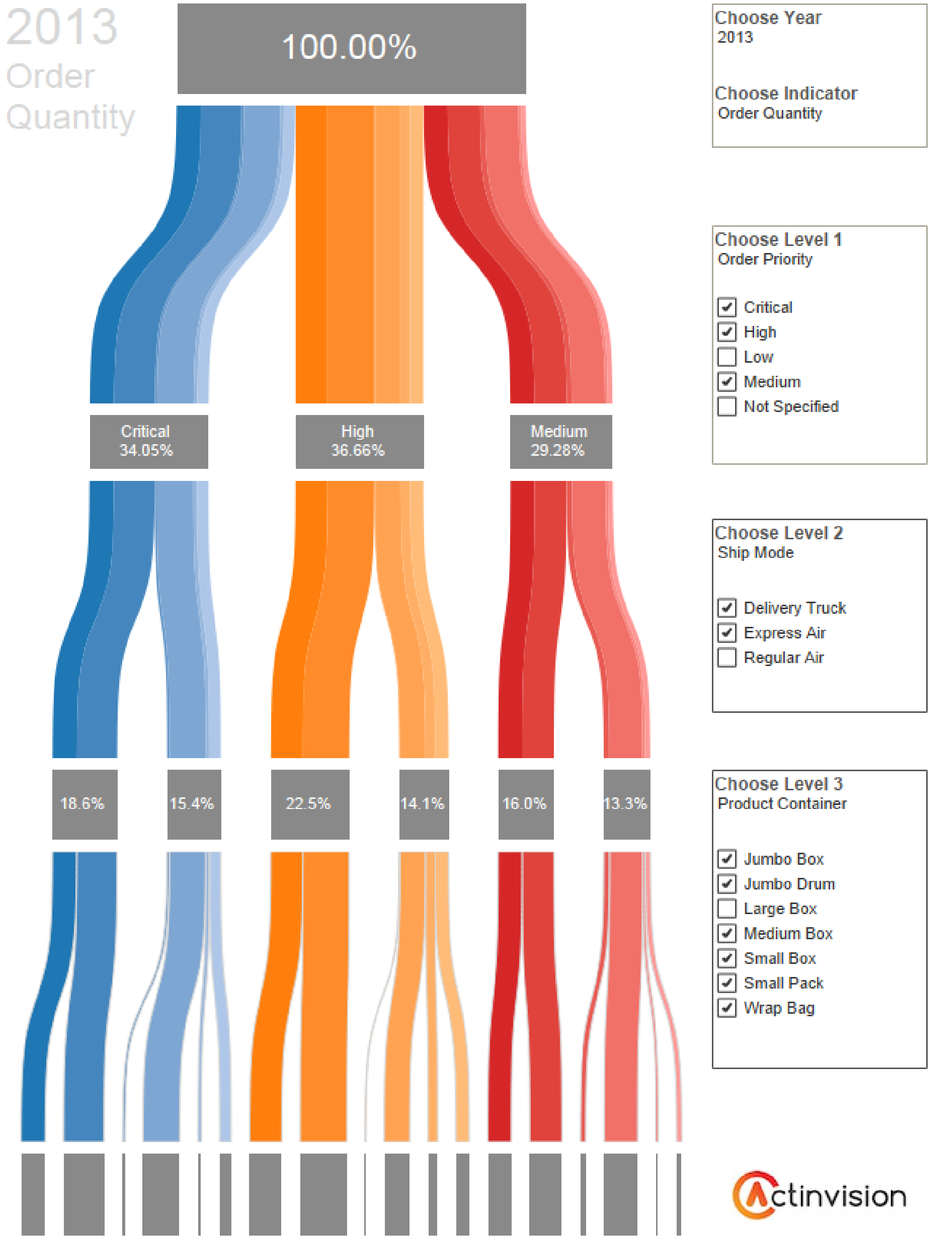
NATIVE WHITE POPULATION BY AGE AND SEX: 1900

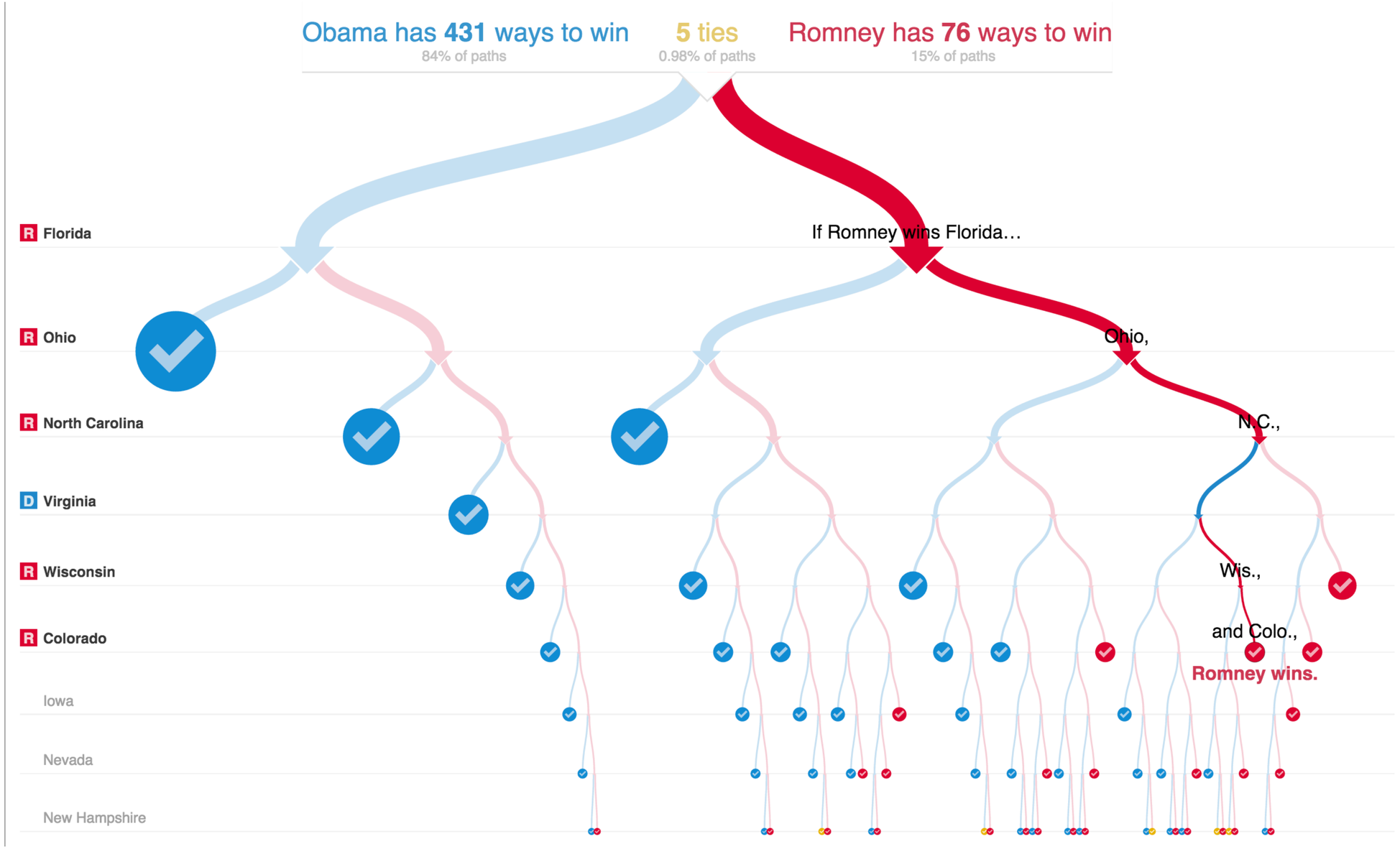


Dendrogram

A stacked tree shown connected to points, where the height of the branches show an additional variable. Often used to depict the strength of clustering in a matrix.

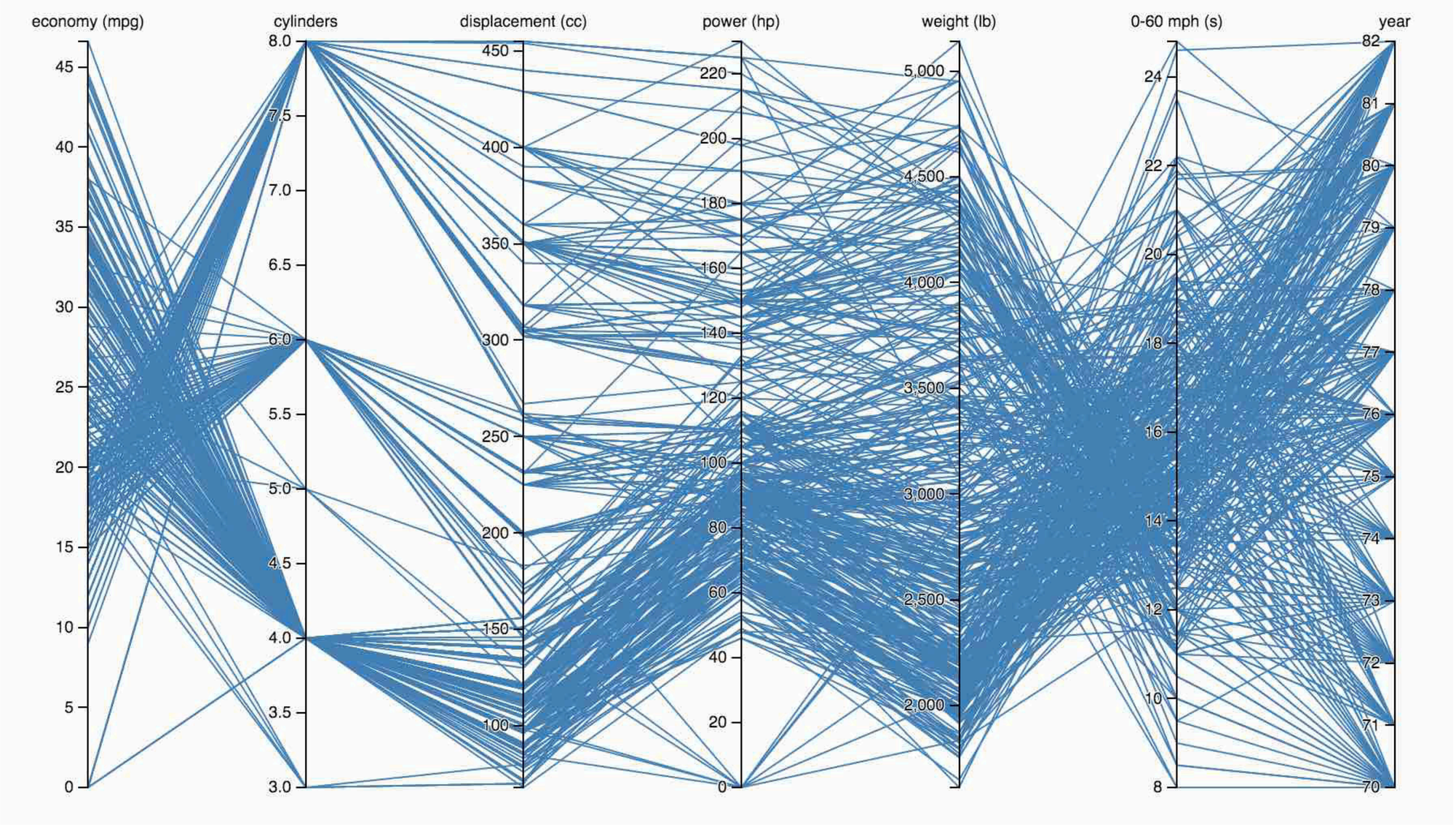

"Evolutionary Tree"
Butterfly
Beetle
Bee
Centipede
Gorilla
Chimp
Man
Monkey
Snake
Cat
Crab
SeaHorse
Earthworm
Frog
Bird
Jellyfish
Shark
Salamander
Amoeba
All living things belong to one family and are descended from common ancestors.

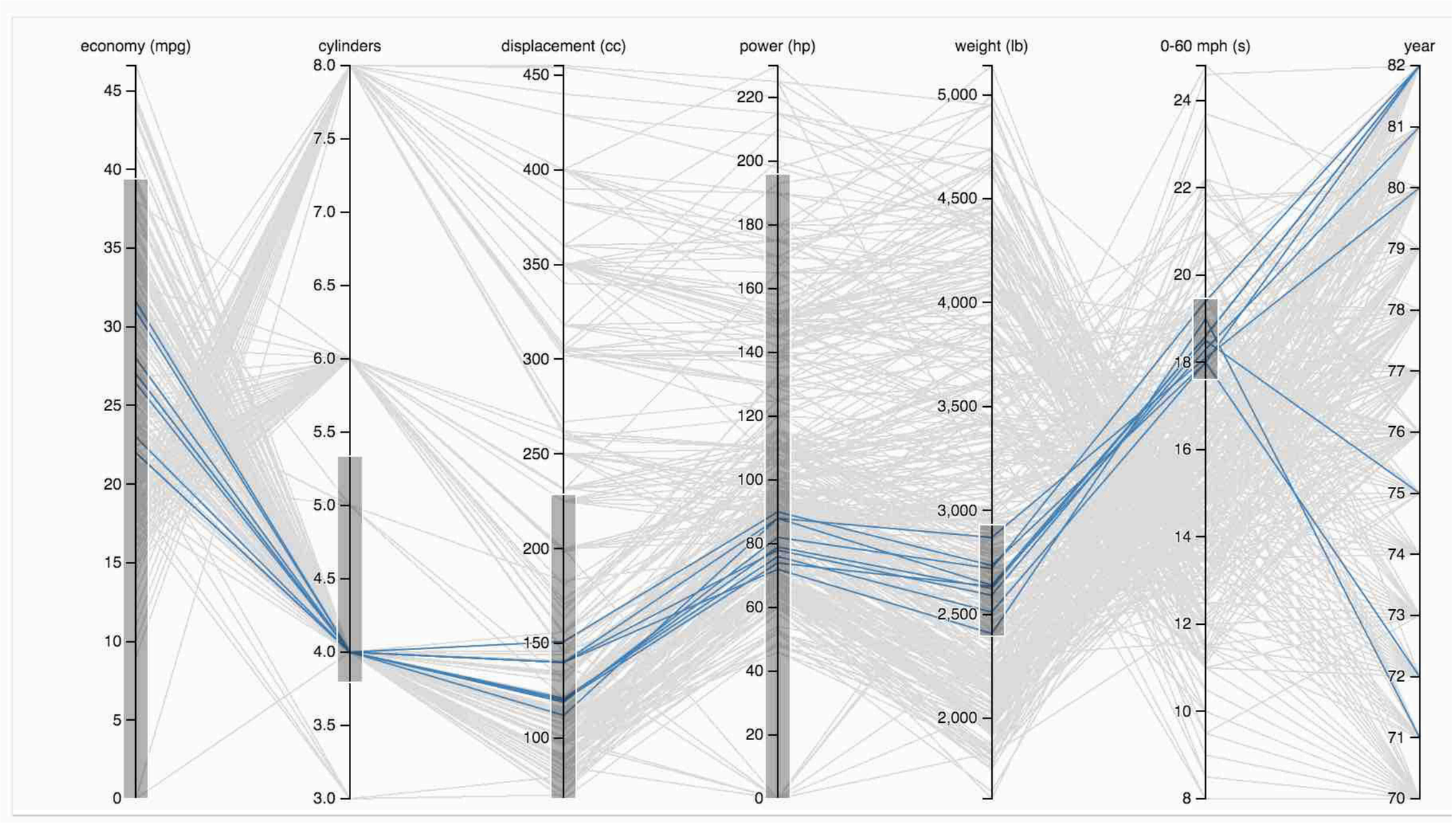

2013
Order Quantity
100.00%
Critical 34.05%
High 36.66%
Medium 29.28%
18.6%
15.4%
22.5%
14.1%
16.0%
13.3%
Choose Year
2013
Choose Indicator
Order Quantity
Choose Level 1
Order Priority
Critical
High
Low
Medium
Not Specified
Choose Level 2
Ship Mode
Delivery Truck
Express Air
Regular Air
Choose Level 3
Product Container
Jumbo Box
Jumbo Drum
Large Box
Medium Box
Small Box
Small Pack
Wrap Bag
Actinvision
tableau

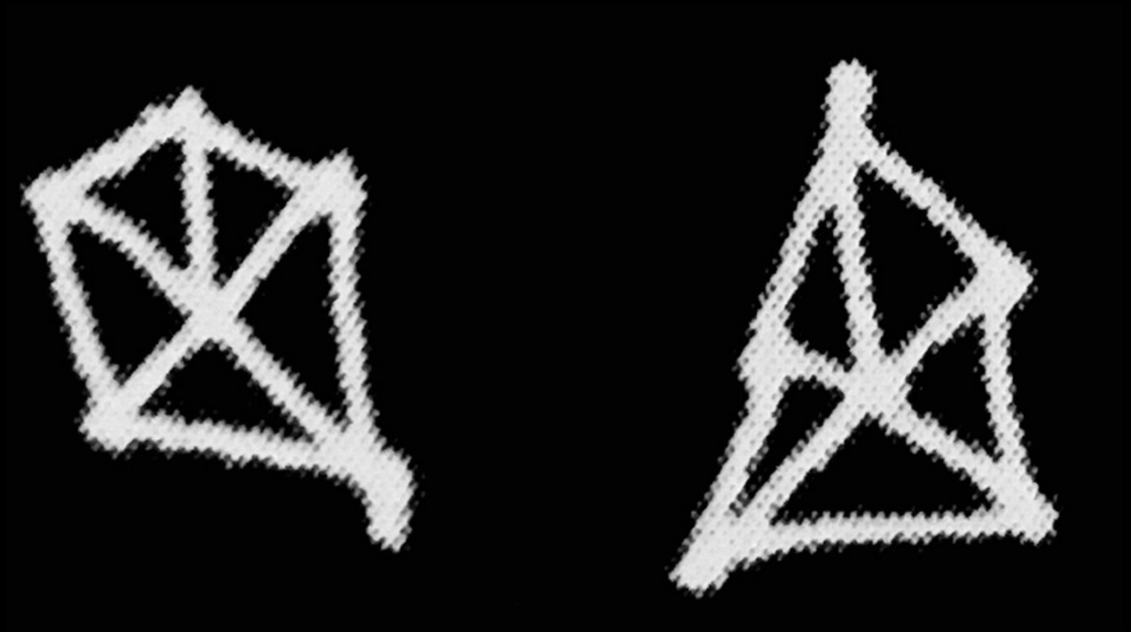

Obama has 431 ways to win
84% of paths
5 ties
0.98% of paths
Romney has 76 ways to win
15% of paths
R Florida
R Ohio
R North Carolina
D Virginia
R Wisconsin
R Colorado
Iowa
Nevada
New Hampshire
If Romney wins Florida…
Ohio,
N.C.,
Wis.,
and Colo.,
Romney wins.

Parallel Coordinates
Used for multi-dimensional data, where vertical bars represent each dimension. Each element of the data set has values for each dimension, which are shown as points along the vertical axis and then connected together.

Radial Parallel Coordinates – like several superimposed star plots that show multiple records of data.


economy (mpg)
cylinders
displacement (cc)
power (hp)
weight (lb)
0-60 mph (s)
year
45
40
35
30
25
20
15
10
5
0
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
450
400
350
300
250
200
150
100
220
200
180
160
140
120
100
80
60
40
20
0
5,000
4,500
4,000
3,500
3,000
2,500
2,000
24
22
20
18
16
14
12
10
8
82
81
80
79
78
77
76
75
74
73
72
71
70


economy (mpg)
cylinders
displacement (cc)
power (hp)
weight (lb)
0-60 mph (s)
year



Star Plots

Similar to parallel coordinates, but with a single record of data where its points are shown radially.

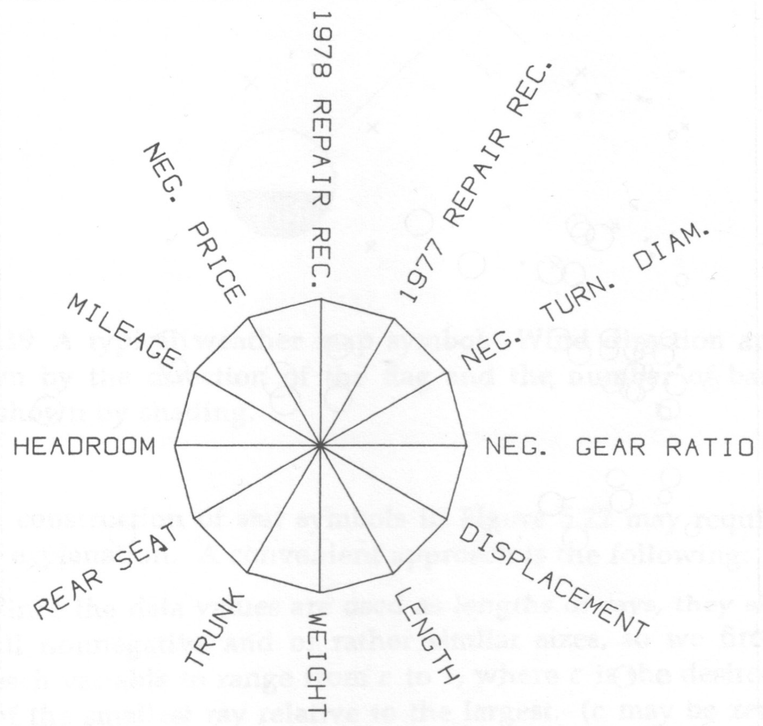


Figure 5.21 Key showing the assignment of automobile variables to rays of a star. Roughly, the horizontal and downward-pointing rays are size-linked variables, and the others are price and performance variables.

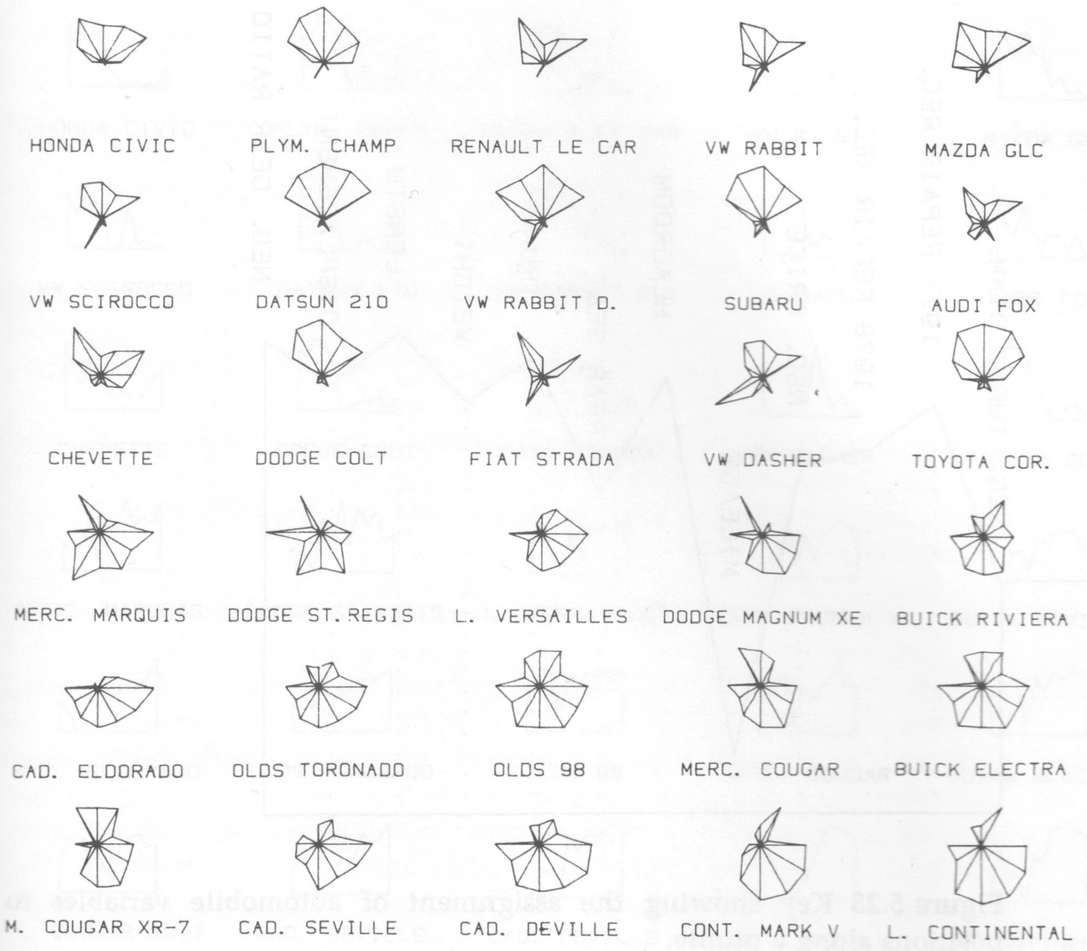
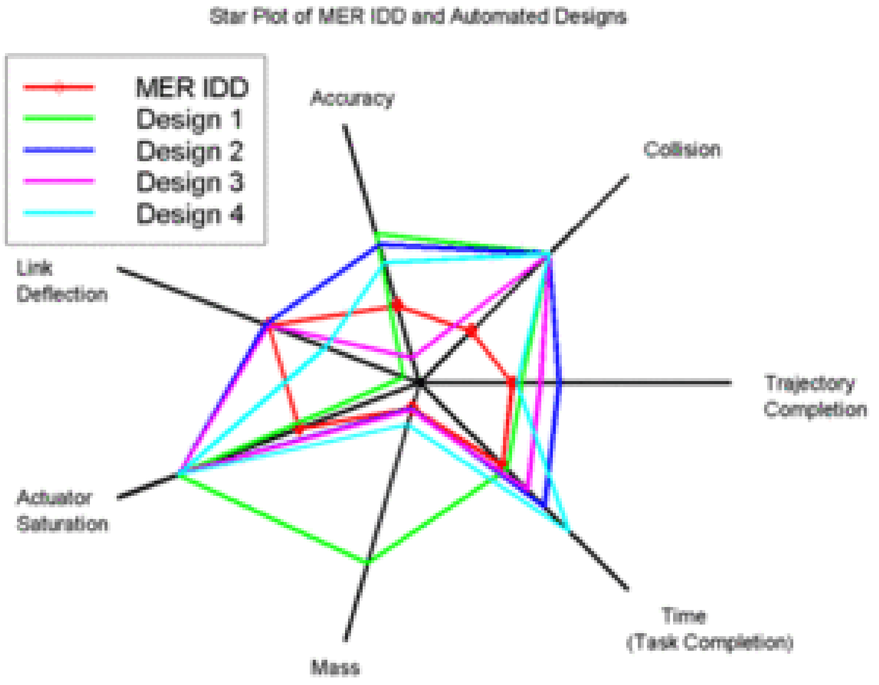
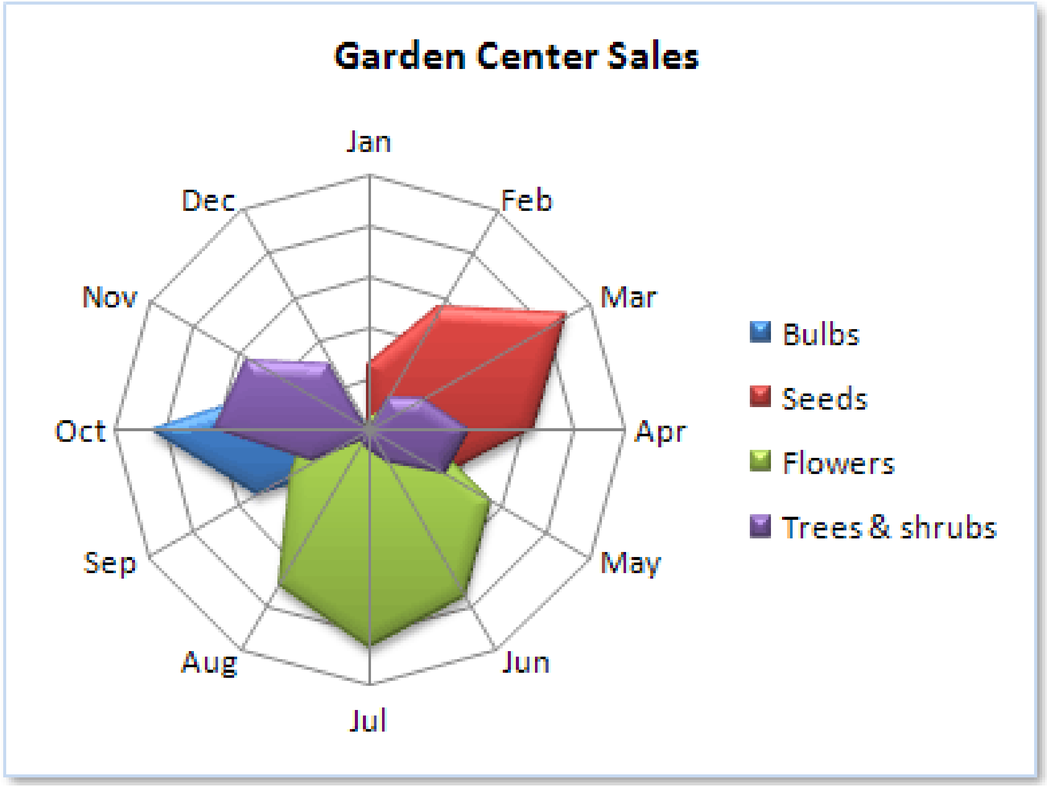


Figure 5.22 Star symbol plot of all twelve variables of the automobile data. Each star represents a car model, each ray a variable. Only the 15 lightest car models (top three rows) and 15 heaviest models (bottom three rows) are shown.

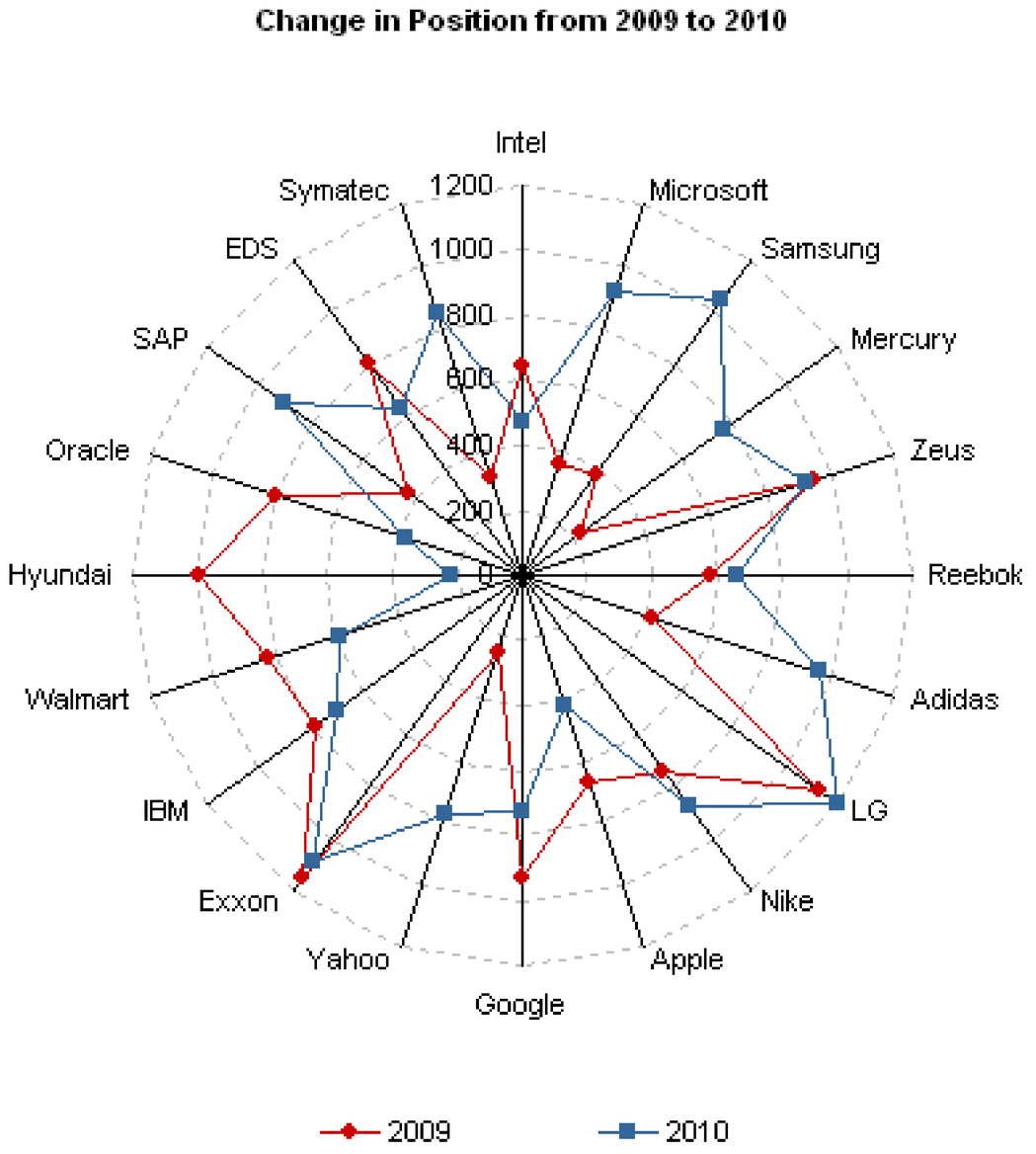

Star Plot of MER IDD and Automated Designs
MER IDD
Design 1
Design 2
Design 3
Design 4
Accuracy
Collision
Trajectory Completion
Time (Task Completion)
Mass
Actuator Saturation
Link Deflection


Garden Center Sales
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Bulbs
Seeds
Flowers
Trees & shrubs

Position Change Across Years

(Revenue figures in $mn)

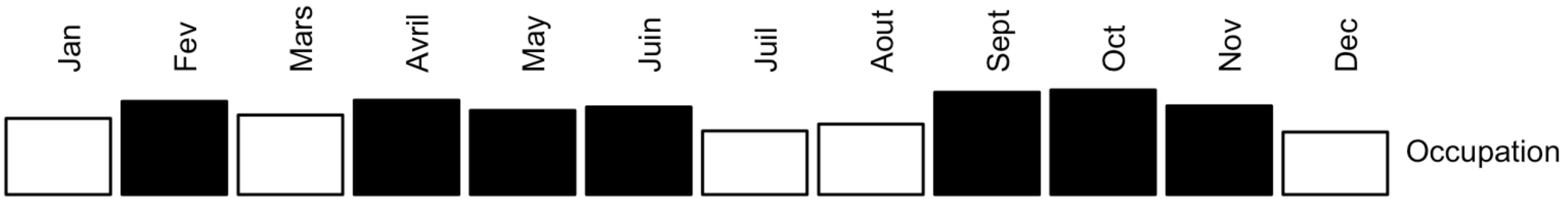
	2009	2010
Intel	639	474
Microsoft	354	916
Samsung	384	1039
Mercury	221	759
Zeus	940	909
Reebok	574	660
Adidas	412	955
LG	1119	1194
Nike	736	876
Apple	666	410
Google	923	722
Yahoo	241	774
Exxon	1141	1087
IBM	790	709
Walmart	822	588
Hyundai	989	217
Oracle	794	369
SAP	430	900
EDS	806	630
Symatec	316	840

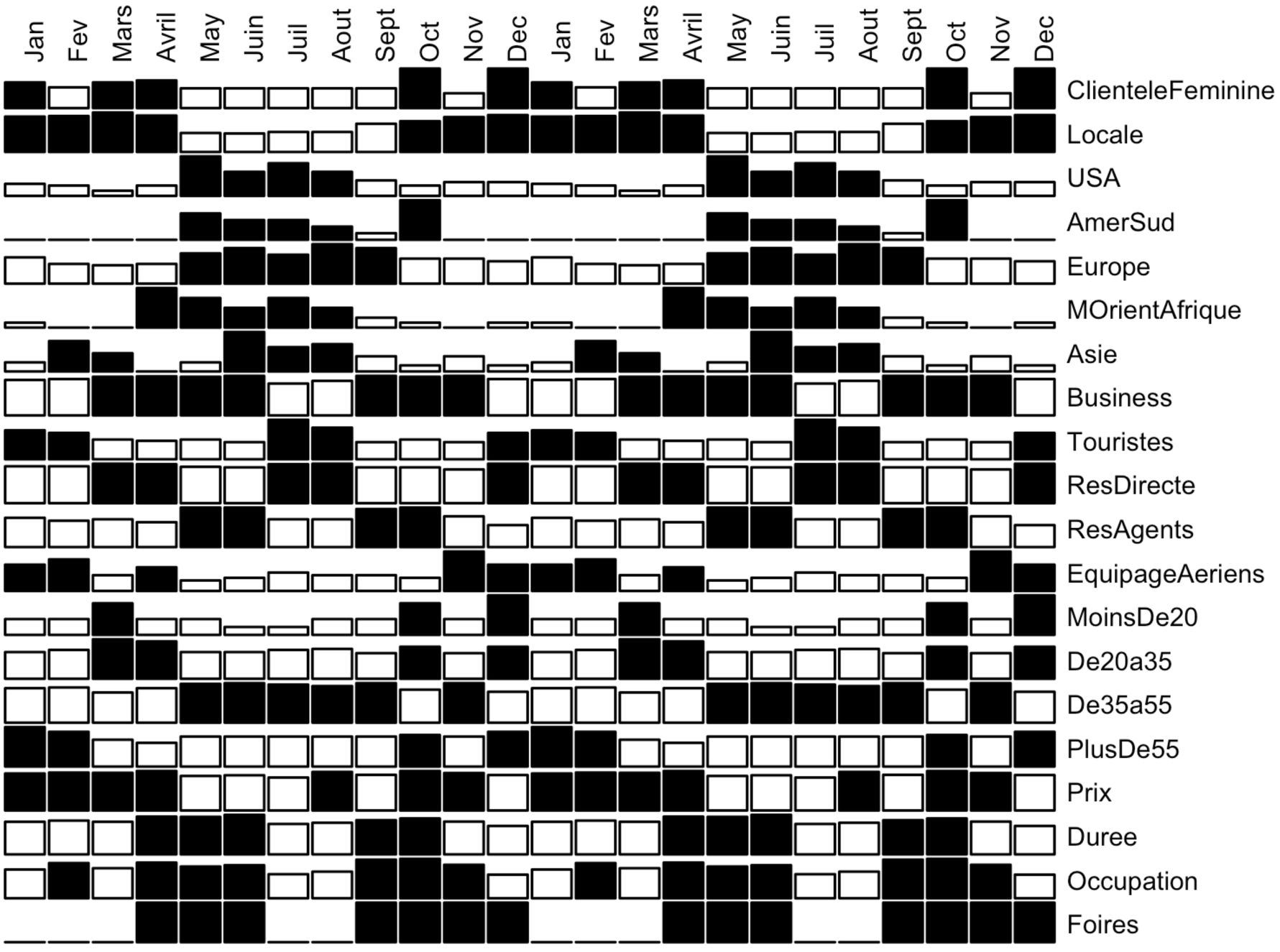


Permutation Matrix

Bertin’s sortable bar charts for the display of multi-dimensional data.

Hotel["Occupation",]

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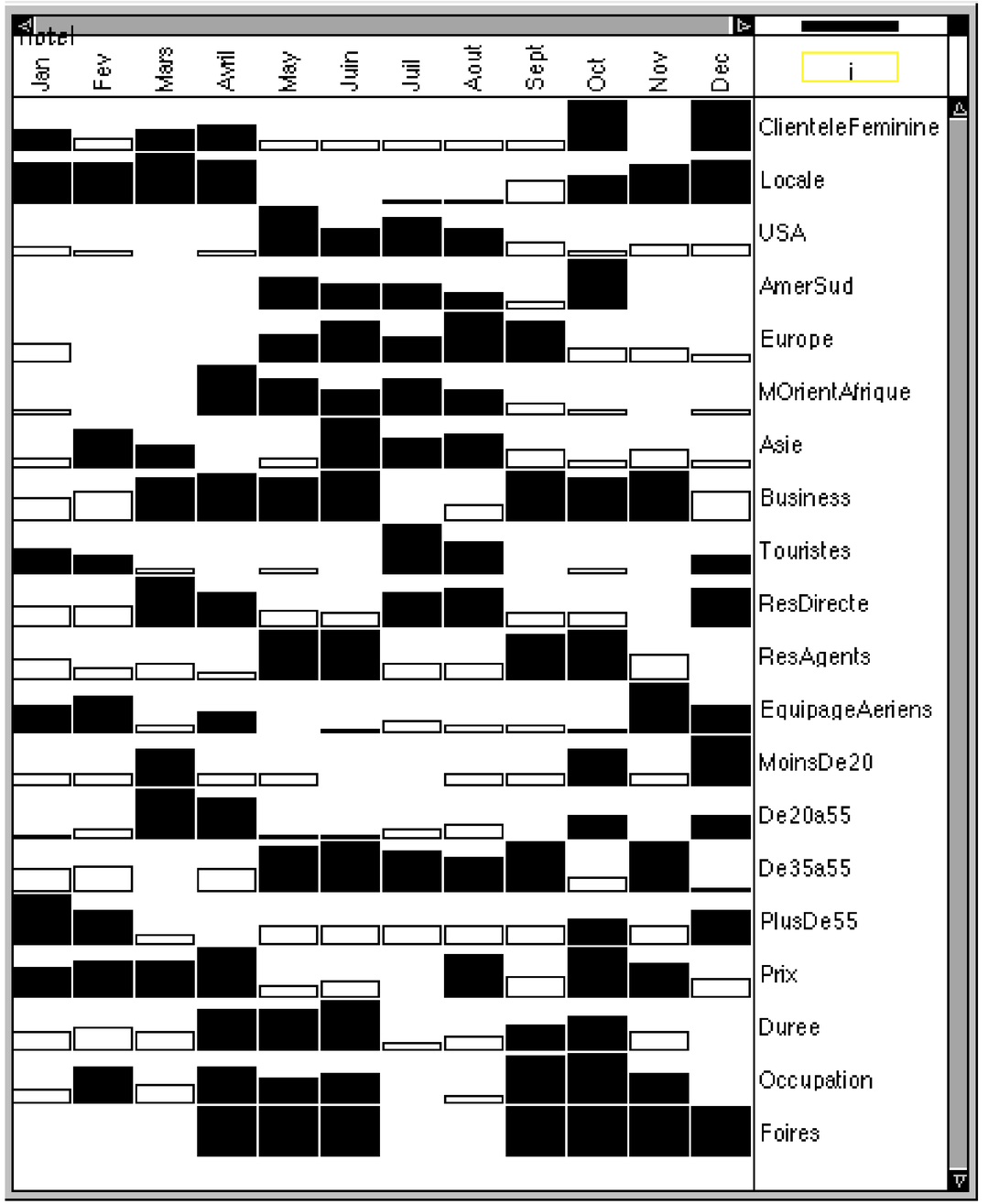
Aout
Sept
Oct
Nov
Dec
ClienteleFeminine
Locale
USA
AmerSud
Europe
MOrientAfrique
Asie
Business
Touristes
ResDirecte
ResAgents
EquipageAeriens
MoinsDe20
De20a35
De35a55
PlusDe55
Prix
Duree
Occupation
Foires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ClienteleFeminine
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USA
AmerSud
Europe
MOrientAfrique
Asie
Business
Touristes
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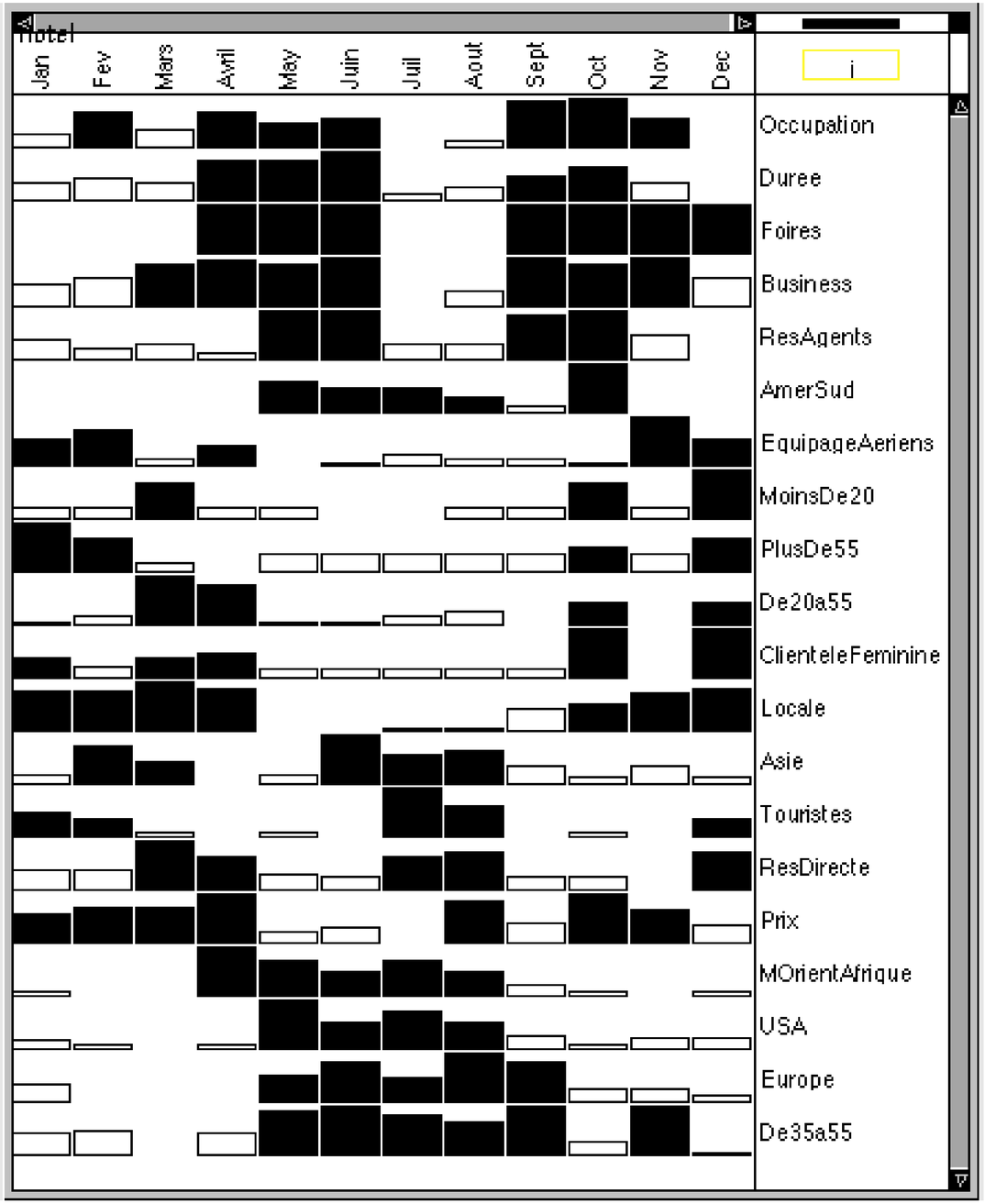
PlusDe55
Prix
Duree
Occupation
Foires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ResAgents
AmerSud
EquipageAeriens
MoinsDe20
PlusDe55
De20a55
ClienteleFeminine
Locale
Asie
Touristes
ResDirecte
Prix
MOrientAfrique
USA
Europe
De35a55


North
South
West
DC MN RI MA NY WI MD PA DE CT MI ME IL NJ VT NH IA OH IN
FL NC VA WV AR LA MO KY TN GA TX AL MS SC
HI WA OR CA NM NV CO AZ MT AK OK ID UT WY NE KS ND SD
1904
1912
1920
1928
1936
1944
1952
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1968
1976
1984
1992
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2008
Winner
1904 T Roosevelt
W Taft
1912 W Wilson
"
1920 W Harding
C Coolidge
1928 H Hoover
FD Roosevelt
1936 "
"
1944 "
H Truman
1952 D Eisenhower
"
1960 JF Kennedy
L Johnson
1968 R Nixon
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1976 J Carter
R Reagan
1984 "
G Bush
1992 W Clinton
"
2000 GW Bush
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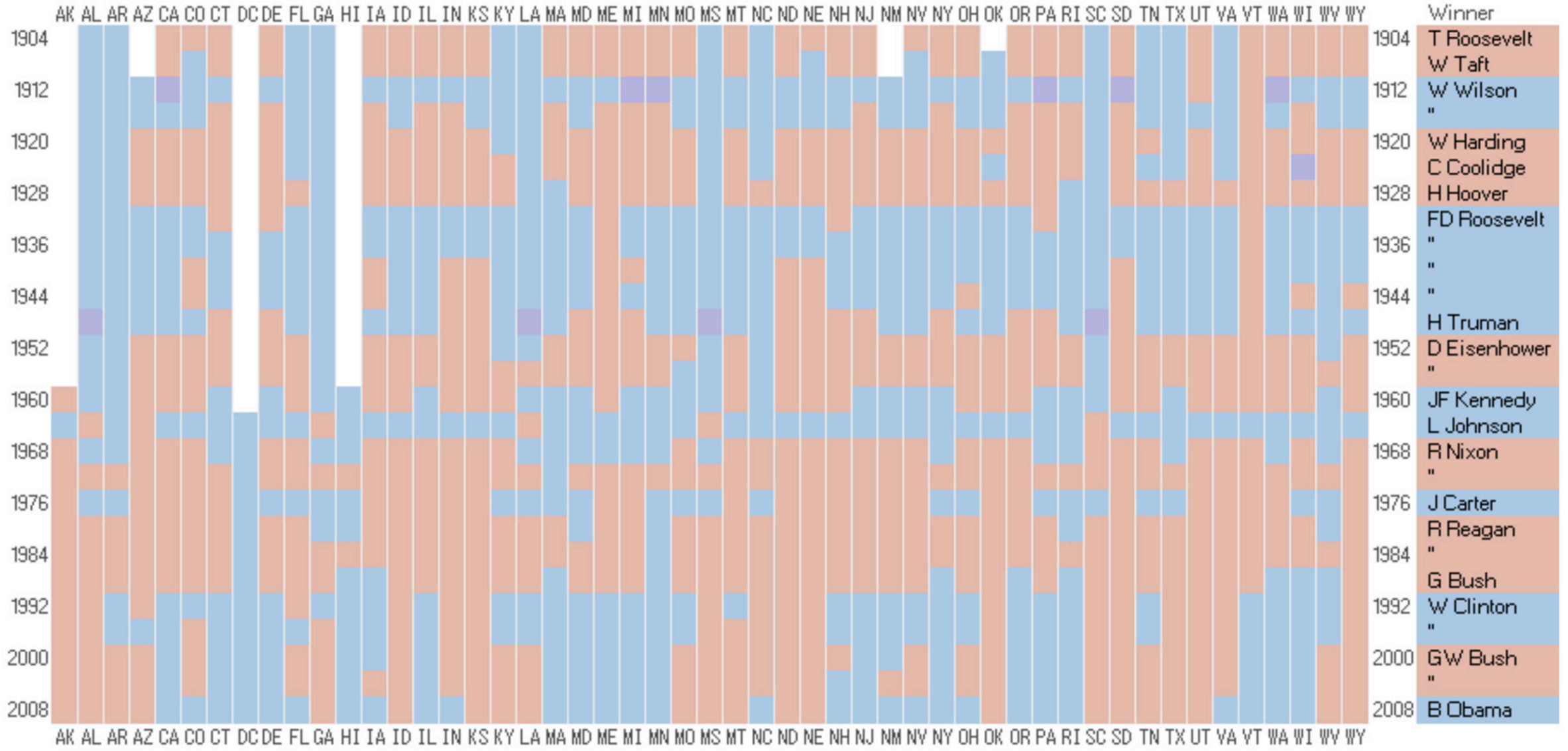
2008 B Obama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G Bush
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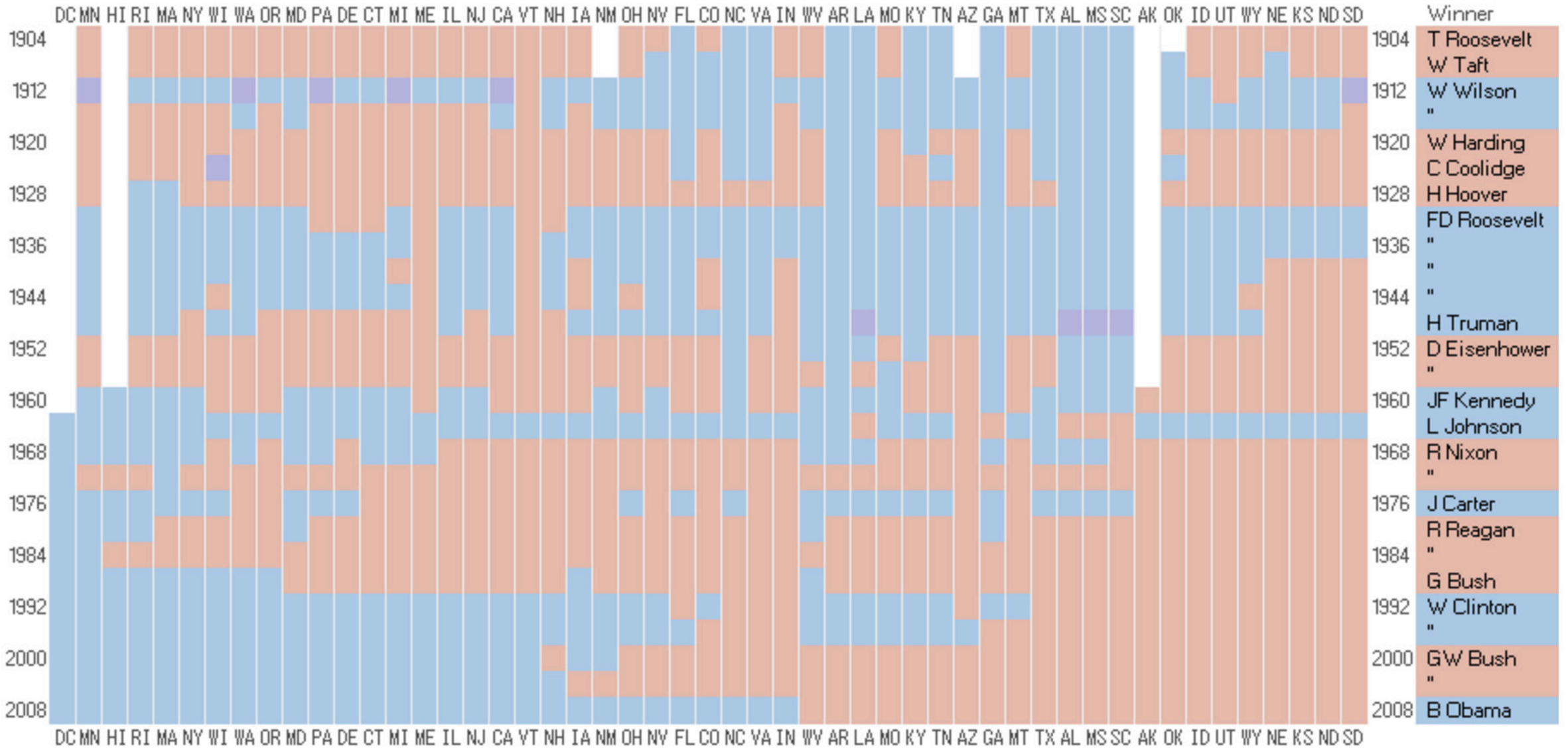
DC MN HI RI MA NY WI WA OR MD PA DE CT MI ME IL NJ CA VT NH IA NM OH NV FL CO NC VA IN WV AR LA MO KY TN AZ GA MT TX AL MS SC AK OK ID UT WY NE KS ND SD
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1904 T Roosevelt
W Taft
1912 W Wilson
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C Coolidge
1928 H Hoover
FD Roosevelt
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1944 "
H Truman
1952 D Eisenhower
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1984 "
G Bush
1992 W Clinton
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2000 GW Bush
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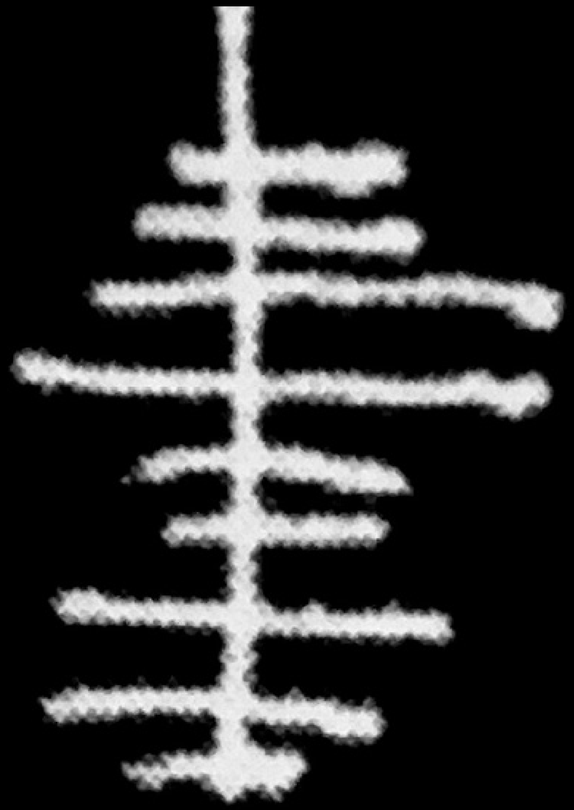
2008 B Obama



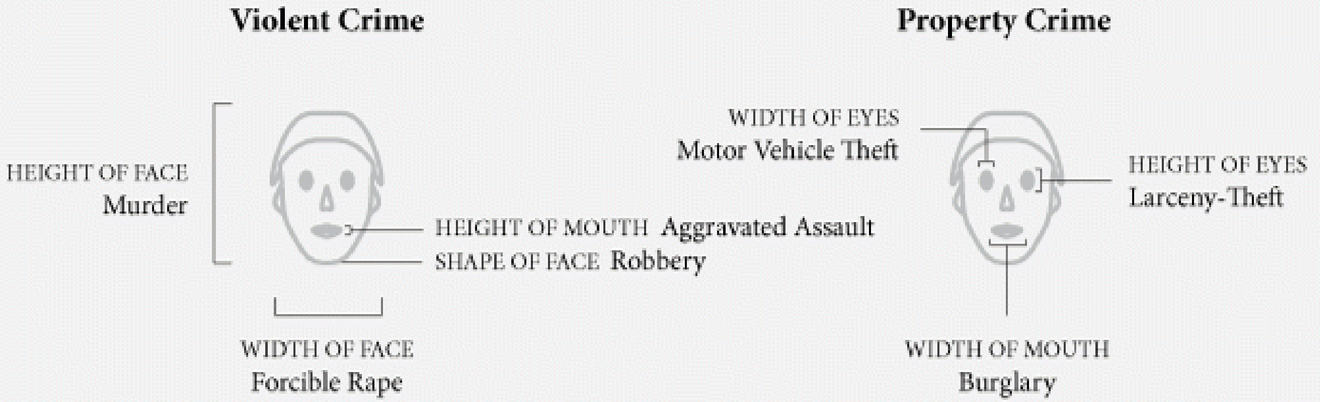
Survey Plot / Table Lens

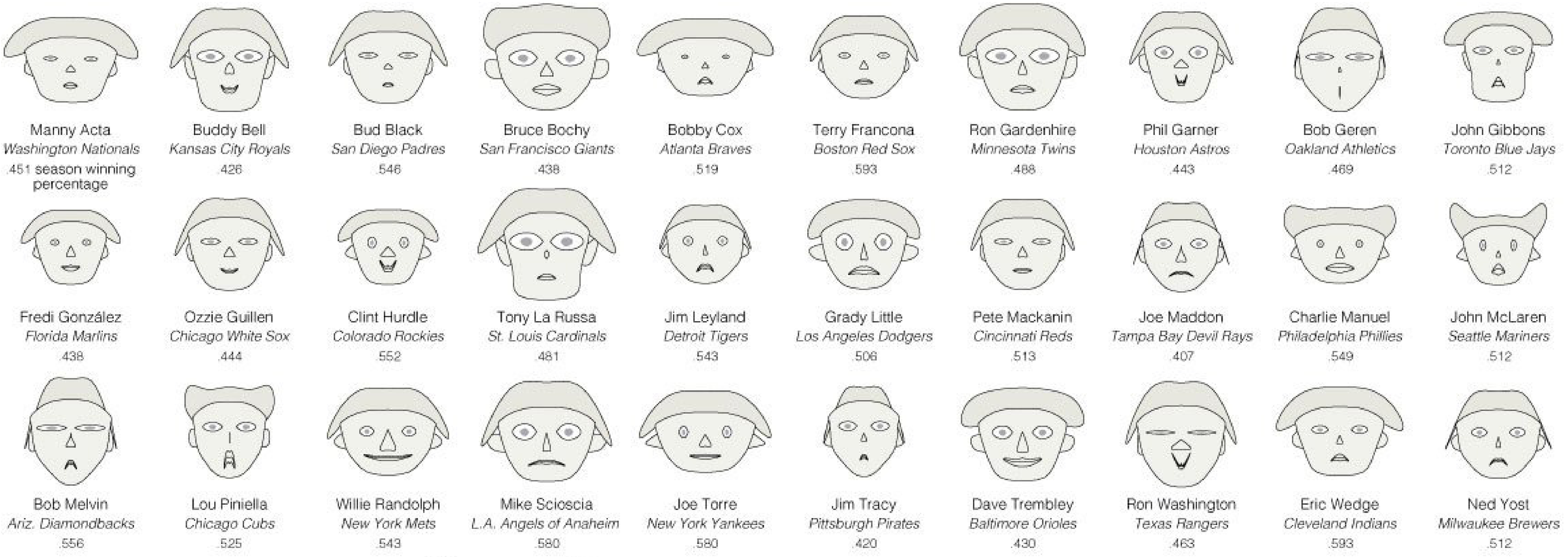
Popularized in the “Table Lens” project from Xerox Parc [Rao and Card, 1994], these resemble a series of bar graphs that can be sorted seperately

Chernoff Faces

A method for diagramming multi-dimensional data through the use of facial features. Chernoff's idea [Chernoff, 1977] was that because opur visual system is particularly tuned to understanding an remembering human faces, that people would be able to more readily understand many more dimensions as mapped to a face than might be possible with other types of glyphs or diagrams.

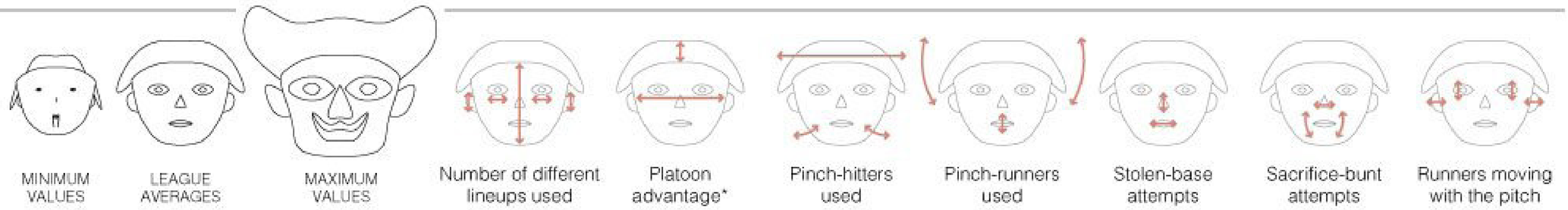
The Face of Crime in the United States





SMILE IF YOU BUNT

Steve C. Wang, an associate professor of statistics at Swarthmore College, charted baseball managers from the 2007 season as Chernoff faces, a method of using the heights, widths and angles of facial features to represent different sets of numbers.

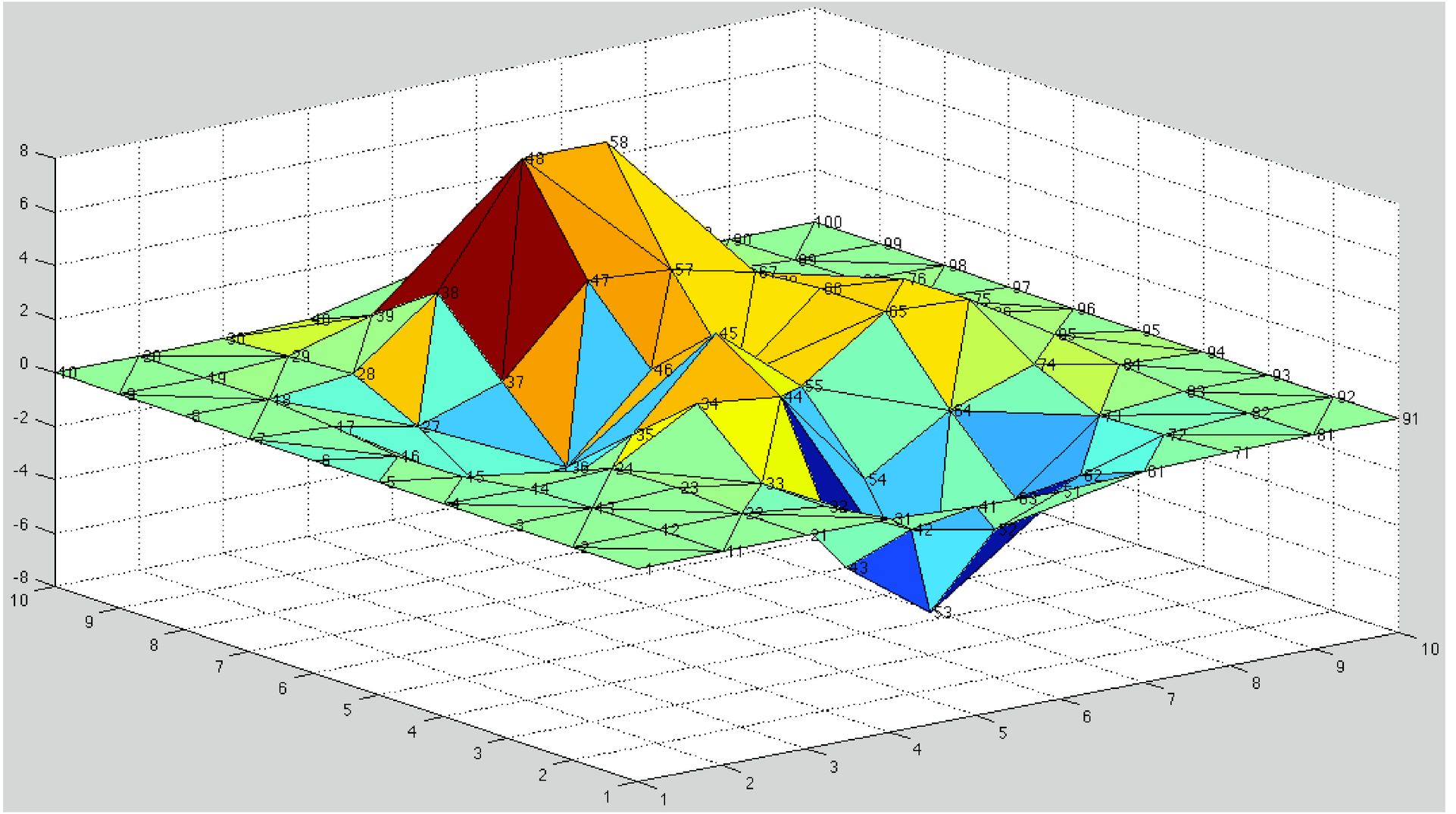


*Percentage of players who had the advantage of batting against an opposite-handed pitcher at the start of the game.
Note: Because different rules cause National League managers to use more pinch-hitters, for example, each manager's rates are compared with his league's average.

JONATHAN CORUM/
THE NEW YORK TIMES

Isosurfaces

Maps of data that resemble topographic maps.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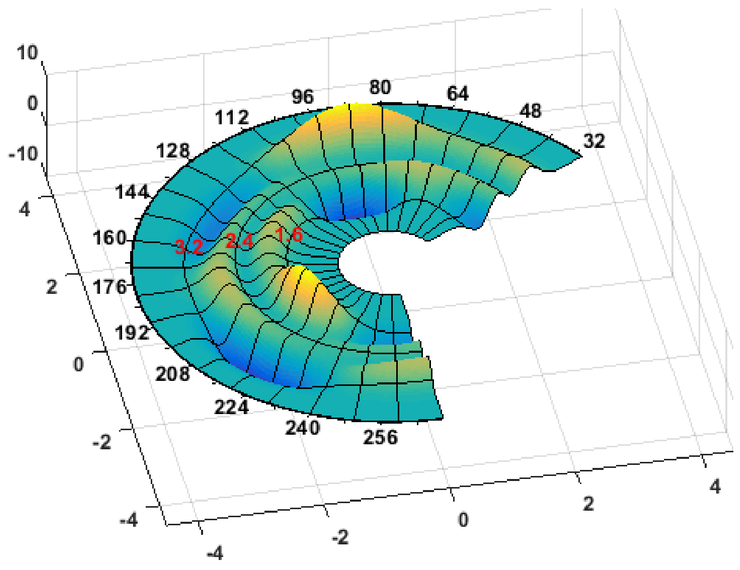
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2
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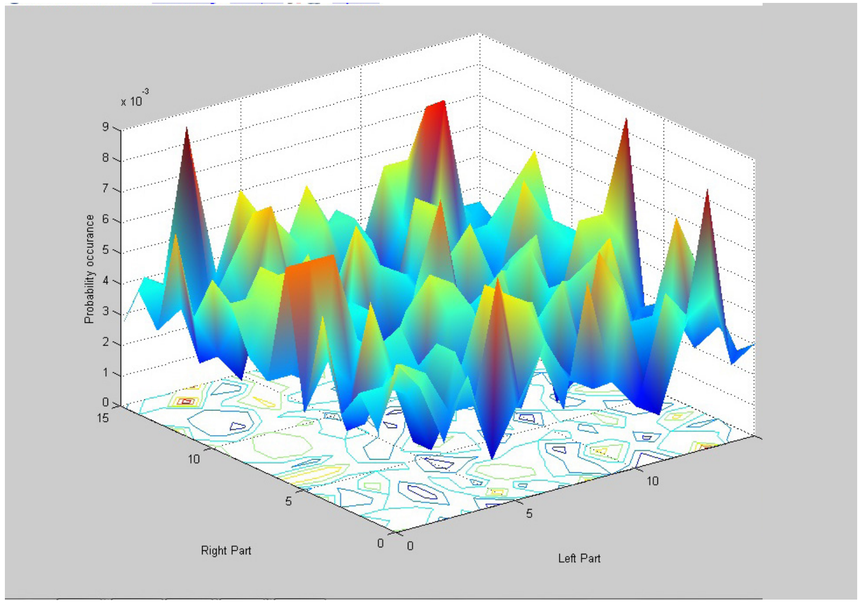
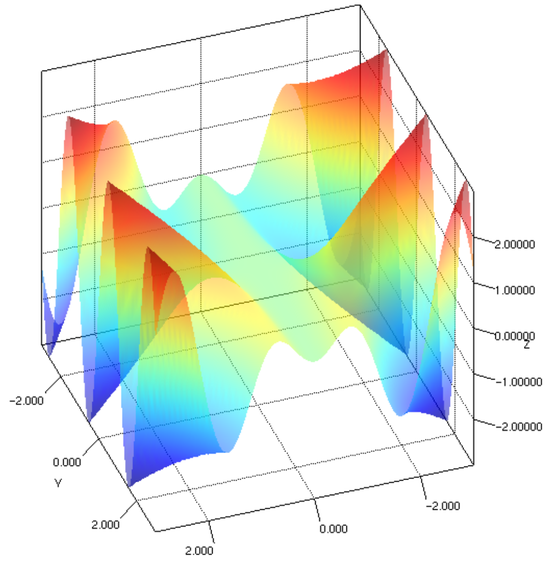
208
224
240
256
-3.2
-2.4
-1.6


x 10^-3
Probability occurance
Right Part
Left Part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1.00000
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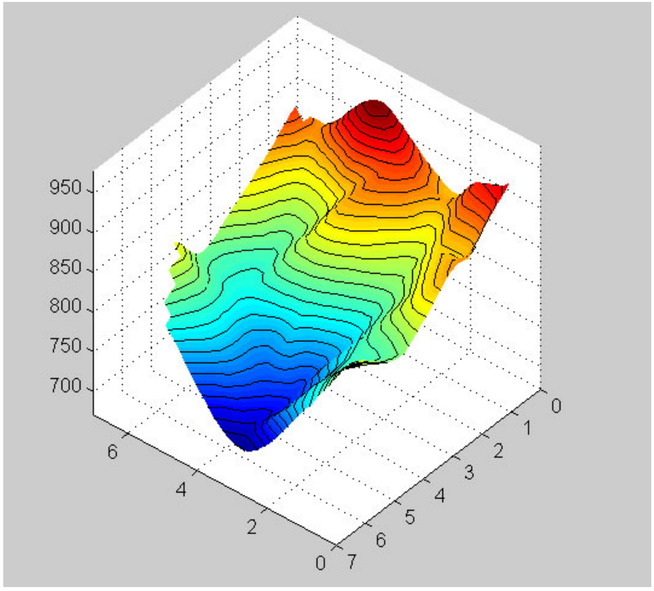
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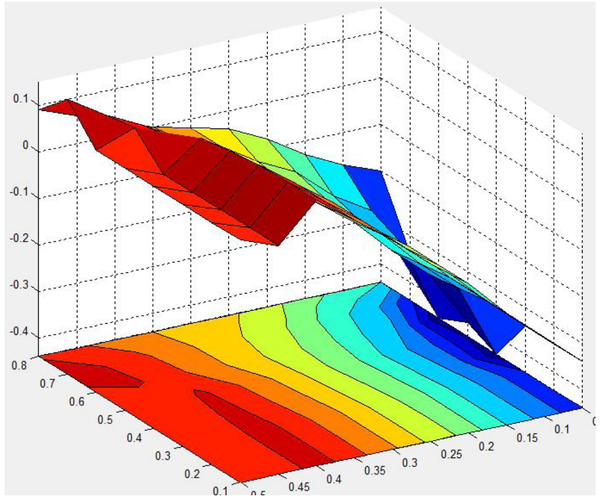
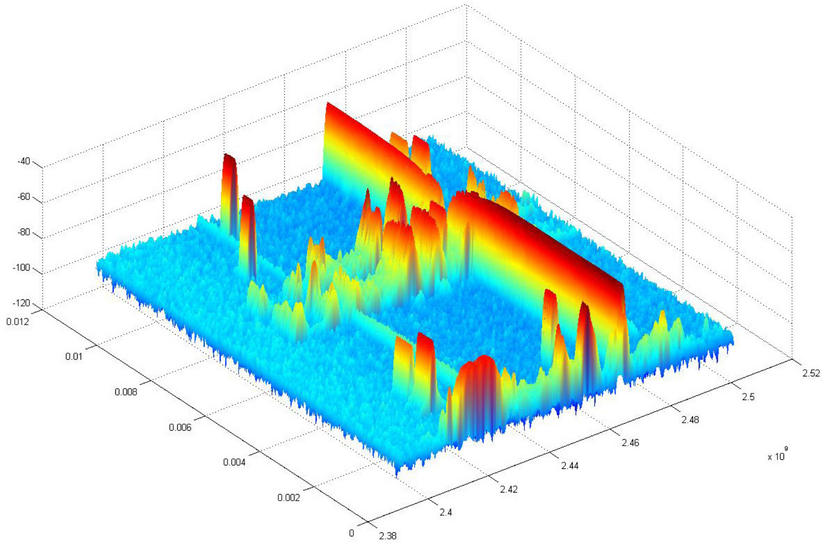
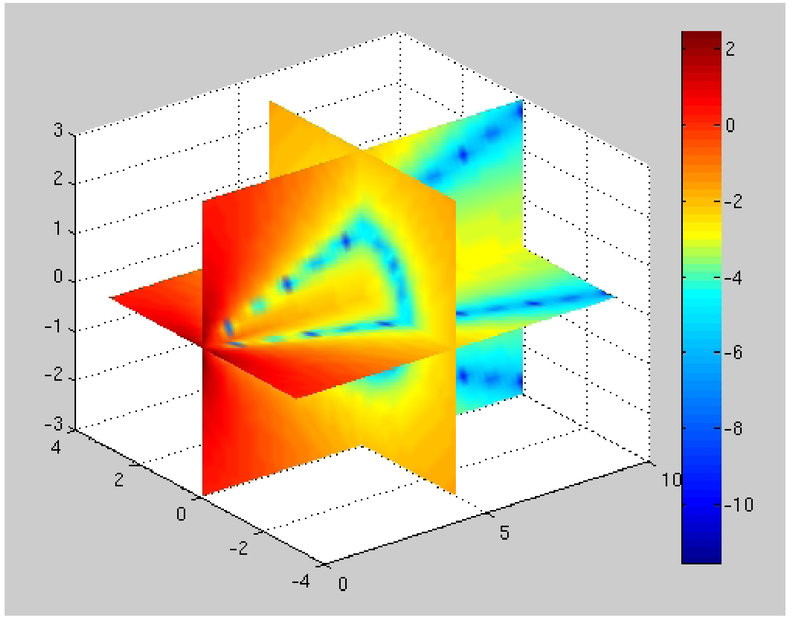



x 10^9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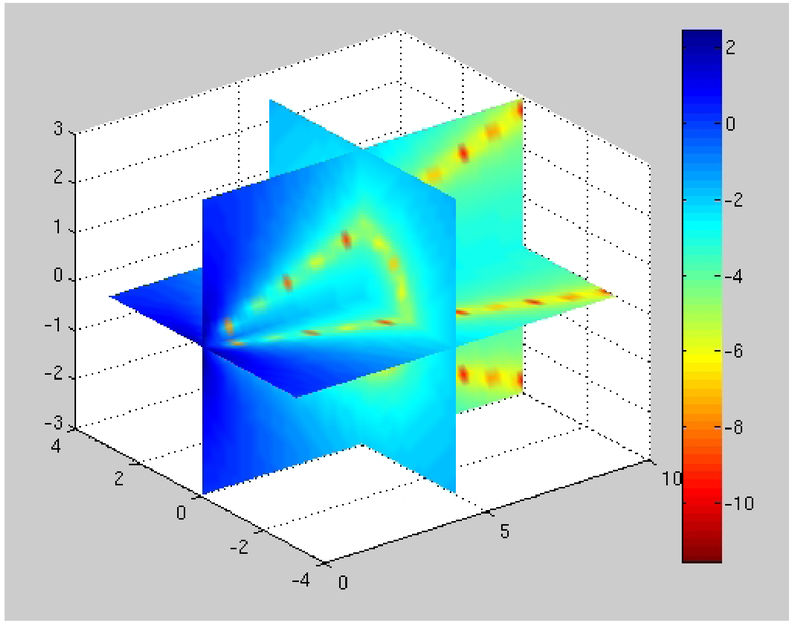
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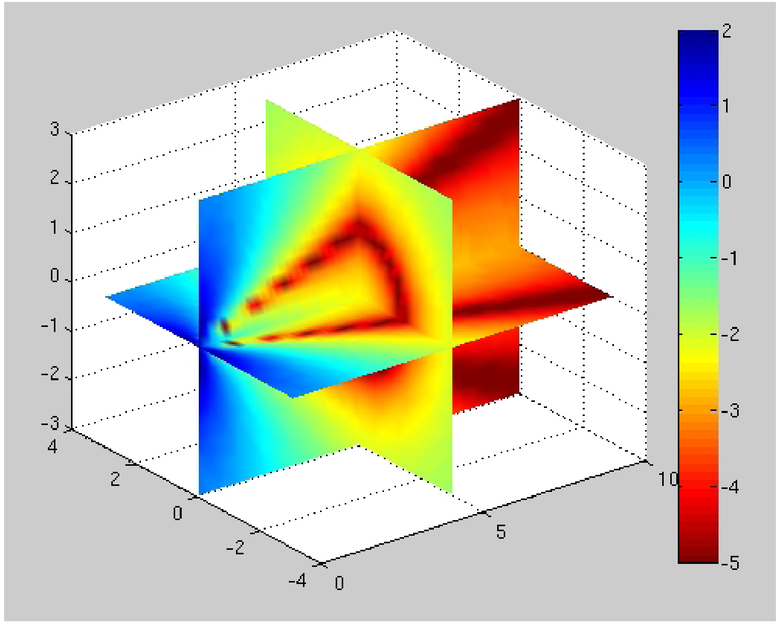
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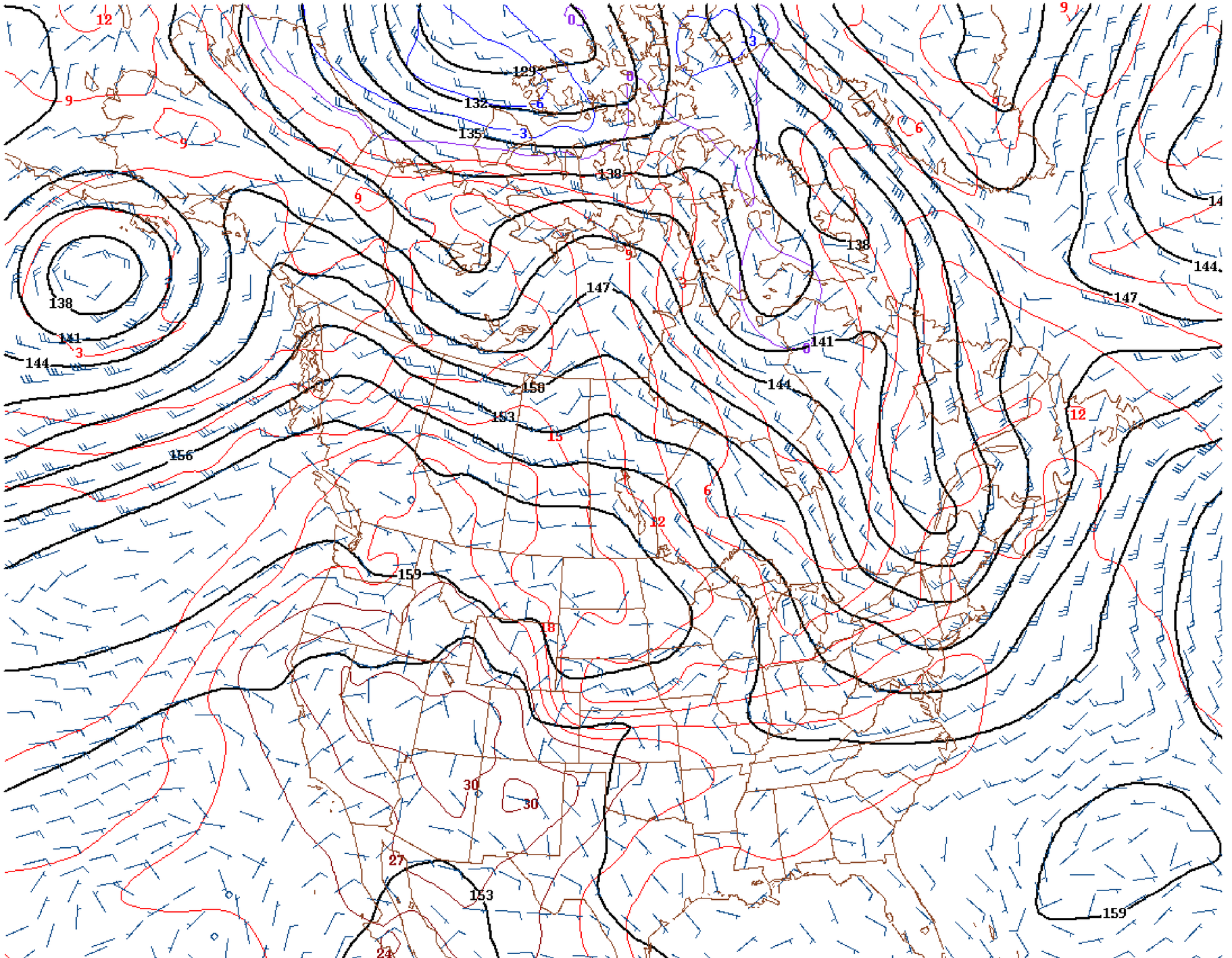
060721/1800V096 GFS 850 HGT, TEMP AND WIND (KTS)



WETTERKARTEN UND ZUGSTRASSEN

DER LUFTDRUCK-MINIMA.

JUNIKÄLTE
16.–22. Juni 1884

HÄUFIGKEIT UND MITTLERE ZUGSTRASSEN der BAROMETRISCHEN MINIMA
von W. Köppen
1:45.000.000

ERKLÄRUNG

Mittlere Zahl der Morgenpositionen barometrischer Minima im Laufe des Jahres auf der Flächeneinheit v. 6858 geogr. Quadrat-Meilen	30 u. mehr	Isothermen	ca. 38 Minima im Jahr
	25 30		12 – 15
	20 25		9 – 12
	15 20		6 – 9
	10 15		3 – 6
	5 10	Konvergenz u. Strahlungsgebiet I. Ordnung	
	unter 5	desgl. II. Ordnung	

NORDATLANT. MINIMUM
11. Januar 1885

SCIROCCO
im Adriat. Meer
25. Febr. 1879

BAROMETER-MINIMUM
23. Februar 1879

BAROMETER-MINIMUM
24. Februar 1879

BAROMETER-MINIMUM
26. Februar 1879

BORASTURM
in Dalmatien
19. Januar 1885

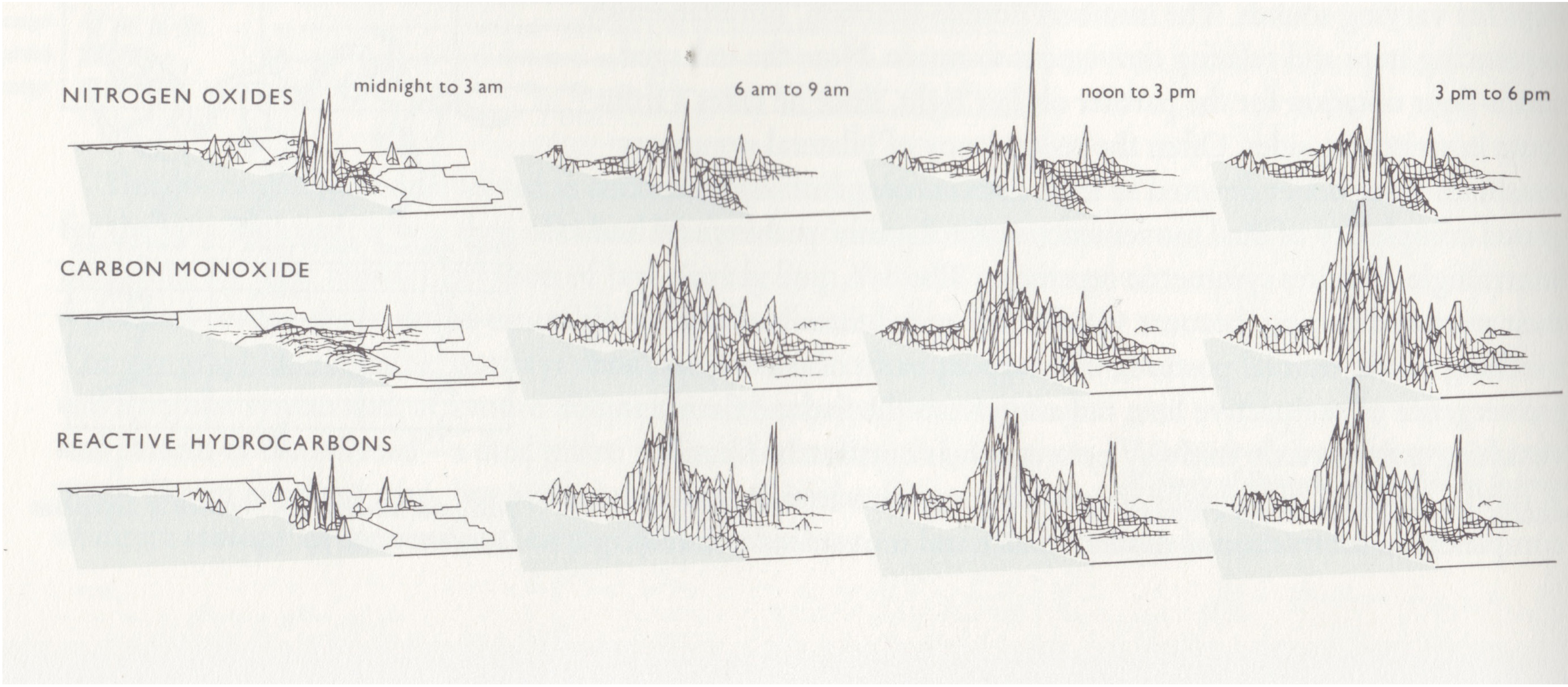
FÖHN
31. Januar 1885

FÖHN
AUF DER NORDSEITE DER ALPEN
31. Januar 1885, 7h Morgens
1:3.000.000

Erklärung
wolkenlos, heiter, halbbedeckt, wolkig, bedeckt, * Schnee, ▬ Nebel. Regen. Die Pfeile u. deren Befiederung bezeichnen Richtung u. Stärke des Windes. Aufrechte Ziffern bei d. Stationen bedeuten. Feuchtigkeit, liegende die Temperatur. Höhe über 1000 Meter

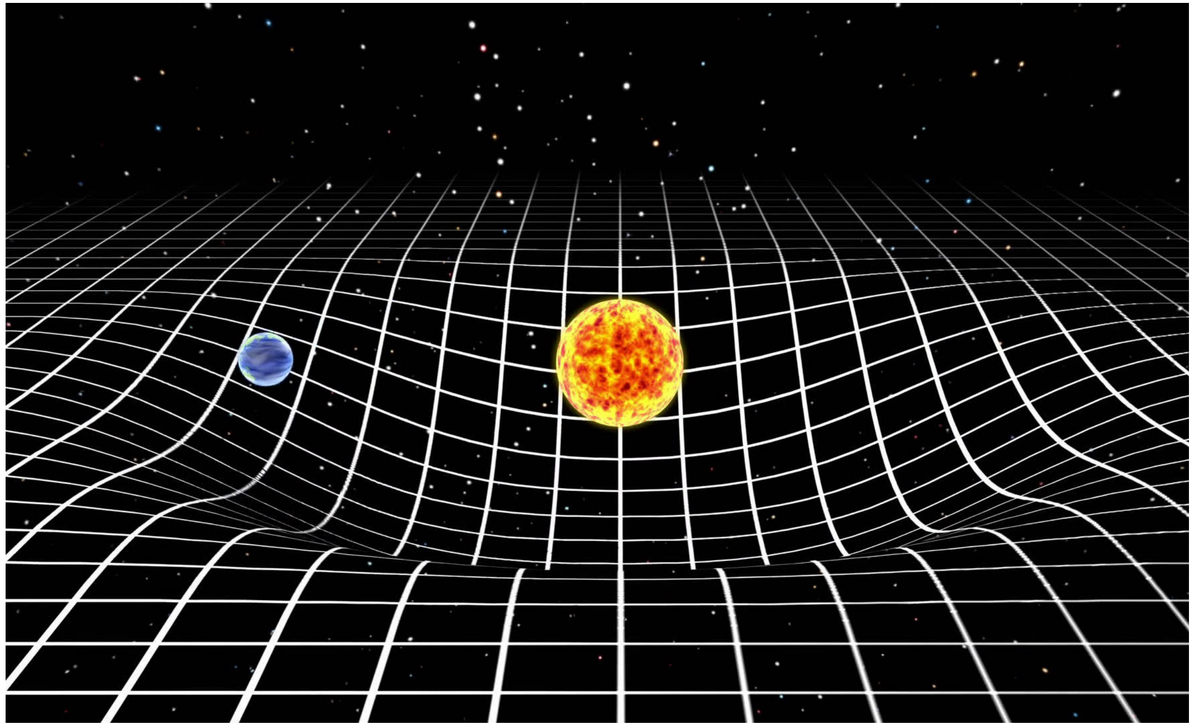
NORDFÖHN
5. Okt. 1884

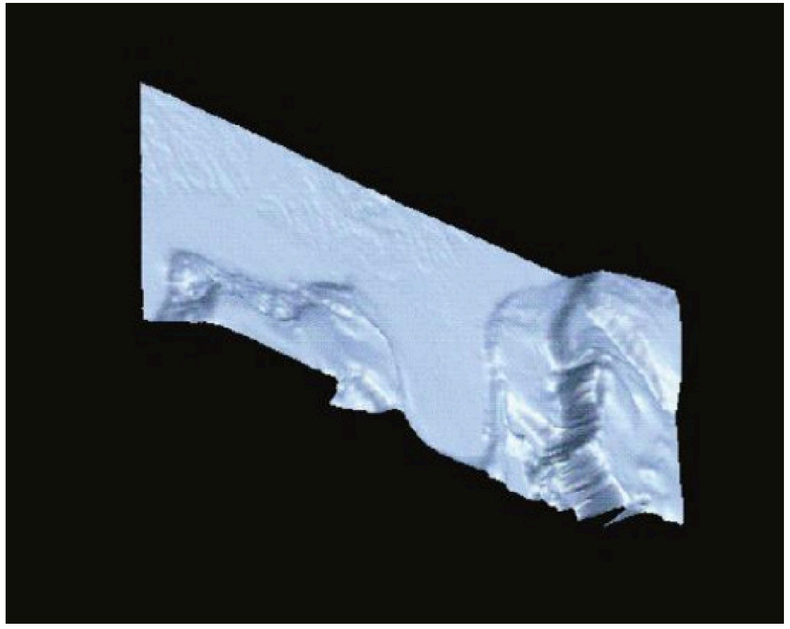
Entw. v. J. Hann 1885, Ausg. 1886.

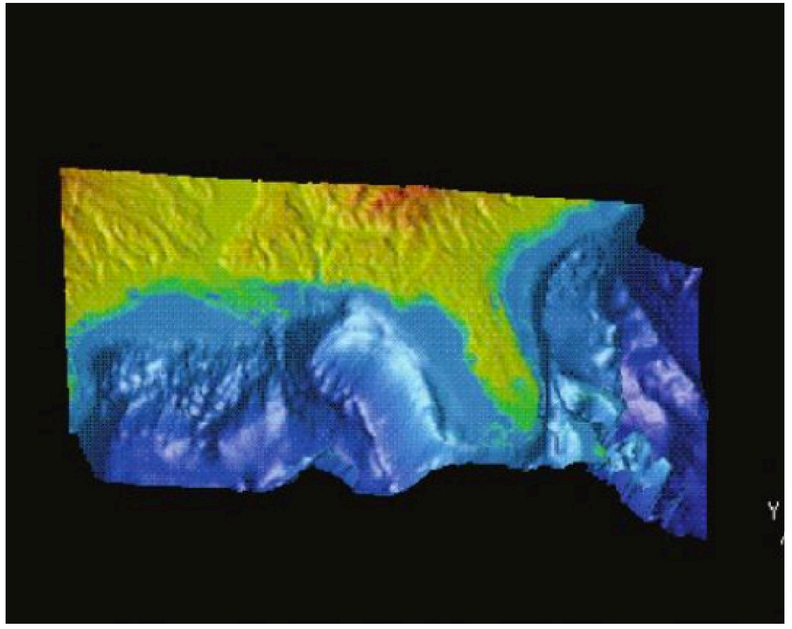

NITROGEN OXIDES
midnight to 3 am
6 am to 9 am
noon to 3 pm
3 pm to 6 pm
CARBON MONOXIDE
REACTIVE HYDROCARBONS

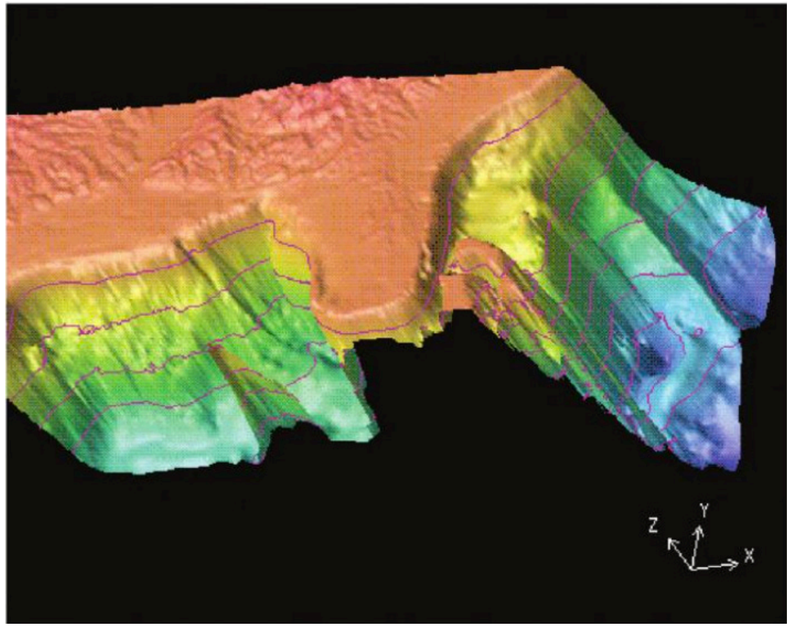
Rubber Sheet

Like a heat map, but used to map four or more dimensions, through the use of a colored, three dimensional surface.



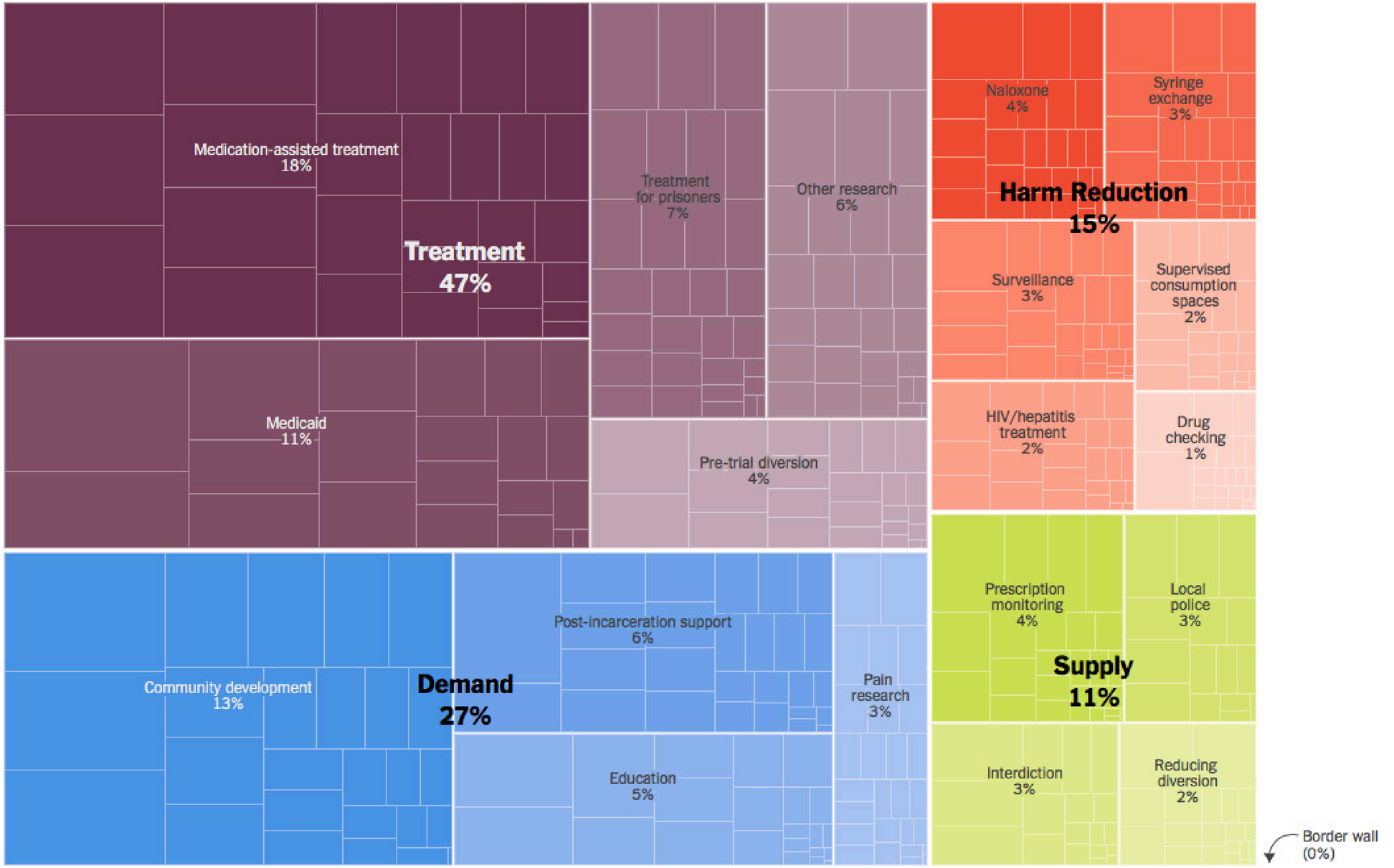



Y


Z
Y
X

Tree Maps

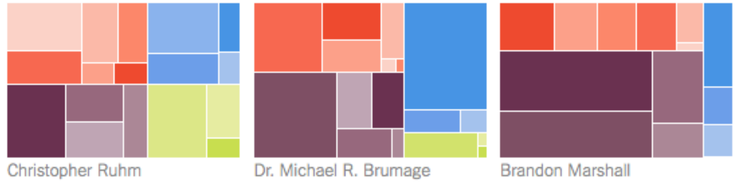
First popularized by Shneiderman in [Shneiderman, 1992], and later used for Wattenberg's successful "Map of the Market" that depicts a hierarchically ordered set of boxes within boxes for the sectors, and largest stocks in the market.


Medication-assisted treatment
18%
Treatment
47%
Medicaid
11%
Treatment
for prisoners
7%
Other research
6%
Pre-trial diversion
4%
Naloxone
4%
Syringe
exchange
3%
Harm Reduction
15%
Surveillance
3%
Supervised
consumption
spaces
2%
HIV/hepatitis
treatment
2%
Drug
checking
1%
Community development
13%
Demand
27%
Post-incarceration support
6%
Education
5%
Pain
research
3%
Prescription
monitoring
4%
Supply
11%
Local
police
3%
Interdiction
3%
Reducing
diversion
2%
Border wall
(0%)

Panelists who emphasized supply

Stephanie Patton | Dr. Tom Frieden | J. Scott Thomson

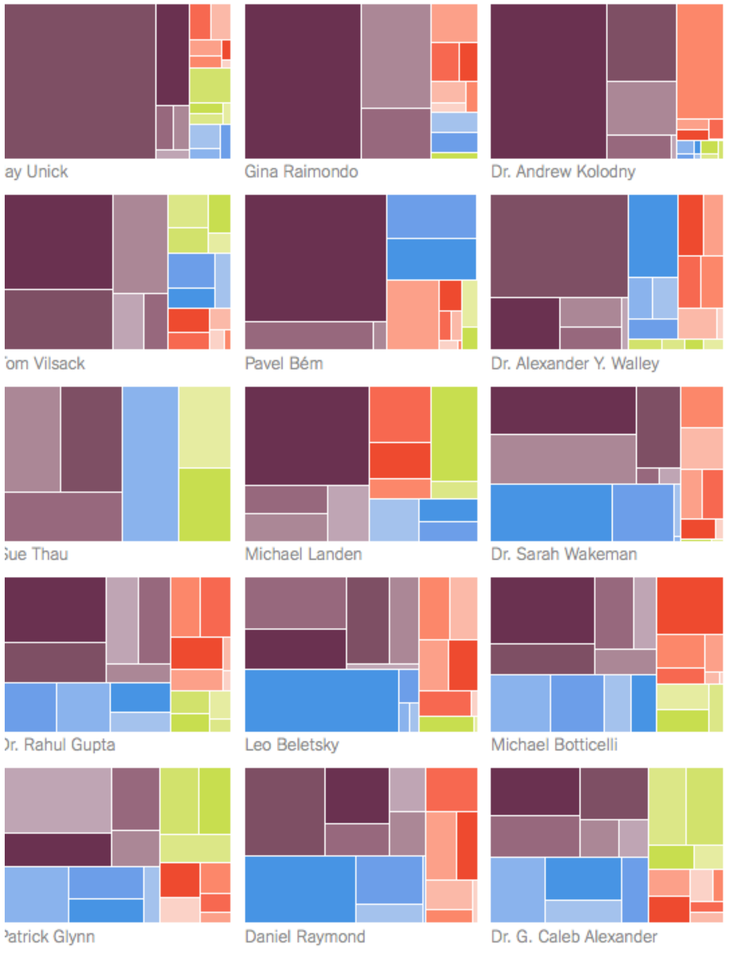
Panelists who emphasized harm reduction



Christopher Ruhm | Dr. Michael R. Brumage | Brandon Marshall

Keith Humphreys

Panelists who emphasized treatment



ay Unick | Gina Raimondo | Dr. Andrew Kolodny

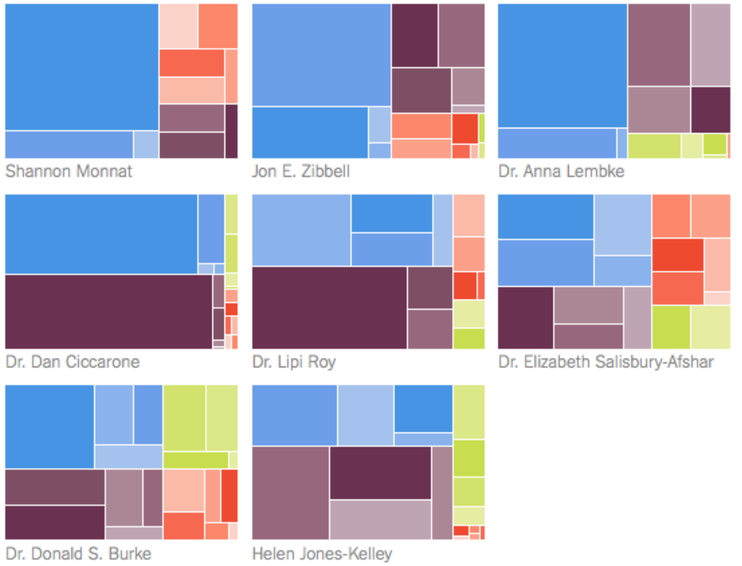
om Vilsack | Pavel Bém | Dr. Alexander Y. Walley

ue Thau | Michael Landen | Dr. Sarah Wakeman

r. Rahul Gupta | Leo Beletsky | Michael Botticelli

atrick Glynn | Daniel Raymond | Dr. G. Caleb Alexander

Panelists who emphasized demand

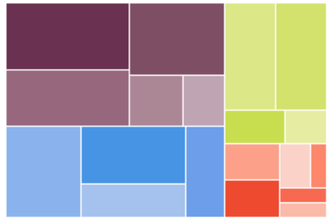


Shannon Monnat | Jon E. Zibbell | Dr. Anna Lembke

Dr. Dan Ciccarone | Dr. Lipi Roy | Dr. Elizabeth Salisbury-Afshar

Dr. Donald S. Burke | Helen Jones-Kelley

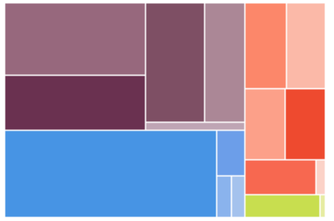
Panel of Experts



Dr. G. Caleb Alexander

Co-Director, Johns Hopkins Center for Drug Safety and Effectiveness

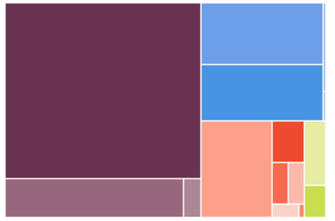
+ Expand



Leo Beletsky

Associate Professor of Law and Health Sciences, Northeastern University

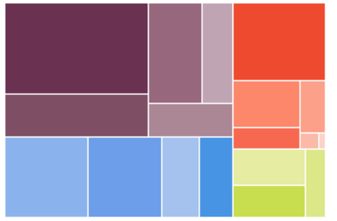
+ Expand



Pavel Bém

Commissioner, Global Commission on Drug Policy

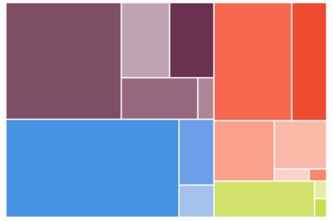
+ Expand



Michael Botticelli

Executive Director, Grayken Center for Addiction, Boston Medical Center, and former director of the Office of National Drug Control Policy

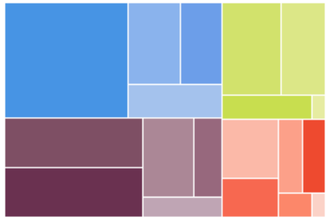
+ Expand



Dr. Michael R. Brumage

Director of the West Virginia Office of Drug Control Policy and Assistant Dean for Public Health Practice and Service, W.V.U. School of Public Health

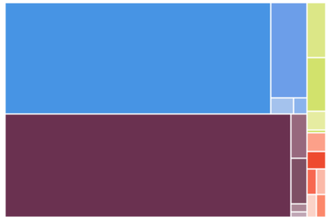
+ Expand



Dr. Donald S. Burke

Dean, Graduate School of Public Health, University of Pittsburgh

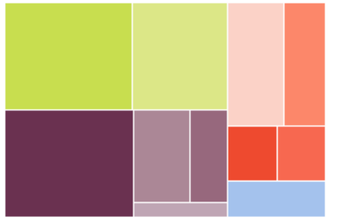
+ Expand



Dr. Dan Ciccarone

Professor of Family and Community Medicine, University of California, San Francisco

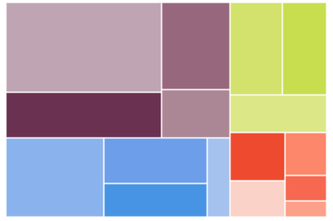
+ Expand



Dr. Tom Frieden

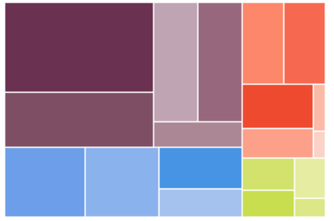
President and C.E.O., Resolve to Save Lives; former Director of the C.D.C.

+ Expand



Patrick Glynn

Lieutenant Detective Commander, Quincy (Mass.) Police, and Commander of Quincy Police Drug Control Unit



Dr. Rahul Gupta

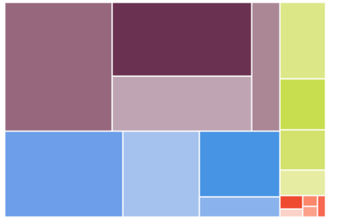
West Virginia Commissioner of Public Health and State Health Officer

+ Expand

Keith Humphreys

Esther Ting Memorial Professor, Stanford University

+ Expand

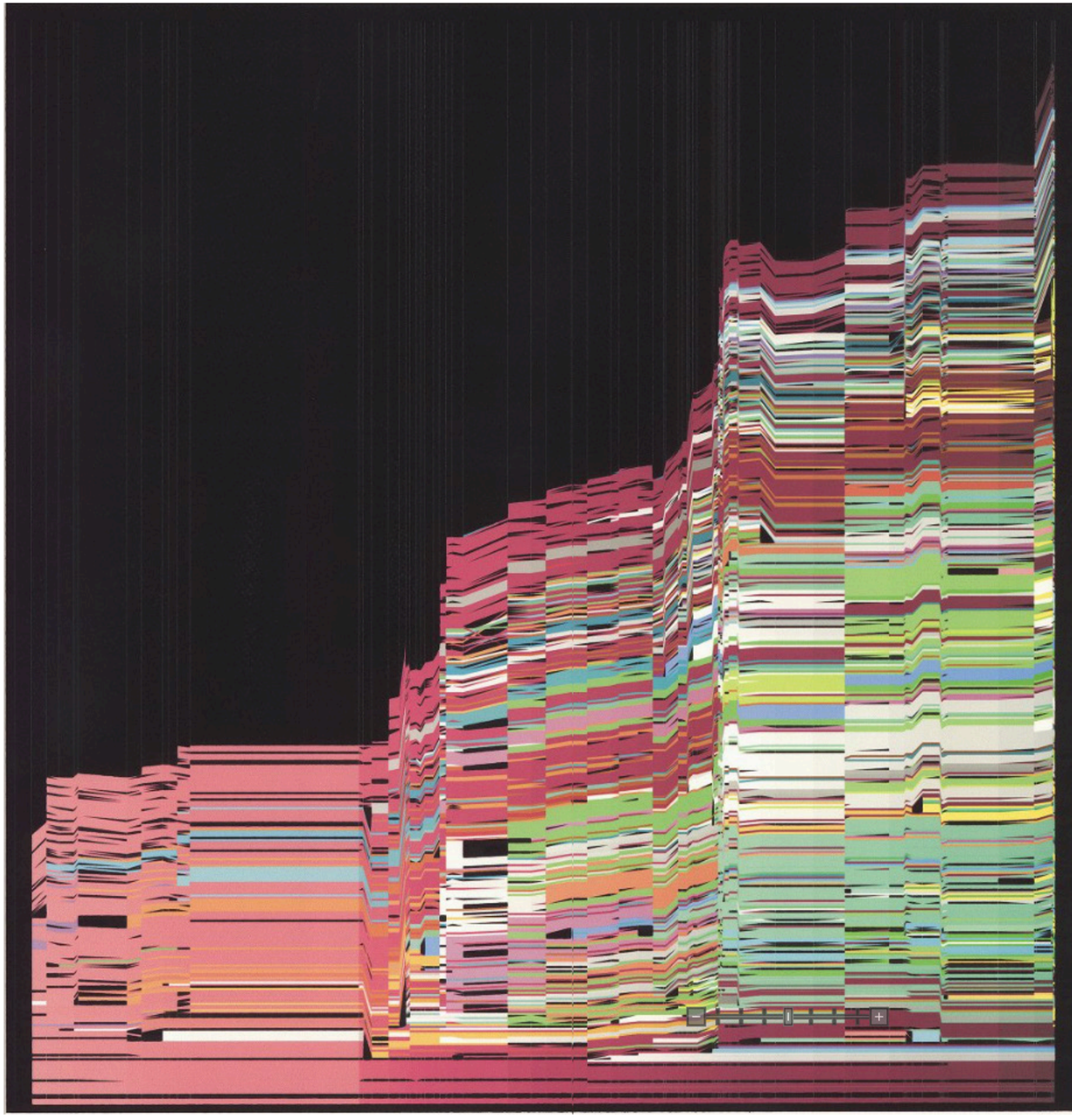


Helen Jones-Kelley

Executive Director, Montgomery County (Ohio) Alcohol, Drug Addiction and Mental Health Services

Visual Diff

A common differencing representation that shows two columns of text connected by lines to show where changes have been made between the two versions.



Evolution - Wikipedia

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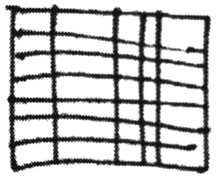
Evolution

(Revision as of 07:17, 16 Jul 2003)

Evolution is any process of growth, change or development. The word stems from the Latin evolutio meaning "unfolding" and prior to the late 1800s was confined to referring to goal-directed, pre-programmed processes such as embryological development. A pre-programmed task, as in a military maneuver, using this definition, may be termed an "evolution." One can also speak of stellar evolution, chemical evolution, cultural evolution or the evolution of an idea. Other kinds of evolution include evolutionary algorithms which attempt to mimic processes similar to biological evolution in a computer program, most frequently as an optimization technique and as an experimental framework for the computational modelling of evolution.

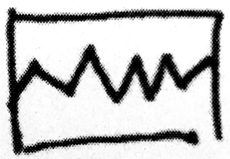
In the 19th century the word "evolution" was identified with improvement. It was clear to European thinkers at that time -- in the wake of the Enlightenment and the French Revolution -- that human societies evolved; many people have claimed the same about the evolution of biological species. In the 20th century, most social scientists came to reject the strict identification of social and cultural change with improvement (see also social evolution and cultural evolution); Most interpretations of Darwin's account of evolution similarly argue against identifying biological changes with improvement.

Since the 19th century "evolution" is generally used in reference to *biological evolution*, changes in allele frequencies in a population from one generation to another. Often it is shorthand for the modern



table

scatter plot



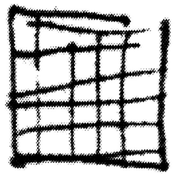
line graph

bar graph

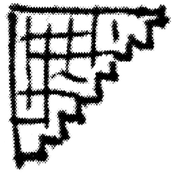
box plot

physical map

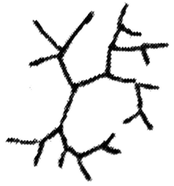
heat map



numeric matrix



half matrix



tree

graph

histogram

dendogram

parallel coordinates (linear)

star plot

permutation matrix

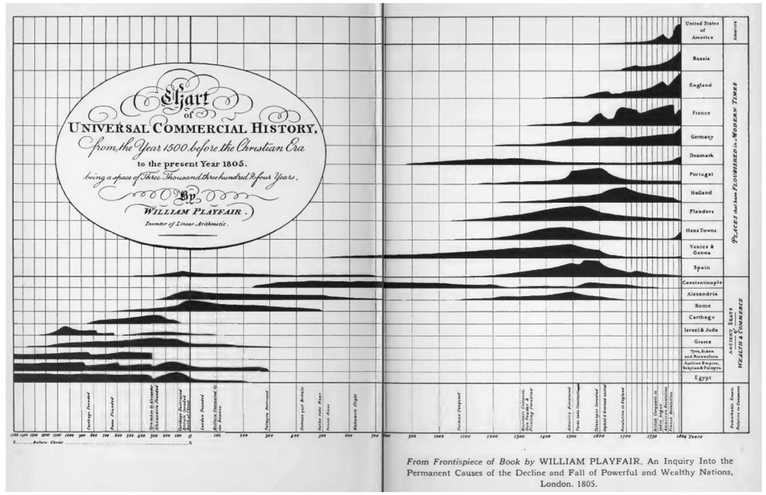
survey plot/ table lens

rubber sheet

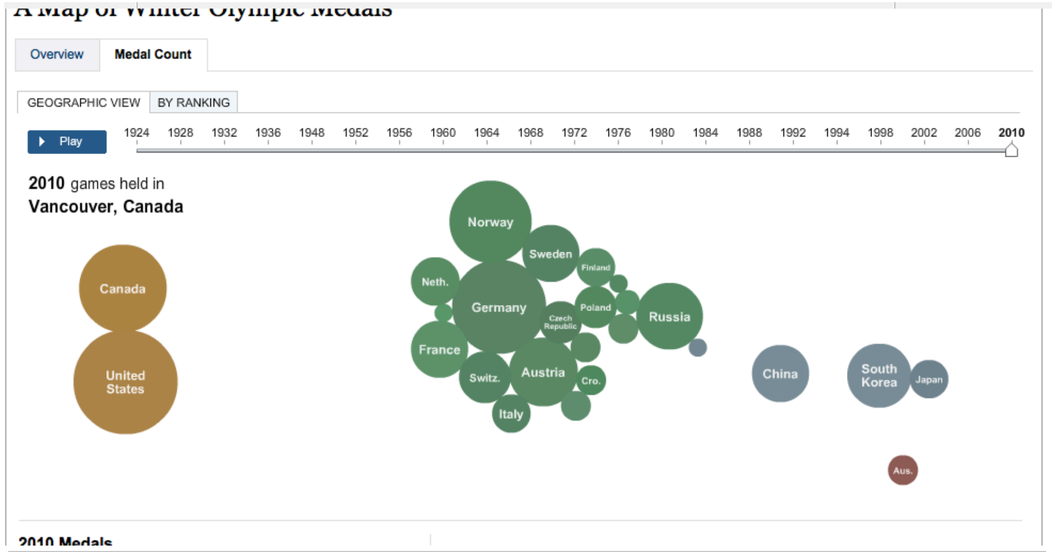
2d/3d isosurfaces

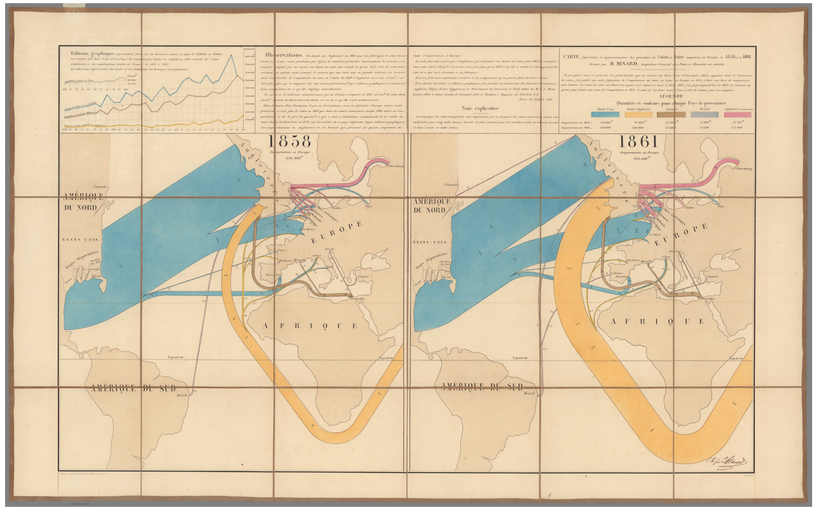
tree map

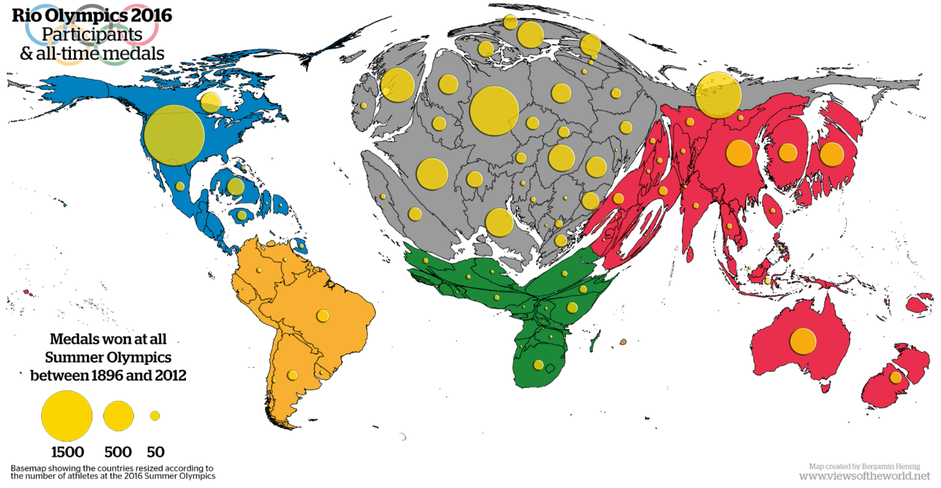
visual diff



From Frontispiece of Book by WILLIAM PLAYFAIR, An Inquiry Into the Permanent Causes of the Decline and Fall of Powerful and Wealthy Nations, London. 1805.







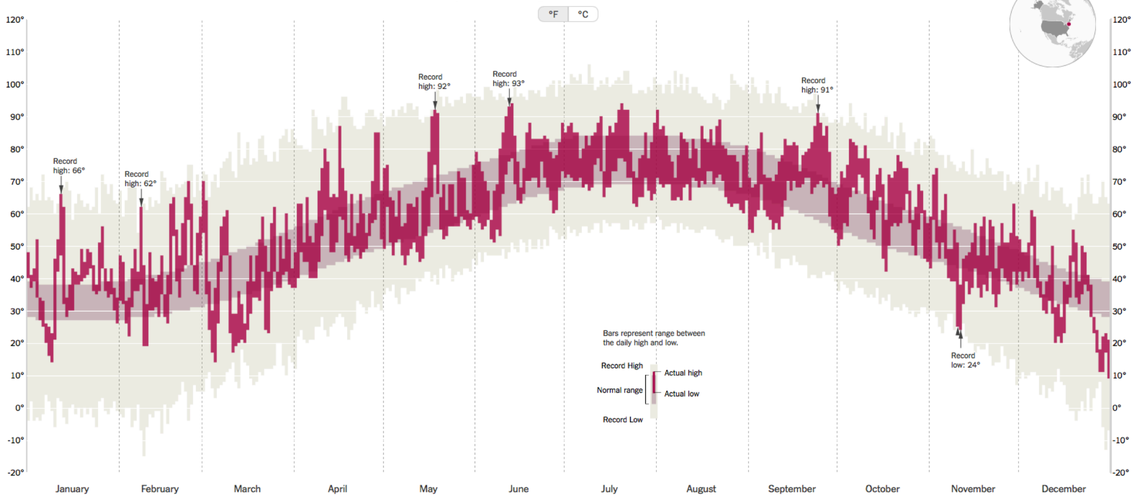
How Much Warmer Was Your City in 2017?

By K.K. REBECCA LAI JAN. 21, 2018

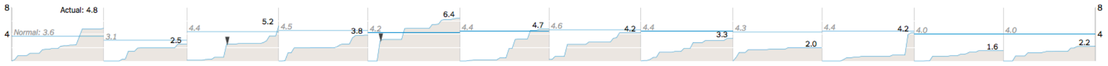
Last year was the second hottest year on record. In a database of more than 3,800 cities compiled by AccuWeather, about 88 percent recorded annual mean temperatures higher than normal. Enter your city below to see how much warmer or cooler it was.

New York City, N.Y.

Temperature Average: 56.4° ▲ **1.4° above** normal

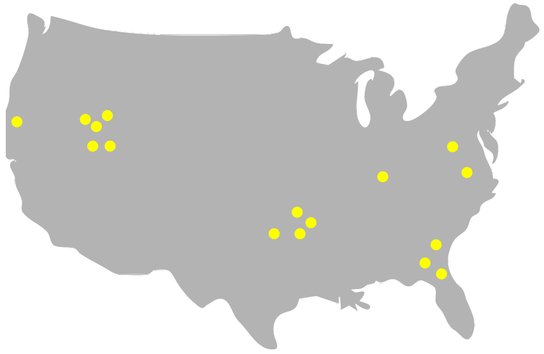


Precipitation Total: 45" ▼-4.9" less

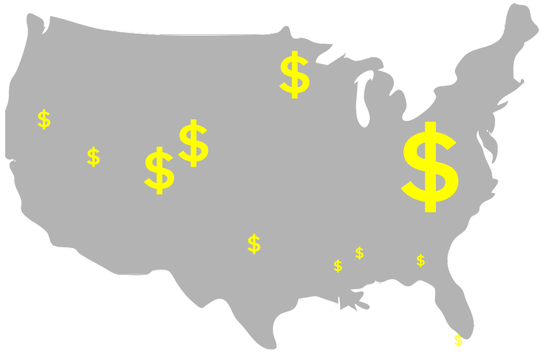


Cumulative monthly precipitation, in inches, compared with normal. Precipitation totals are rainfall plus the liquid equivalent of any frozen precipitation.

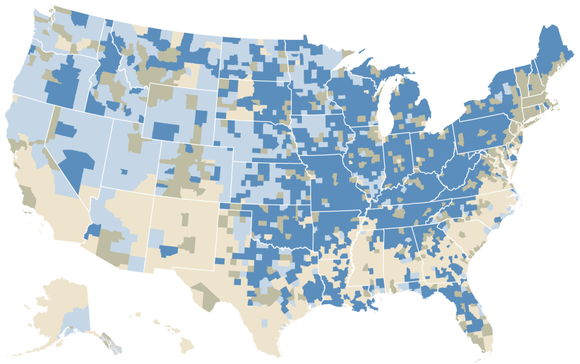
Dot distribution



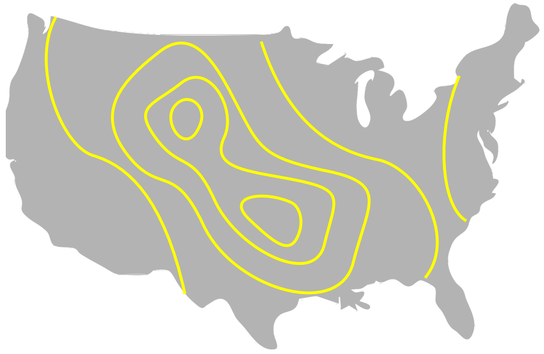
Graduated Symbol



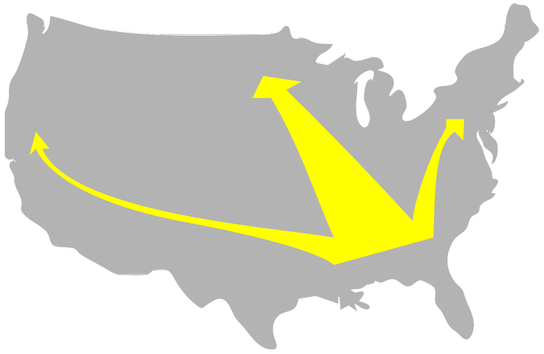
Choropleth



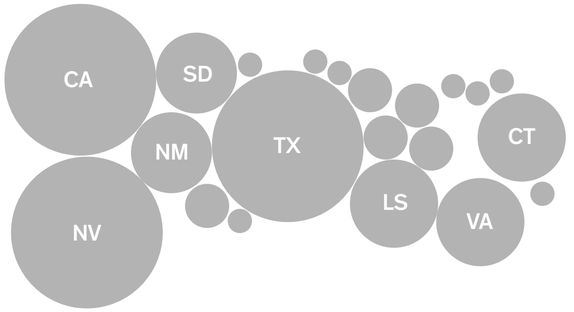
Isometric and Isopleth



Flow and Network



Area and Distance Cartograms



September 4, 2008

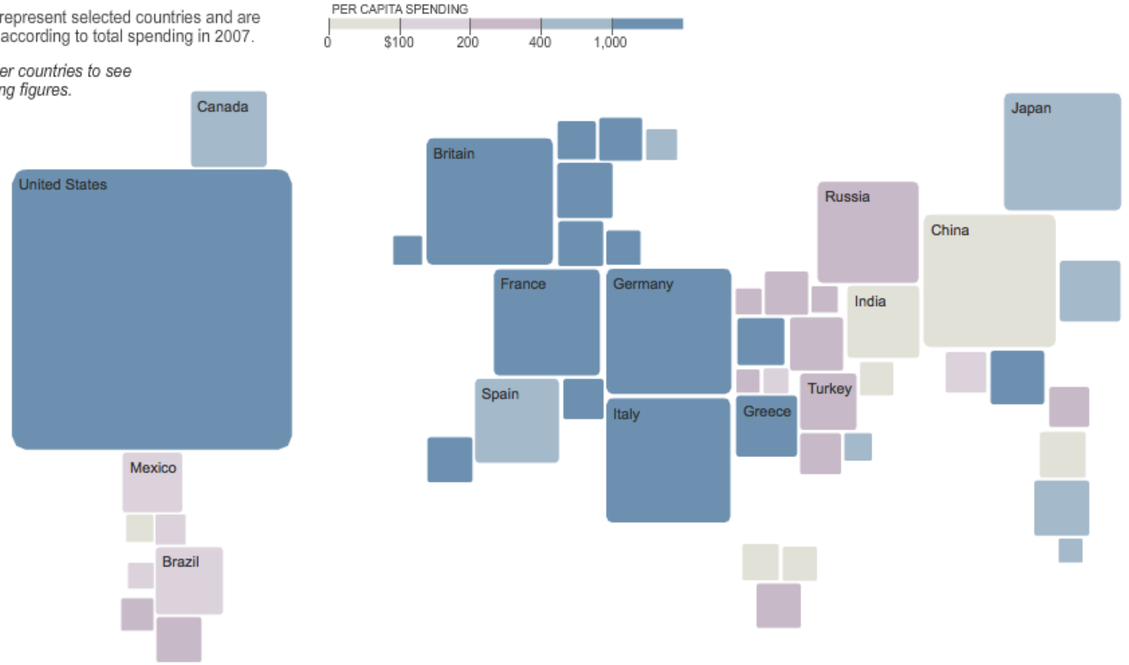
What Your Global Neighbors Are Buying

How people spend their discretionary income – the cash that goes to clothing, electronics, recreation, household goods, alcohol – depends a lot on where they live. People in Greece spend almost 13 times more money on clothing as they do on electronics. People living in Japan spend more on recreation than they do on clothing, electronics and household goods combined. Americans spend a lot of money on everything. Related Article

CLOTHING & FOOTWEAR | ELECTRONICS | ALCOHOL & TOBACCO | HOUSEHOLD GOODS | RECREATION

Boxes represent selected countries and are scaled according to total spending in 2007.

Roll over countries to see spending figures.



Includes new clothing and footwear as well as cleaning and repair. Excludes sports-related footwear.

Includes new clothing and footwear as well as clean

Source: Euromonitor International

September 4, 2008

E-MAIL | FEEDBACK

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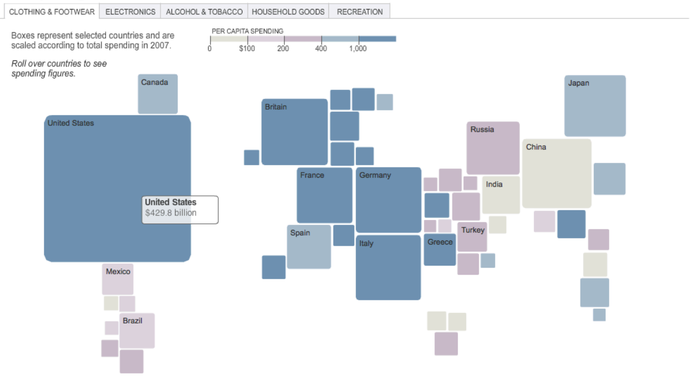

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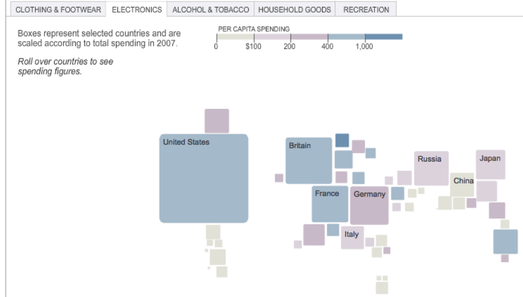

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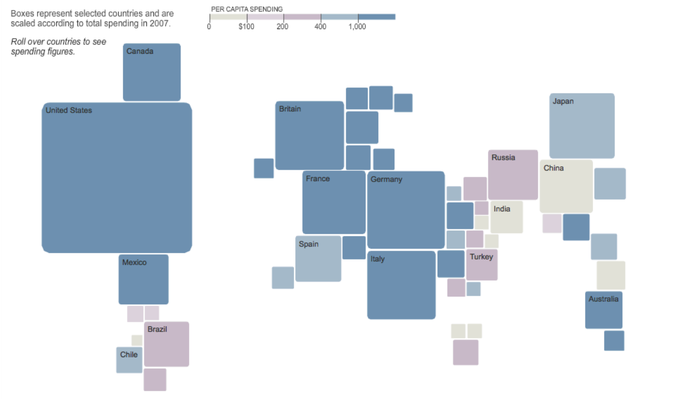

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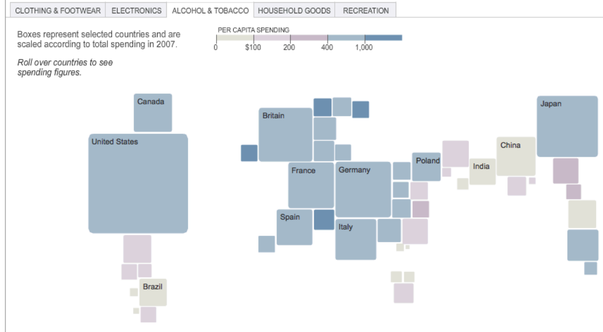
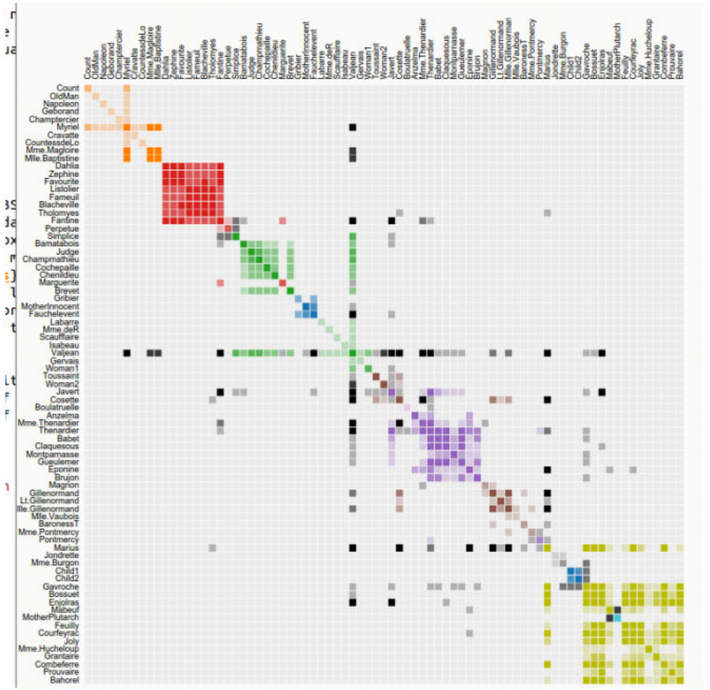
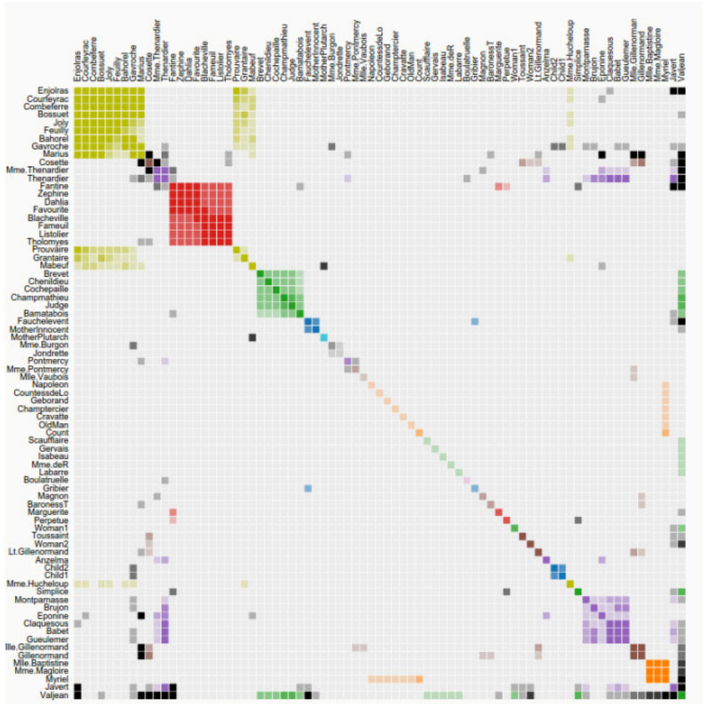
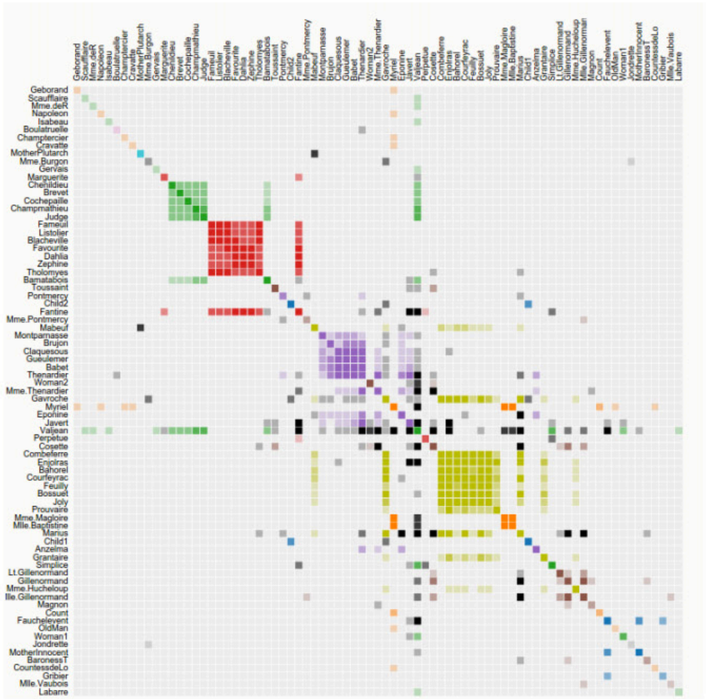
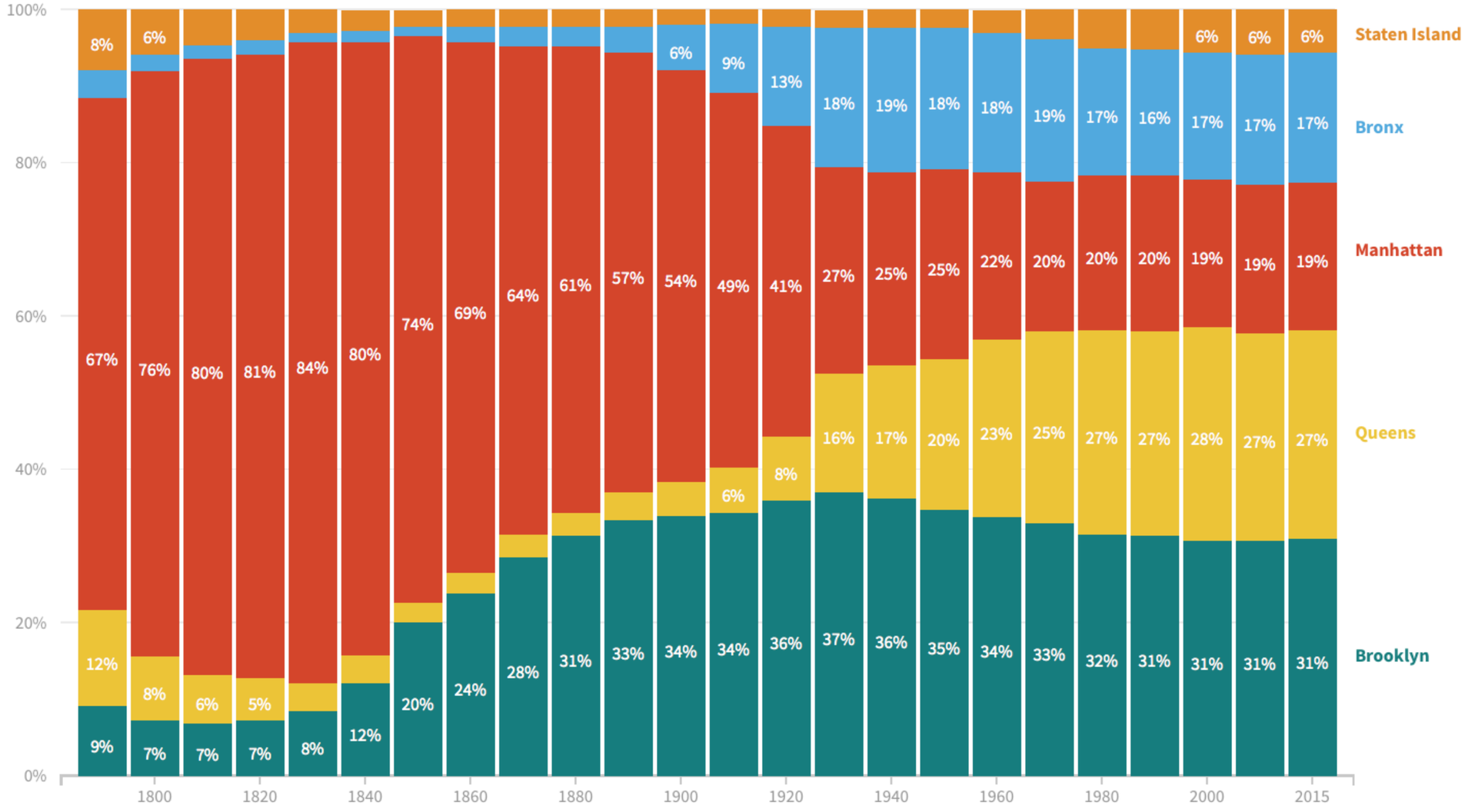








NYC Population, By Borough Proportion: 1790-2015



Data: Wikipedia

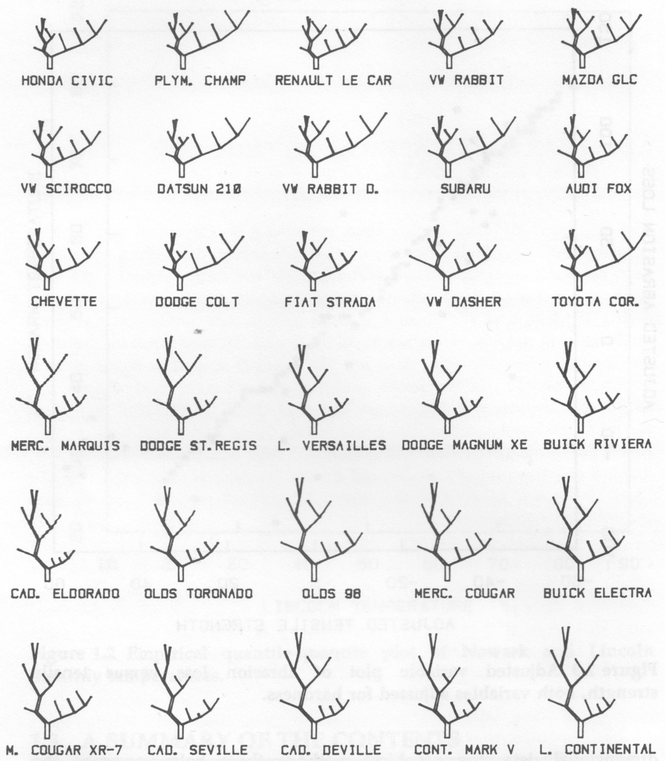
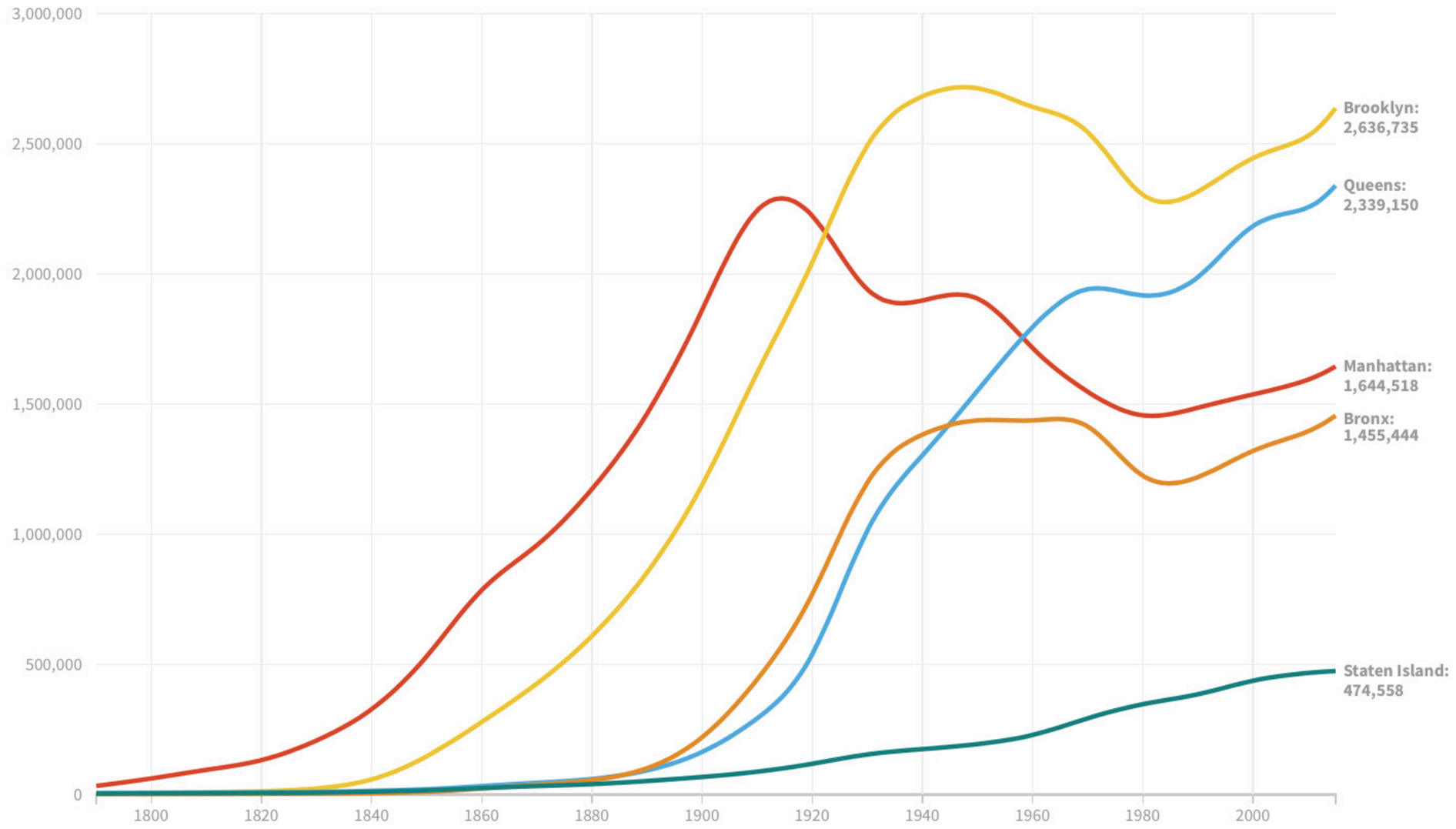


Figure 1.4 Kleiner-Hartigan trees.

underlying assumptions. Chapter 6 is about probability plots, which are designed for assessing formal distributional assumptions for the data. Chapter 7 covers graphical methods for regression, including methods for understanding the fit of the regression equation and methods for assessing the appropriateness of the regression model.

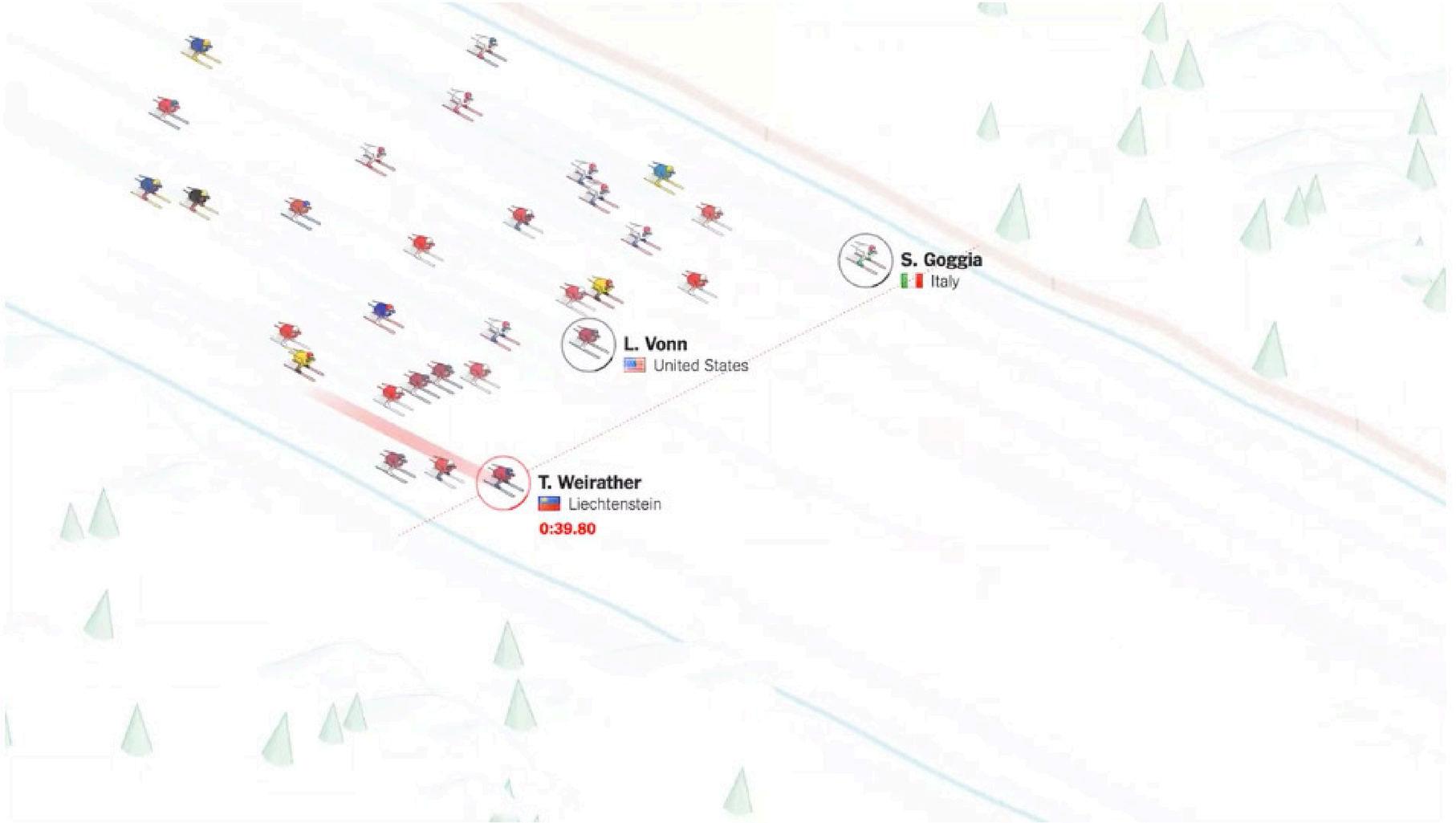
NYC Borough Population: 1790-2015



Data: Wikipedia

Credit: Matt Stiles/The Daily Viz

Norway.



Skiers complete the course individually, but are shown competing at the same time in this sped-up animation. Skiers are spread across the width of the course for clarity. Skiers who do not finish are not shown.