



PORTFOLIO MANAGEMENT ANALYTICS

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QUICK BIO

- Currently Assistant Director, Prospect Research and Development at Grand Valley State University in Grand Rapids, MI
- APRA-MI Board Member
- ARC Planning Committee
- Previous Presentations:
 - DAS, APRA-Canada, APRA chapters, AFP
- Other projects:
 - Content Review Expert (Inside Stock and Compensation)
 - Content Contributor for APRA-Canada book
 - Four Top 25% finishes and one Top 10% finish on Kaggle



OBJECTIVES

- Examine data points that can be visualized and analyzed to aid in portfolio management
- Look beyond visit counts and duration between visits to investigate the quality of visits
- We will look to answer the following questions:
 - Are gift officers meeting with the right people?
 - Are gift officer strategies lining up with goals and expectations?
 - Are gift officers on message?
- We will use R to do this though it may be possible in Excel or using other resources



WHY R?

- R is an open-source resource which means anyone can freely download it and begin using it
 - R: <https://cran.r-project.org/bin/windows/base/> (Windows download)
 - R Studio: <https://www.rstudio.com/products/rstudio/download/>
- Once you have code set up you can re-use it over and over
 - This is true with Macros as well but R is much easier to write than VBA (in my opinion)
- It has functionality not available in Excel
- It's worth it and not as difficult as you think
 - You will get a positive return on your effort



STARTING POINT

- I regularly meet with the VP for Development to review Actions
- I began by just showing a chart of actions over time

	7/1/2015	8/1/2015	9/1/2015	10/1/2015	Grand Total
	7	2	7		16
	4	20	18	11	53
	4	9	6	3	22
		1			1
	1	5	9	1	16
	9		4	4	17
			5	11	16
	20	16	25	26	87
	2	1	3	7	13
	13	23	17	30	83
	3	4	2	2	11
	7	5	1	1	14
	1	2	12	3	18
	7	12	19	4	42
	3	19	14	24	60
	81	119	142	127	469



STARTING POINT (CONTINUED)

- This is in addition to Excel sheets that I would prepare for gift officers like this:

act_date	visit_date	lub_y	pldg_b	FY16	FY15	FY14	total_givii
1/5/2016	6/15/2015	20	\$0	\$1,125	\$2,195	\$1,100	\$17,628
1/4/2016	4/17/2015	4	\$2,000	\$800	\$2,550	\$800	\$6,680
12/9/2015	12/9/2015	3	\$40	\$300	\$710	\$1,390	\$2,010
11/2/2015	6/18/2015	15	\$0	\$100	\$300	\$45	\$25,381
5/23/2013		0	\$0	\$0	\$0	\$0	\$49,749
1/23/2004		0	\$0	\$0	\$0	\$0	\$46,550
11/11/2015	12/16/2014	5	\$500	\$0	\$4,000	\$7,000	\$15,500
1/5/2016	1/5/2016	28	\$41	\$3,260	\$5,435	\$2,415	\$30,744
1/5/2016	11/26/2014	0	\$0	\$300	\$500	\$0	\$1,500
11/18/2015	6/8/2015	9	\$0	\$500	\$1,720	\$1,330	\$15,079
10/12/2015	6/4/2015	7	\$0	\$2,500	\$2,500	\$2,500	\$9,400
12/14/2015	9/14/2015	10	\$0	\$750	\$750	\$500	\$3,475
12/11/2015	12/11/2015	5	\$0	\$0	\$1,000	\$7,000	\$25,000
11/11/2015	10/6/2015	3	\$0	\$3,000	\$2,500	\$5,000	\$13,600
11/11/2015	6/11/2014	5	\$0	\$0	\$45,180	\$50,089	\$144,845
9/10/2015		8	\$0	\$2,500	\$1,200	\$1,000	\$8,500
12/4/2015	11/10/2015	3	\$600	\$1,000	\$0	\$50	\$1,250



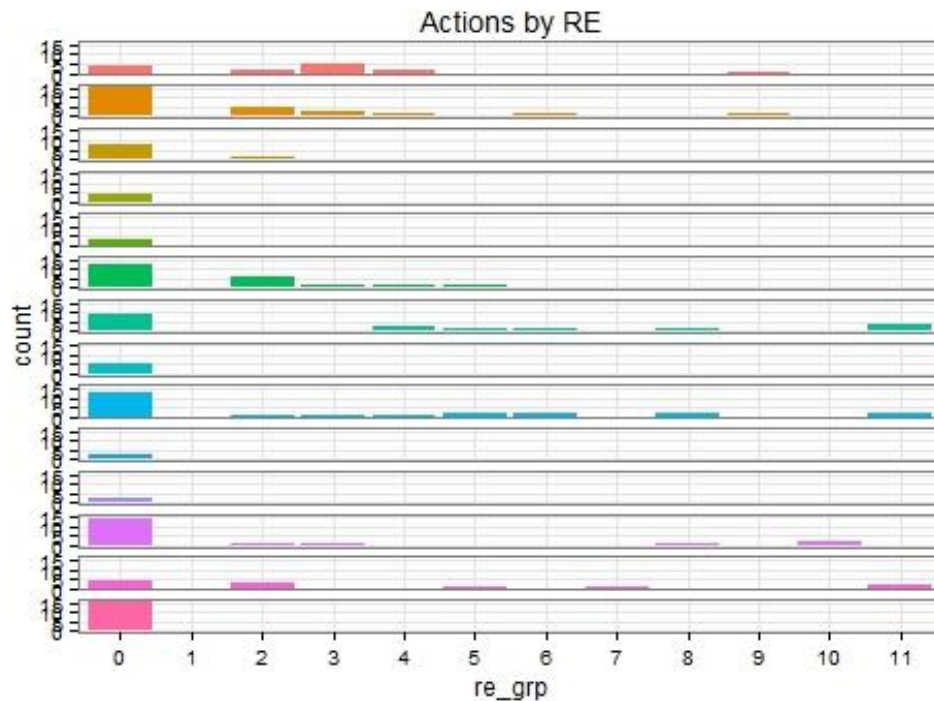
ADDITIONAL DETAILS REQUESTED

- This was a good start but was a little too one dimensional
- Simply looking at quantity did not provide any indication on the quality of the visits
- Was there a way to show visit/action quality in a snapshot view
- This was my challenge...



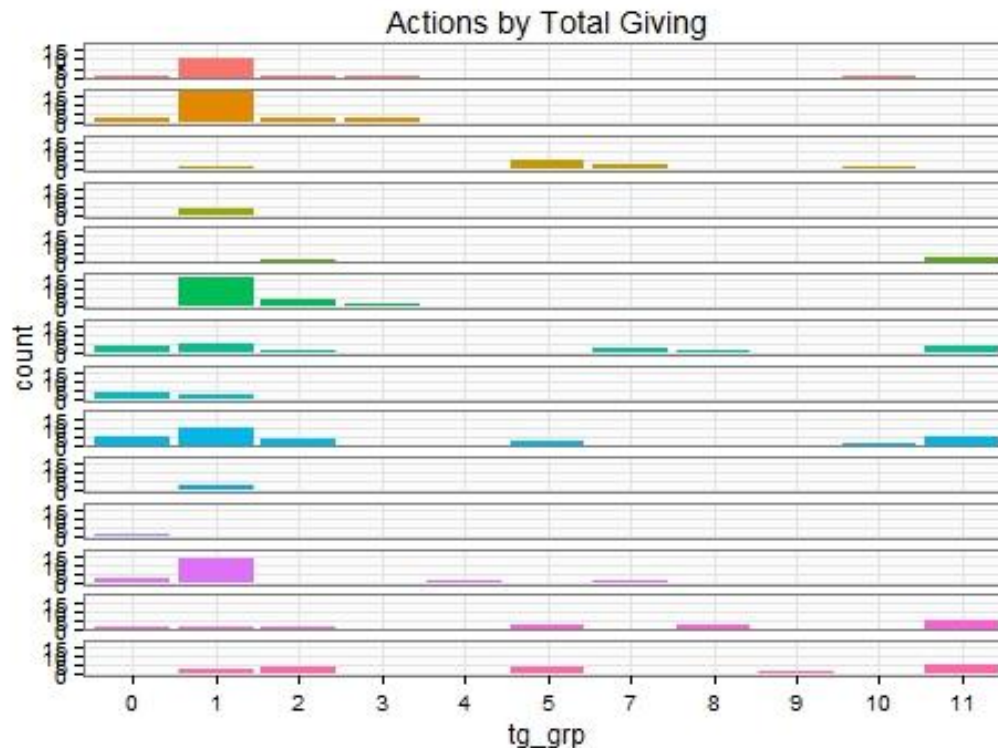
VISITS BY REAL ESTATE TIER

- The first visual was whether gift officers were meeting with constituents with the appropriate capacity related to their titles



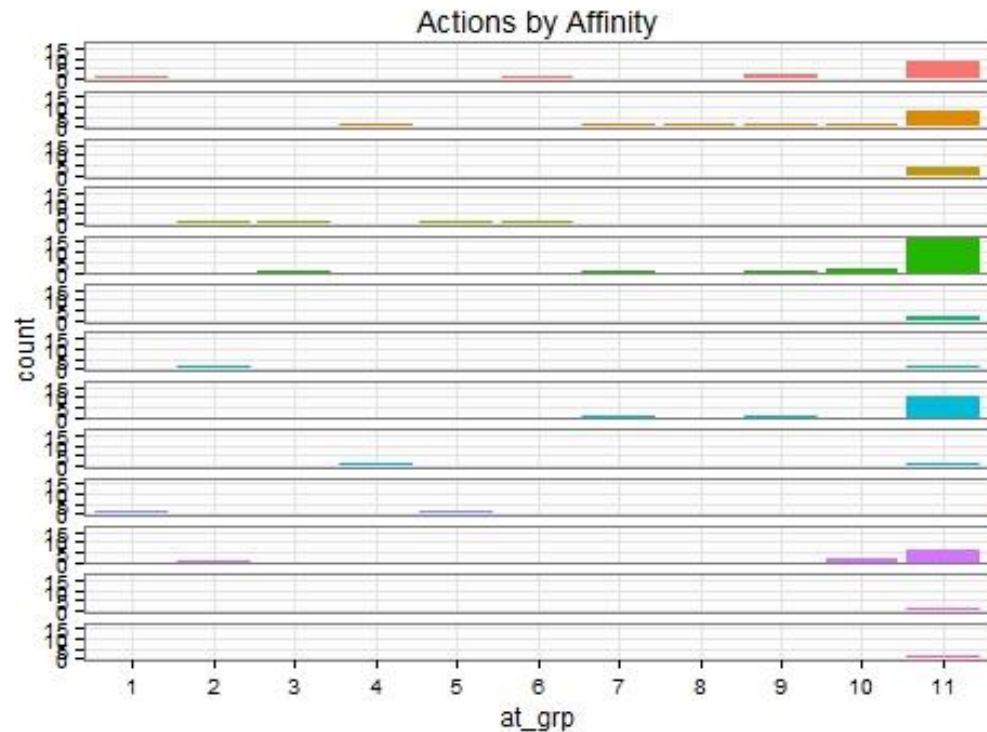
VISITS BY TOTAL GIVING

- What is the distribution of visits with regular donors, new donors and non-donors



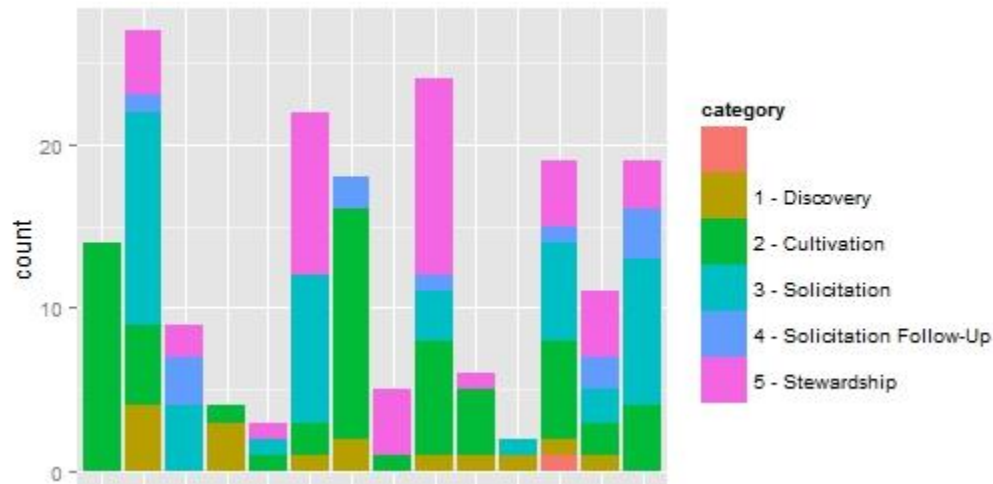
VISITS BY AFFINITY/ENGAGEMENT SCORE

- What is the distribution of visits related to a constituent's affinity score?



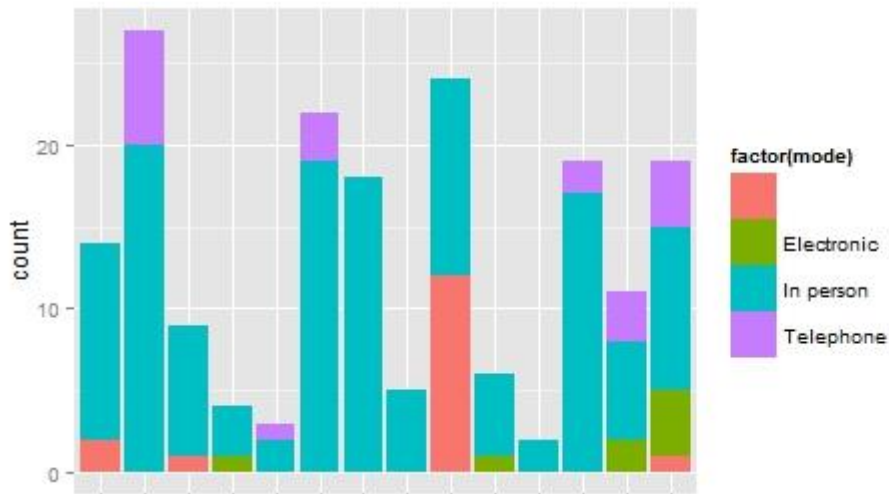
VISITS BY CATEGORY

- What is the distribution between the various action types?



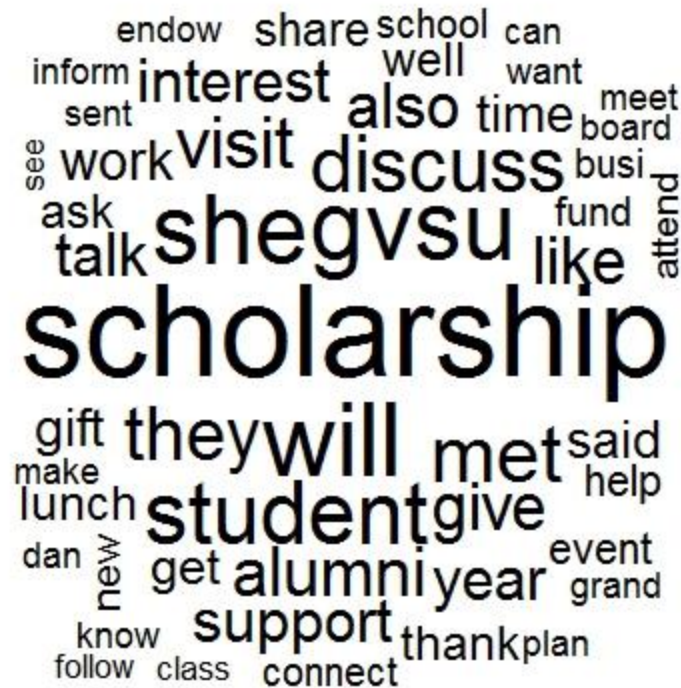
VISITS BY MODE

- What is the distribution of actions by mode?



VISIT WORD COUNT

- What are gift officers talking about?



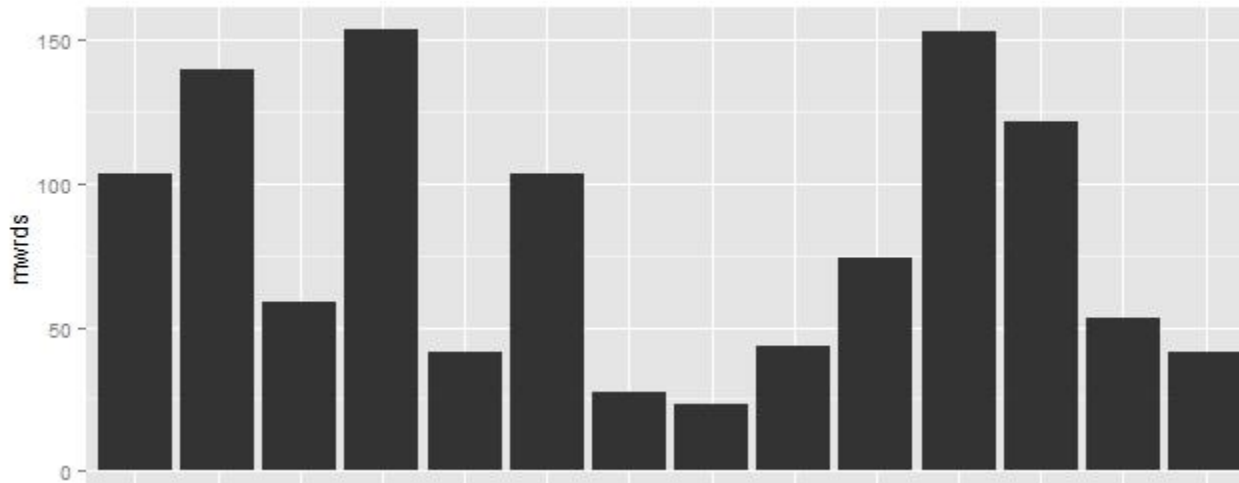
WORD COUNT (BY INDIVIDUAL)

Jackson



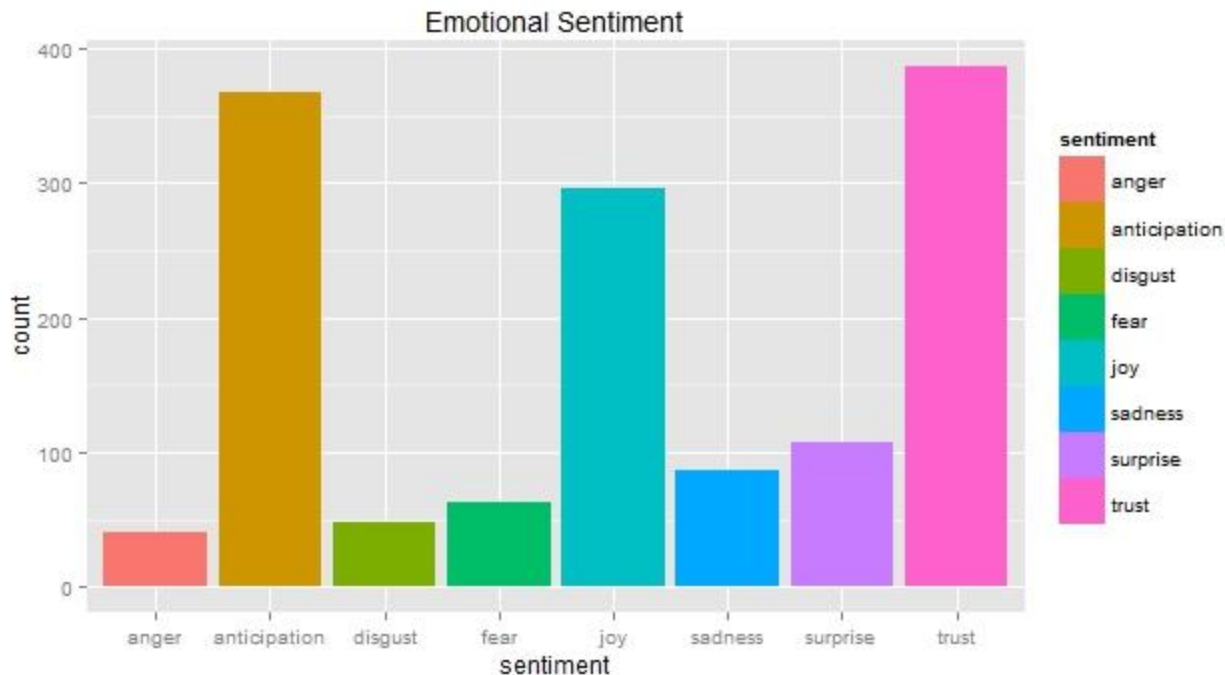
VISITS BY WORD COUNT

- How complete are the action reports submitted by gift officers?



VISIT SENTIMENT ANALYSIS (EMOTIONS)

- Map action reports to emotion categories. Take these results with a grain of salt.



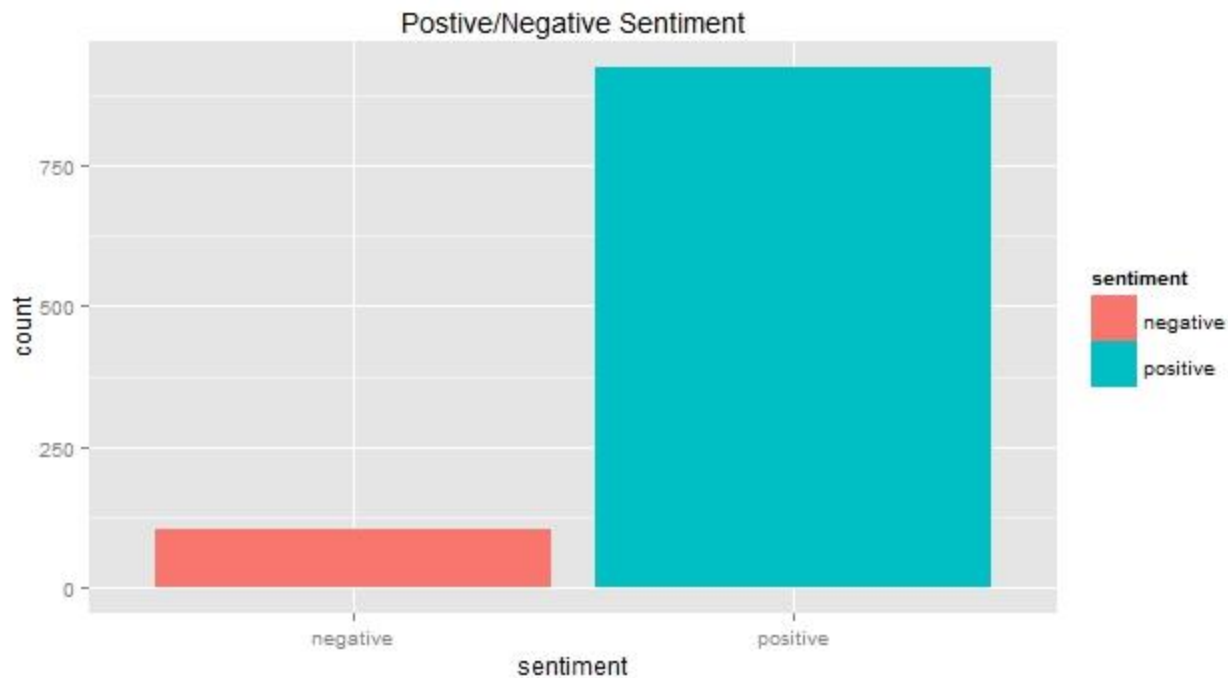
SENTIMENT (BY GIFT OFFICER)

- Look for trends by officer.

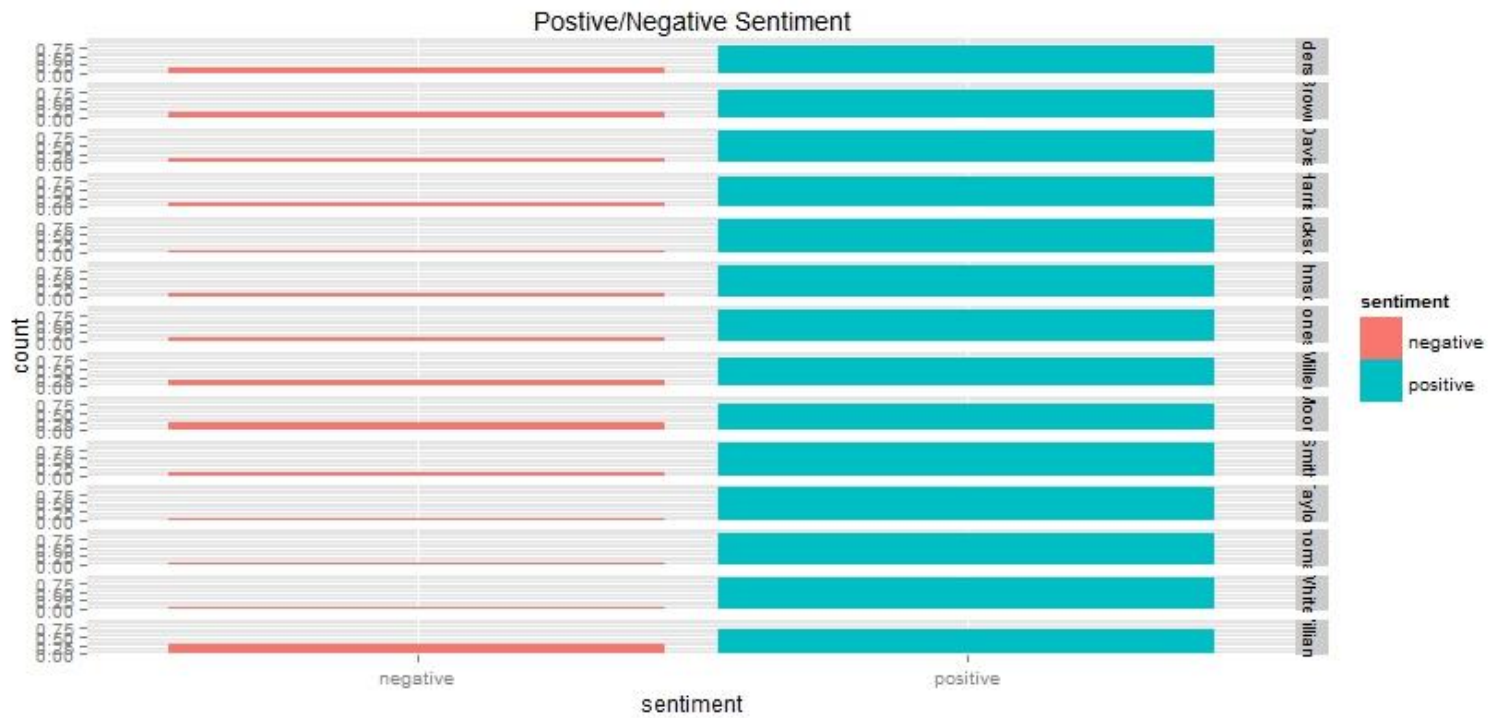


VISIT SENTIMENT ANALYSIS (+/-)

- Are donor reports generally positive or negative?



+/- BY OFFICER



CONCLUSION

- In addition to just counting actions and using that as the sole metric, these additional visuals allow for a deeper dive into the quality of the visits.
- Can help answer the following questions:
 - Are we meeting with constituents with the appropriate capacity and affinity?
 - Are we performing all the different visits required to meet current goals?
 - Are contact reports detailed?
 - Are we on message?
 - What is the general sentiment of visits?



RESOURCES

- Coursera:
<https://www.coursera.org/specializations/jhu-data-science>
- Data Science Learning Club:
<http://www.becomingadatascientist.com/learningclub/>
- Kaggle: <https://www.kaggle.com/>
- My GitHub (which will include code):
https://github.com/michaelpawlus/fundraising_analytics



Any Questions?

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