



SOCIAL MEDIA ANALYTICS AND INSIGHTS REPORT

ADPR 5750: Social Media Analytics
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PLANNED PARENTHOOD

Planned Parenthood is a global organization that seeks to provide healthcare services to men, women and young adolescents. Planned Parenthood strives to protect the rights and privacy of said individuals by its generous care of its patients. Each year, the organization improves the sexual health of individuals and families. For the purpose of this project, we chose to focus on Planned Parenthood's organization as a whole, specifically from July through October of 2015.

The purpose of this research topic is to understand who is talking about Planned Parenthood on social media and why it should continue to be funded or why it should be defunded. Through our analysis and research we will explore various demographics of supporters and opponents of the organization by exploring gender, race, age, and geographic location, amongst other variables, of users on social media platforms. Through data collection we would like to know how supporters and opponents of Planned Parenthood express their viewpoints: how different types of content present in a post (photos, news stories, studies, etc.) affect its engagement rates as well as analyze whether which sentiment, positive or negative, toward Planned Parenthood has a stronger effect in attaining total number of engagements. These results can be used by both opponents and supporters of Planned Parenthood, including Planned Parenthood itself to garner insight as to who supports them, who doesn't, and to further express their viewpoints in way that would potentially benefit their organization.

With Planned Parenthood as our key stakeholder for our analysis, we will take a look at owned data and earned date and other analytics from January 2015 until present day, with an emphasis on July and October 2015, important months for our client. Based off of this and other research, we will put together recommendations for our client.

CONTRIBUTERS AND THEMES

Contributors | Individuals/groups talking about PP

- o Doctors performing abortions
- o Pregnant women seeking health related help
- o Presidential candidates - Hillary Clinton and Bernie Sanders specifically
- o All other presidential candidates

Themes | Expected conversation topics

- o Religious beliefs and references to God
- o Resources and services offered by PP
- o Abortion being referred to as murder
- o The idea that "every woman deserves the choice"
- o The implications of defunding PP and effects on women's health
- o Mortality
- o Selling baby parts
- o Pro-life arguments
- o Pro-choice arguments
- o Benefits of funding PP
- o Ideas of deceit



METRICS AND KEYWORDS

Key Metrics | Descriptive metrics expected in analysis

- o Content Sources
- o Number/Type of Engagements
- o Influencers
- o Sentiment towards Planned Parenthood
- o Gender and other demographic-related data
- o Affinities -- what they actually care about

Predictives | Top 7 relationships to explore

1. Content Source vs. Number of Engagements
2. Sentiment of Influencer vs. Number of Engagements
3. Gender vs. Sentiment
4. Sentiment vs. Content Source
5. Geography vs. Sentiment
6. Geography vs. Number of Engagements
7. Gender vs. content source

Keywords | Expected conversation topics

- o Abortion
- o Baby
- o Babies
- o Healthcare
- o Pregnancy
- o Planned Parenthood
- o Parent
- o Pro-choice
- o Pro-life
- o Contraception
- o Parenthood
- o Mother
- o #IStandWithDavid
- o #PP
- o #PPSellsBabyParts
- o Women's rights
- o Defund
- o Women's Health
- o Services
- o Unborn Lives Matter
- o Roe V. Wade
- o #StandWithPP
- o Fetus

Associated Terminology | Names of people, products and services associated with Planned Parenthood

- o Affordable Care Act (Obamacare)
- o Healthcare (medical) service
- o Abortion services
- o SexED
- o Informational services
- o Advocacy
- o International Activities
- o Contraception
- o Women's Health
- o Reproductive/sexual health information
- o The Center for Medical Progress
- o David Daleiden (made a video against PP)
- o Pro-Life Action League
- o Pro-Life Across America
- o GOP Presidential Nominees
 - Jeb Bush
 - Donald Trump
 - Ben Carson
 - Ted Cruz
 - John Kasich
 - Marco Rubio



ANALYSIS OF OWNED DATA

INTRO

From the analysis of Planned Parenthood's owned data, we found that males and females have an approximate 50/50 even split between who talks more about Planned Parenthood. We also found that there was a higher volume of tweets between the months of July 2015 and November 2015, which was most likely due to the video that was released in July of 2015, allegedly rumoring that Planned Parenthood sells baby parts. Furthermore, we discovered that Texas had a high volume of tweets, outnumbering D.C. and New York, where Planned Parenthood has its headquarters. There are 501,789 tweets about Planned Parenthood from other users. There were 2,781 posts sent by Planned Parenthood, and for the purpose of this project, we coded 522 posts.

In this report, we examined several questions, including:

Does type of media in a tweet affect engagement?

Do females tweet more about Planned Parenthood than males?

Is the sentiment between genders different?

Does the content of a tweet by Planned Parenthood affect its engagement?

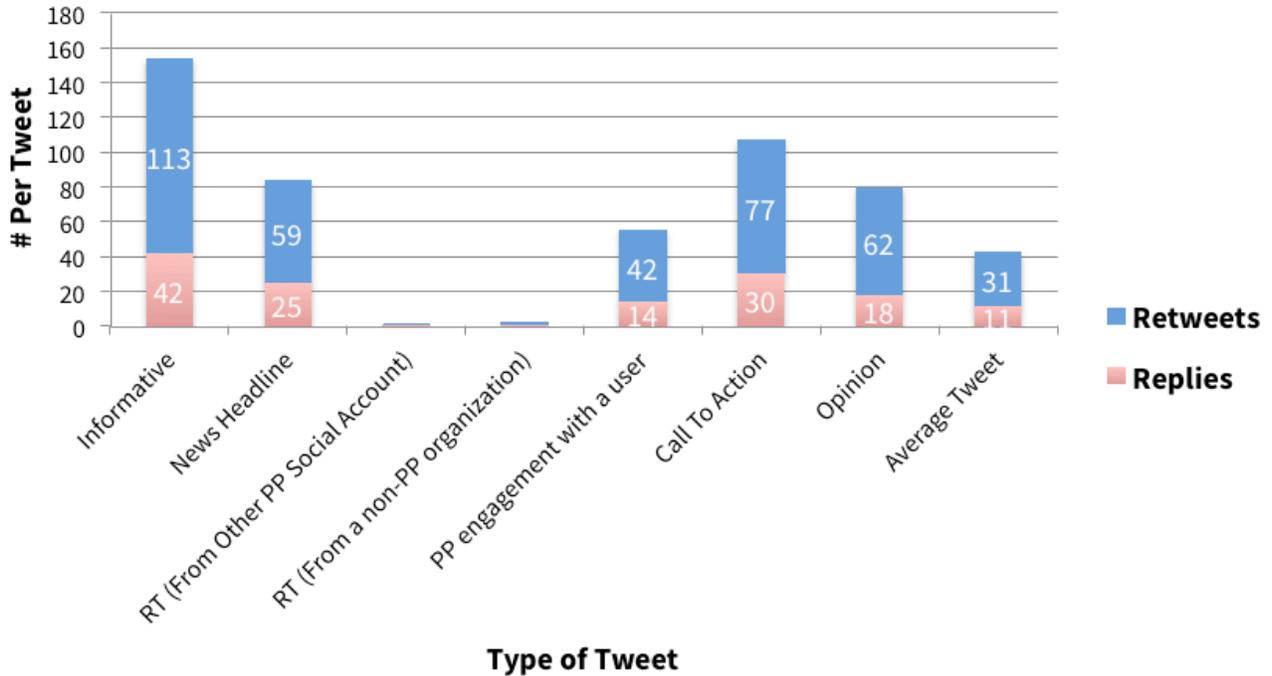
Does a certain geographical location have a more positive sentiment in its tweets than another location? (i.e. New York -- where Planned Parenthood has its headquarters)

Does a particular age group tweet more often about Planned Parenthood?

We discovered 6 interesting key actionable insights, including:

1. Informative tweets have the highest engagement rate with both retweets and replies, while retweets have the lowest. In knowing this, Planned Parenthood can have a better idea of what kind of content brings in more user attention.
2. Tweets with infographics in them have almost 3 times the engagement rate as the average tweet by Planned Parenthood while other types of media were very similar. This shows PP that not only is it important to incorporate media into its tweets, but that infographics specifically engage more users.
3. Tweets with hyperlinks to Planned Parenthood's websites and social media accounts have much higher engagement rates than other hyperlink domains, meaning that PP should make a point of including links in its tweets.
4. Women talking about Planned Parenthood use hashtags 1.5 more times than men.
5. Planned Parenthood may need to worry about states that traditionally would side with Planned Parenthood. Essentially, heavily Democratic states, or states that lean more toward the left would typically side more with Planned Parenthood. However, given the data, there is evidence that leftist-states don't always support Planned Parenthood's actions and endeavors.
6. Despite undergoing a national scandal revolving around women's health issues as it pertains to Planned Parenthood's services, men are joining in on the conversation more than women. This shows the health care provider that it would be in its benefit to produce more content geared towards engaging males.

ENGAGEMENT RATES BY TYPE OF TWEETS



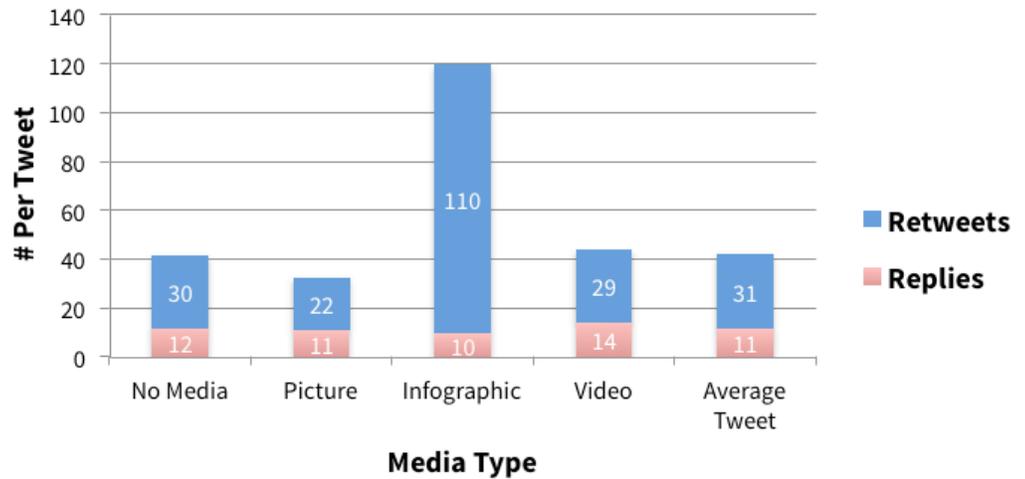
ENGAGEMENT RATES OF DIFFERENT TYPES OF TWEETS

Type of Tweet	Engagements Per Tweet	% Reply	% Retweet	Replies Per Tweet	Retweets Per Tweet
Informative	154	27%	73%	42	113
News Headline	84	29%	71%	25	59
RT (From Other PP Social Account)	1	39%	61%	0	0
RT (From a non-PP organization)	2	33%	67%	1	2
PP engagement with a user	55	25%	75%	14	42
Call To Action	107	28%	72%	30	77
Opinion	80	23%	77%	18	62
Average Tweet	42	27%	73%	11	31

Engagement rates for Informative and “Call to Action” tweets by Planned Parenthood were much higher than all other types of tweets. So, Planned Parenthood should post more of these types of tweets to engage more with their audience.

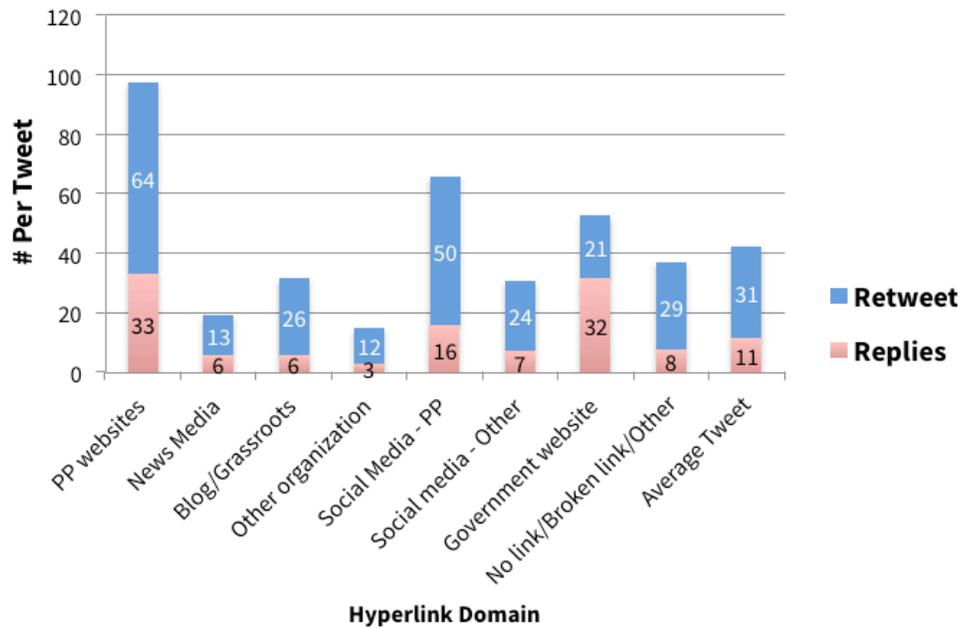
ENGAGEMENT RATES BY MEDIA IN TWEETS

Tweets containing infographics had triple the engagement rate of the average planned parenthood tweet.. Planned Parenthood should use these Infographics more when tweeting, no matter the subject to increase engagement.

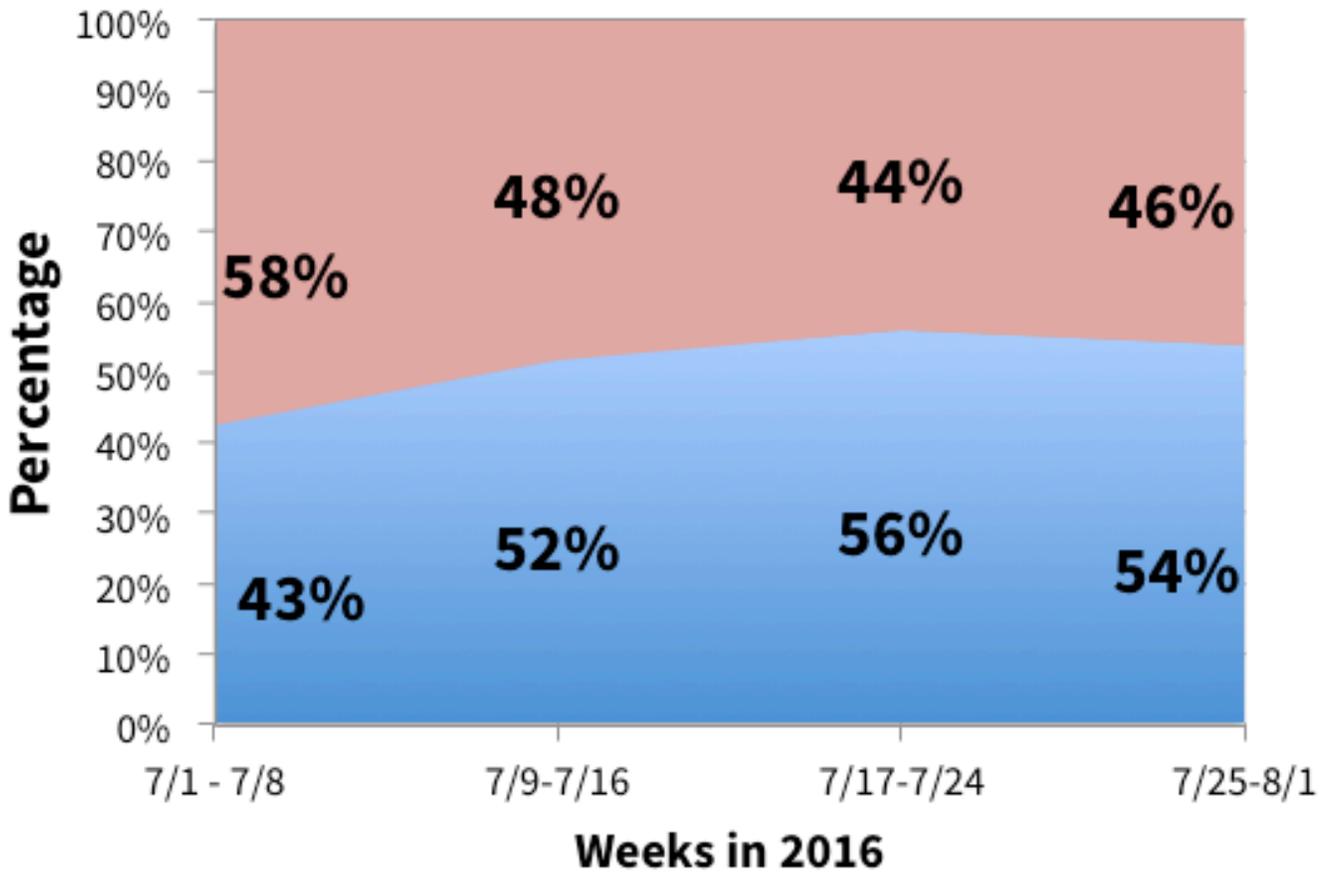


Tweets whose hyperlinks directed users to Planned Parenthood websites and Social Media sites had 2.5x and 1.5x the engagement rate of Planned Parenthood's average tweet. Seeing this, Planned Parenthood should tweet more using their website and social media spaces as places for users to visit.

ENGAGEMENT RATES BY HYPERLINK DOMAIN



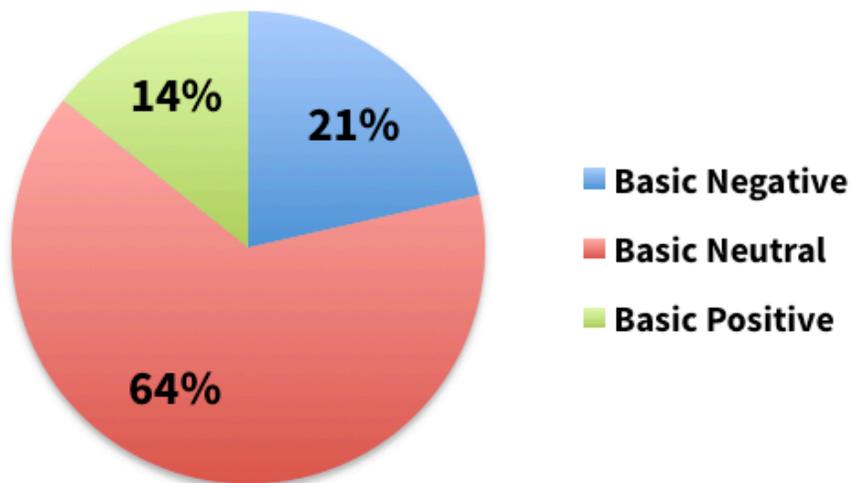
GENDER OF USERS TALKING ABOUT PLANNED PARENTHOOD ON TWITTER



Only after videos were released claiming that Planned Parenthood sells fetus parts did the demographic percentages of those talking about Planned Parenthood shift.

So during times of scandal and bad press about Planned Parenthood, it would be in the organizations best interest to pay attention to the male population, the majority of the contributors to the conversation.

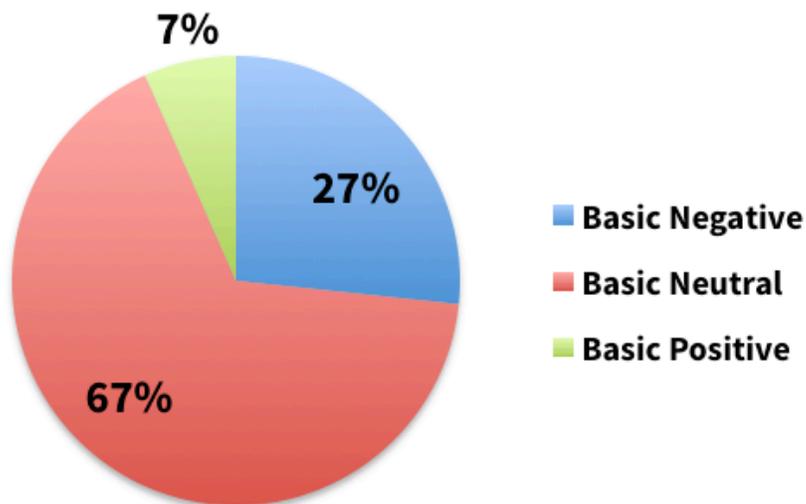
SENTIMENT OF TWEETS ABOUT PLANNED PARENTHOOD IN TEXAS



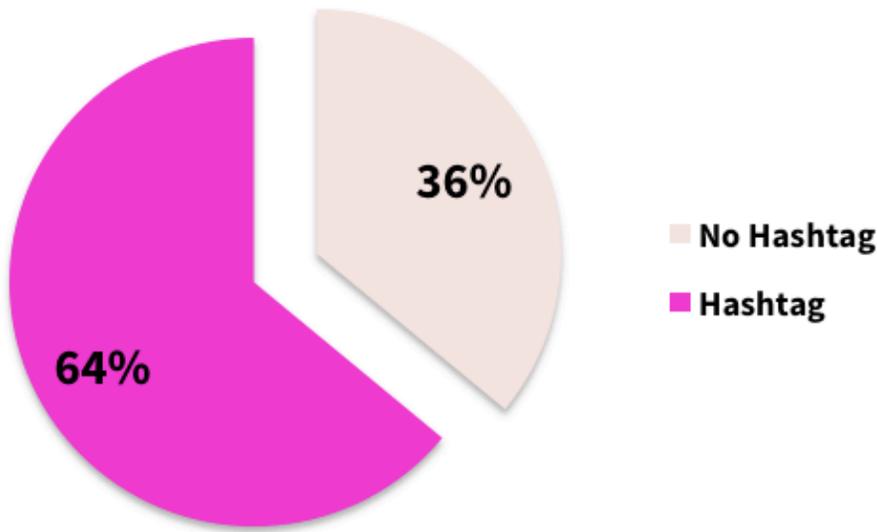
While many would believe that residents of normally progressive states, like California, would have much higher numbers of Positive Sentiment than that of a more conservative state, Texas. This, however, was not the case.

Planned Parenthood, while interacting and focusing on residents of states normally opposed to them needs to also focus on states that are more likely to support them normally.

SENTIMENT OF TWEETS ABOUT PLANNED PARENTHOOD IN CALIFORNIA

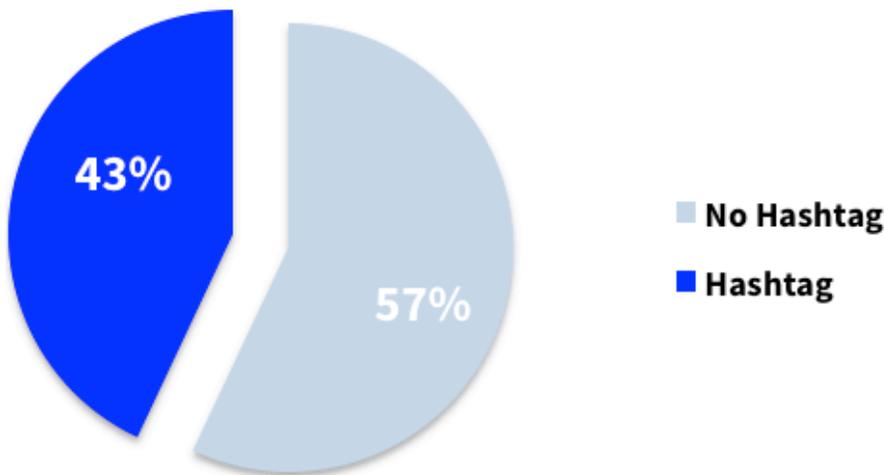


USE OF HASHTAGS IN TWEETS ABOUT PLANNED PARENTHOOD BY WOMEN



It was discovered that 64% of tweets made by women about Planned Parenthood contained a hashtag. Comparing this to the percentage of hashtag used by men in the conversations, only 43%, it is evident that in this conversation, women use hashtags much more often .

USE OF HASHTAGS IN TWEETS ABOUT PLANNED PARENTHOOD BY MEN



This is an important finding showing that Planned Parenthood, when reaching out to women their main, target audience, should employ the use of more hashtags. While men use them, it is not of the utmost importance when reaching out to the male demographic on twitter.



ANALYSIS OF EARNED DATA AND BIG DATA

INTRO

For the analysis on our earned data, we looked at tweets with sentiment-expressing hashtags. Hashtags that stuck out to us were #PinkOutCampaign, #DefundPP, #StandWithPP, #PPSellsBabyParts and #BlackOut. Planned Parenthood's "Pink Out" Campaign is an event that showcases support for the reproductive health care services that Planned Parenthood provides to many men and women across the globe. Essentially, this day advocated support for the organization, and women and men alike spoke out about why Planned Parenthood is crucial to their wellbeing and why it should not be defunded. This past year, in 2015, Pink Out Day was on September 29th, which was the first annual Pink Out Campaign. Millions of volunteers rallied in support of Planned Parenthood.

From the data collected, we found that there is a much higher amount of positive sentiment-expressing tweets with hashtags than negative. We also found that the highest amount of positive sentiment expressed in a tweet was during September of 2015 when the presidential election debates were beginning to occur. There are 353,258 total posts on the Buzz Monitor for Planned Parenthood, and 75 percent of these posts are conversed about on Twitter, 22 percent are conversed about on Tumblr, and 4 percent are conversed about on Facebook. We focused on the time period of July 2015 through October of 2015 for this assignment. The most engaged post on Twitter was authored by celebrity pop-star Ariana Grande where she says "Women need to be educated, healthy, and empowered. #standwithPP <http://t.co/0d2JJiglxx>." This post received over 12,000 retweets. She tweeted this on September 29, 2015, which was Pink Out Day. On Tumblr, the most engaged blog post received 152,020 notes. This blog post was a series of 9 "fun fact" tweet graphics authored by Helena Tacy, a transgender woman and opinion leader on the platform, that ended with a tweet that said "My previous nine tweets are just some of the reasons why I #StandWithPP." Images of posts are below.



Ariana Grande @ArianaGrande

Women need to be educated, healthy, and empowered. #standwithPP
[pic.twitter.com/0d2JJiglxx](http://t.co/0d2JJiglxx)

6:52 PM - 29 Sep 2015



Helena Tacy
@HelenaTacy

Fun Fact #1: NO ONE at Planned Parenthood responds to a regular unintended pregnancy with "you should get an abortion."



Helena Tacy
@HelenaTacy

Fun Fact #2: out of all of the services Planned Parenthood covers, only 3% is abortion-related.



Helena Tacy
@HelenaTacy

Fun Fact #3: Absolutely NO abortions performed at Planned Parenthood centers are publicly funded.



Helena Tacy
@HelenaTacy

Fun Fact #4: Many Planned Parenthood health centers do NOT perform abortions.



Helena Tacy
@HelenaTacy

Fun Fact #5: Planned Parenthood provides screenings for breast, cervical, & ovarian cancer, HIV & STDs, and just basic pregnancy.



Helena Tacy
@HelenaTacy

Fun Fact #6: Planned Parenthood also provides birth control pills, condoms, emergency contraception, and sex education to those in need.



Helena Tacy
@HelenaTacy

Fun Fact #7: Planned Parenthood also provides basic health care to men AND women for those who can't otherwise afford it.



Helena Tacy
@HelenaTacy

Fun Fact #8: Planned Parenthood has helped prevent around 516,000 pregnancies each year. Not terminate. PREVENT.



Helena Tacy
@HelenaTacy

Fun Fact #9: If Planned Parenthood is defunded, millions of people across the country will be left without a basic health care provider.



Helena Tacy
@HelenaTacy

My previous nine tweets are just some of the reasons I #StandwithPP.

In this report, we examined several questions, including:

- Do hashtags talking about defunding PP generate a more negative or positive sentiment? (use of #DefundPP)
- Do more males or females support the defunding of Planned Parenthood?
- Which state in the United States has the most Planned Parenthood conversation on Twitter?
- Does sentiment differ in conversation based on before and after the fake video was released?
- Do more men tweet about supporting Planned Parenthood (#StandWithPP) than women?
- Is the sentiment between genders different concerning general conversation about Planned Parenthood?

We discovered 6 interesting key actionable insights, including:

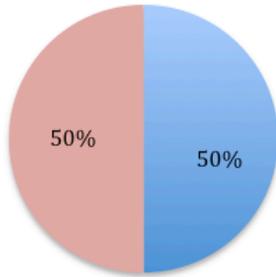
1. We believe that Planned Parenthood should host more events and incorporate positive hashtags to generate a greater positive hashtag sentiment expression on Twitter.
2. We think that Planned Parenthood should try to engage more with states who prove to have a higher volume of conversation concerning PP on social media platforms. Such states include Texas, California, and Washington D.C. We believe that if PP reaches out to celebrities or politicians, a greater deal of influence will be put on ralliers and supporters.
3. #DefundPP is a negatively related hashtag to Planned Parenthood. To combat this negative hashtag in states such as California, Texas and Florida, Planned Parenthood can focus on users from these states, the reasons they disagree with Planned Parenthood, and after this, focus on addressing those issues specifically in these states.
4. California, New York and Washington D.C. are known for having the most conversation about Planned Parenthood. Because Planned Parenthood knows this, it can partner with these influential users to generate more support through social media campaigns or general social media conversation.
5. Because there is such a large amount of negative posts on Facebook, we think that Planned Parenthood should post more about their positive doings, such as the Pink Out Campaign for example, on Facebook, which will in turn provoke more positive posts from users. Planned Parenthood should also try to limit its posts about topics that typically generate a huge, mostly negative discussion on Facebook (i.e. limit talking about #DefundPP, #NotMyCandidate posts, talking badly about politicians, etc.) We think Planned Parenthood could generate more positive posts on Facebook if it is also having and sharing positive conversation on Facebook.

WHO'S SAYING WHAT

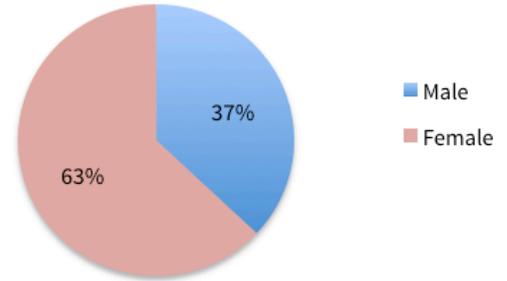
One of the key insights garnered through research came from splitting our data by gender. Once this was done, we were able to get a better idea of what each was talking

#DEFUNDPP vs. #STANDWITHPP

GENDER USING #DEFUNDPP

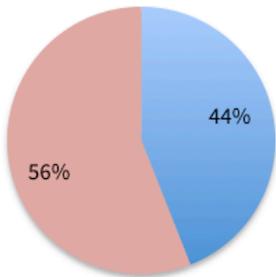


GENDER USING #STANDWITHPP

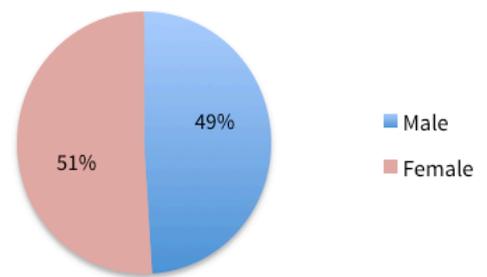


#PROCHOICE vs. #PROLIFE

GENDER USING #PROLIFE



GENDER USING #PROCHOICE



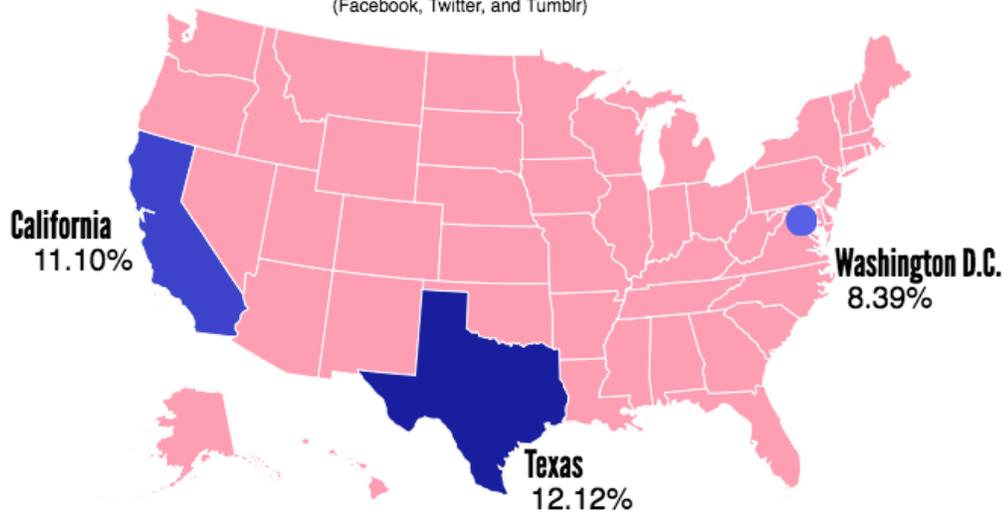
In the analysis of our data we found that more conservative hashtags associated with negative online sentiment for the organization is mostly split between male and female identifying users. On the other hand, hashtags hinting towards positive sentiment are used more by female than male users.

While the data that we worked with only provided us with 47% identifiable gender, we still believe that it is an accurate representation of the general feelings of male and female users across platforms.

SHARE OF VOICE

Top State SOV of Planned Parenthood Discussion on Social Media

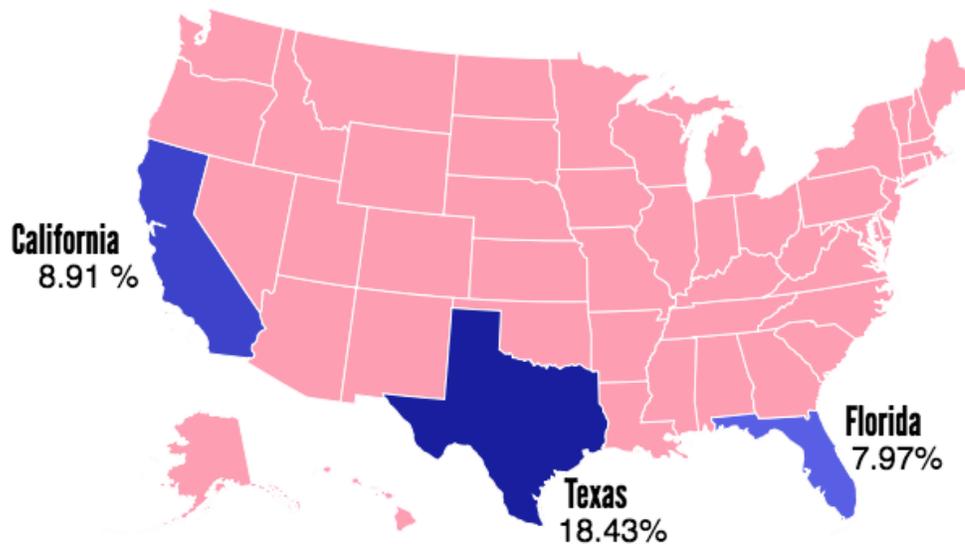
(Facebook, Twitter, and Tumblr)



Looking at all posts in the time period that was chosen, it was evident that there were a few regions and states who had a much higher share of voice of the conversation about Planned Parenthood.

California, Texas, and D.C. were the top three contributors to this conversation. Knowing this, Planned Parenthood can try to engage more with users in these regions, especially their supporters who may have more influence over others, like popular celebrities or politicians, to help better rally support and continue the conversation in these areas. By traveling to these areas of the country to speak to people about the company's cause, Planned Parenthood would capitalize on the opportunity to be in front of an audience who is already talking about them.

Top State SOV of "#DefundPP" on Social Media (Facebook, Twitter, and Tumblr)

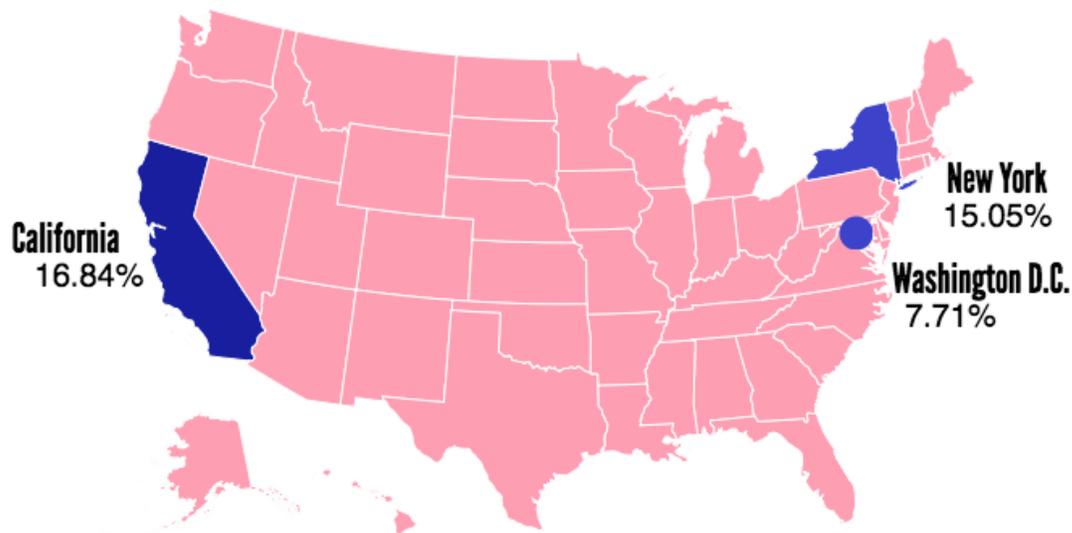


Looking at the use of the hashtag “#DefundPP,” a very anti-Planned Parenthood hashtag, users from Texas, California, and Florida were much more likely to use this hashtag.

To combat this negative hashtag in these states, Planned Parenthood can focus on users from these states, the reasons they disagree with Planned Parenthood, and after this, focus on addressing those issues specifically in these states. Texas having such a high percentage of use of this hashtag is especially important for Planned Parenthood to focus on because of its high usage.

Top State SOV of "#StandWithPP" on Social Media

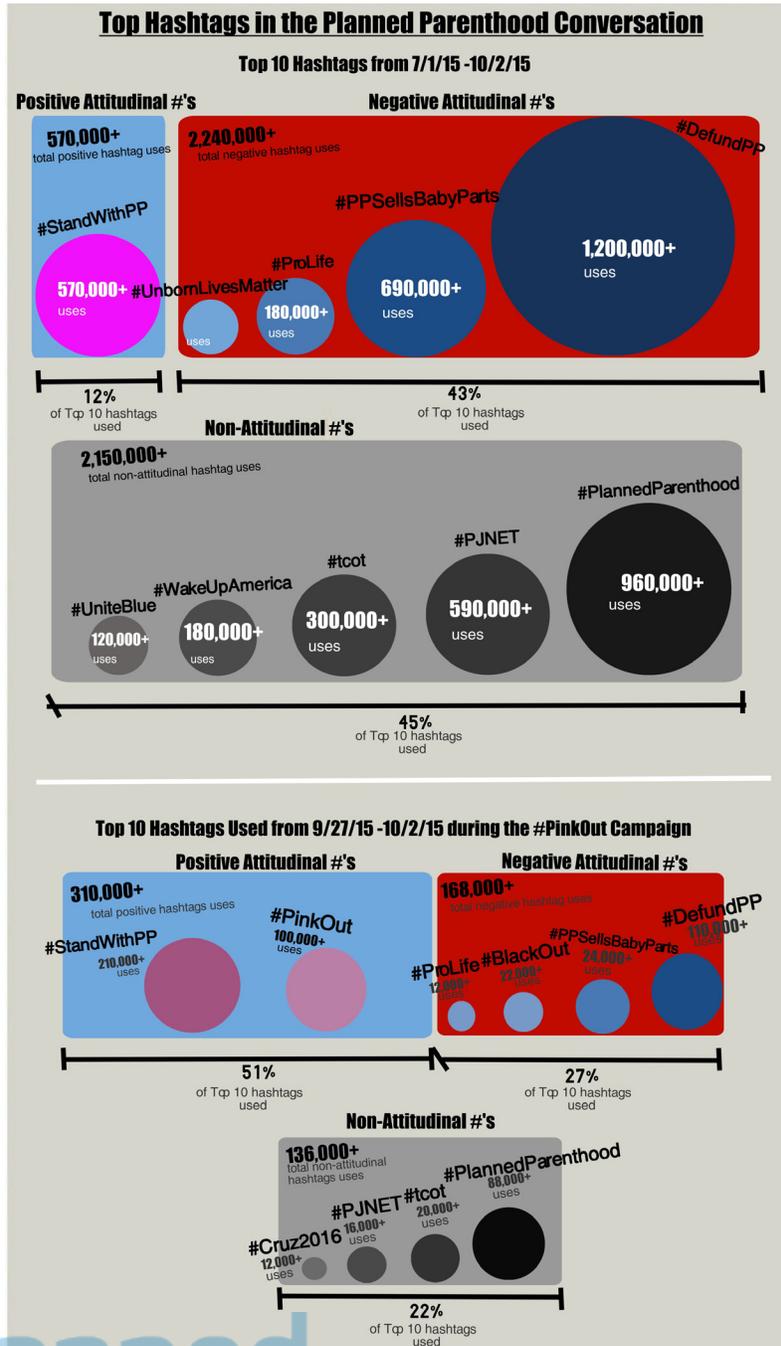
(Facebook, Twitter, and Tumblr)



Looking at the share of voice of states using the hashtag “#StandWithPP”, California, New York, and Washington D.C. stand out as having the most posts with this hashtag out of all other states. Knowing this, Planned Parenthood can focus its efforts on influential users of these areas that already are known supporters of Planned Parenthood.

Partnering with these users, either with social media campaigns or just general social media chatter, Planned Parenthood can bolster its support even more in these and surrounding areas. Also organizing events in these specific areas like that of the Pink Out campaign will help to better strengthen the general support of these areas for Planned Parenthood.’

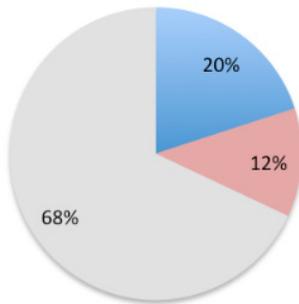
Hashtags are very prevalent in the conversation about Planned Parenthood. Generally, hashtags that are of a negative sentiment are used to a higher degree than those with positive sentiments. However, during Planned Parenthood's Pink Out social media campaign, use of positive sentiment hashtags overtook that of negative sentiment hashtags. Finding this, it is recommended that Planned Parenthood organize more of these support campaigns that have hashtags associated with them. This will help to curb the influx of negative hashtags used.



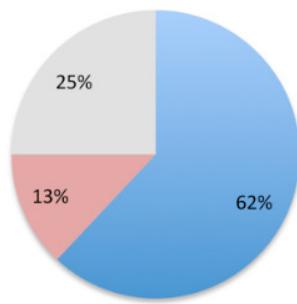
SENTIMENT ACROSS PLATFORMS

While posts about Planned Parenthood remain fairly negative throughout the established time period, after the release of the videos on July 14th, positive sentiment increased while negative sentiment decreased immediately. So whenever a controversy comes out about Planned Parenthood, its supporters do in fact come out to defend it. Knowing this, Planned Parenthood understands that it can rally its supporters and they will come to defend Planned Parenthood on the social media sphere. So Planned Parenthood can use more social media campaigns to allow its supporters to show their support.

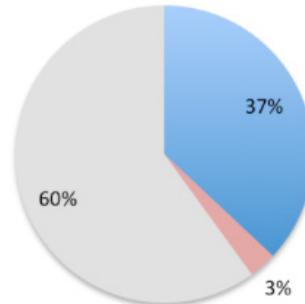
TWITTER SENTIMENT



FACEBOOK SENTIMENT



TUMBLR SENTIMENT



■ Negative
■ Positive
■ Neutral

Looking at the sentiment across social media platforms, we can see that Facebook has a high percentage of negatively-charged posts. While Twitter and Facebook have fairly similar percentages representing positive sentiment, Tumblr has only 3 percent.

Knowing this, Planned Parenthood can post more about their positive doings such as the Pink Out Campaign on Facebook, which will in turn generate more positive posts from users. Planned Parenthood should also try to limit its posts about topics that typically generate a huge, mostly negative discussion on Facebook (i.e. limit talking about #DefundPP, #NotMyCandidate posts, talking badly about politicians, etc.) We think Planned Parenthood could generate more positive posts on Facebook if it is also having and sharing positive conversation on Facebook.



QUINTLY ANALYTICS



INTRO

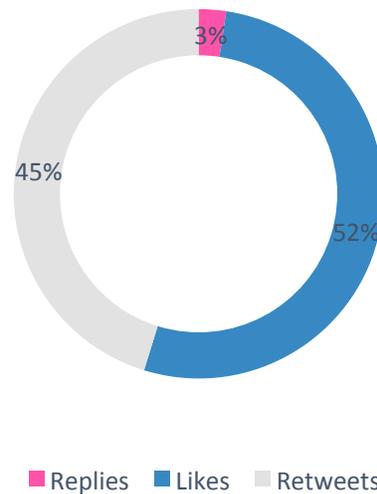
Up until now, we've been using Crimson Hexagon to garner insights on Planned Parenthood's data. In an attempt to apply another analytics tool to our client's data, we implemented Quintly. This new social media analytics tool allows us to study the two most recent months of data, so essentially March 2016-present.

The analysis and data posted below correlates with our team's goals concerning data available on Planned Parenthood's Twitter and Facebook social media platforms. This data was found on Quintly, a social media analytics and benchmarking tool. Quintly offers a free 14 day trial and gives insights on an organized and intuitive dashboard. On the dashboard, we were able to add widgets to clearly see data we wanted to analyze. We looked at a variety of widgets including but not limited to interaction rates, mentions, post content and more.

From our research, we focused on important days in March that relate to the upcoming presidential election. Such days included Super Tuesday and other GOP Republican debates. We chose these dates because conversation was high and interactive about Planned Parenthood. Quintly allowed us to gain insights into our overall goals with the relevant information provided to us about the governmental debates.

TWITTER

Planned Parenthood Twitter Activity for March 2016

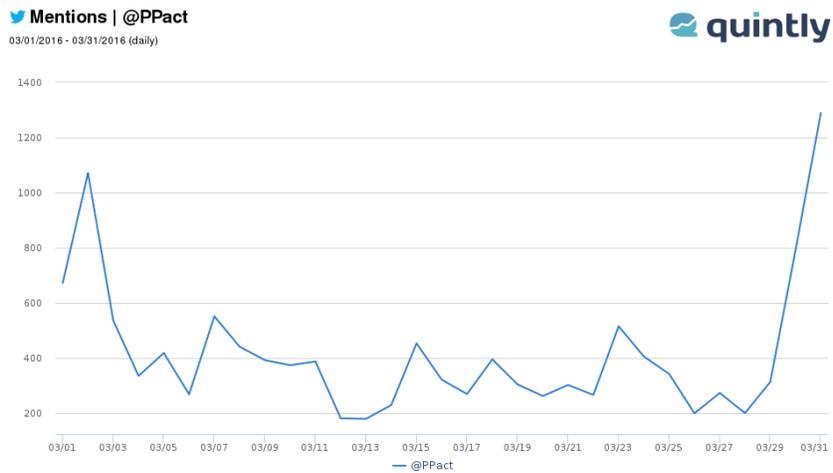


We learned that Planned Parenthood on Twitter has a low interaction rate concerning replies. Over the month of March:

2.4% | Replies
52.37% | Likes
45.23% | Retweets

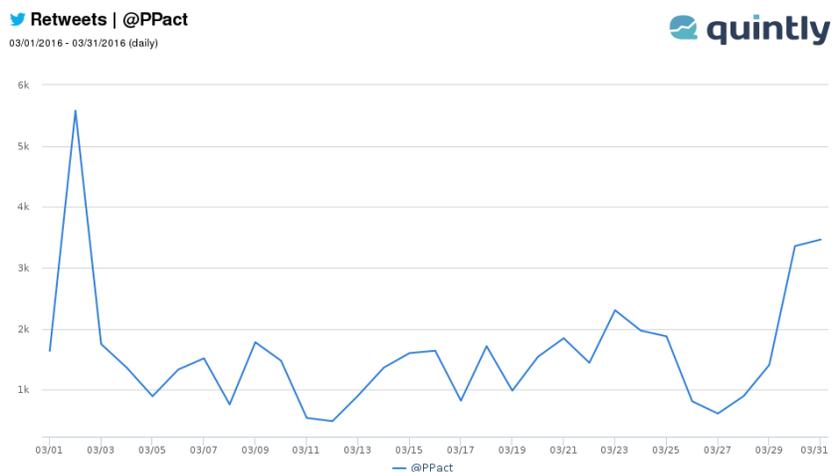
Planned Parenthood should increase its replies to its followers when mentioned on Twitter in order to facilitate conversations regarding their cause.

TWITTER

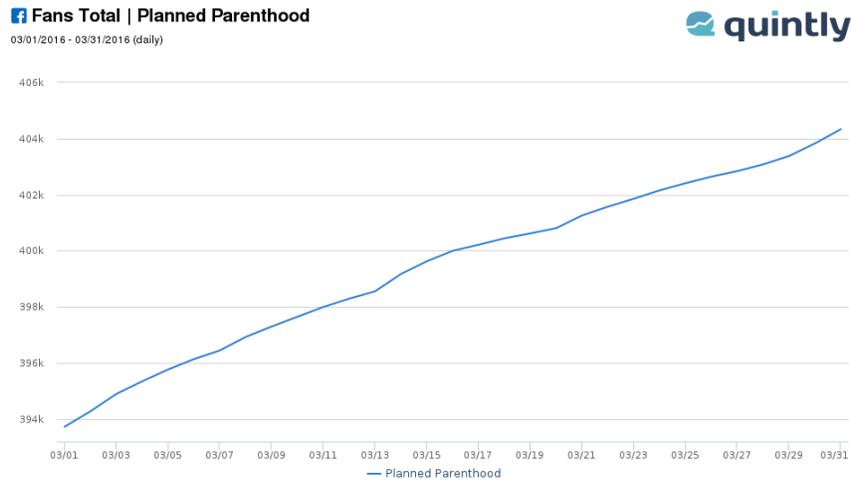


Spikes on Twitter of Planned Parenthood mentions and retweets are centered around Republican and Democratic Presidential debates in the month of March. Throughout the month of March, a total of five debates were held; however, some drove more traffic online than others. The Republican Debate on March 3, 2016 was responsible for the biggest spike at the beginning of the month.

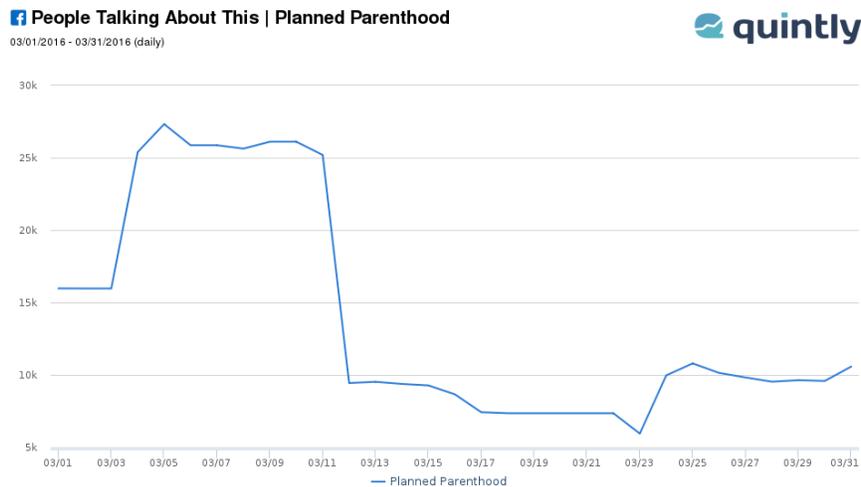
Conversations on PP have increased due to the country's current political climate.



FACEBOOK



There was almost perfect linear growth of Facebook fans in the month of March. From 393,279 on March 1, 2016 to 404,335 on March 31, 2016. While an increased following can't necessarily quantify an increased awareness for the organization and its cause, it does mean that users are being successfully directed to a PP-sponsored content source.

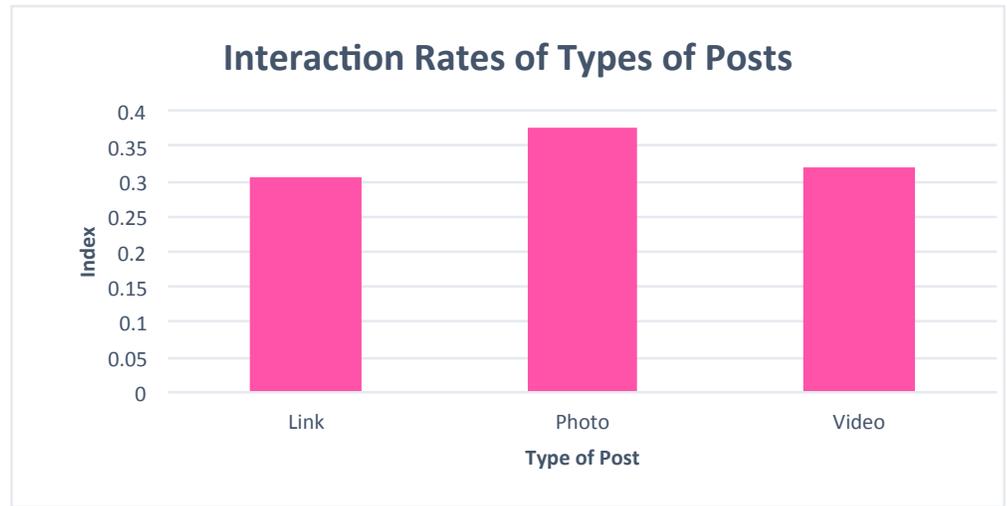


There was a sharp increase around Planned Parenthood conversations on March 2, 2016 and the days following due to Super Tuesday, an important day for presidential elections. Planned Parenthood is a highly disputed issue in the political realm.



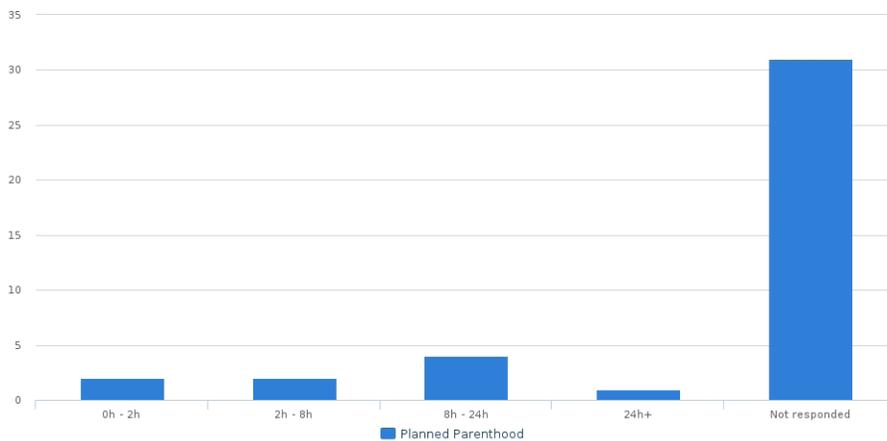
FACEBOOK

This graph shows interaction patterns on behalf of Planned Parenthood. Users tend to interact more with posts that include a photo.

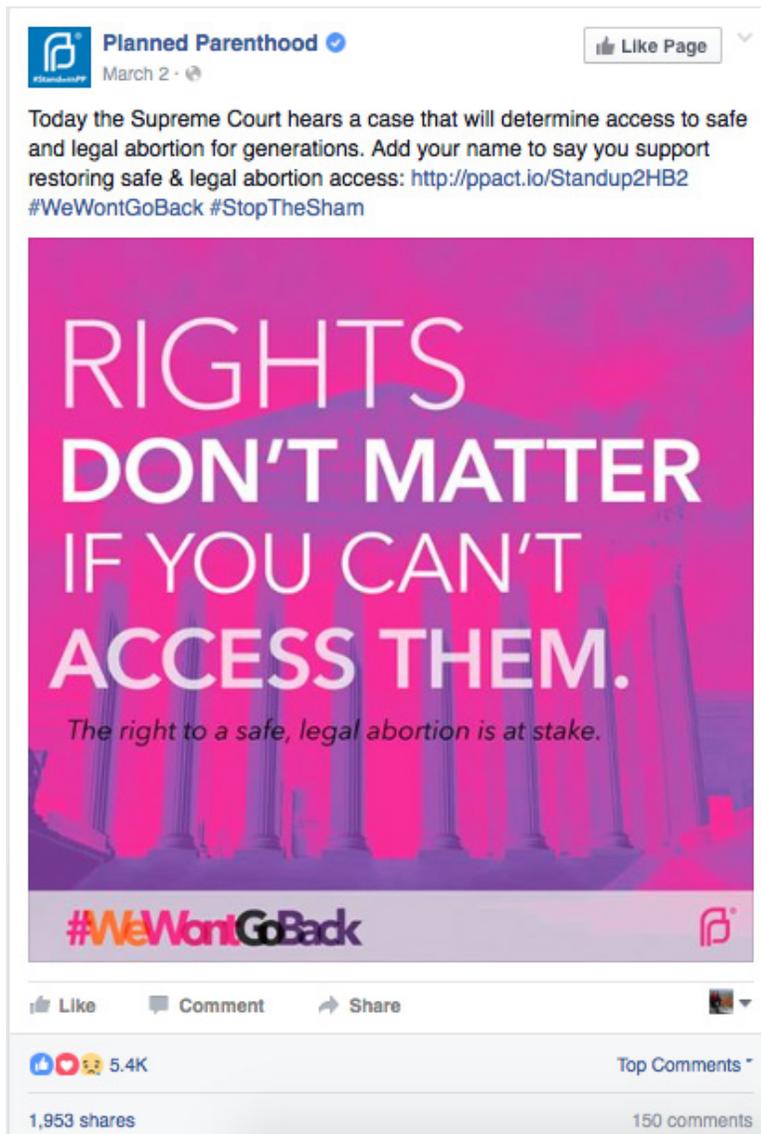


Response Times | Planned Parenthood

03/01/2016 - 03/31/2016 (total)



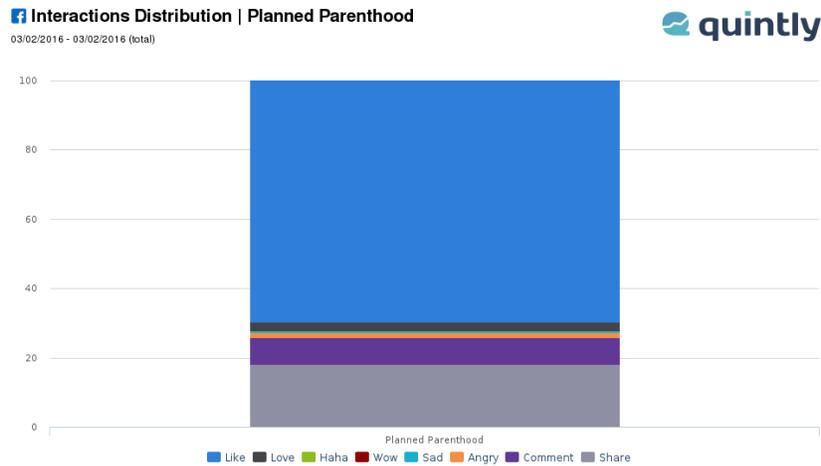
These response times reveal low response times to user's posts. In order to increase their social media presence and positively sway user perception, Planned Parenthood needs to make sure it is creating room for a two-way dialogue with its audience.



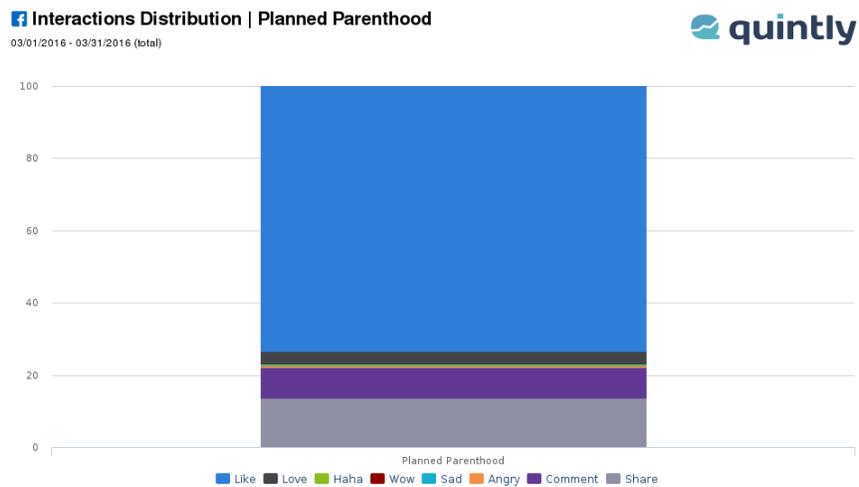
Most Engaged Facebook Post | March 2016

Enhanced engagement amongst Facebook page users. This post engaged users previously connected with Planned Parenthood because it concerned a Supreme Court Case regarding accessibility to safe and legal abortions.

FACEBOOK



MARCH 2, 2016



MARCH 2016

When comparing the March 2, 2016 graph to the graph detailing the entire month, we see a slight increase in the percentage of likes throughout March.

REVIEW OF QUINTLY

Quintly is a social media analytics tool for all major networks. Quintly can access data from Twitter, Facebook, LinkedIn, Google+, Instagram, Feeds and Pinterest. One tool I didn't see was Tumblr, which our group had used in previous reports with Crimson Hexagon. For the purpose of this project, we used Facebook and Twitter accounts on Quintly. The Facebook page we used was "Planned Parenthood," and the Twitter handle we viewed was @PPact.

Quintly offers a handful of metrics and measurements for us to use. It offered a plethora of post content information including own posts, post type distribution and user post data. Additionally, there was an abundance of resources concerning interaction rates among data. This information was depicted in charts and included interaction distribution, interaction rates, post/interaction comparison, what people are talking about, and average likes, comments, and shares per owned post. There was not a lot of demographic data offered to us in the free trial, which is something I would have liked to look at.

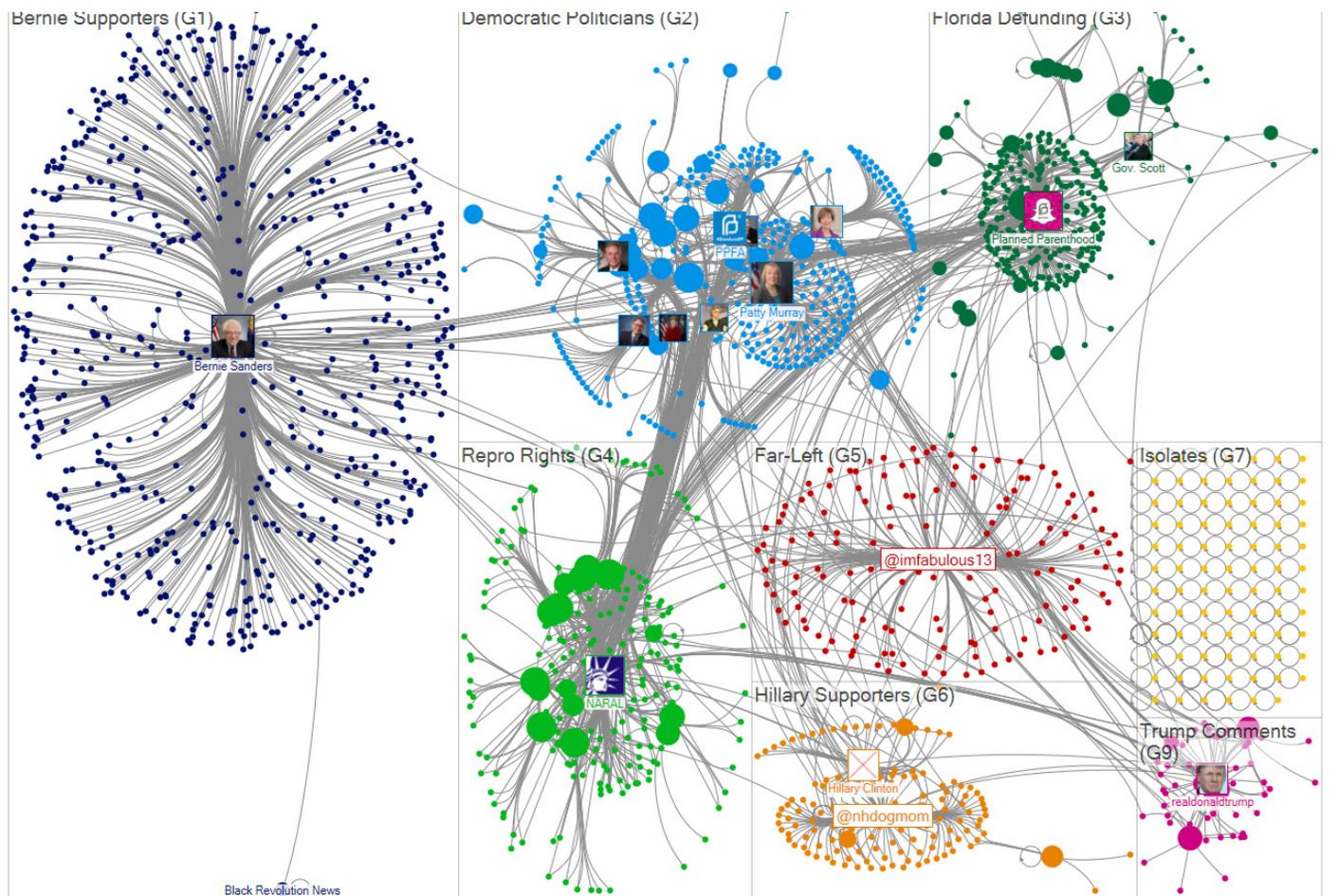
From the dashboard on Quintly, one can add widgets to more clearly analyze the available data. There was a wide variety of widgets available for us to use with the free trial including a key metrics table, information about Facebook fans, post data, interaction data, and information about Twitter followers, tweets and interactions. Once the widgets are added to the dashboard, it is very clear and easy to read and analyze the data. Quintly allows you to see an overall dashboard, which shows you widgets from all social platforms, but it also allows you to see individual social platform dashboards as well, which I found to be helpful because the information was then presented in a more cohesive, organized manner.

Because we used a free trial, there were some restrictions with Quintly. We were only able to see the most previous two months of data, and we didn't have access to some of the "cooler," or more insightful tools such as Facebook insights, for example. Because of the restriction of data, we were unable to study our usual time period of July 2015-November 2015. However, we still managed to learn valuable information about the data presented to us.

Something we focused on this semester was hashtags and sentiment of hashtags. I did not see hashtag data available on Quintly, so we steered directions when using this tool. I also did not see much information on sentiment of tweets or Facebook posts.

We found Quintly to be very intuitive and easily navigable. The website was friendly and presented information in a visually appealing way, making it easy to understand what was depicted. Something that resonated with me from using Quintly was the creative ways their graphs were designed. Quintly showed us data that we had not previously looked at, such as interaction rates, and the information was graphed accordingly (sometimes using circular graphs). We really liked the organization of the site, and we thought it shared interesting information concerning our data. We would definitely recommend Quintly to others taking this class because of how user-friendly it is.

NODE EXCEL

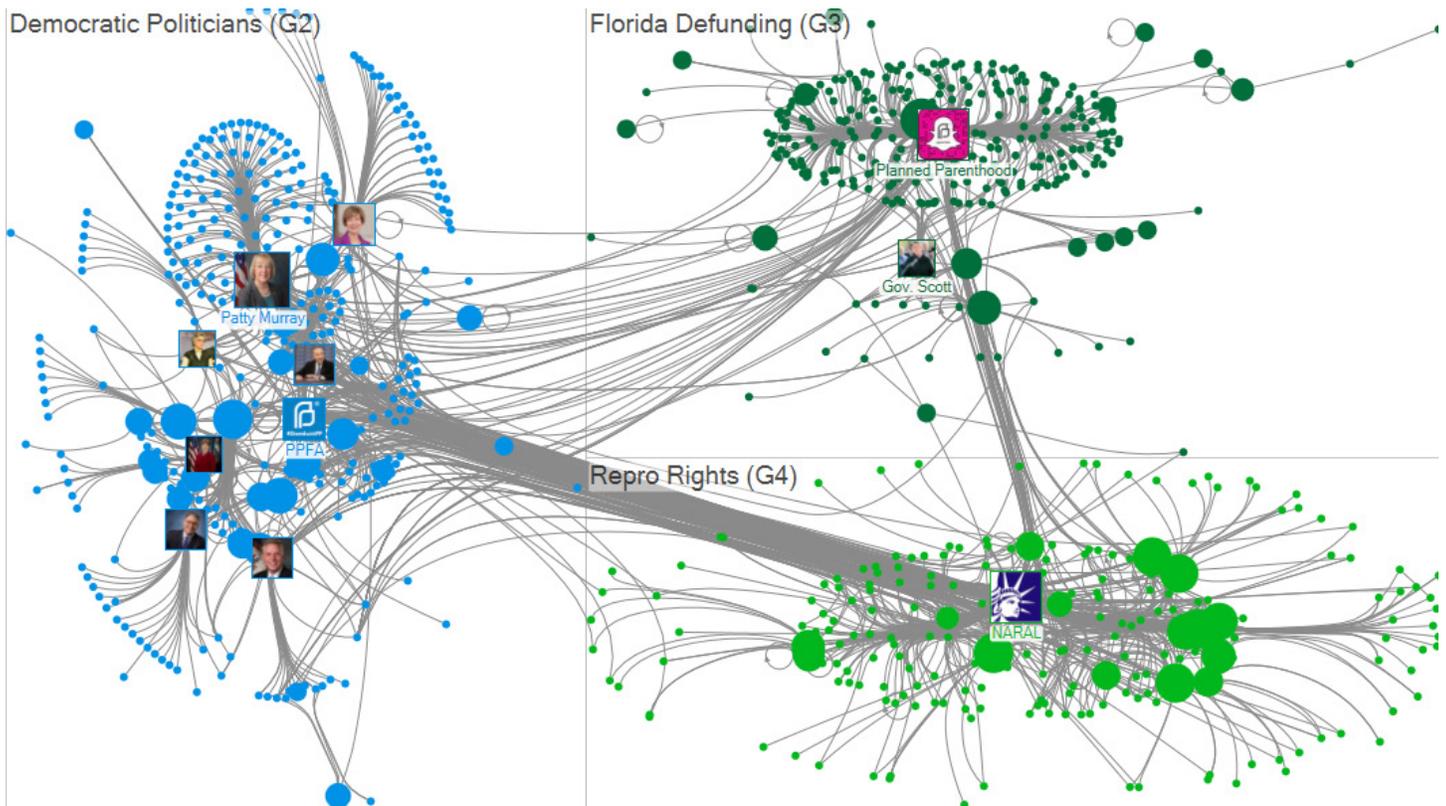


Looking at the network using “#StandWithPP” over the time period of March 29th - March 30th 2016, there are 7 major clusters: Bernie Sanders Supporters, Democratic Politicians, Reproduction Rights Groups, Hillary Supporters, The Far Left, Florida Defunding, and The Isolates Group.

These 7 major clusters represented 77.5% of the total users in the conversation. In general, the most discussed topic in this network was the House subpoena of fetal tissue researchers on March 29th.

The users with the highest centralities and in-degrees in this network were Bernie Sanders, the National Abortion Rights Action League, Planned Parenthood, and Senator Patty Murray. Much of the conversation was themed as the Republican party being shameful and dangerous. Planned Parenthood partnering with the users with high in-degree as well as high betweenness centrality will help to spread support for the organization.

These three groups, the Democratic Politicians, the Reproductive Rights, and the Florida Defunding group where the most connected clusters in the entire network.



The edges between these three groups alone accounted for 7% of the total edges of the network. Their conversations between each other were centered around Gov. Rick Scott of Florida who signed a bill that began the defunding of Florida in the state. Because these groups are quick to respond to political happenings in regards to Planned Parenthood, PP should work with organizations like NARAL and Senator Patty Murray to advocate for the organization.

APPENDICES

1. ANALYSIS OF OWNED DATA

Appendix 1 | Search Terms and Guidelines

To collect our data, we used a Boolean Search in Crimson Hexagon. Our search was “Planned Parenthood” OR @PPact OR @PPFA OR #PlannedParenthood OR #PPSellsBabyParts OR #DefundPP OR #StandWithPP OR “women’s health.”

Terms included were Planned Parenthood, Planned Parenthood’s Twitter handles, defunding Planned Parenthood, some of PP’s popular hashtags, and women’s health. We included these search terms because we found them to be most helpful in finding tweets concerning Planned Parenthood.

#DefundPP | With the upcoming elections, defunding PP has been a big topic of debate, which is why we found this to be a relevant and necessary search topic.

#PPSellsBabyParts | Because our search base includes all of 2015, and there was a video released in July of 2015 regarding PP selling baby parts to generate revenue. PP declined these accusations; however, the tweets about this carry positive and negative sentiment, which was very beneficial to our study. It was also interesting to view “sides” of the rumor.

#StandWithPP | This hashtag was included because Planned Parenthood often posts with this specific hashtag, encouraging its followers and supporters to stay by them, despite political outlashes and disagreements against and toward the organization.

“Women’s health” | We felt “women’s health” to be relevant as well since Planned Parenthood offers services and healthcare to women besides the typical abortions that people may think. Overall, our Boolean search proved to be extremely useful as we generated over 500 tweets that were pertinent to Planned Parenthood.

PPact | One of Planned Parenthood’s more prominent Twitter accounts

PPFA | Another one of Planned Parenthood’s Twitter accounts (not as popular)

Planned Parenthood | The name of the organization that we are studying

#PlannedParenthood | a popular hashtag among Twitter users tweeting about Planned Parenthood

Appendix 2 | Uninformative Analysis

We studied a number of actionable insights for the purpose of this project. Unfortunately, they didn't all prove to be essential to our study. Engagement data with hashtags and use of hyperlinks did not prove to be informative for our study. Results were approximately an even 50/50 split, which didn't show any key differences. Sentiment data between male and female was not informative for our study as well. Throughout the duration of our study, sentiment data for gender remained fairly equal and showed little variance overtime.

2. ANALYSIS OF EARNED DATA AND BIG DATA

Appendix 1 | Search Terms and Guidelines

To collect our data, we used a Boolean Search in Crimson Hexagon. Our search was “Planned Parenthood” OR @PPact OR @PPFA OR #PlannedParenthood OR #PPSellsBabyParts OR #DefundPP OR #StandWithPP OR “women’s health.”

Terms included were Planned Parenthood, Planned Parenthood’s Twitter handles, defunding Planned Parenthood, a few of PP’s popular hashtags, and women’s health. We included these search terms because we found them to be most helpful in finding tweets concerning Planned Parenthood. We also looked at #PinkOutCampaign and “Pink Out Day” for the purposes of this assignment.

#DefundPP | With the upcoming elections, defunding PP has been a big topic of debate, which is why we found this to be a relevant and necessary search topic.

#PPSellsBabyParts | Because our search base includes all of 2015, and there was a video released in July of 2015 regarding PP selling baby parts to generate revenue. PP declined these accusations; however, the tweets about this carry positive and negative sentiment, which was very beneficial to our study. It was also interesting to view “sides” of the rumor.

#StandWithPP | This hashtag was included because Planned Parenthood often posts with this specific hashtag, encouraging its followers and supporters to stay by them, despite political outlashes and disagreements against and toward the organization.

“Women’s health” | We felt “women’s health” to be relevant as well since Planned Parenthood offers services and healthcare to women besides the typical abortions that people may think. Overall, our Boolean search proved to be extremely useful as we generated over 500 tweets that were pertinent to Planned Parenthood.

PPact | One of Planned Parenthood’s more prominent Twitter accounts

PPFA | Another one of Planned Parenthood’s Twitter accounts (not as popular)

Planned Parenthood | The name of the organization that we are studying



#PlannedParenthood | a popular hashtag among Twitter users tweeting about Planned Parenthood

#PinkOutCampaign | a hashtag used amongst users tweeting about Planned Parenthood's Pink Out Campaign

Pink Out Day | Planned Parenthood's attempt at getting Americans to listen to the women who are helped by PP and their services. This was essentially a day that allowed PP supporters to speak out about what PP has done for them as a way to showcase what the organization is all about.

Appendix 2 | Uninformative Analysis

We studied a number of actionable insights for the purpose of this project. Unfortunately, they didn't all prove to be essential to our study. Sentiment based on gender from July 10, 2015 until October 16, 2015 proved to not be informative. The percentages barely differed between males and females for this insight. Females had 14% basic positive sentiment, 52% basic neutral sentiment, and 24% basic negative sentiment. Meanwhile, males had 11% basic positive sentiment, 54% basic neutral sentiment and 35% basic negative sentiment. Because these numbers are so similar, this analysis did not prove to be very enlightening for our project.