Bush - Gore - Nader

millions →	2.9	2.9	.1
	B	G	N
	G	B	G
	N	N	B

Using plurality, B wins.

Using RCV:

Rd 1

B: 2.9

G: 2.9

~~Not~~

Rd 2

2.9	2.9	.1
B	G	G
G	B	B

B: 2.9

G: 2.9 + .1 = 3

G wins!

In plurality, nobody likes to vote for outsiders (like N), because this is "throwing your vote away!"

Voting for a loser in plurality is pointless.

In RCV, the voters can vote for a loser in the top position without worrying about throwing their vote away.

Plurality system makes the 2 parties invincible.

Duverger's Law Societies which use plurality eventually become 2-party societies.

In August 2022

In AK, replacement for US Congress

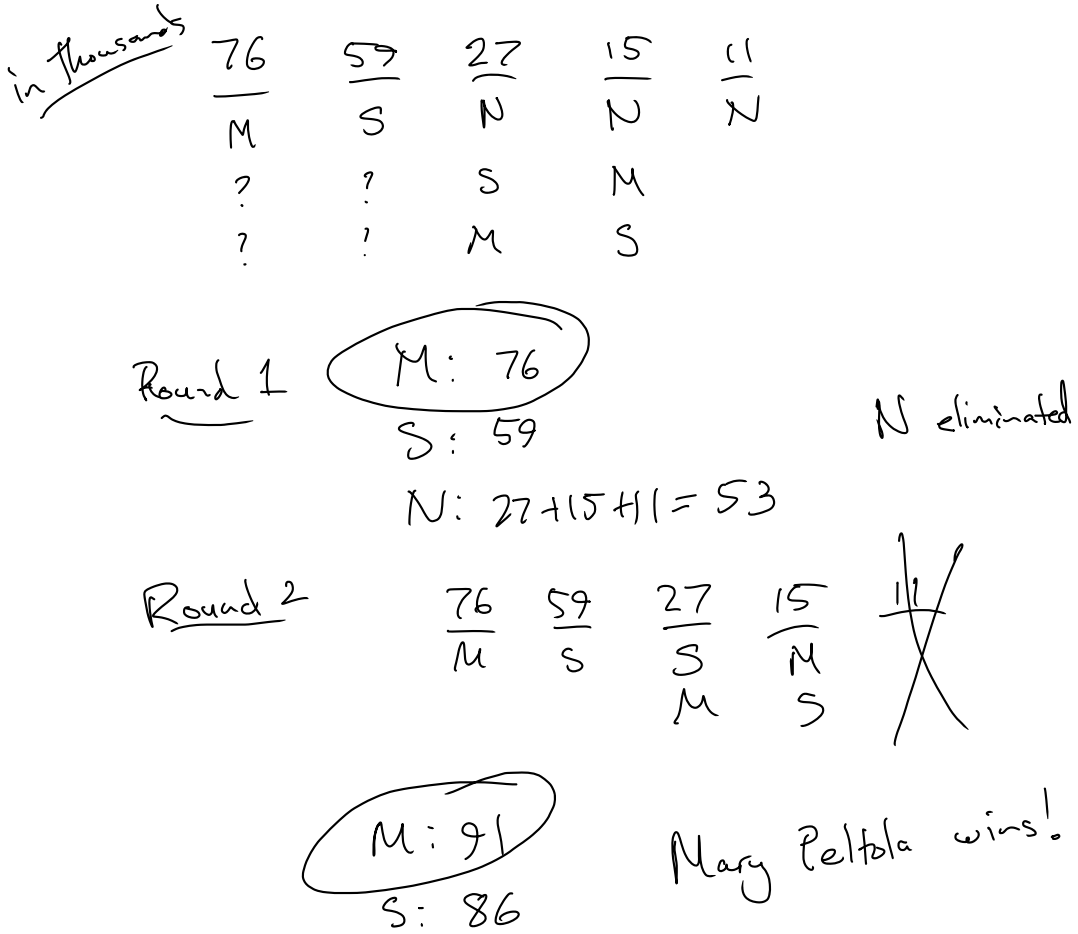
Candidates:

N → Nick Begich (R) moderate

S → Sarah Palin (R) Trumpy

M → May Peltola (D)

In plurality, you'd never run 2 R's on the ballot



"So-and-so had five votes for fifth place so we are going to give them the victory. It's crazy, it's crazy ... crazy ranked choice. You never know who won in ranked choice. You could be in third place. They announced that you won the election. It's a total rigged deal just like a lot of other things in this country."

Donald Trump rally in Ancorage Alaska, July 9 2022

Another Method: Condorcet

Looking at candidates in pairs:

2.9	~~2.9~~ 99999	.1
B	G	N
G	B	G
N	N	B

Pairwise:

B vs G: B: 2.9, G: 3.0 — G wins

N vs G: N: .1, G: 5.8 — G wins

N vs B: N: .1, B: 5.8 — B wins.

G wins all pairwise comparisons involving G.

G is the Condorcet Winner

Def A candidate who would win in any 1-on-1 matchup is called a Condorcet winner.

Theorem There cannot be 2 different Condorcet winners.

Pf Imagine we have 2 different condorcet winners, X & Y.

(so X wins every pairwise matchup)
and Y . . - - - - - .

But this is impossible since they can't both win in X vs Y.

Condorcet's Method Compare all possible pairwise matchups, choose the Condorcet winner as the winner of the election.

In B-G-N,

plurality: B
RCV: G
Condorcet: G