



# How to Display Data Badly

*A Stat 696 Discussion*

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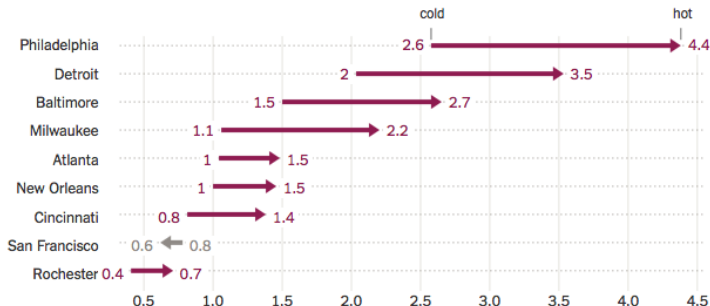


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## Rise in Shooting Victims on Hot Days

The average number of shooting victims per cold day (defined here as under 50 degrees Fahrenheit) and per hot day (85 and up) in nine cities in recent years.

Shooting victims per day, based on weather



Fatal and nonfatal shooting victim data for Cincinnati (2008-present), Rochester (2000-present), San Francisco (2012–2017), Baltimore (2011–present), Philadelphia (2015–present), New Orleans (2010–present), Atlanta (2012–17) and Chicago (below, 2014–present). Nonfatal shooting victim data for Detroit (2014–2016) and Milwaukee (2011–May 2016).



- Why display data?



## Discussion Points

- ▶ Why display data?
- ▶ What can go wrong?



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  - ▶ Actually display the data



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  - ▶ Actually display the data
  - ▶ Don't be deceptive



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  - ▶ Don't be deceptive
  - ▶ Be consistent



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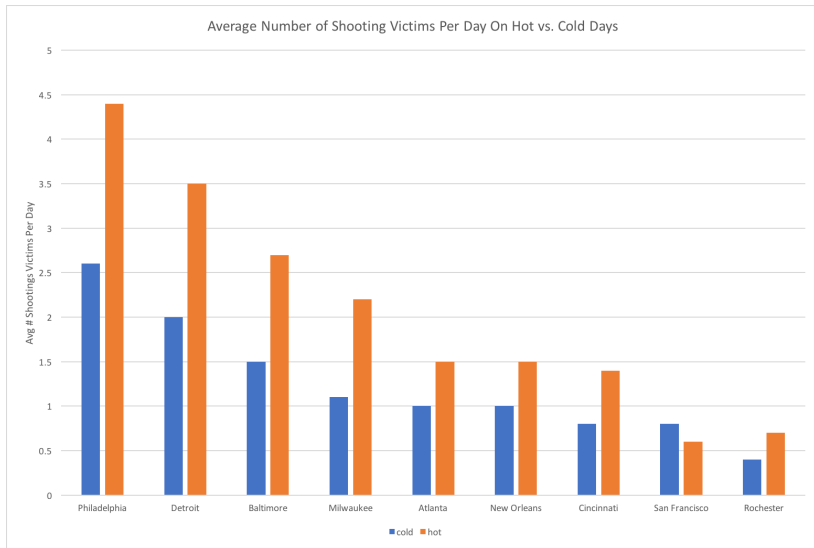
- ▶ Why display data?
- ▶ What can go wrong?
  - ▶ Actually display the data
  - ▶ Don't be deceptive
  - ▶ Be consistent
- ▶ Keep it simple



# How to Display Data Well



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## References

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- ▶ Wainer, Howard. *How to Display Data Badly*. The American Statistician Vol. 38, No. 2, (1984), pp. 137-147
- ▶ Asher, Jeff. *A Rise in Murder? Let's Talk About the Weather*. New York Times Online, Sep. 21, 2018.