

Lottery

Audience: The audience is the general public, specifically lottery players unfamiliar with statistical data, with basic knowledge, hopeful individuals curious about winning strategies but not data experts. Terms like "frequency" or "density" are explained as "how often numbers show up" or "the spread of numbers," ensuring accessibility. This group includes everyday people, such as parents playing for fun or kids dreaming of jackpots, requiring a balance of simplicity and engagement. For parents, the focus is on responsible play; for kids, it's about fun without false hope.

Purpose: The intent is to recommend a new direction: treating the lottery as entertainment rather than an investment. The story debunks myths about "lucky" numbers using random distributions from Powerball (2010-2024), Mega Millions (2002-2024), and Pick 10 (1987-2024) data. The audience should walk away understanding that numbers are randomly drawn, with no patterns to exploit, and feel encouraged to play responsibly. The call to action is visiting [gamblinghelp.org](https://www.gamblinghelp.org) for tips and urging players to donate winnings or save rather than chase jackpots.

Medium: A PowerPoint presentation, generated from Power BI pages, is chosen for its structured slide format. This medium suits community talks or online sharing, allowing sequential delivery of visuals and text. It's ideal for the audience, who prefer guided content over complex dashboards or static infographics, ensuring clarity and engagement.

Ethical Considerations: No data changes were made; raw values were used. It is public data. Risks include encouraging gambling, mitigated by emphasizing randomness and the responsible play call. Assumptions include filtering recent years for relevance (labeled "2010-2024"), with no data excluded without note. The data, sourced ethically from credible lottery records, was verified for accuracy. Mitigation involves transparent captions, no sensationalism, and a balanced narrative.

Lottery Myths Busted

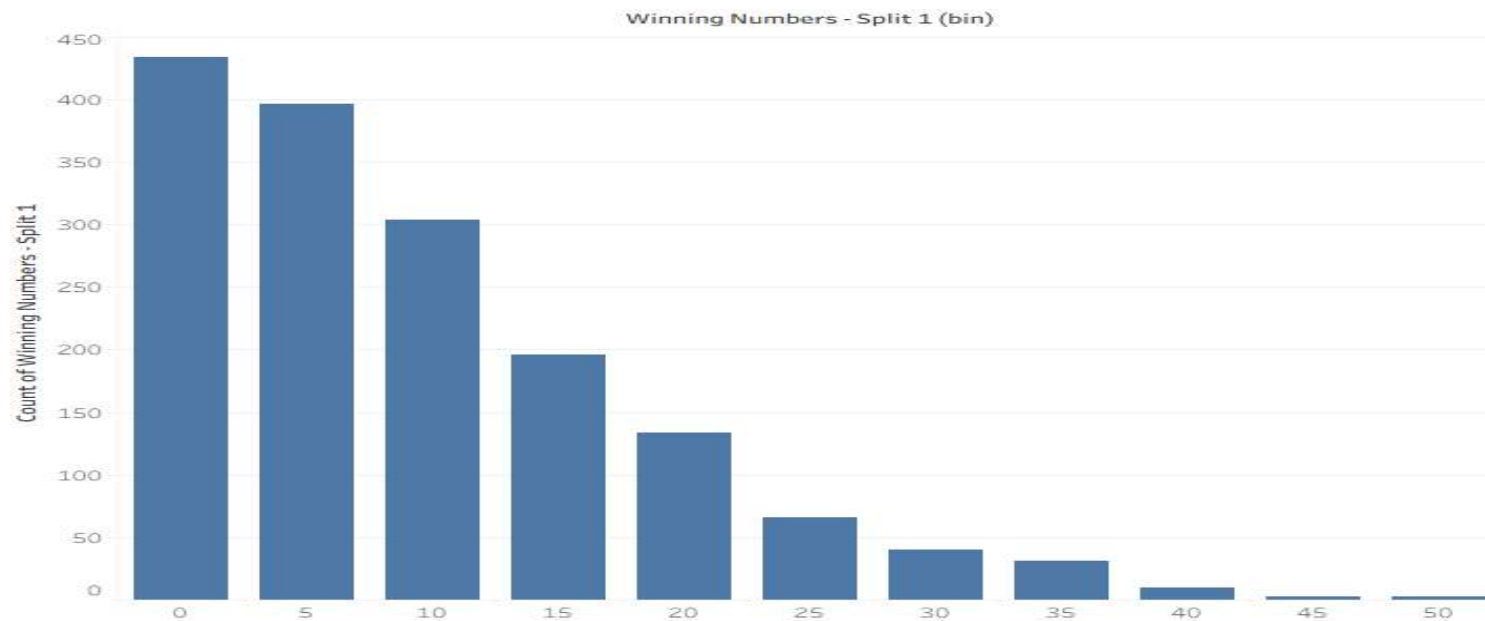
The Truth about winning numbers

Alex Spence

DSC 640 Week 7 & 8

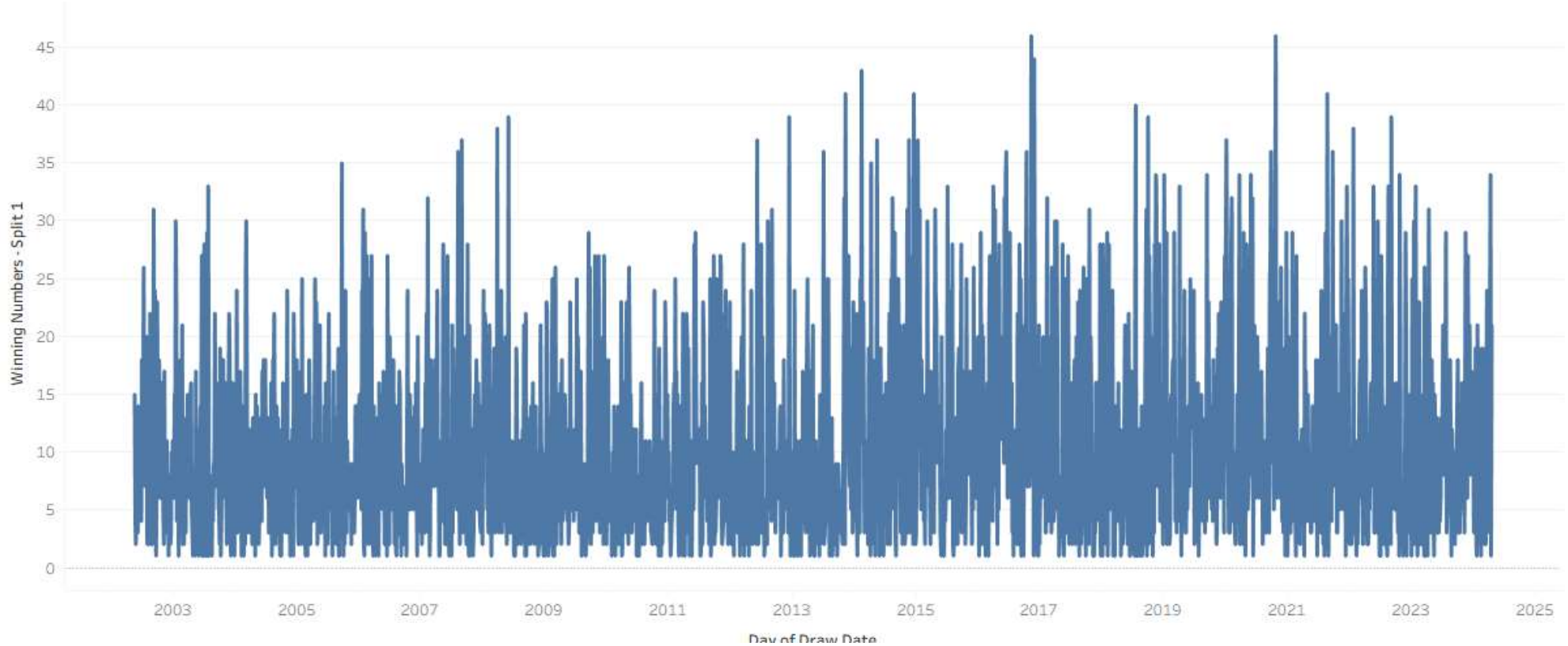
Powerball Frequency

- Numbers are random



Mega Millions Density

- Reinforce randomness across lotteries.



Pick 10 Scatter

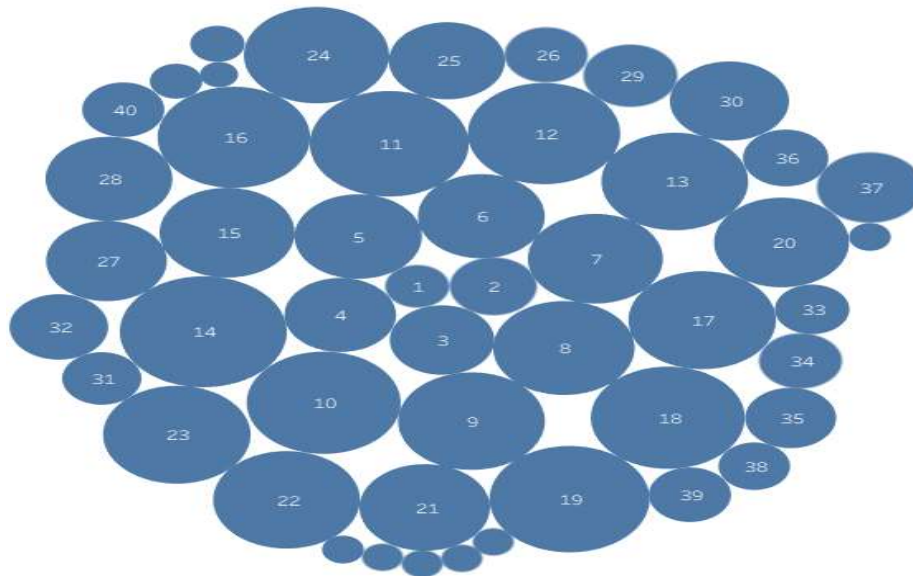
- Highlight lack of patterns over time.



Powerball Bubble Chart

- Visually show frequency equality.

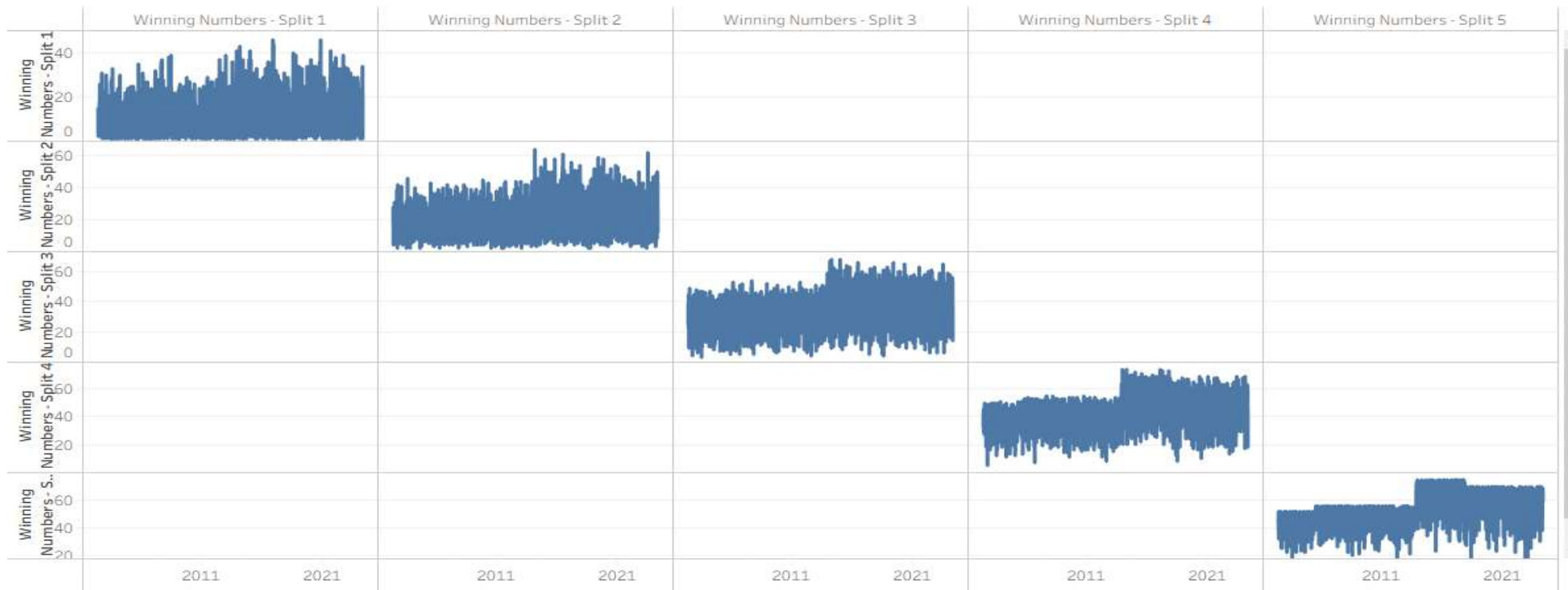
Bubble Chart Frequency Of Each Powerball number for first powerball



Lottery Small Multiples

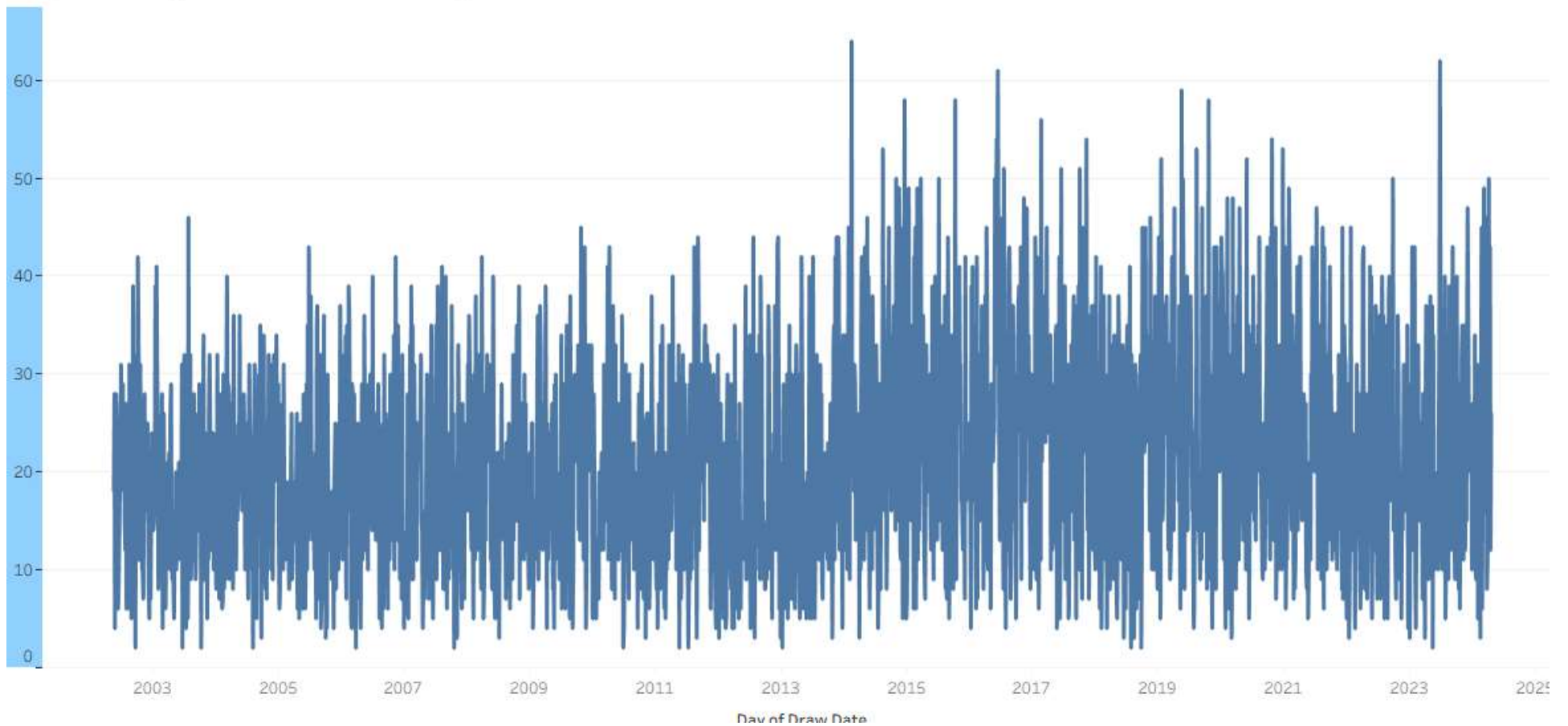
- Compare randomness across balls.

Small Multiples



Average Mega Millions Number Over Time

average winning number over time megamillion



Call to Action

- Play for fun, not fortune. Donate winnings to charity or save—visit gamblinghelp.org for tips!