

Chapter 1

And the Winner is Harambe! Plurality vs Approval Voting

Point of View: Willingness to look at different voting systems without getting angry that your candidate didn't win.

1.1 Point

There are many ways to run an election. We list two of them.

- (1) Every voter votes for one of the candidates. Whoever gets the most votes win though note that it might not be the majority if there are ≥ 3 candidates. This is called *Plurality Voting*.
- (2) Every voter votes for all of the candidates they approve of (unranked). Whoever gets the most votes wins. The problem of non-majority winner is still possible. This is called *Approval Voting*.

In November of 2016 I had two large classes vote for President. One used Plurality and one used Approval. They used a copy of the Maryland State ballot (Clinton-Democrat, Trump-Republican, Stein-Green, Johnson-Libertarian) and I allowed write in candidates. We present the results and discuss the differences

The results are presented below. If some write in candidate is not well known then I either say who they are or have ?? which means I don't know. I suspect that many of these are students,

perhaps voting for themselves. If I describe someone one place, I don't describe them again.

1.2 Sophomore Discrete Math Uses Plurality Voting

The Sophomore Discrete Math class had 421 students. They voted using plurality. Here are the results:

- (1) Clinton: 304.
- (2) Trump: 44. More than I would have thought.
- (3) Johnson: 21.
- (4) Stein: 11.
- (5) Abstain. 7. Actually they were mostly things like *f**k all of them*.
- (6) Harambe. 3. This is the Gorilla who was shot.
- (7) Hugh Mungus. 3. This is word play. I leave it to you to figure it out.
- (8) Ken Bone. 2. He went to the Town hall debate truly undecided. After listening to the two candidates insult each other for a while he asked the following intelligent question: *What steps will your energy policy take to meet our energy needs while at the same time remaining environmentally friendly and minimizing job layoffs?* Clinton and Trump both dodged the question leading to some commentators to declare Ken Bone the winner of the debate. Ken's unassuming manner and red sweater made him an internet meme for a while. It is still unknown who he voted for; however, he let it slip that it wasn't Jill Stein.
- (9) Vermin Supreme. 2. He's real person who has run for president. He is a libertarian though some of his views differ from orthodox libertarian thought. To quote Wikipedia *He has campaigned on a platform of zombie apocalypse awareness, and time travel research, and promised a free pony for every*

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American. If he wants the government to do this, then that is counter to libertarian thought. He also wants to pass a law requiring every American to brush their teeth. Again, this is counter to libertarian thought. However, I am taking him literally but not seriously, which is probably a mistake.

- (10) Joe Yecco. 2. ??
- (11) The following got 1 vote each.
- (a) Dave Akin. A UMCP Aerospace Professor.
- (b) Big Foot. He might have a good environmental policy.
- (c) Michael Bloomberg. Former mayor of NY.
- (d) Marc Boudens. A political writer.
- (e) Steven Carell. A comedian- I prefer Stewart/Colbert for president.
- (f) Carl the Llama. ??
- (g) Ricky C ??
- (h) Corn Bread ??
- (i) Jason Fe ??
- (j) Mr Potato Head
- (k) Lee Hirsch. Physics Professor at UMCP.
- (l) Monkey D. Luffy. A fictional character in Manga.
- (m) Me. The student wrote *Me*. Since it was anonymous I don't know who the vote is for!
- (n) Hynes. Can't read the rest. That's the trouble with write ins.
- (o) John Piper. The web says he's a preacher of some sort, but that could be a different John Piper.
- (p) Mitt Romney. All the cool kids go for the Romster!
- (q) Dwight Schrute. Fictional Character from TV show *The Office*.
- (r) Jon Snow. Fictional Character from the TV show *Game of Thrones*.
- (s) Kevin Spacey/Frank Underwood. Frank Underwood is a fictional character on *House of Cards* played by Kevin Spacey.

It is not clear who the vote was for. Note that this was before Kevin Spacey's more recent problems.

- (t) Bob Vance. Fictional Character from the TV show *The Office*.
- (u) Bruce Wayne. Batman's alter ego. Or Batman is Bruce Wayne's alter ego.
- (v) Kalf Wall just got 10 feet taller Zmoda. The phrase is on the web said by Trump, but I couldn't find Kalf Zmoda anywhere.

We note the following:

- (1) There were 27 write in candidates.
- (2) The write in candidate with the most votes was a tie between Harambe and Hugh Mungus, both of whom got 3 votes.
- (3) There were 41 students who voted for write ins

1.3 Junior Algorithms Uses Approval Voting

The Junior Algorithms class had 251 students. They voted using approval. The results are below; however, we give more detailed information in the last section of this chapter.

- (1) Clinton-155
- (2) Johnson-63
- (3) Stein-59
- (4) Trump-40. More than I would have thought.
- (5) Sanders-18. Since he is for free college tuition I'm surprised he didn't get more votes.
- (6) Abstain-14
- (7) Clyde Kruskal-13. He teaches the course.
- (8) Tom Reinhardt-5. He is a lecturer at UMCP.
- (9) John Kasich-3.
- (10) Larry Herman-3. He is a lecturer at UMCP.

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- (11) Evan Mc Mullen-3. He is a third party candidate who had a shot at winning Utah but didn't.
- (12) Vermin Supreme-3.
- (13) Harambe the Gorilla-2.
- (14) Michelle Obama-2.
- (15) Eric Sim-2.
- (16) The following people got 1 vote each.
 - (a) Dat Boi. A You Tube Animation.
 - (b) Hugh Mungus Bone.
 - (c) Charlie the Unicorn. ??
 - (d) Santa Clause. When Paul Tsongas ran for president in 1992 he was famous for being *I'm no Santa Claus* meaning that he would not pander to every interest group. He called Bill Clinton *a Pander-bear*. But Bill Clinton became president, so there's that.
 - (e) Matt Dang. ??
 - (f) Aliko Dangote. A real Nigerian billionaire. So his emails you can believe!
 - (g) Dolapo. Wife of the Nigerian VP.
 - (h) Jimmy Fallon. I prefer Stewart-Colbert.
 - (i) Mew2king. When I typed this into Google I found Jason "Mew2king" Zimmerman, an American Melee player. I do not know what that means. He is one of the best smashers of all time. I do not know what that means. I also don't know if this is who the student intended to vote for.
 - (j) Barak Obama.
 - (k) Mike Pence. All the cool kids go for the Pencster!
 - (l) Dinh Phong. The Teaching Assistant for this course.
 - (m) Franklin Roosevelt.
 - (n) Arnold Schwarzenegger.
 - (o) Baron Solomon. A dead Austrian Aristocrat.
 - (p) Alexander Surkov. Google says he is a developer for

Mozilla. He might have been a student in the class. He might be both.

- (q) Terry Tao. A mathematician who has won the Field's medal and the MacArthur Genius award. If elected he would be the president who knows the most mathematics.
- (r) Terry who sits next to me in class.
- (s) Kanye West. An American rapper.
- (t) Wisely Wong. A math lecturer and UMCP.

We note the following:

- (1) There were 21 write in candidates.
- (2) The write in candidate with the most votes was Bernie Sanders with 14. Clyde Kruskal is next with 13.
- (3) The number of students who voted for a write in (often with a major candidate) was 150.

There were 21 write ins. 85 votes were cast for write ins.

1.4 What to Make of All This

College Students are largely liberal so the pro-Clinton vote is not surprising. I was more surprised by how many voted for Trump. I suspect it's more of an anti-Hillary vote.

Approval voting lead to far more write in candidates and far more write in votes. Approval voting shows that Trump is very few people's other choice. Again, this is among the narrow demographic of college students taking Algorithms at UMCP CS.

Any odd candidate who gets one vote does not surprise me. If one person votes for Aliko Dangote, a real Nigerian Billionaire (he has NOT emailed you) that is not surprising. If someone who is sort-of out there get TWO or more votes (Vermin Supreme, Hugh Mungus) I am not surprised. Those two have websites and

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a following, though small. The five votes for Harambe surprised me. I've looked on the web, and this is NOT a thing – there is no Harambe for Prez websites, even as a joke (I assume if they existed they would be a joke). So I am surprised he got three votes in DM and two vote in Algorithms.

Someone in Algorithms voted Clinton-Johnson-Stein-Harambe. I'm assuming that's a strong anti-trump vote.

1.5 More Data on Approval Voting

This is a tally of every combination of votes that came up in approval voting. The order it Clinton and, Trump and Johnson and Stein and, and then misc. I do not repeat entries- so if there are some Clinton and Stein I do not repeat those when doing STEIN.

Clinton And

- (1) Clinton alone-73
- (2) Clinton & Johnson-18
- (3) Clinton & Stein-15
- (4) Clinton & Gary Johnson & Jill Stein-11 (so everyone-but-Trump)
- (5) Clinton & Sanders-8
- (6) Clinton & Trump-6. I'm surprised. I thought most people thought *lesser of two evils*.
- (7) Clinton & Trump & Johnson & Stein-2. This voter likes everyone!
- (8) Clinton & Bernie Sanders & Jill Stein-2.
- (9) Clinton & Tom Reinhardt & Larry Herman-2
- (10) Clinton & Charlies the Unicorn-1
- (11) Clinton & Matt Dang-1
- (12) Clinton & Jimmy Fallon-1
- (13) Clinton & Clyde Kruskal-1

- (14) Clinton & Mew2king-1
- (15) Clinton & Barak Obama-1
- (16) Clinton & Michelle Obama-1
- (17) Clinton & Trump & Tom Reinhardt-1
- (18) Clinton & Trump & Arnold Schwarzenegger-1
- (19) Clinton & Trump & Evan McMuller-1
- (20) Clinton & Johnson & Stein & Harambe the Gorilla-1
- (21) Clinton & Johnson & Stein & Sanders-1
- (22) Clinton & Johnson & Stein & Kanye West-1
- (23) Clinton & Johnson & Stein & Eric Sim-1
- (24) Clinton & Johnson & Stein & Santa Clause-1

Trump And

This does not include Trumps votes above.

- (1) Trump- 14
- (2) Trump & Johnson-7
- (3) Trump & Stein-2
- (4) Trump & Sanders-1
- (5) Trump & Tom Reinhardt-1
- (6) Trump & Vermin Supreme-1
- (7) Trump & Johnson & Stein (so anyone-but-Clinton)-1
- (8) Trump & Stein & Terry (Terry was the guy who sits next to him in class)-1

Johnson And

This does not include Johnson votes above.

- (1) Johnson alone-9
- (2) Johnson & Stein-6
- (3) Johnson & Kruskal-2
- (4) Johnson & Stein & Alexander Surkav-1
- (5) Johnson & Stein & Vermin Supreme-1

Stein And

This does not include Stein votes above.

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- (1) Stein Alone-2

Misc

All of the combinations not counted above. Note that these combinations do not include any of the four candidates on the Maryland ballot.

- (1) Abstain-14
- (2) Kruskal-8
- (3) Sanders-5
- (4) Kasich-2
- (5) Evan McMullen-2
- (6) Tom Reinhart & Larry Herman-1
- (7) Sanders & M.Obama & Kasich-1
- (8) Dangote, Aliko-1
- (9) Santa Clause-1
- (10) Dinh, Phong-1
- (11) Dolapo-1
- (12) Harambe the Gorilla-1
- (13) Hugh Mungus Bone-1
- (14) Mike Pence-1
- (15) Franklin Roosevelt-1
- (16) Eric Sim-1
- (17) Baron Solomon-1
- (18) Terry Tao-1
- (19) Wisely Wong (a math Lecturer & UMCP)-1
- (20) Dat Boi (a You Tube animation)-1