Uni Studies 3: How to lie with Infographics

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Uni Stu 3 Fall 2012
• Last time
  • Sample Bias
  • Self-report bias
  • Mean, median and mode
    • The importance of looking at variation also
  • The importance of sample size
  • The importance of labeling graphs
  • Making sure that the statistics are important
    • “Much Ado About Nothing”
  • The importance of thinking about motivations
  • The importance of paying close attention to the words
• 2nd presidential debate
  • Energy policy
  • Job creation
• **Romney**: "As a matter of fact, oil production is down 14 percent this year on federal land, and gas production was down 9 percent. Why? Because the president cut in half the number of licenses and permits for drilling on federal lands and in federal waters."

• **Obama**: "Very little of what Governor Romney just said is true. We've opened up public lands. We're actually drilling more on public lands than in the previous administration and my — the previous president was an oilman."
Debates last Night

- **Romney**: "As a matter of fact, oil production is down 14 percent this year on federal land, and gas production was down 9 percent. Why? Because the president cut in half the number of licenses and permits for drilling on federal lands and in federal waters."

- Facts are correct
  - oil sales are down 14% from 2010 to 2011

- Context is ignored
  - **Obama** temporarily halted offshore drilling after the BP oil spill which accounts for the loss in production.
Debates last Night

Romney: "As a matter of fact, oil production is down 14 percent this year on federal land, and gas production was down 9 percent. Why? Because the president cut in half the number of licenses and permits for drilling on federal lands and in federal waters."

- Facts are correct
  - gas production on federal land is down
- Context is wrong
  - It is now much cheaper to drill on private land
• 2nd presidential debate
  • Energy policy
  • Job creation
Debates last Night

- **Obama:** "And what I want to do is build on the 5 million jobs that we've created over the last 30 months in the private sector alone."
Debates last Night

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- "the last 30 months" That ignores job losses during his presidency up until that point. According to the Labor Department, about 4.5 million total jobs have been created over the past 30 months. But some 4.3 million jobs were lost during the earlier months of his administration. At this point, Obama is a net job creator, but only marginally.
• The Gee-Whiz Graph
• The One-Dimensional Picture
• The Semiattached Figure
From an April 24, 1953, newspaper advertisement for Collier’s
• The Gee-Whiz Graph
• The One-Dimensional Picture
• The Semiattached Figure
• The Gee-Whiz Graph
• The One-Dimensional Picture
• The Semiattached Figure
“If you can’t prove what you want to prove, demonstrate something else and pretend they are the same thing”
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- **Obama**: "And what I want to do is build on the 5 million jobs that we've created over the last 30 months in the private sector alone."
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  • Why?
• Ask people who are respected their opinion
  • “27% of physicians smoke brand X cigarette”
According to repeated nationwide surveys,

More Doctors Smoke CAMELS than any other cigarette!

Doctors in every branch of medicine were asked, "What cigarette do you smoke?" The brand named most was Camel.

You'll enjoy Camel for the same reasons 10,000 doctors enjoy them: Camel's burn rate, cool tobacco, rich flavor, and a flavor unmatched by any other cigarette.

Making this nationwide test harder yet: Camel's for Women and men both. With Camel, please your nose, how will they suit your desires or your family members. You'll not have many desirous cigarettes can buy.

THE DOCTORS' CHOICE IS AMERICA'S CHOICE!

For 30 days, test Camels in your "Zonoz" (Z for Throat, Z for Taste).

www.StrangeCosmos.com
More Doctors Smoke Camels Than Any Other Cigarette!

According to a recent Nationwide Survey:

The doctors' choice is America's leading independent research organization asked 113,395 doctors to name the cigarette they themselves prefer to smoke.

The results came in by the thousands from doctors in big cities, small towns; from general practitioners, specialists, surgeons, practitioners in every branch of medicine. Results: More doctors named Camel as their smoke than any other cigarette.

Yes, a doctor, too, seeks for pleasure. Full flavor, richness, and richness mean just as much to him as to you. So try other smoked Camel Cigarettes and see for yourself.

Camels Cigarettes

Pep up your life with Camels.

For 30 days, test Camels.

The "T-Zone" Test Will Tell You
http://www.youtube.com/watch?v=Gf_Jk1zLisg
• Many ways of expressing a figure
  • 1% return on sales
  • 15% return on investment
  • 10 million dollar profit
  • increase of 40% (compared with last decade)
  • decrease of 60% (compared with last year)
• Not considering rates, just absolute numbers
  • Four times more fatalities occur on the highways at 7pm than at 7am.
  • During the Spanish-American war
    • 9 out of 1000 people died in the Navy
    • 16 out of 1000 people died in NYC
    • Join the Navy!
If Facebook were a country it would be the world’s 3rd largest country (after China and India) and 2x the size of the U.S. population.

Facebook = 🇨🇳 + 🇮🇳

75% of Brand ‘Likes’ come from advertisements.

Fastest growing segment of users: College-aged kids.

Chicago: Fastest growing city on Facebook in terms of usage in 2010.

Evolution
Million of registered users

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<th>2004</th>
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During the average 20-minute period in 2010, there were:
5870,000 wall posts | 2,716,000 photos uploaded | 10,208,000 comments posted
To celebrate National Pizza Month, California Pizza Kitchen surveyed 1000 Americans about their pizza preference and political leanings. Results showed that likely voters for both candidates - Barack Obama or Mitt Romney - have unique pizza habits and preferences.

Barack Obama Voters are more likely than Romney voters to...

What America likes...

Enjoy pizza for lunch  Eating pizza for either lunch or dinner  Enjoy pizza for dinner
Order take-out or delivery  Eating pizza at home  Make home-made pizza
Warm those slices up  Eating left-over pizza  Enjoy the pizza cold, right out of the refrigerator
Drink soda with their pizza  Washing their pizza down with a cold beverage

Enjoy a pint of beer or glass or wine with your pizza? You are equally likely to vote for either Mitt Romney or Barack Obama.
Average Wireless Speeds
Coast to Coast

3G
WINNER: T-MOBILE
↓ Download (mbps)
AT&T: 2.62
Sprint: 0.59
T-Mobile: 3.84
Verizon: 1.05

WINNER: T-MOBILE
↑ Upload (mbps)
AT&T: 0.85
Sprint: 0.56
T-Mobile: 1.44
Verizon: 0.75

4G
WINNER: AT&T
↓ Download (mbps)
AT&T: 9.12
Sprint: 2.81
T-Mobile: 5.53
Verizon: 7.35

WINNER: VERIZON
↑ Upload (mbps)
AT&T: 4.91
Sprint: 0.97
T-Mobile: 1.32
Verizon: 5.86

CHART NOTES: mbps = megabits per second; higher is better. AT&T doesn't offer 4G service in Denver or Seattle, so its 4G numbers reflect data from 11 cities, rather than 13. Also, Sprint does not offer 4G WiMax service in New Orleans, so its 4G numbers
Over the Decades, How States Have Shifted

Recent elections have placed a heavy emphasis on "swing states" — Ohio, Florida, and a handful of other states most-easily swayed from one party to the other. Yet in the past, many more states shifted between the Democratic and Republican parties. A look at how the states stack up in the current FiveThirtyEight forecast and how they have shifted over past elections.

FiveThirtyEight 2012 Forecast
The latest FiveThirtyEight forecast shows many states shifting to the right. Florida, North Carolina and Indiana are more likely than not to shift back to Republicans.

As Goes Ohio
Ohio, which has voted for the winner in every election since 1964, provided the decisive electoral votes in 2004, and it is the state likeliest to play that role again this year, according to the FiveThirtyEight model.

Incumbent Stability
When an incumbent runs for re-election, fewer states typically change party affiliation: only three states shifted from 2000 to 2004, and five from 1992 to 1996. Yet incumbency is no guarantee of victory. Bill Clinton defeated the first President George Bush by winning 22 previously Republican states.