Final Project
PPHA 30550 1,2 (Autumn 2017) Introduction to Programming for Public Policy
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How Las Vegas shooting polarized the gun control debate in the US and how it impacted the gun market?

Description:

In October 1st, 2017, a gunman opened fire on a crowd of concertgoers at Harvest music festival on Las Vegas, Nevada, leaving 58 people dead and 546 injured. According with the investigation, the gunman had in his possession twenty-three firearms legally purchased in the states of Nevada, California, Texas and Utah.

This incident revived the public and political debate among groups that support more strict regulation of gun sales and defenders of the Second Amendment, that protects the right of the american citizens to keep and bear arms.

Guns control debates have had historically an effect in the gun market. After San Bernardino shooting (Dec, 2015), Pulse attack (August, 2016) and the Paris terror attacks (Nov, 2015) gun stocks spiked because people started to buy more guns either for defensive motives or for the fear of that stricter regulations will be established.

Analysis:

The main idea of our research is to assess how an extreme event -a shooting- affects the discussion about the right to bear arms in U.S. We will perform a Sentiment Analysis in Twitter about the 2nd Amendment and assess if some significant changes occur in the aftermath of Las Vegas shooting.

It is evident that a gun massacre of this dimension makes people to feel more insecure but their reactions can vary from wanting more gun controls (negative tweets increase more than positives) to be more likely to buy a gun to defend themselves (positive tweets increase more than negatives). That technique allows to determine whether that topic (2nd Amendment) is positive, negative or neutral. We will conduct this analysis by region (state) and then we will compare those results with the political party affiliation by state in an illustrative manner.

Additionally, we will merge the Twitter database with a subset of guns stocks from Bloomberg to check for the financial market sensitivity to the shooting. The ideal would be to include gun sales, but unfortunately there is no available database containing that statistic (federally licensed gun dealers must declare their sales to the ATF but that information is not unified or completely digitalized[1]). We just know that there are more than 300 million guns in the United States[2], and that each year the growth rate in sales is increasing.

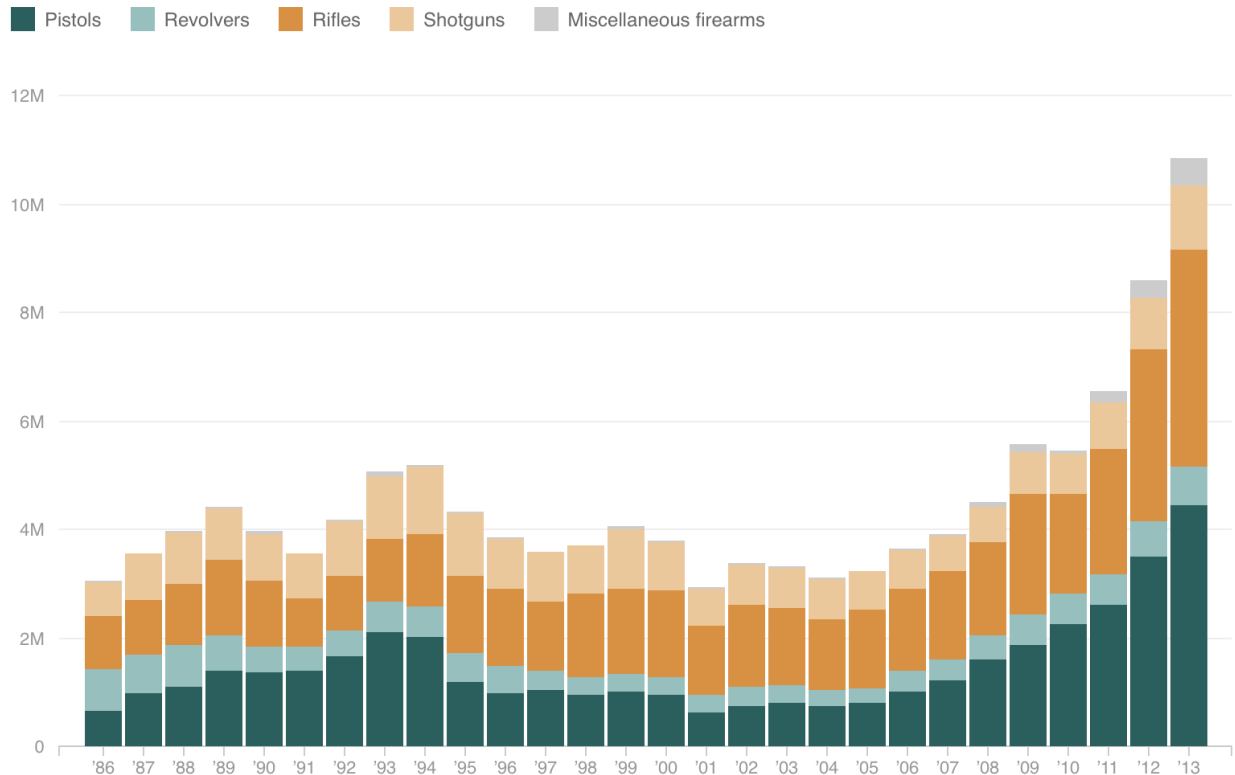[1] https://www.thetrace.org/2016/08/atf-ridiculous-non-searchable-databases-explained/
[2] http://www.npr.org/2016/01/05/462017461/guns-in-america-by-the-numbers

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Gun Manufacturing Has Skyrocketed

The number of guns manufactured in the U.S. has nearly doubled in just a few short years, from nearly 5.5 million in 2010 to nearly 10.9 million in 2013. The overwhelming majority of those guns stay on U.S. soil; around 400,000 firearms were exported in 2013.

■ Pistols ■ Revolvers ■ Rifles ■ Shotguns ■ Miscellaneous firearms

Notes

Data include guns bought by U.S. law enforcement but not by the U.S. military.

Source: Bureau of Alcohol, Tobacco, Firearms and Explosives

Credit: Danielle Kurtzleben/NPR

Data:

Twitter database (https://apps.twitter.com)

o   Tweets with keywords related to 2nd amendment and Las Vegas shooting
o   Timespan: September 24th, 2017- October 8th, 2017 (one week before and after Las Vegas shooting).
o   Variables in twitter's accounts: location (state)

Bloomberg database (* these are some examples of guns stocks)

o   Sturm Ruger (RGR): https://www.bloomberg.com/quote/RGR:US
o   American Outdoor Brands (AOBC): https://www.bloomberg.com/quote/AOBC:US
o   Olin (OLN) : https://www.bloomberg.com/quote/OLN:US
o   Standard and Poor's 500 - S&P 500 (SPX): https://www.bloomberg.com/quote/SPX:IND

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Example of Sentiment Analysis in Twitter via
https://www.csc2.ncsu.edu/faculty/healey/tweet_viz/tweet_app/

Tweet visualization: gun

Project Repository: https://github.com/camilacd/Final-Project-2nd-Amendment

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