

## Statistics 101

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## Why Statistics 101?

Evaluating the record  
Reviewing evidence  
Examining the findings and conclusions reached

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## Why Statistics 101?

Evaluating the record  
Reviewing evidence  
Examining the findings and conclusions reached

Did the evidence support the decision?  
Statistics may be part of the story

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## Why Statistics 101?

Example: Challenges to local WMOB preference

Legality  $\implies$

Evidence of Disparity  $\implies$

Local Data (number and types of qualified and available contractors vs. contractors used)  $\implies$

Local government gathering such data and analyzing it appropriately

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## Why Statistics 101?

“The legal system in general, and judges in particular, become the audience for local government data gathering and analysis.”

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## Our Focus

- What are statistics
- How they are used/abused
- What to watch (out) for
- Where to go for help

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## Statistics

Just bits of information

Meaningless without context

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## How are they used?

To describe – descriptive  
statistics

To infer - inferential  
statistics

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## Two Main Types

### Descriptive

Summarize a lot of information  
into a few key facts to paint a  
picture quickly and easily

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## Two Main Types

### Inferential

Infer something about the larger population from a smaller set of data; to infer a connection or relationship

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### Descriptive – what is typical?

Mean

Median

Mode

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### Descriptive – Is there variation?

A little or a lot?

Range

Standard deviation

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Inferential – Is there a link?

Correlation

Causation (regression and friends)

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Inferential – Is this result important?

Statistical Significance

Material significance

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How are Statistics abused?

When they only give part of the picture

When they are used to imply or even claim representation or connections that aren't really there

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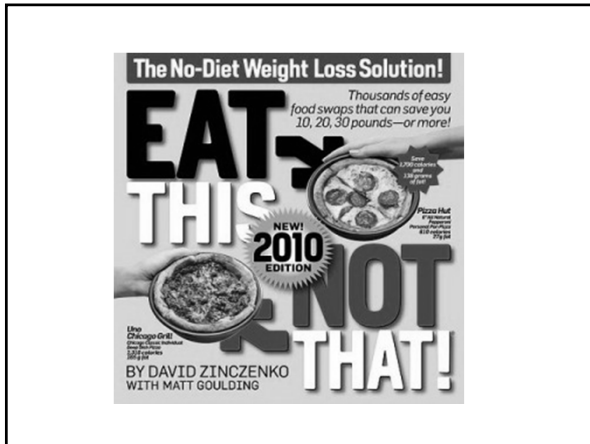
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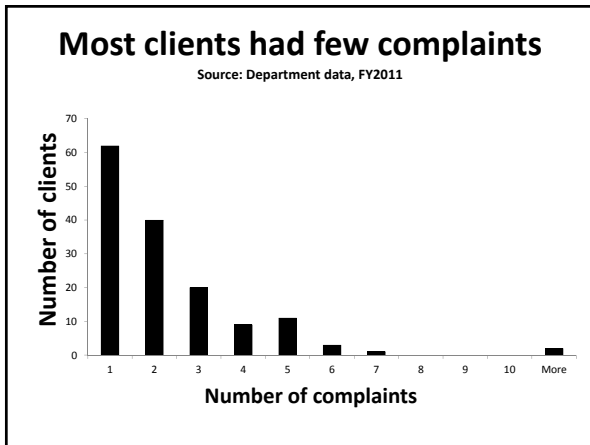
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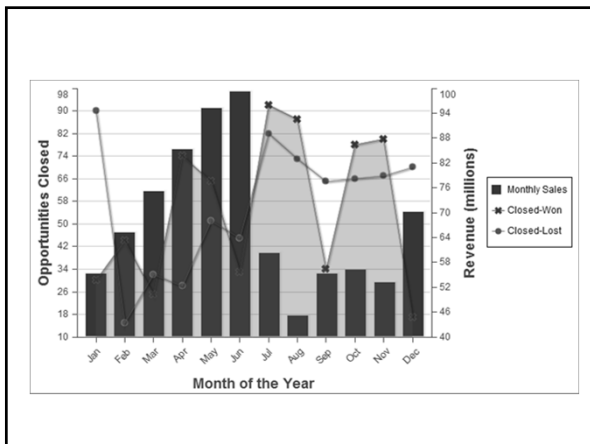
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## Summary

- Statistics are just Information
- Used for description or inference  
NOT proof,
- Look for specifics, lots of solid  
information from unbiased  
sources, and context
- SOG can help

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