



#Election2012, Twitter & Public Sentiment

Paul Hitlin, Senior Researcher

Pew Research Center's
Project for Excellence in Journalism

December 6, 2012



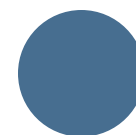
Does sentiment on Twitter
reflect public opinion?



IF TWITTER USERS RAN THE ELECTION...



PRESIDENT RON PAUL





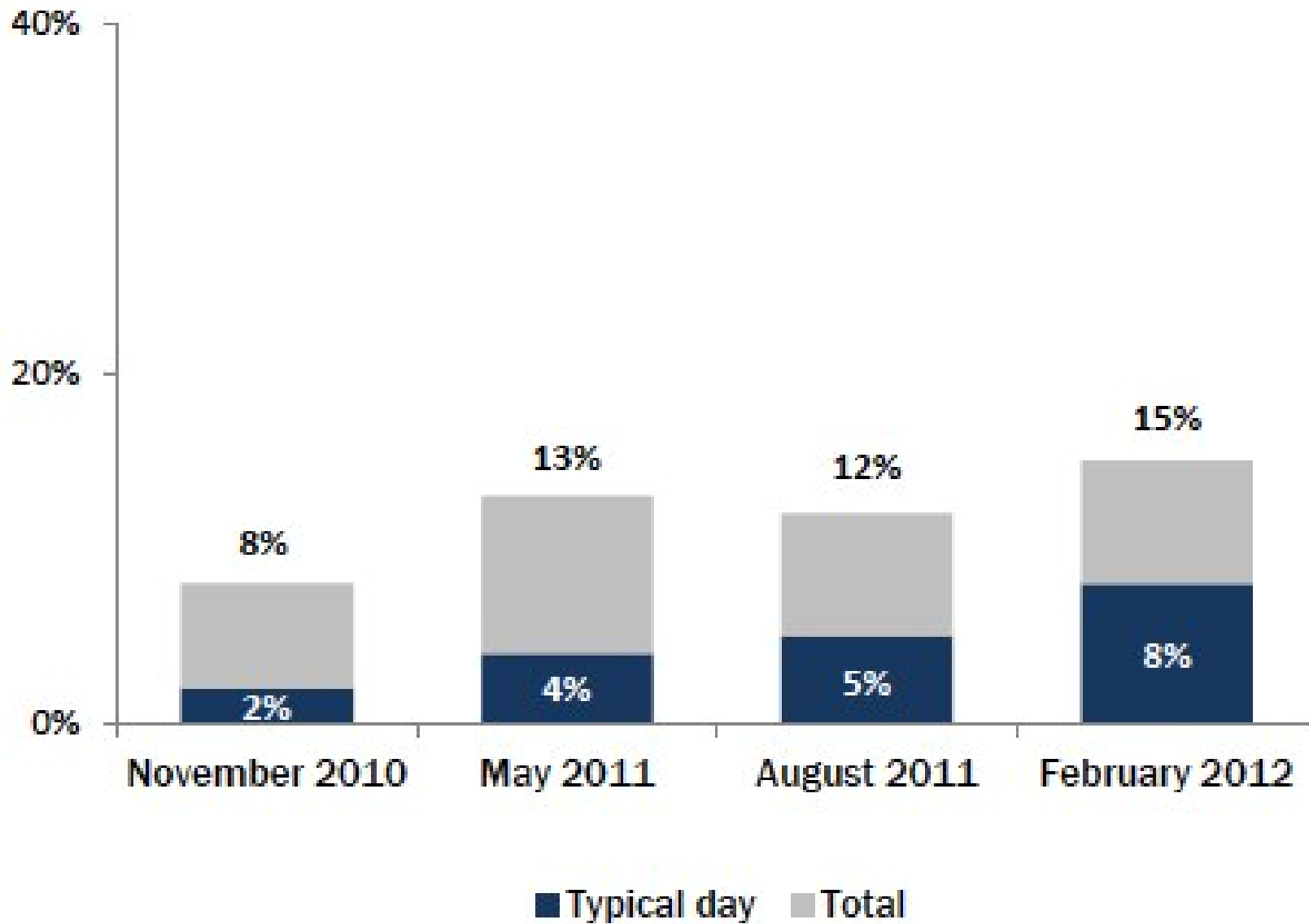
MAIN PEJ FINDINGS ABOUT TWITTER

- Sentiment on Twitter often does not track with public opinion surveys
- Sentiment on Twitter changes in its own unique ways
- Twitter users are a subset of the overall public
- Social media users are an active and engaged public with growing influence



Twitter usage over time

% of internet users who use Twitter



Who uses Twitter

% of Internet users in each group

	Twitter
All internet users (n=1,873)	16%
Republicans (n=449)	12
Independents (n=667)	18*
Democrats (n=600)	18*
Ideology	
Conservative (n=702)	10
Moderate (n=631)	16*
Liberal (n=420)	25**
Gender	
Men (n=886)	16
Women (n=987)	17
Age	
18-29 (n=351)	32***
30-49 (n=524)	15**
50-64 (n=567)	9*
65+ (n=404)	4

Pew Research Center's
Internet & American Life
Project, Winter 2012



Coding Twitter for Tone



CODING FOR TONE AND SENTIMENT

- Measures the overall impression the public is receiving in media about each candidate
 - Quotes
 - Facts presented to be determined favorable or unfavorable (including polls)
 - Journalistic analysis
- Not an examination of media bias



EXAMPLES OF NEGATIVE STATEMENTS



“Romney’s approval numbers have fallen in the last week.”

“I believe Obama’s tax plan will not work.”

To analyze the conversation on Twitter,

PEJ combined:

- traditional human coding
- technology from Crimson Hexagon





crimson hexagon

- Closest application to human coding
- PEJ spent a year testing
- Doesn't just use keywords – uses relationships of words
- Access to the full Twitter “Firehose”



Manage ▾

Save & Close

Results

ds Categories

Training

Run

Save

Ready to run.

Train from Oct 28, 2012 to Nov 5, 2012 

Use the keyboard to assign a category to this post.

- 99 ●
- 87 ●
- 119 ●
- 27 ●
- 3,652

Title: RT @BarackObama: RT if you're supporting the candidate in this election who's fighting for the middle class: President Obama.

Date: Nov 5, 2012 1:00 PM GMT

Location: <http://twitter.com/mch7576/status/265438512352985088>

Site: twitter.com

RT @BarackObama: RT if you're supporting the candidate in this election who's fighting for the middle class: President Obama.

Skip to Next

✓ Ready to run.

Train from Oct 28, 2012 to Nov 5, 2012



Use the keyboard to assign a category to this post.

99 ●

87 ●

119 ●

27 ●

3,652

Title: @kcstock That revenge remark really disturbed me more than anything else during this campaign. Obama is divisive and scary.

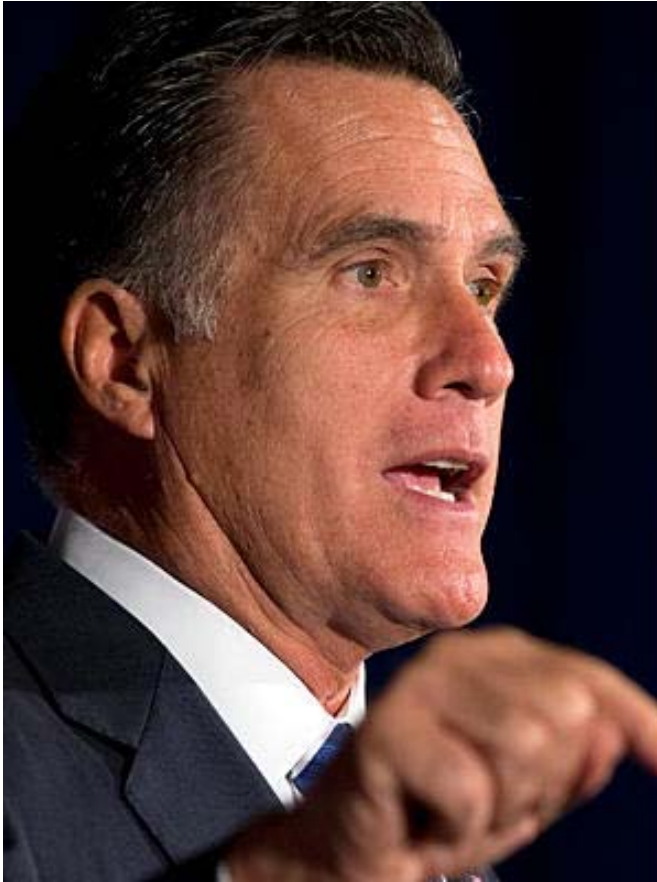
Date: Nov 4, 2012 7:10 PM GMT

Location: <http://twitter.com/DawnRiseth/status/265169073791442945>

Site: twitter.com

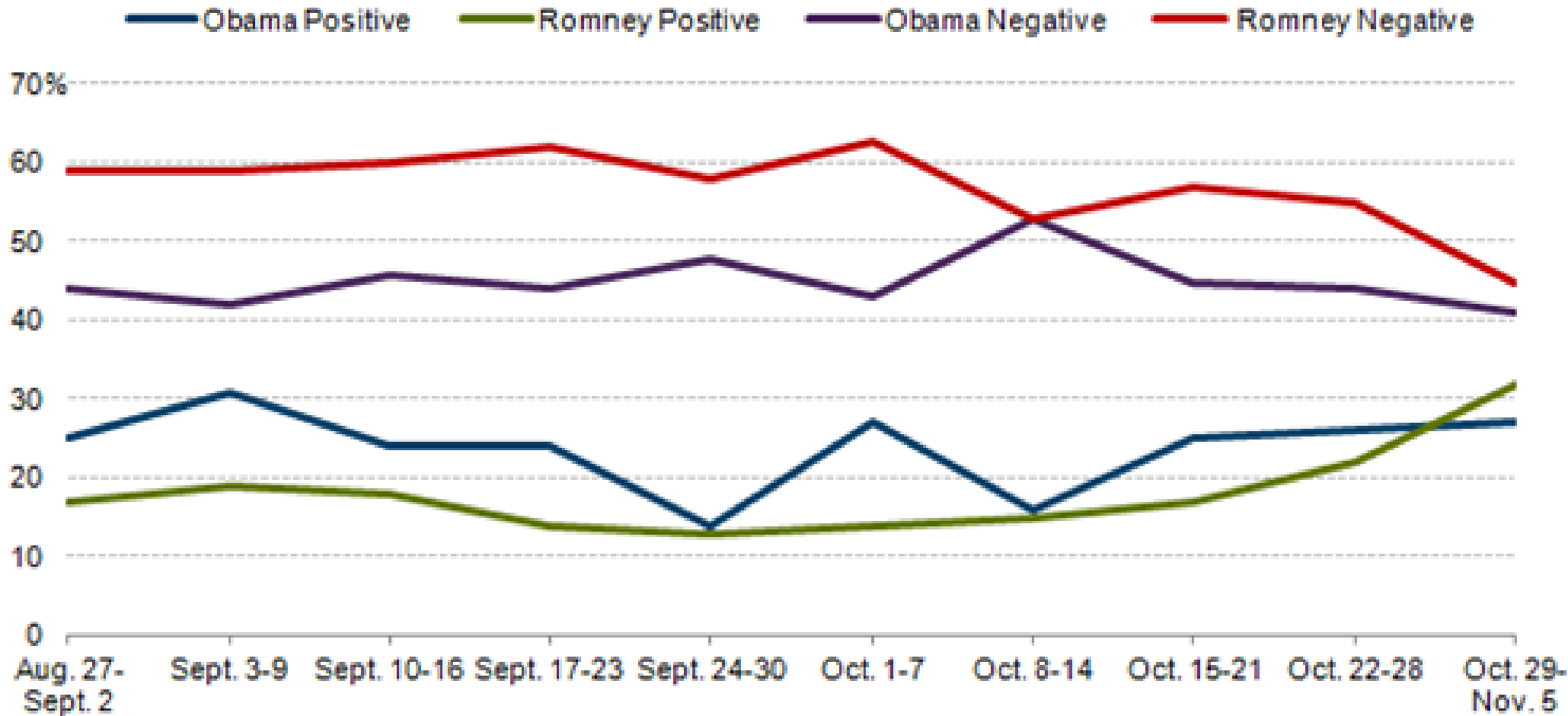
@kcstock That revenge remark really disturbed me more than anything else during this campaign. **Obama** is divisive and scary.

WHAT DID WE FIND?



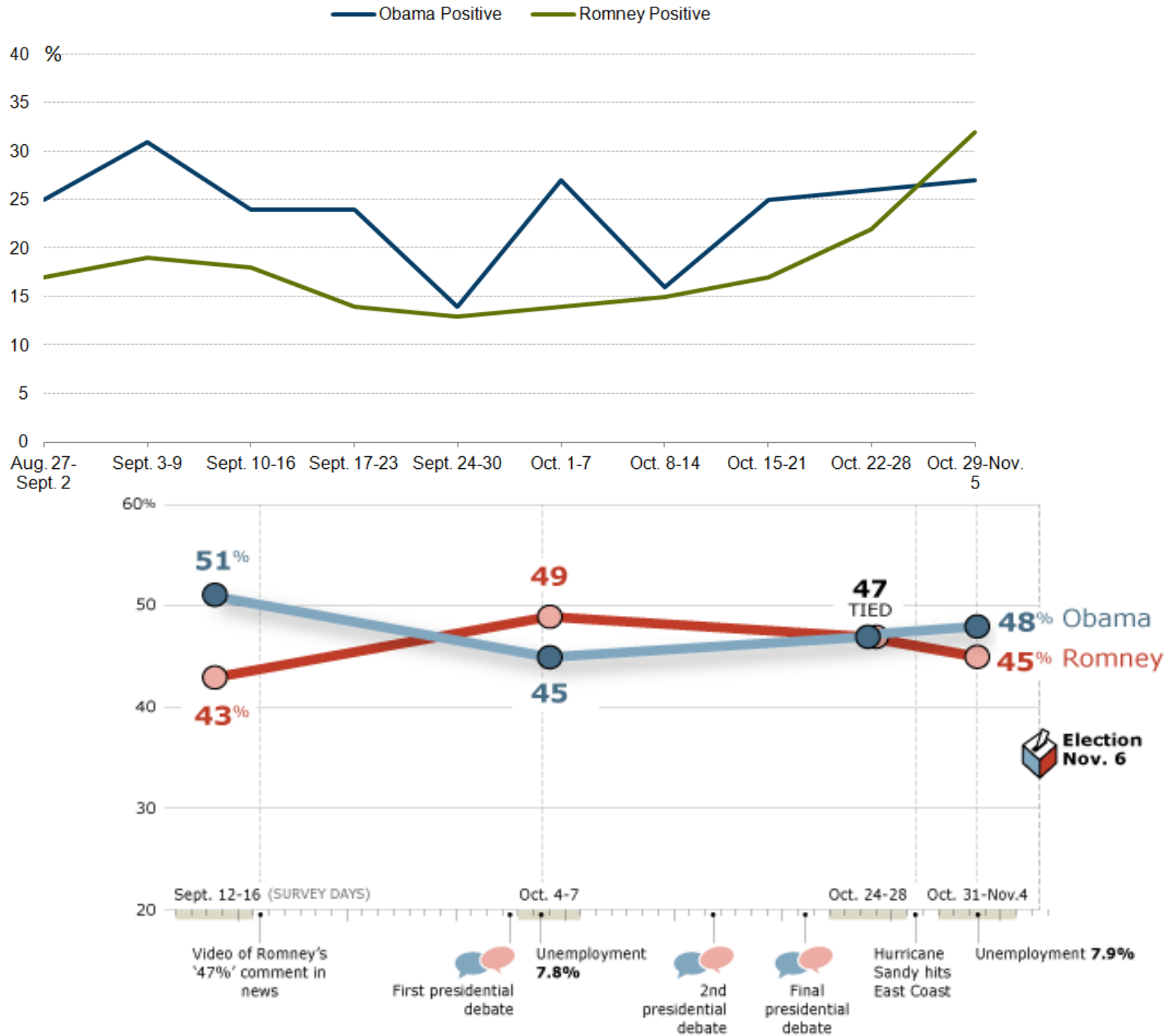
Tone of Conversation about Candidates on Twitter

Percent of assertions



Tone of Conversation about Candidates on Twitter

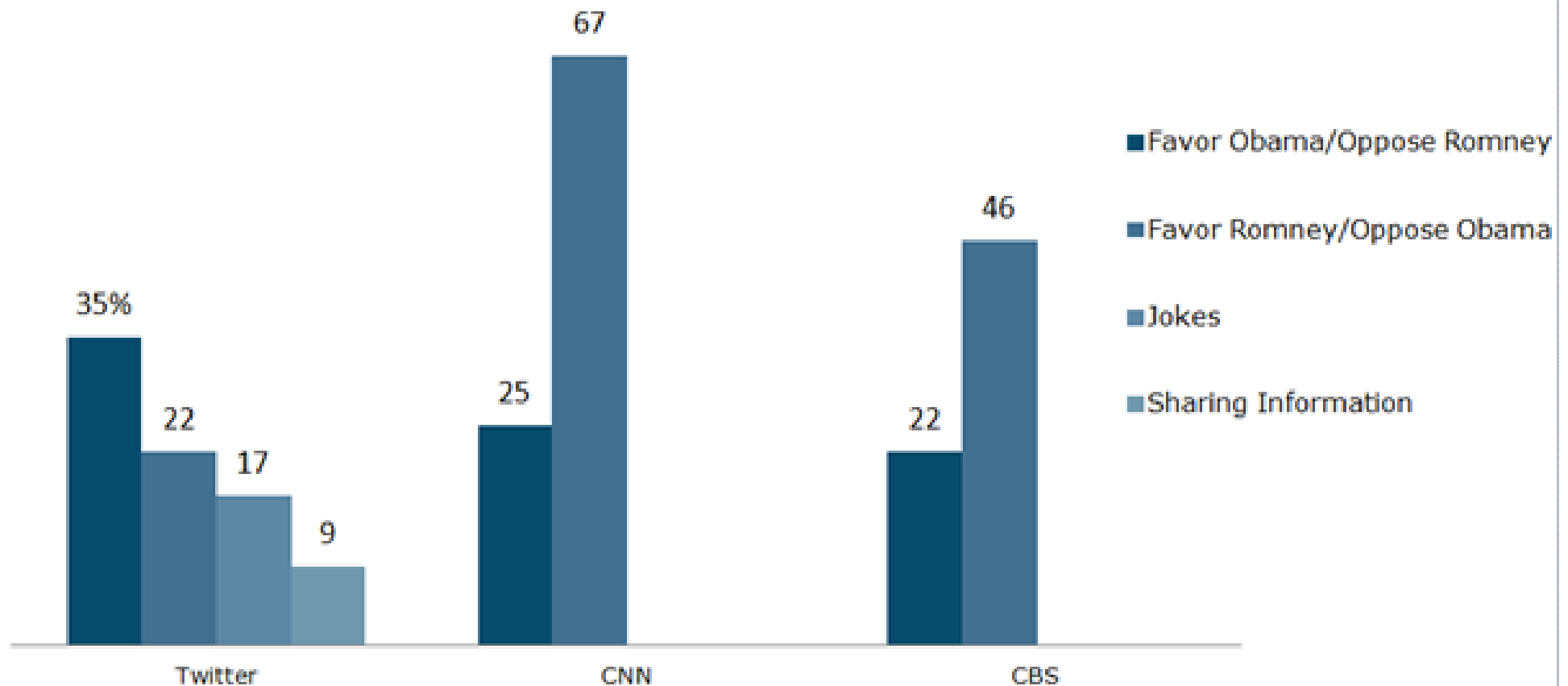
Percentage of assertions



THE FIRST DEBATE: REACTION ON TWITTER IN THE FIRST 12 HOURS

Response to the First Debate

Percentage of assertions compared to CNN and CBS polls of debate watchers



Candidates Get No Convention Bounce in Social Media

Percentage of assertions and stories

Tone about Romney		Week of RNC Convention	Week of DNC Convention
	Twitter		
	Positive	17%	19%
	Negative	59	59
	Mainstream Media		
	Positive	36	7
	Negative	15	44
Tone about Obama			
	Twitter		
	Positive	25	31
	Negative	44	42
	Mainstream Media		
	Positive	4	32
	Negative	57	22

Note: Coverage deemed 'neutral' is not shown. Positive, negative, and neutral coverage total 100%.

PEJ analysis using Crimson Hexagon technology

PEW RESEARCH CENTER'S PROJECT FOR EXCELLENCE IN JOURNALISM

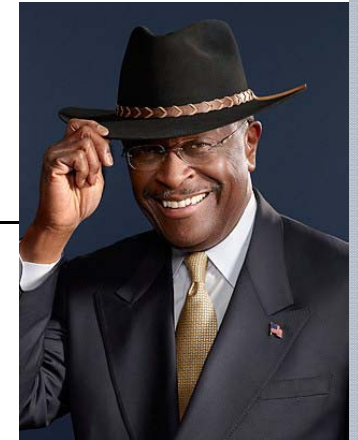
The GOP Primary Candidates on Twitter

Percentage of assertions

Candidate	Positive	Neutral	Negative	Pos./Neg. Difference
R. Paul	55%	30%	15%	40
Huntsman	30	46	24	6
Cain	34	31	35	-1
Gingrich	21	38	40	-19
Romney	19	40	41	-22
Perry	15	29	55	-40
Santorum	11	37	52	-41
Bachmann	12	25	63	-51
Obama	17	33	51	-34

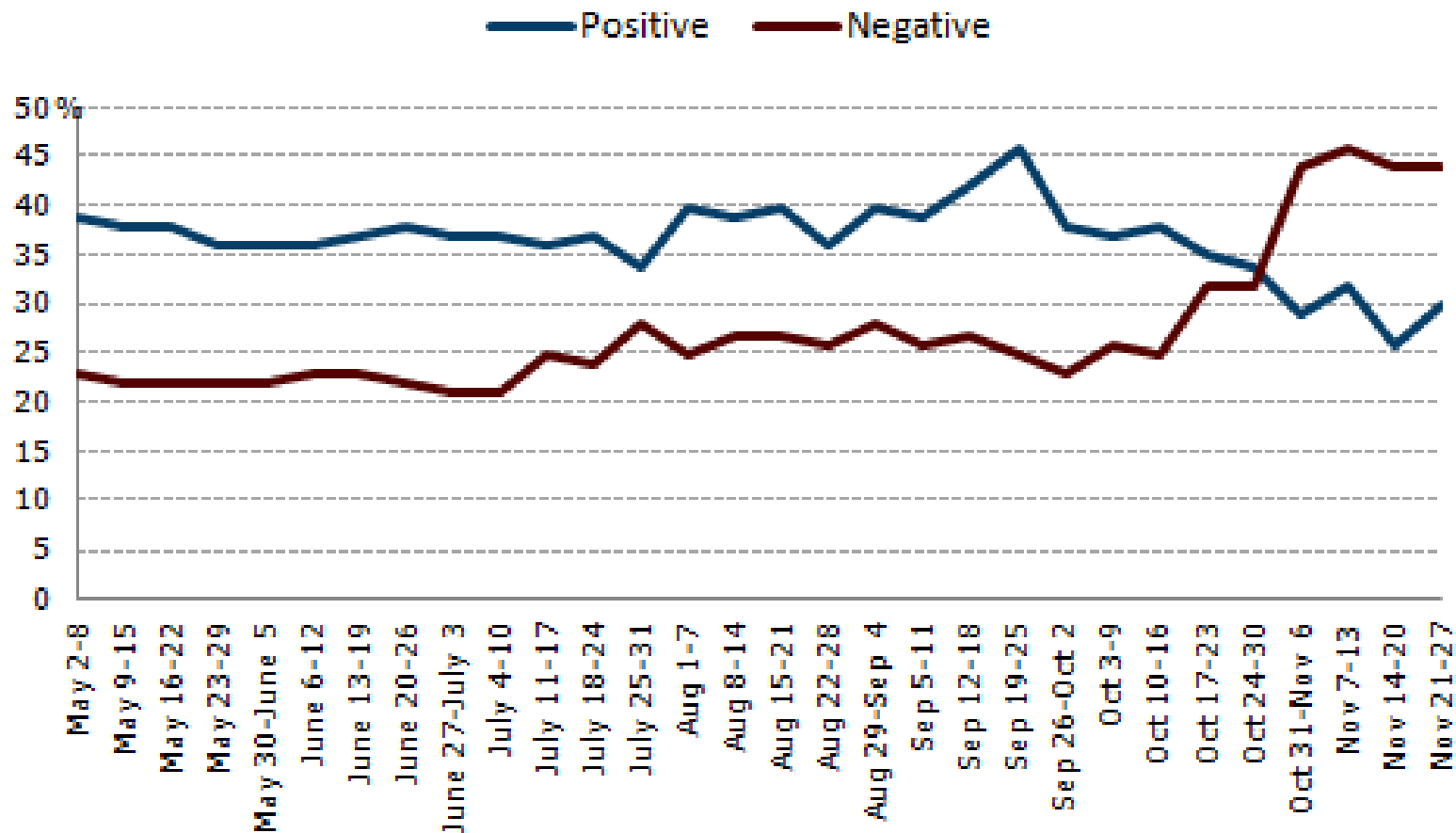
Date Range: May 2- Nov 27, 2011

PEJ analysis using Crimson Hexagon Technology



Tone of Cain Discussion on Twitter

Percent of Coverage



Note: Neutral is not included in the chart. The three categories combined add up to 100%.

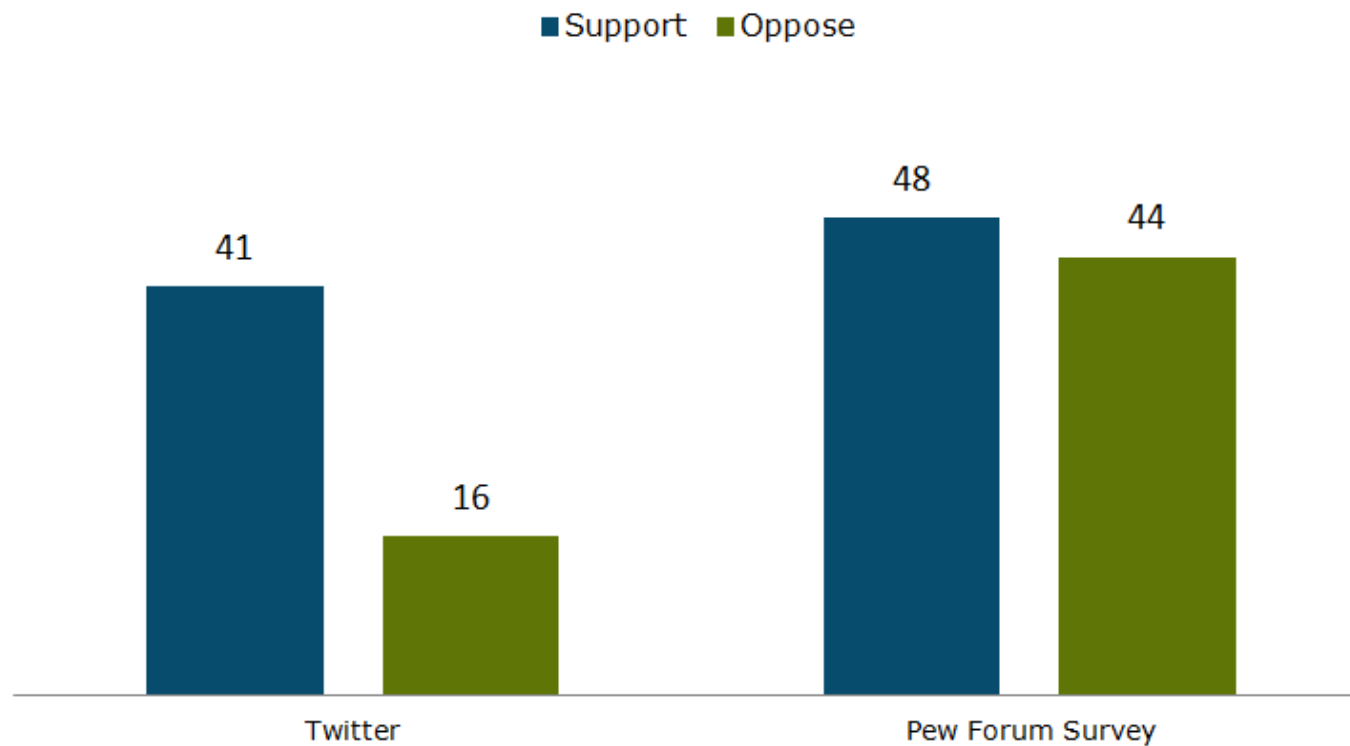
Based on analysis conducted by PEJ using Crimson Hexagon technology

PEW RESEARCH CENTER'S PROJECT FOR EXCELLENCE IN JOURNALISM

ANOTHER CASE OF TWITTER OPINION

Support for Same-sex Marriage, May 2012

Percentage of assertions compared to a poll from the Pew Forum on Religion & Public Life



Note: Pew Forum's survey did not include neutral assertions.
PEJ analysis using Crimson Hexagon technology

PEW RESEARCH CENTER'S PROJECT FOR EXCELLENCE IN JOURNALISM



REASONS TWITTER RESEARCH IS *NOT* LIKE CONDUCTING A SURVEY

- Multiple tweets from the same person
- Neutral/factual/mixed responses
- Tweets don't respond to questions
- Tweets often need interpretation



- “Mitt Romney knows how to be Mitt Romney, better than any of us know how to be Mitt Romney”
 - @liketheemotion
- “Obama says it's up to us to do great things this year... Yes, Mr. President, we a agree :) This fall we will do great things!”
 - @RudiLondon
- “Obama wears Crocs”
 - @YABOYHIGHGUY



WHY SHOULD WE CARE ABOUT RESEARCHING OPINIONS EXPRESSED ON TWITTER AND SOCIAL MEDIA?



- Topics that spur conversation
- Fast-moving and instant
- Interested, engaged public



SOCIAL MEDIA USERS ARE POLITICALLY ENGAGED

- 30% of registered voters have been encouraged to vote for Obama or Romney by family and friends via posts on social media
- 20% of registered voters have encouraged others to vote by posting on a social networking site
 - November 2012 survey by the Pew Research Center's Internet & American Life Project



WHY CARE ABOUT TWITTER OPINION?

- Proven to be a power in influencing public and private sector policy
 - Susan G. Komen for the Cure foundation/Planned Parenthood controversy
 - Congressional online privacy legislation (SOPA and PIPA)



- “This [SOPA/PIPA legislation] is the first real test of the political strength of the Web, and regardless of how things go, they are no longer a pushover...The Web taking a stand against one of the most powerful lobbyists and seeming to get somewhere is definitely a first.”

- Columbia Professor Tim Wu in the New York Times

January 2012



For more information, go to Journalism.org

Link to the report:

<http://pewrsr.ch/Y7dXeC>

Questions?

Email: phitlin@journalism.org

