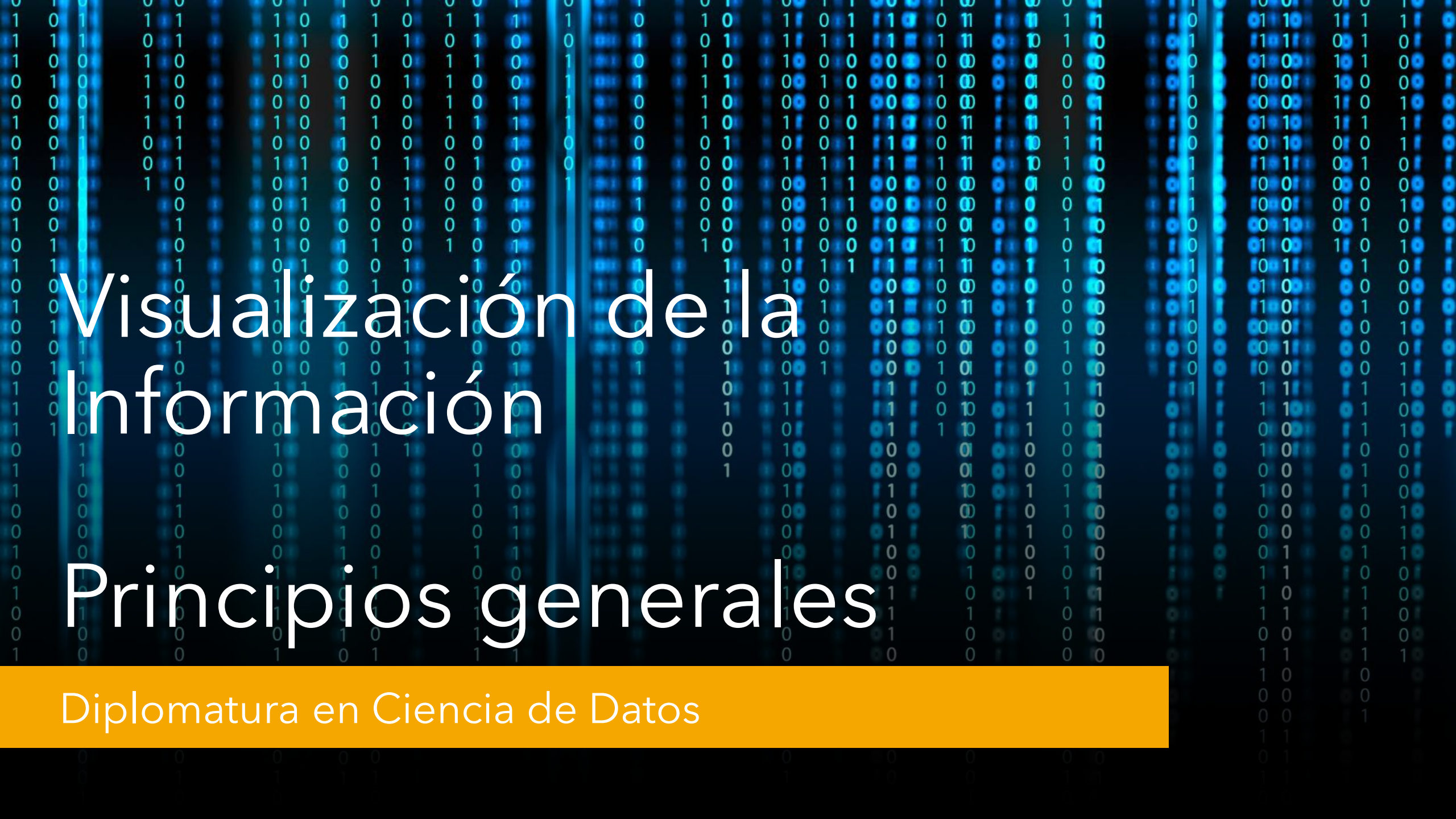


Visualización de la Información

Principios generales

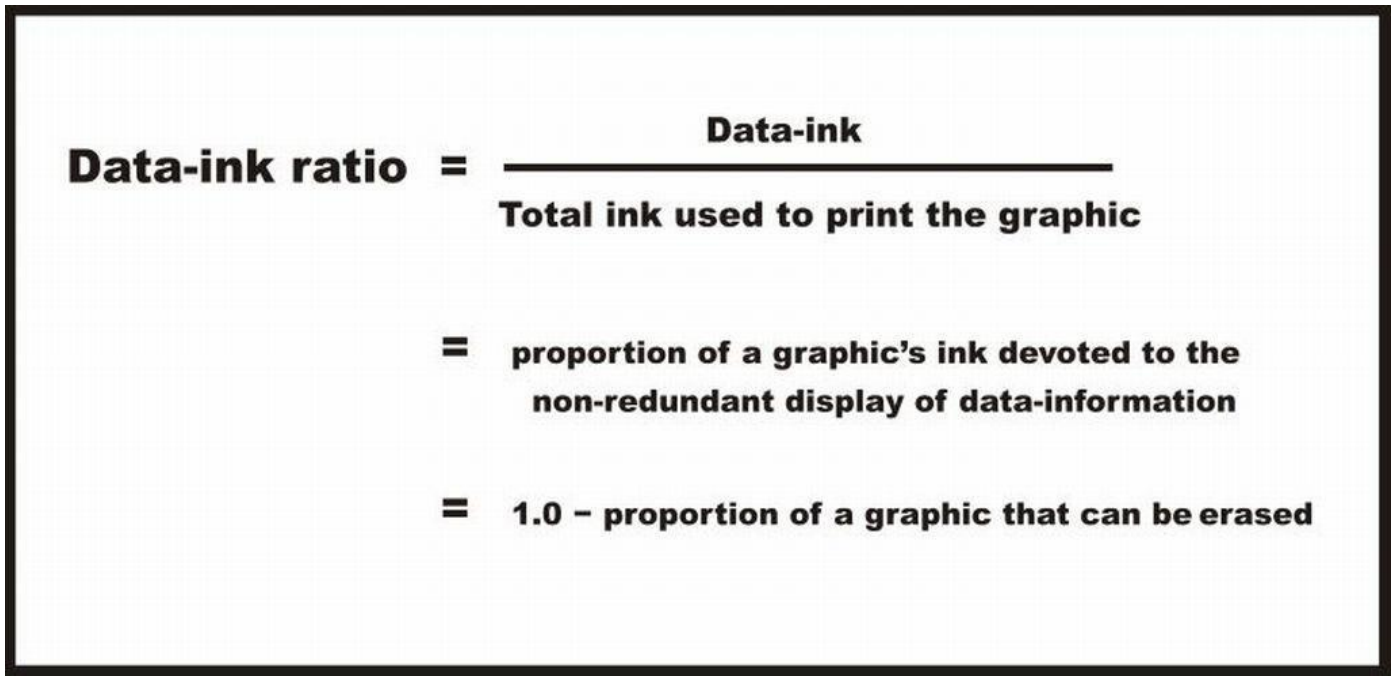
Diplomatura en Ciencia de Datos

Índice

- Data-Ink Ratio
- Dimensionalidad de los atributos gráficos
- Percepción pre-atentiva
- Razonamiento intuitivo

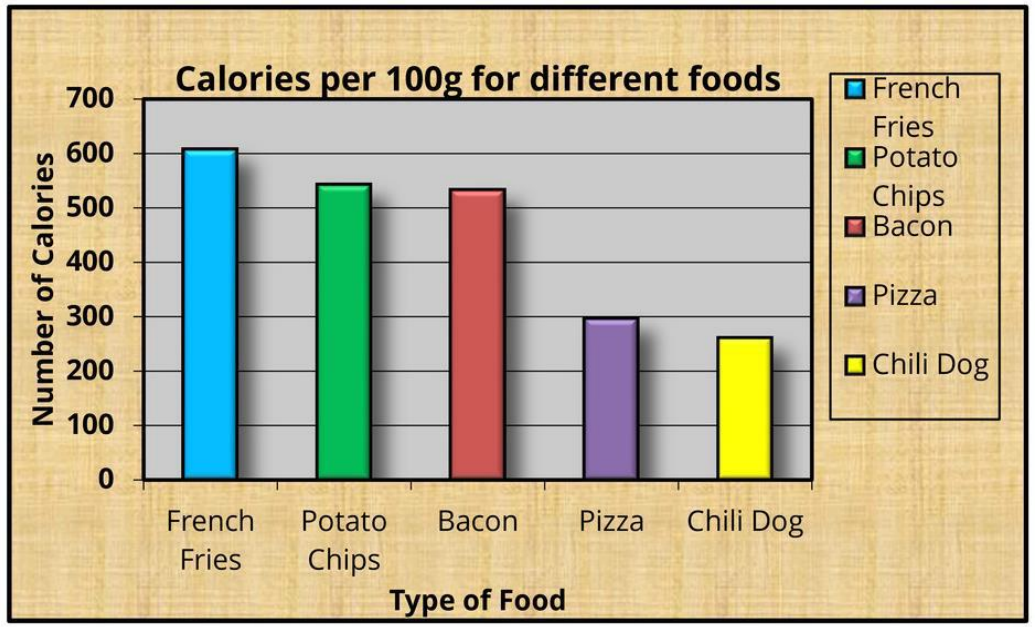
Data-Ink Ratio

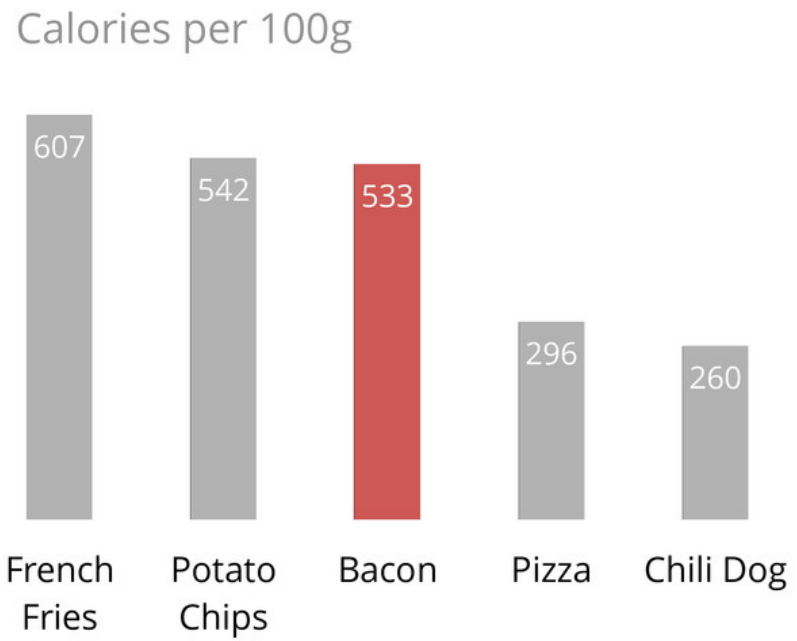
Data-Ink Ratio



Fuente: Tufte, E. (1983). The Visual Display of Quantitative Information. Graphics Press.

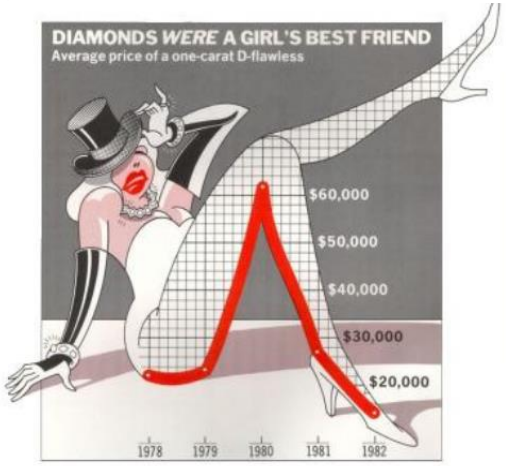
Data-Ink Ratio

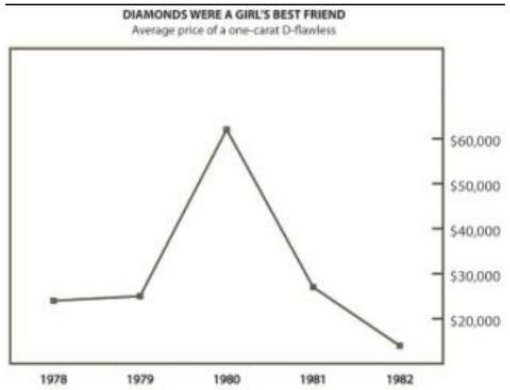


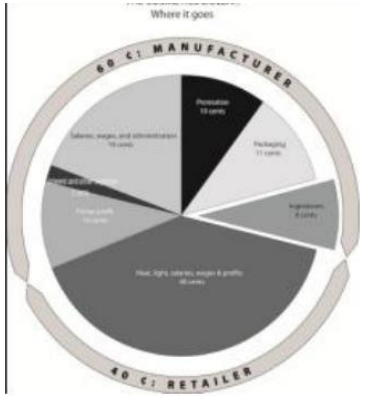


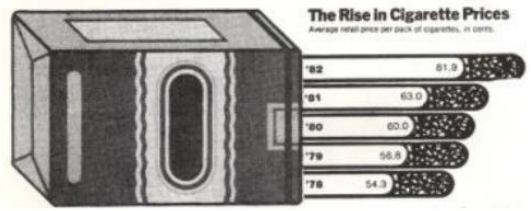
Fuente: Cherdarchuk, J. (2013). Data Looks Better Naked. Recuperado de: http://www.darkhorseanalytics.com/blog/data-looks-better-naked

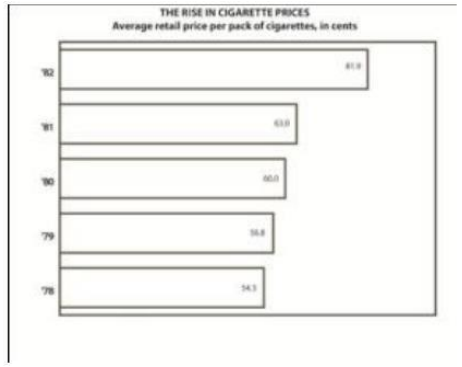
Data-Ink Ratio

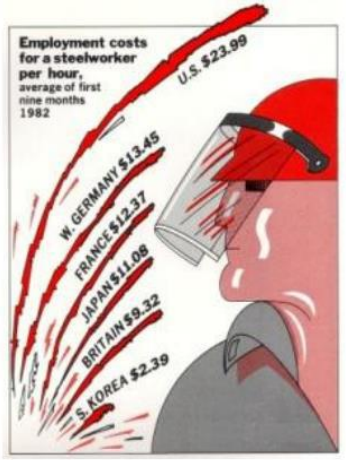


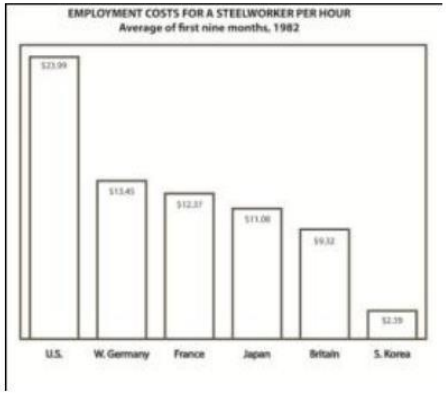






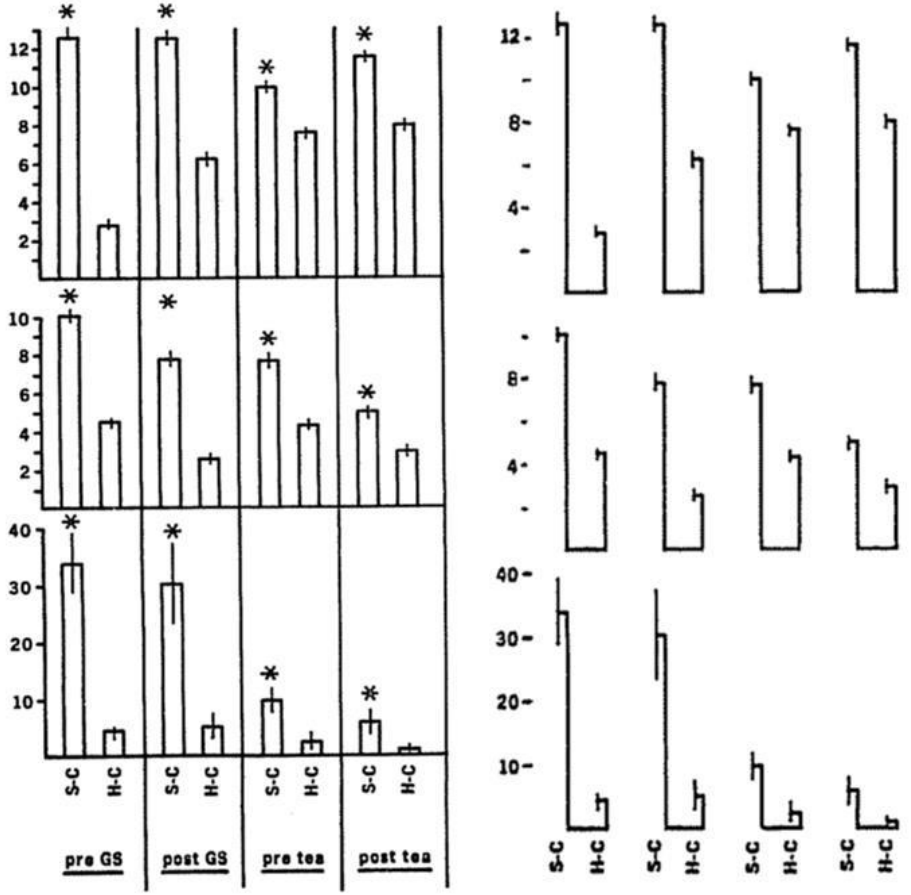






Fuente: Bateman, S., Mandryk, R.L., Gutwin, C., Genest, A.M., McDine, D., Brooks, C. 2010. Useful Junk? The Effects of Visual Embellishment on Comprehension and Memorability of Charts. InACM Conference on Human Factors in Computing Systems (CHI 2010), Atlanta, GA, USA. 2573-2582. Best paper award. DOI: 10.1145/1753326.1753716.

Data-Ink Ratio



Fuente: Inbar, O.; Tractinsky, N.; Meyer, J. (2007). Minimalism in Information Visualization –Attitudes towards Maximizing the Data-Ink Ratio. DOI: 10.1145/1362550.1362587

Dimensionalidad de los atributos gráficos

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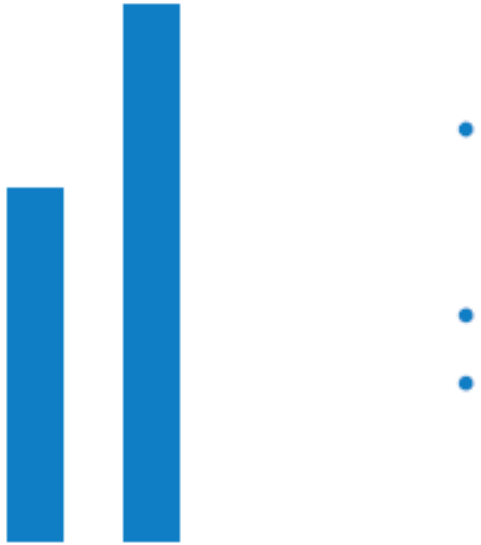
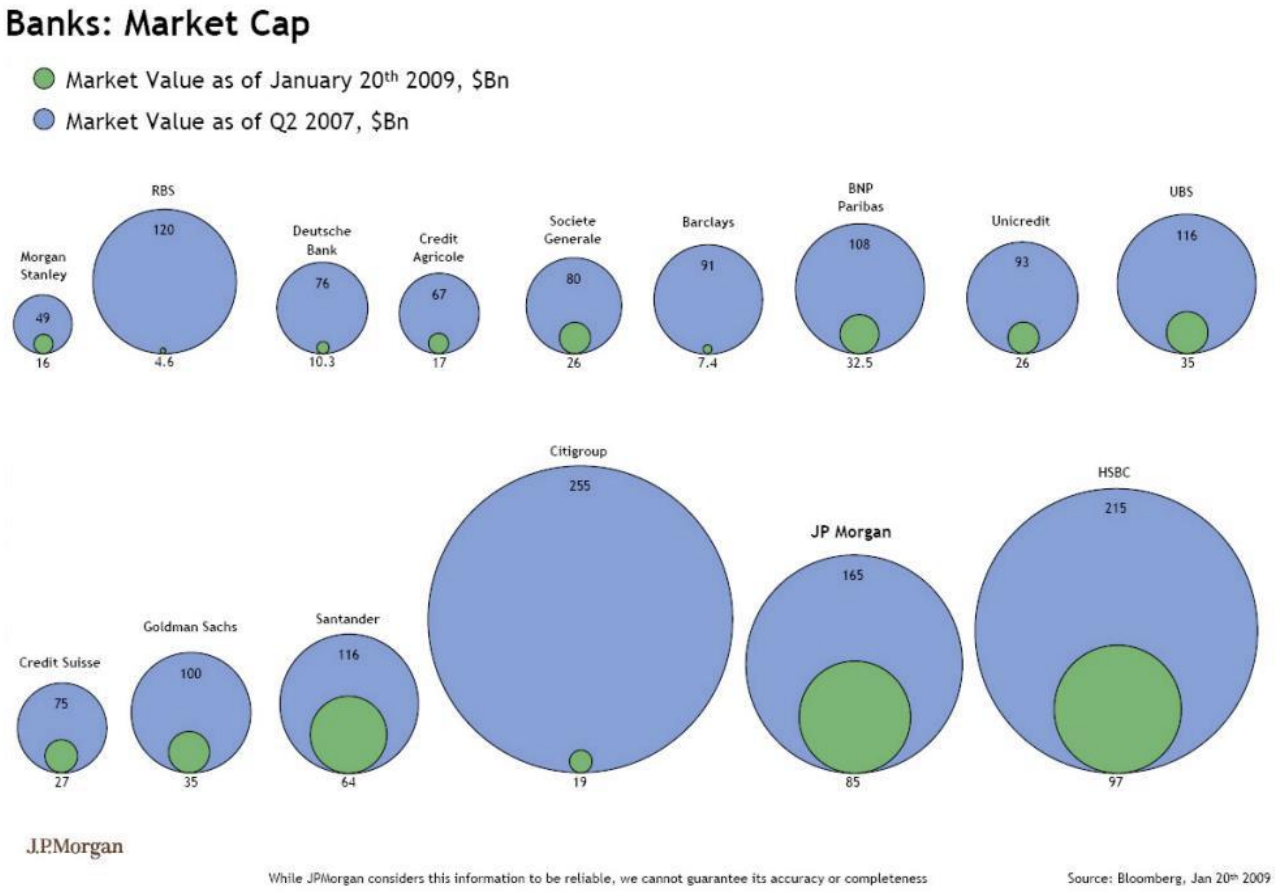
1D



2D

Dimensionalidad de los atributos gráficos



Fuente: Few, S. (2010). Our Irresistible Fascination with All Things Circular. Recuperado de: http://www.perceptualedge.com/articles/visual_business_intelligence/our_fascination_with_all_things_circular.pdf

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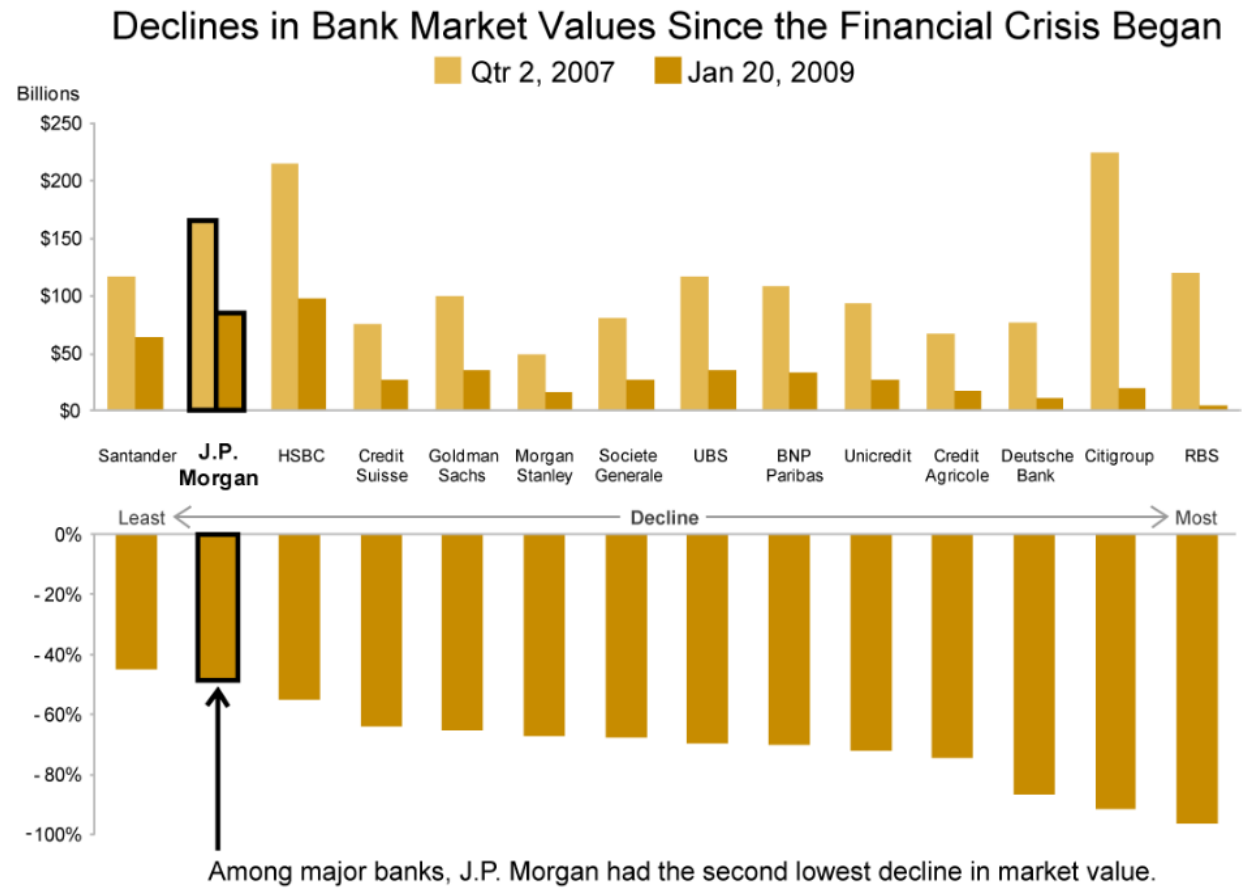

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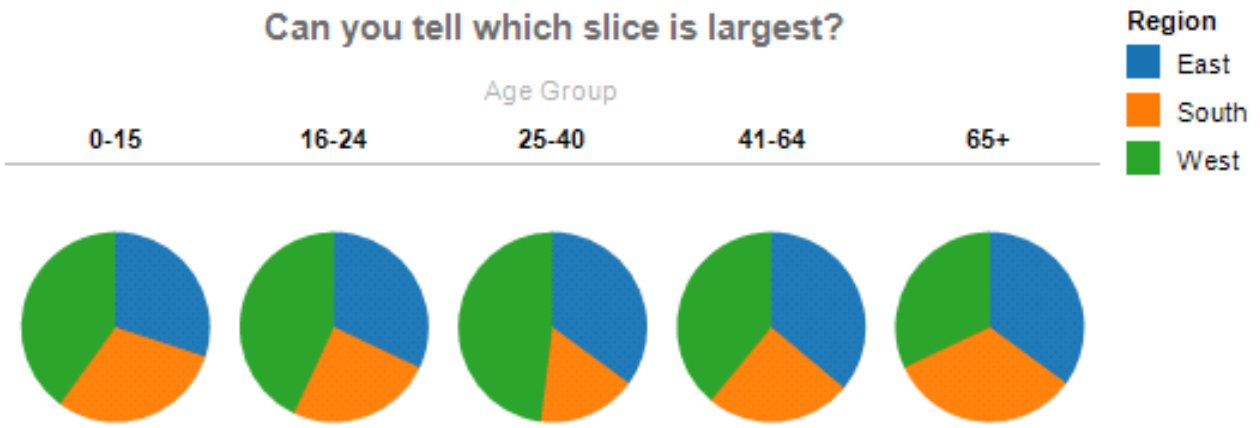

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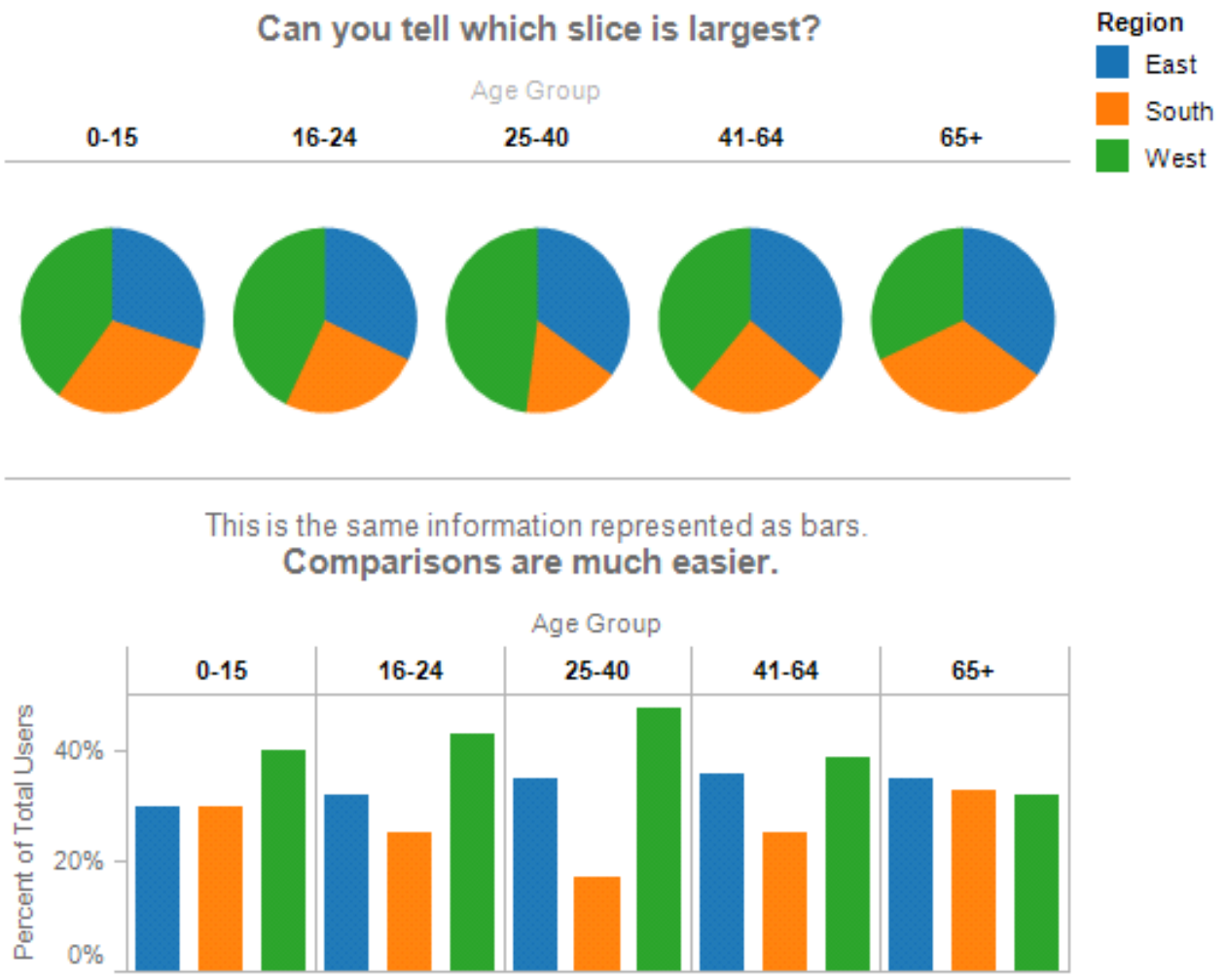

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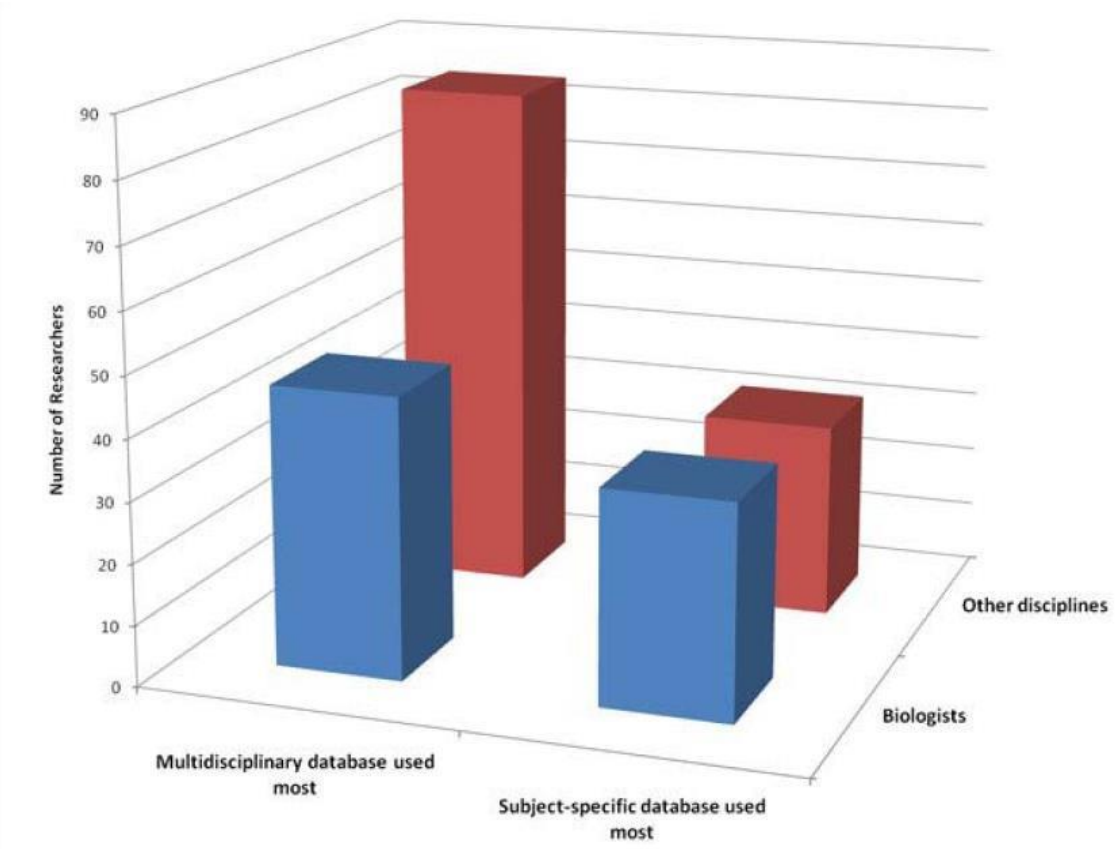

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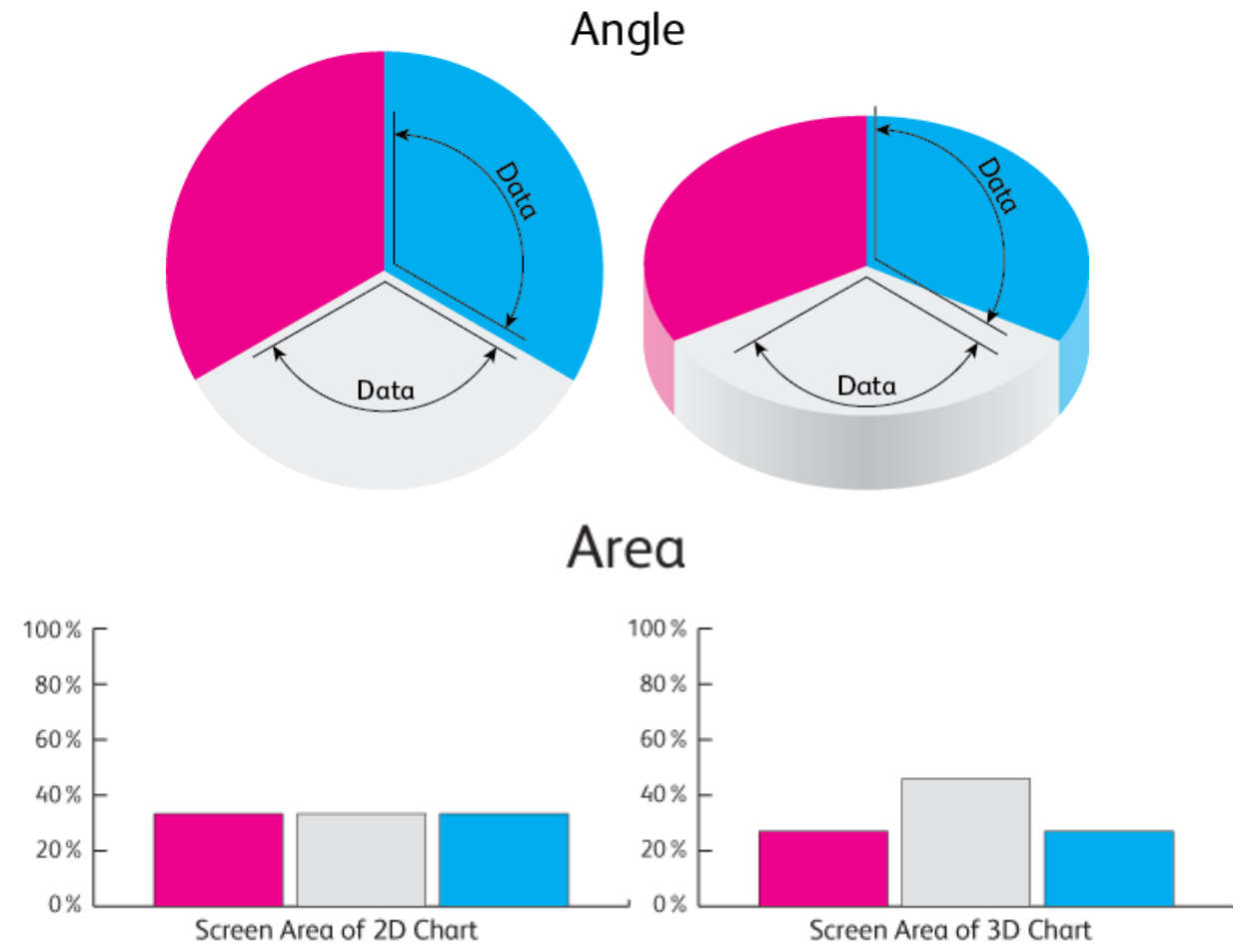

Fuente: Skau, D. (2011). 2D's Company, 3D's a Crowd [Artículo de blog]. Recuperado de: https://visual.ly/blog/2ds-company-3ds-a-crowd/

Percepción pre-atentiva

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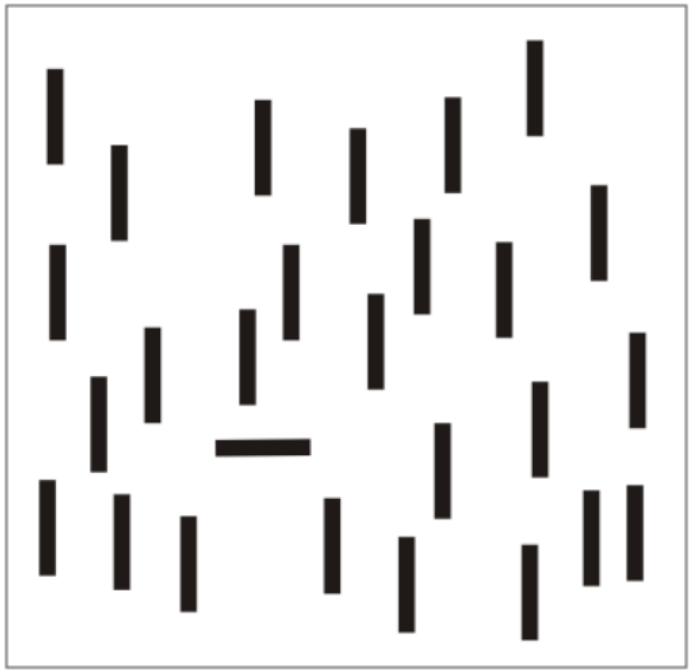

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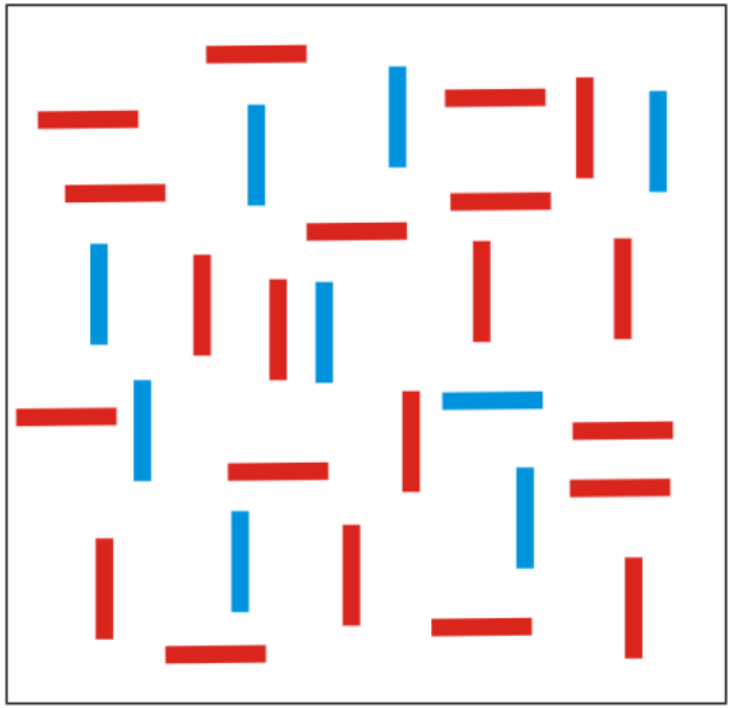

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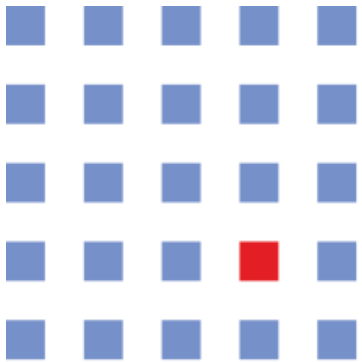

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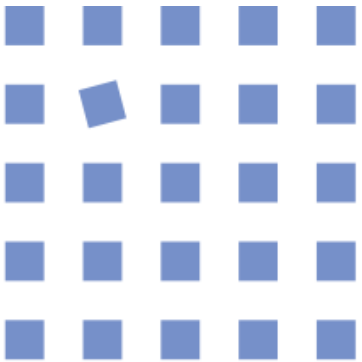
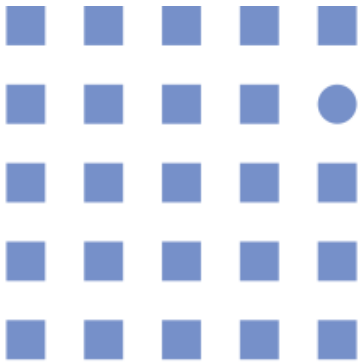
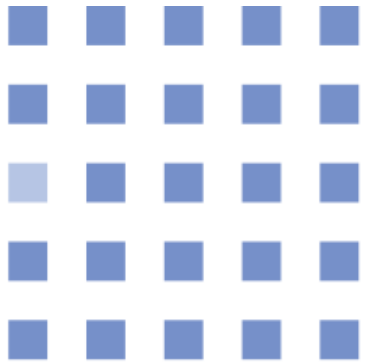


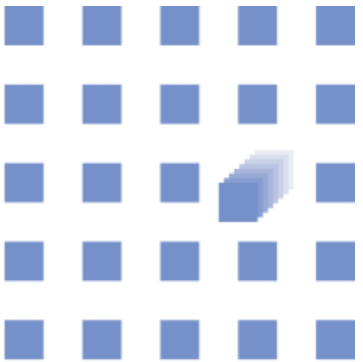
Orientación



Forma



Brillo



Movimiento

Percepción pre-atentiva

Fuente: Few, S. (2004). Tapping the Power of Visual Perception. Recuperado de: https://www.perceptualedge.com/articles/ie/visual_perception.pdf

Percepción pre-atentiva

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Percepción pre-atentiva

Figure 6-3. Find the values greater than one

0.103	0.176	0.387	0.300	0.379	0.276	0.179	0.321	0.192	0.250
0.333	0.384	0.564	0.587	0.857	1.064	0.698	0.621	0.232	0.316
0.421	0.309	0.654	0.729	0.228	0.529	0.832	0.935	0.452	0.426
0.266	0.750	1.056	0.936	0.911	0.820	0.723	1.201	0.935	0.819
0.225	0.326	0.643	0.337	0.721	0.837	0.682	0.987	0.984	0.849
0.187	0.586	0.529	0.340	0.829	0.835	0.873	0.945	1.103	0.710
0.153	0.485	0.560	0.428	0.628	0.335	0.956	0.879	0.699	0.424

Fuente: Dashboard Spy. (s. f.) Intuitive Dashboard Design –Preattentive Variables. Recuperado de: http://dashboardspy.com/intuitive-dashboard-design-preattentive-variables/

Percepción pre-atentiva

Figure 6-4. Again

0.103	0.176	0.387	0.300	0.379	0.276	0.179	0.321	0.192	0.250
0.333	0.384	0.564	0.587	0.857	1.064	0.698	0.621	0.232	0.316
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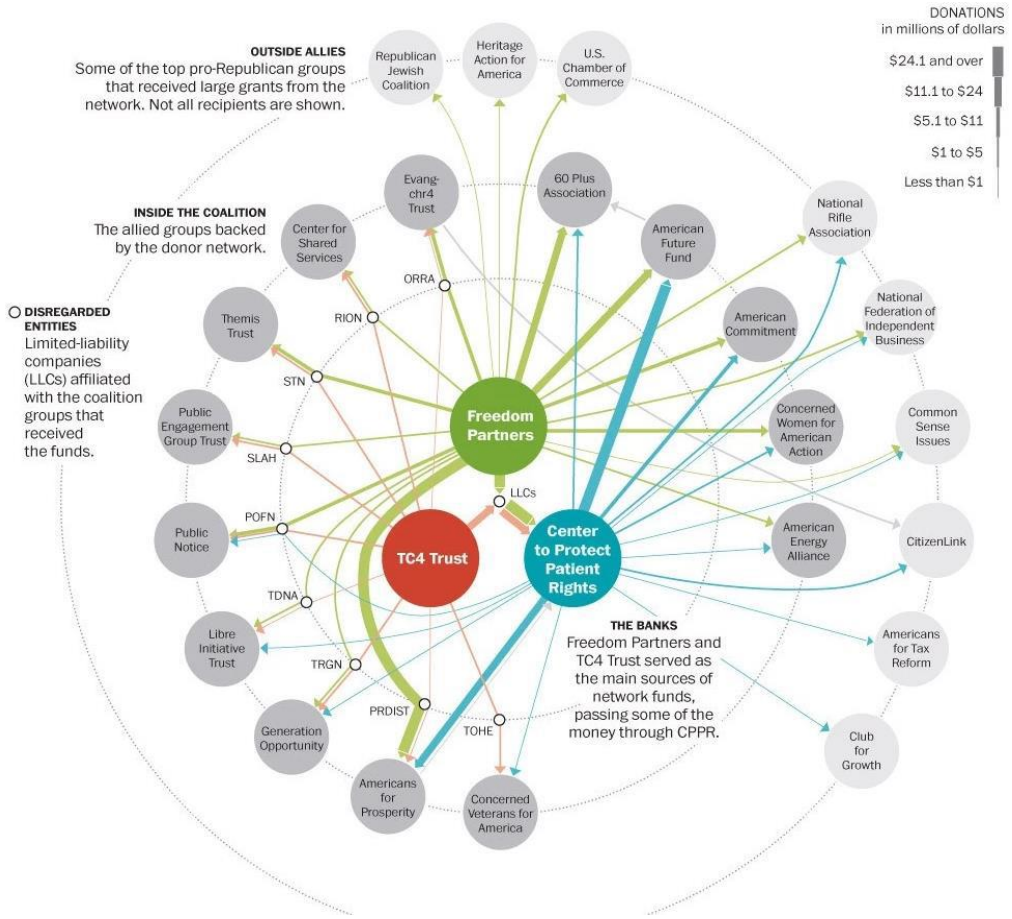

Fuente: Gold, M. y Rivero, C. (5 de enero 2014). Inside the $400-million political network backed by the Kochs. The Washington Post.

Razonamiento intuitivo

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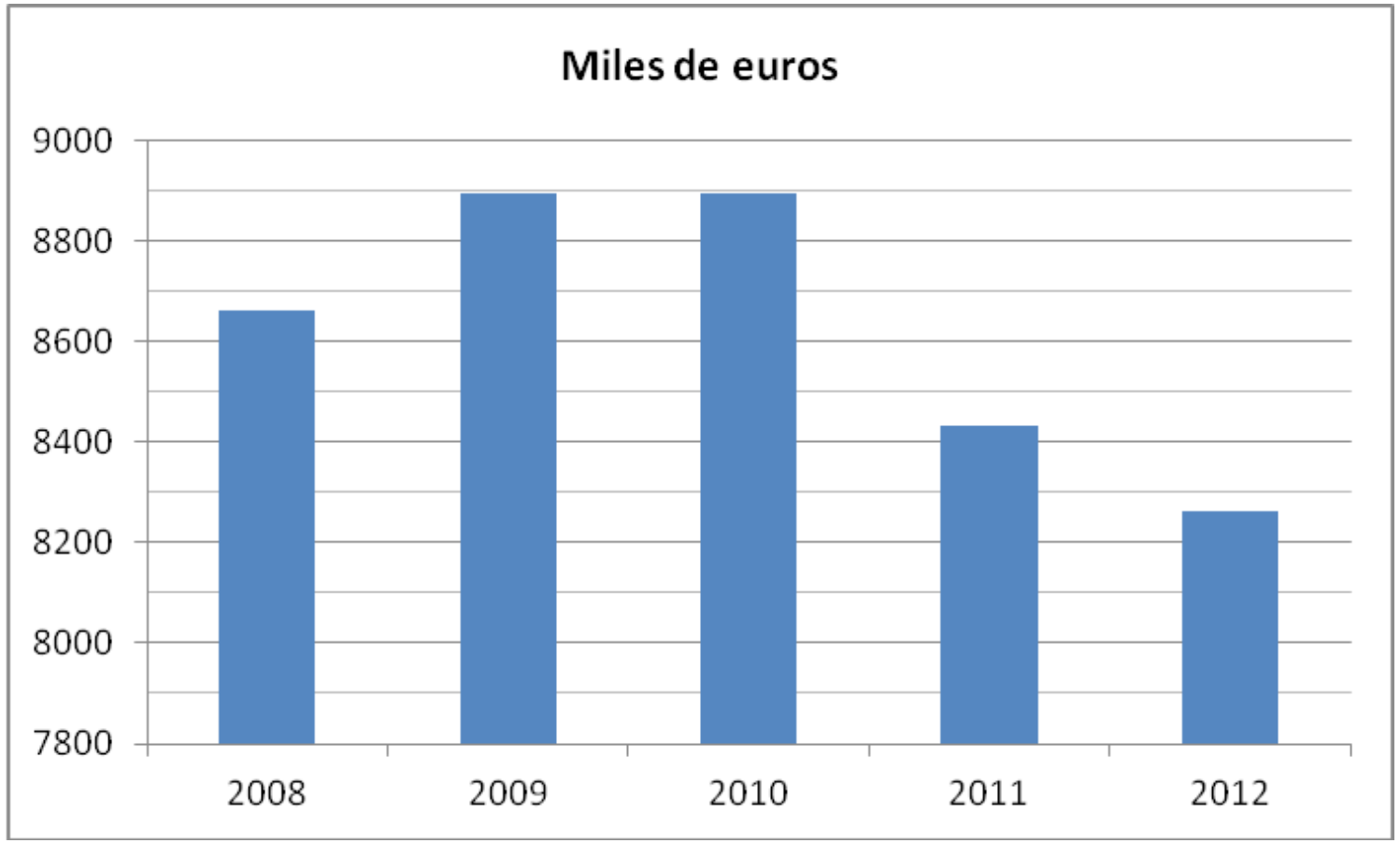

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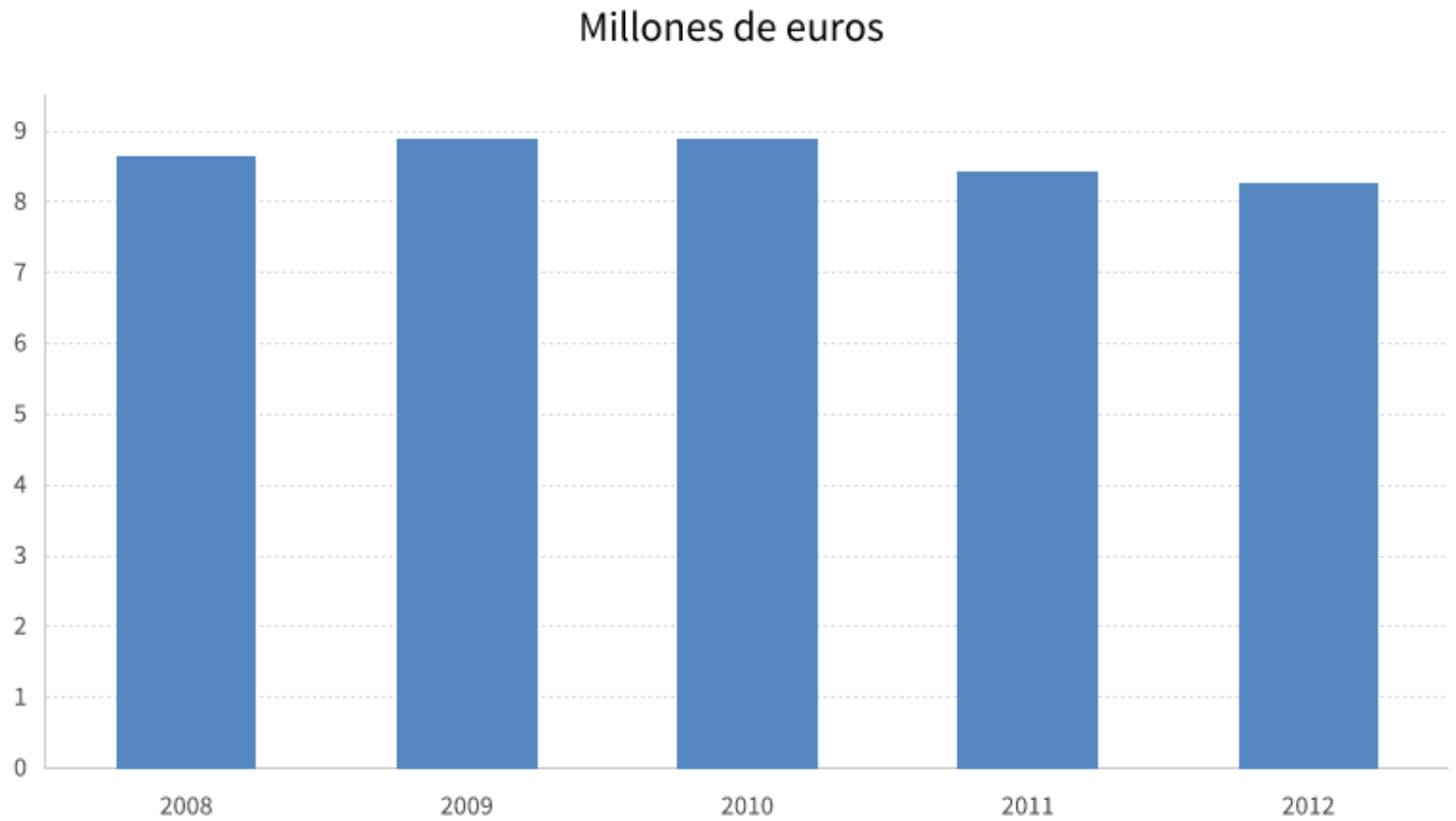

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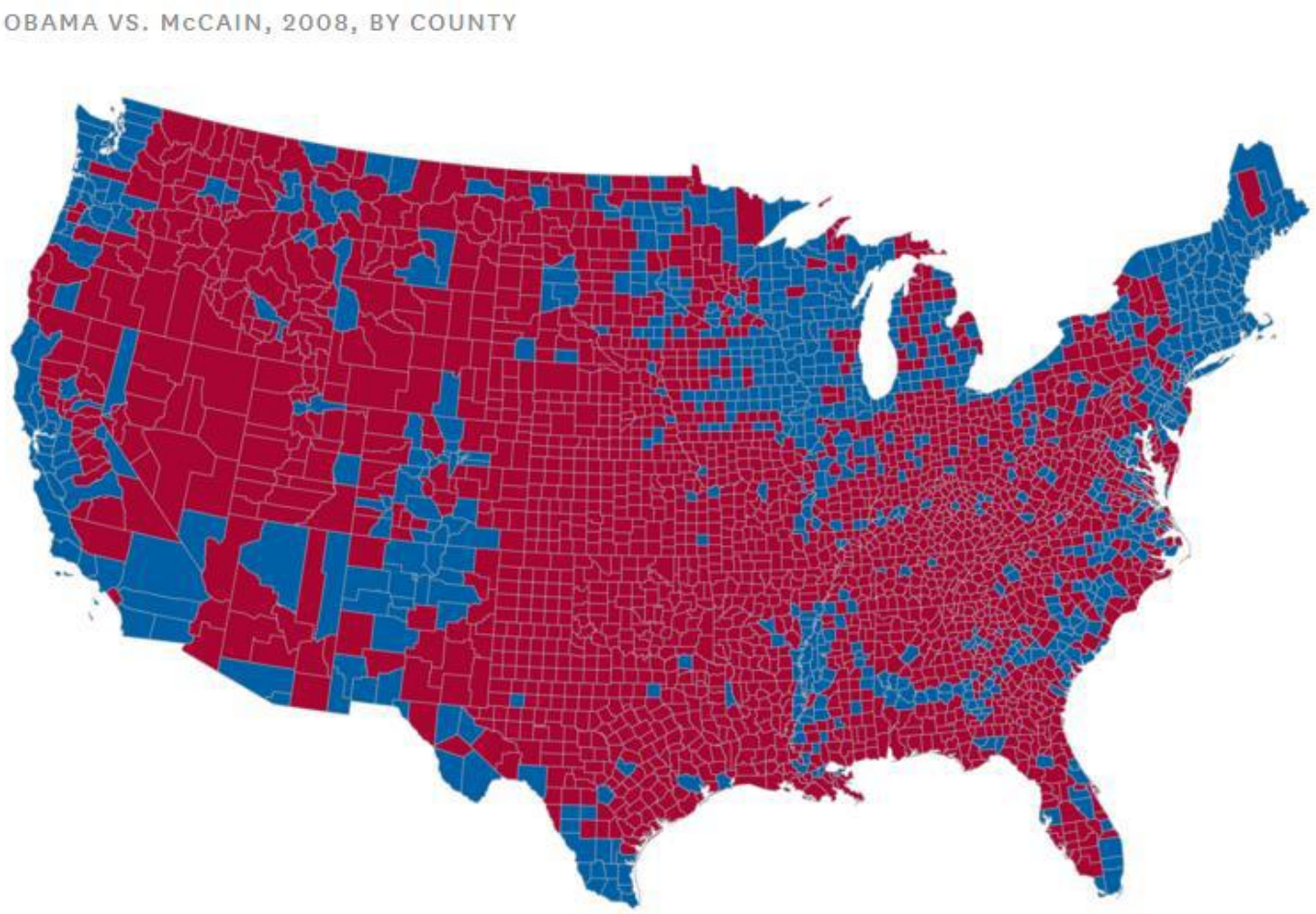

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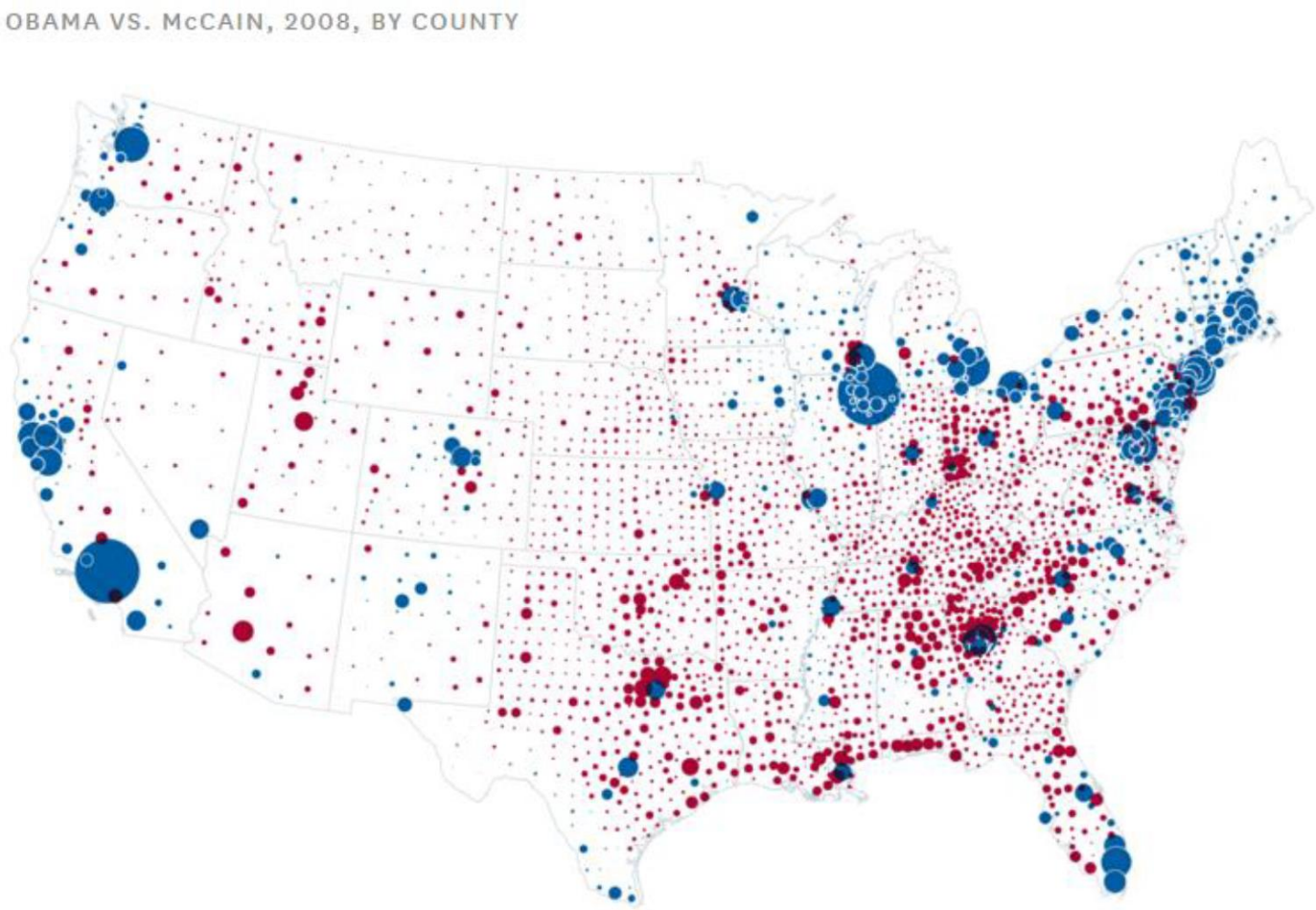

Harvard Business Review (2014). Vision Statement: How to Lie with Charts. Recuperado de: https://hbr.org/2014/12/vision-statement-how-to-lie-with-charts

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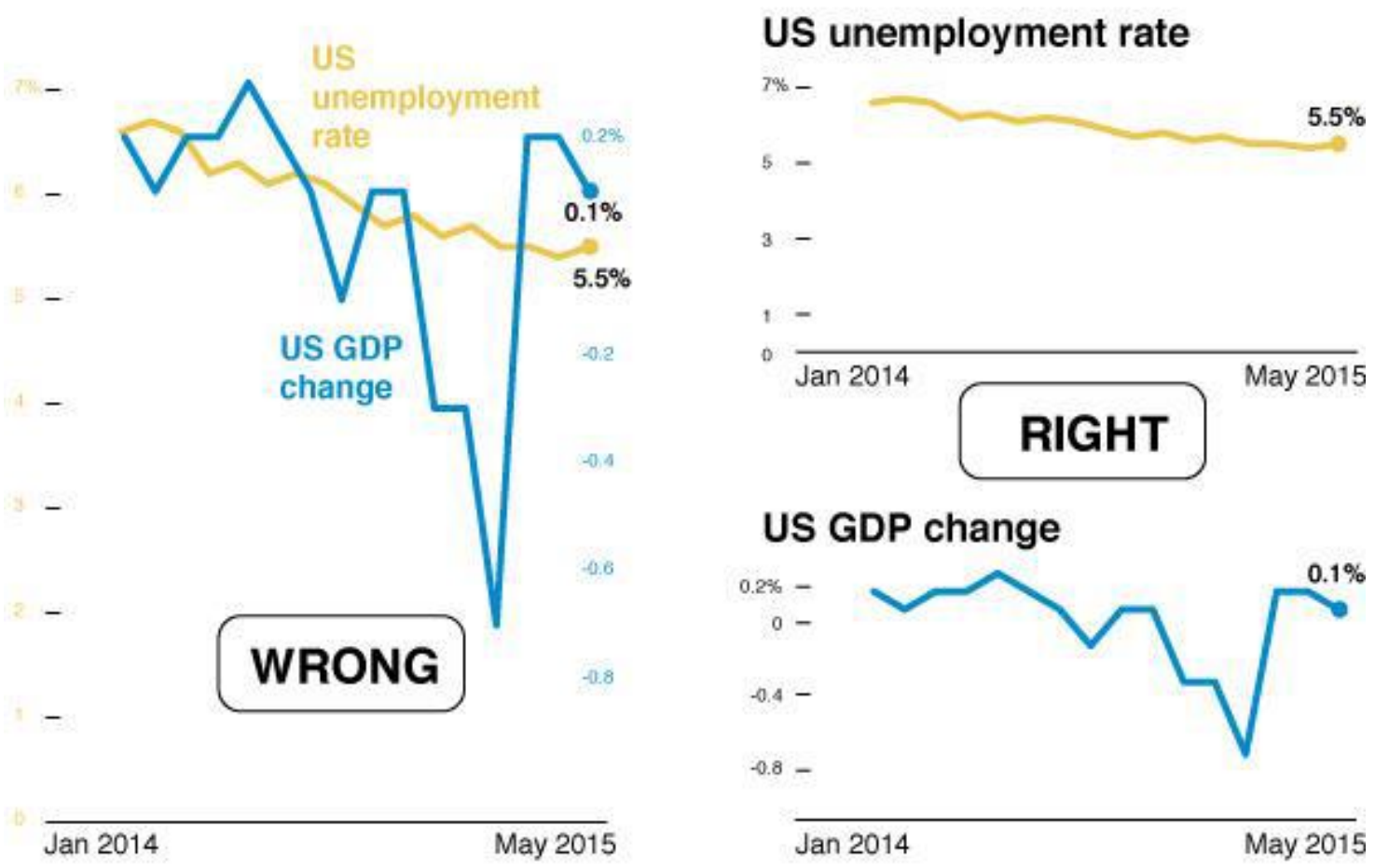

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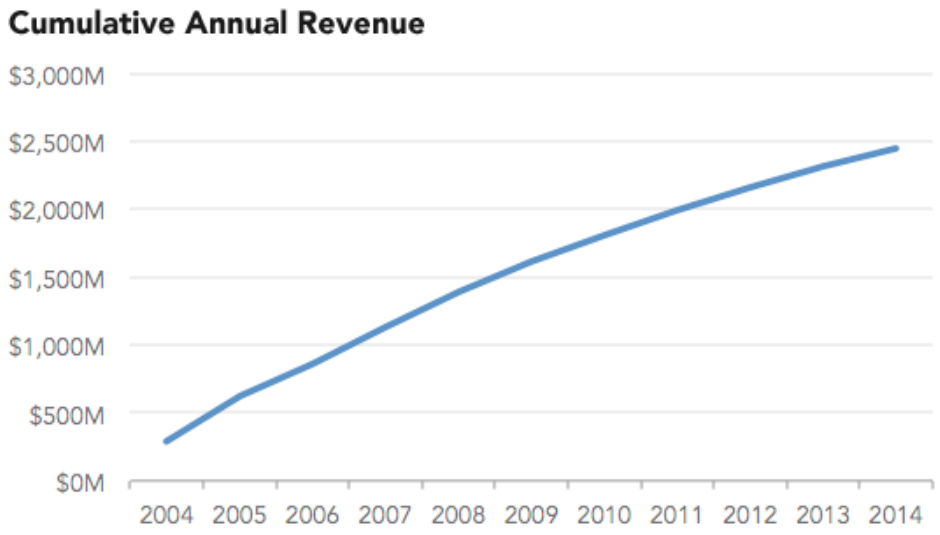

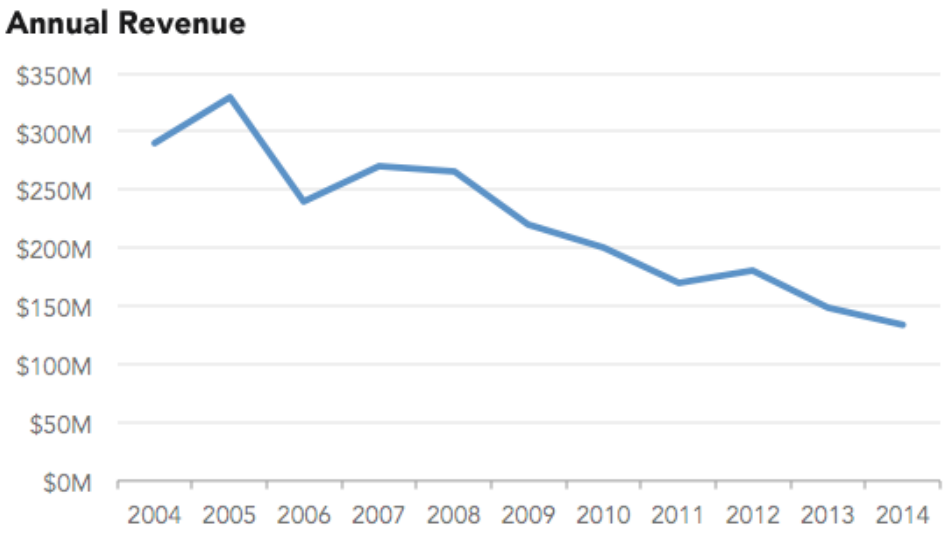

Parikh, R. (2014). How to Lie with Data Visualization [Artículo de blog]. Recuperado de: https://blog.heapanalytics.com/how-to-lie-with-data-visualization/

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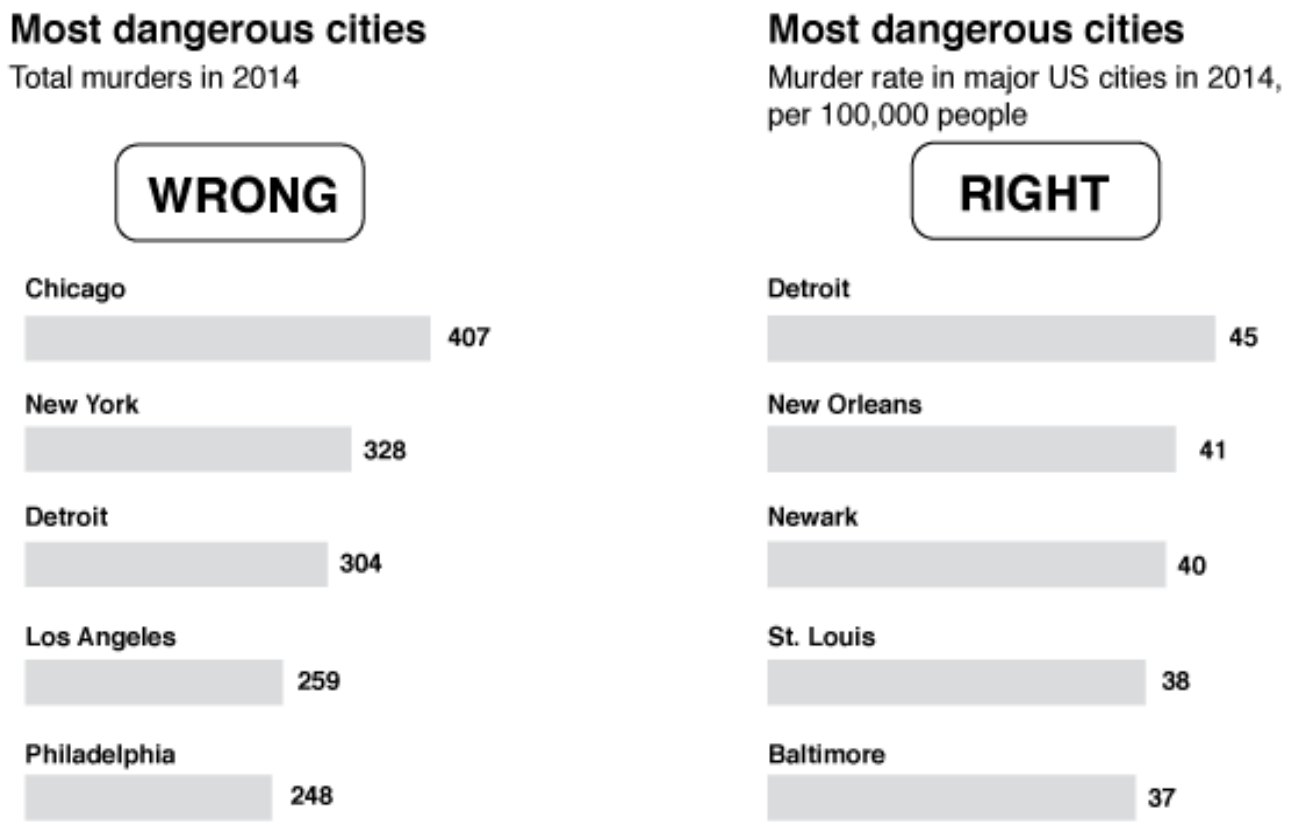

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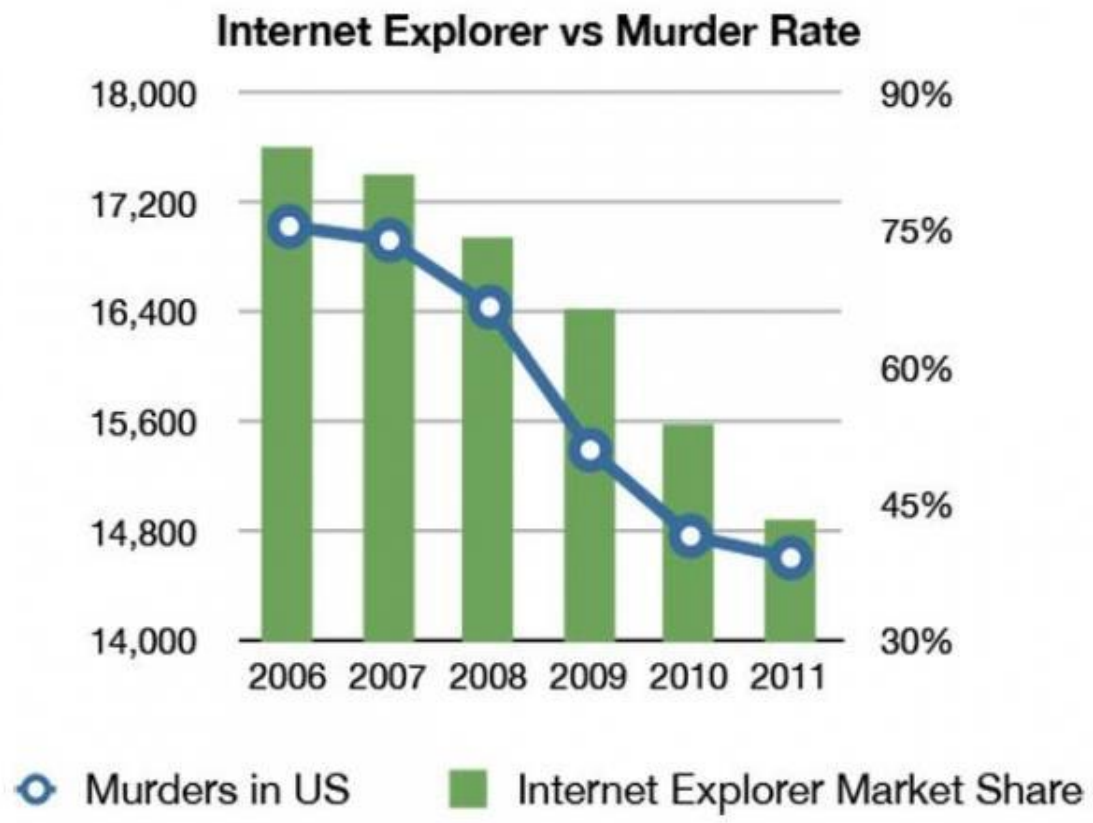

Hogan, C. (2015). 3 Ways To Detect Lying Data Visualizations. Recuperadode: http://www.insightsquared.com/2015/07/3-ways-to-detect-lying-data-visualizations/