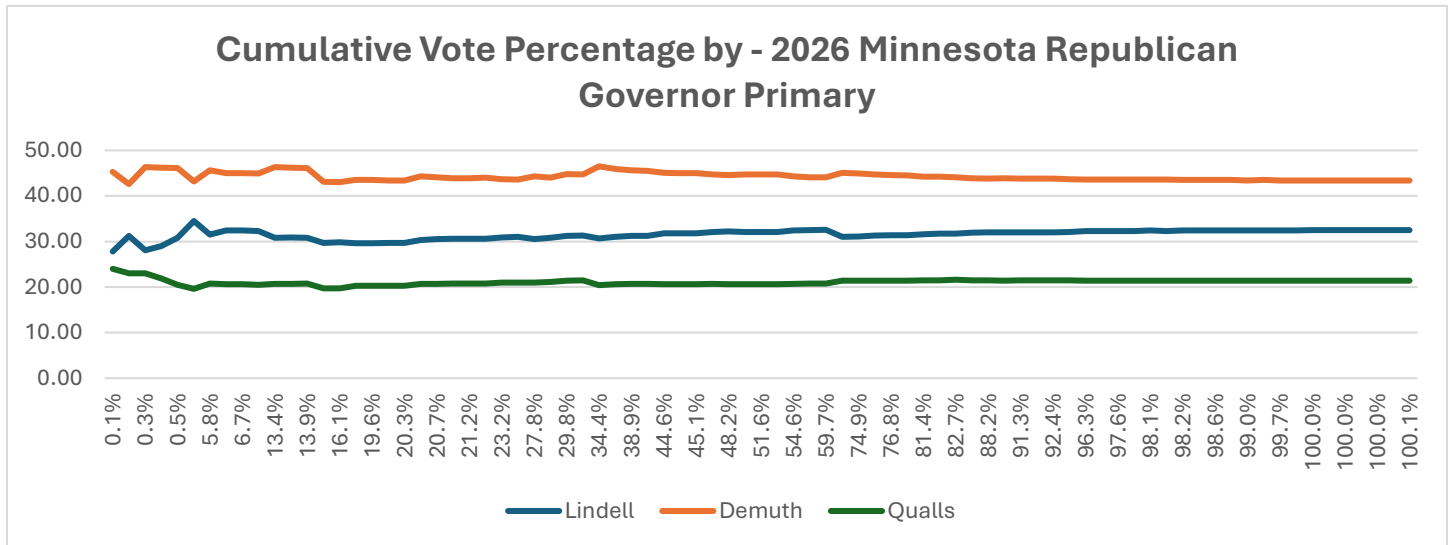


Initial Observations – MN Governor Republican Primary

1. Lack of variability during the election counting

Following is a graph which plots the percentage of each of the 3 major candidates as a function of the percentage of completion of the entire counting.



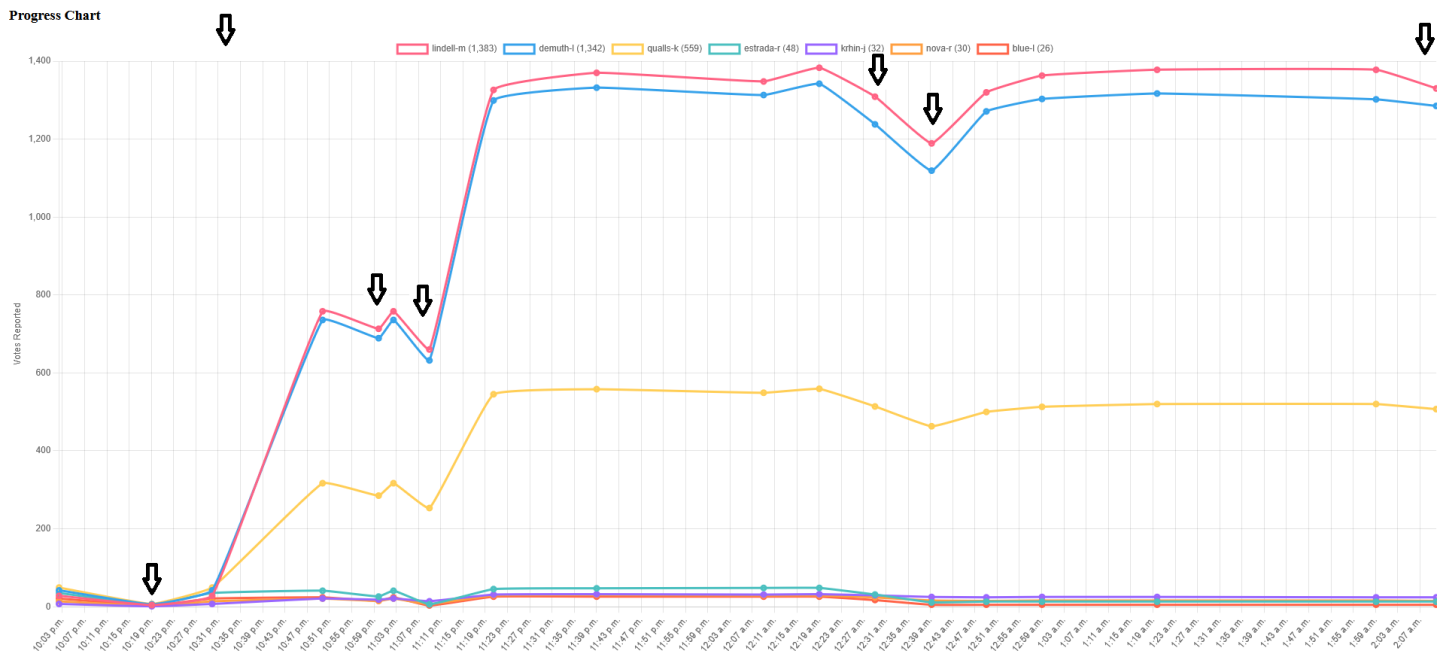
2. Negative Vote Updates

Each update from the AP/NYT reports the current totals for the candidates, and these totals were monitored and stored each minute. During the 8/11 election, there were numerous occasions where the votes reported were *less than* the previous reports. While we can allow for the possibility of a small number of clerk errors, the number and magnitude of these negative updates in this election is alarming.

Anomalies like this are usually shrugged off with a “they are not official numbers” comment. However, they are taken from the same data source (the county election management system) as the official numbers, leaving one to wonder why we should trust the end result when there are incorrect results evident in the middle? It seems unlikely that this many issues can be explained by simple human error.

During the August 11th Republican Governor primary, negative votes were reported in 55 updates spanning 25 of Minnesota’s 87 counties. The events averaged -71 votes, with a maximum of 645 votes being removed at one time.

Particularly concerning county was Pine, which had six separate updates where votes went down.



At issue here is not the number of votes being removed, it is the fact that the removals are widespread and allowed to occur in the first place. Like the other findings in this document, this could be another side-effect of algorithmic control and must be fully examined before the results can be trusted.

Following is the complete list from the Republican Governor primary, sorted by county and the timestamp of the event. Please note that every other race, both Republican and Democrat, also showed this anomaly.

Update Time	County	Candidate	Votes Removed
8/12/26 11:31 AM	Anoka	estrada-r	8
8/12/26 12:09 AM	Beltrami	demuth-l	90
8/12/26 12:09 AM	Beltrami	estrada-r	4
8/12/26 12:09 AM	Beltrami	lindell-m	118
8/12/26 12:09 AM	Beltrami	qualls-k	61
8/11/26 10:49 PM	Big Stone	estrada-r	5
8/11/26 10:08 PM	Blue Earth	blue-l	389
8/11/26 10:08 PM	Blue Earth	demuth-l	617
8/11/26 10:08 PM	Blue Earth	estrada-r	262
8/11/26 10:08 PM	Blue Earth	krhin-j	520
8/11/26 10:08 PM	Blue Earth	lindell-m	603
8/11/26 10:08 PM	Blue Earth	nova-r	455
8/11/26 10:08 PM	Blue Earth	qualls-k	336
8/11/26 10:31 PM	Blue Earth	blue-l	476
8/11/26 10:31 PM	Blue Earth	demuth-l	548
8/11/26 10:31 PM	Blue Earth	estrada-r	326
8/11/26 10:31 PM	Blue Earth	krhin-j	645
8/11/26 10:31 PM	Blue Earth	lindell-m	602
8/11/26 10:31 PM	Blue Earth	nova-r	559
8/11/26 10:31 PM	Blue Earth	qualls-k	313
8/11/26 10:32 PM	Carlton	nova-r	1
8/11/26 11:59 PM	Cass	demuth-l	74
8/11/26 11:59 PM	Cass	estrada-r	2
8/11/26 11:59 PM	Cass	lindell-m	85
8/11/26 11:59 PM	Cass	nova-r	1
8/11/26 11:59 PM	Cass	qualls-k	44
8/12/26 2:08 PM	Cass	demuth-l	54
8/12/26 2:08 PM	Cass	estrada-r	2
8/12/26 2:08 PM	Cass	lindell-m	64
8/12/26 2:08 PM	Cass	nova-r	1
8/12/26 2:08 PM	Cass	qualls-k	27
8/12/26 12:05 PM	Clay	lindell-m	1
8/12/26 11:31 AM	Grant	qualls-k	1
8/11/26 11:59 PM	Kandiyohi	demuth-l	2
8/12/26 2:28 PM	Kandiyohi	lindell-m	1
8/12/26 11:39 AM	Lake	demuth-l	1
8/12/26 11:39 AM	Lake	lindell-m	9
8/12/26 11:39 AM	Lake	qualls-k	3
8/12/26 12:39 AM	Mille Lacs	qualls-k	1
8/12/26 11:08 AM	Mille Lacs	qualls-k	1
8/12/26 1:29 PM	Norman	demuth-l	1
8/12/26 1:29 PM	Norman	lindell-m	4
8/11/26 9:48 PM	Olmsted	blue-l	1
8/11/26 9:48 PM	Olmsted	demuth-l	129
8/11/26 9:48 PM	Olmsted	estrada-r	2

8/11/26 9:48 PM	Olmsted	krhin-j	3
8/11/26 9:48 PM	Olmsted	lindell-m	149
8/11/26 9:48 PM	Olmsted	nova-r	2
8/11/26 9:48 PM	Olmsted	qualls-k	68
8/11/26 10:15 PM	Olmsted	blue-l	1
8/11/26 10:15 PM	Olmsted	demuth-l	129
8/11/26 10:15 PM	Olmsted	estrada-r	2
8/11/26 10:15 PM	Olmsted	krhin-j	3
8/11/26 10:15 PM	Olmsted	lindell-m	149
8/11/26 10:15 PM	Olmsted	nova-r	2
8/11/26 10:15 PM	Olmsted	qualls-k	68
8/12/26 4:39 PM	Olmsted	demuth-l	15
8/12/26 4:39 PM	Olmsted	lindell-m	29
8/12/26 4:39 PM	Olmsted	nova-r	4
8/12/26 4:39 PM	Olmsted	qualls-k	12
8/11/26 11:00 PM	Otter Tail	nova-r	2
8/12/26 12:49 PM	Pennington	demuth-l	12
8/12/26 12:49 PM	Pennington	krhin-j	1
8/12/26 12:49 PM	Pennington	lindell-m	4
8/11/26 10:19 PM	Pine	blue-l	18
8/11/26 10:19 PM	Pine	demuth-l	36
8/11/26 10:19 PM	Pine	estrada-r	30
8/11/26 10:19 PM	Pine	krhin-j	6
8/11/26 10:19 PM	Pine	lindell-m	24
8/11/26 10:19 PM	Pine	nova-r	12
8/11/26 10:19 PM	Pine	qualls-k	42
8/11/26 10:59 PM	Pine	blue-l	9
8/11/26 10:59 PM	Pine	demuth-l	47
8/11/26 10:59 PM	Pine	estrada-r	15
8/11/26 10:59 PM	Pine	krhin-j	3
8/11/26 10:59 PM	Pine	lindell-m	45
8/11/26 10:59 PM	Pine	nova-r	6
8/11/26 10:59 PM	Pine	qualls-k	32
8/11/26 11:08 PM	Pine	blue-l	21
8/11/26 11:08 PM	Pine	demuth-l	104
8/11/26 11:08 PM	Pine	estrada-r	35
8/11/26 11:08 PM	Pine	krhin-j	7
8/11/26 11:08 PM	Pine	lindell-m	98
8/11/26 11:08 PM	Pine	nova-r	14
8/11/26 11:08 PM	Pine	qualls-k	64
8/12/26 12:09 AM	Pine	demuth-l	19
8/12/26 12:09 AM	Pine	krhin-j	1
8/12/26 12:09 AM	Pine	lindell-m	22
8/12/26 12:09 AM	Pine	nova-r	1
8/12/26 12:09 AM	Pine	qualls-k	9
8/12/26 12:29 AM	Pine	blue-l	9

8/12/26 12:29 AM	Pine	demuth-l	104
8/12/26 12:29 AM	Pine	estrada-r	17
8/12/26 12:29 AM	Pine	krhin-j	3
8/12/26 12:29 AM	Pine	lindell-m	74
8/12/26 12:29 AM	Pine	nova-r	5
8/12/26 12:29 AM	Pine	qualls-k	45
8/12/26 12:39 AM	Pine	blue-l	12
8/12/26 12:39 AM	Pine	demuth-l	119
8/12/26 12:39 AM	Pine	estrada-r	20
8/12/26 12:39 AM	Pine	krhin-j	4
8/12/26 12:39 AM	Pine	lindell-m	120
8/12/26 12:39 AM	Pine	nova-r	8
8/12/26 12:39 AM	Pine	qualls-k	51
8/12/26 12:49 AM	Pine	krhin-j	1
8/12/26 12:49 AM	Pine	nova-r	1
8/12/26 1:59 AM	Pine	demuth-l	15
8/12/26 1:59 AM	Pine	krhin-j	1
8/12/26 2:09 AM	Pine	demuth-l	17
8/12/26 2:09 AM	Pine	lindell-m	48
8/12/26 2:09 AM	Pine	nova-r	1
8/12/26 2:09 AM	Pine	qualls-k	13
8/12/26 10:58 AM	Sherburne	lindell-m	1
8/11/26 10:55 PM	Sibley	estrada-r	2
8/11/26 10:55 PM	Sibley	krhin-j	2
8/11/26 10:55 PM	Sibley	nova-r	2
8/11/26 10:40 PM	St. Louis	blue-l	1
8/12/26 10:39 AM	St. Louis	lindell-m	2
8/12/26 10:39 AM	St. Louis	qualls-k	2
8/12/26 10:58 AM	St. Louis	demuth-l	2
8/12/26 10:58 AM	St. Louis	krhin-j	1
8/12/26 11:08 AM	St. Louis	demuth-l	1
8/12/26 11:19 AM	St. Louis	blue-l	1
8/12/26 11:19 AM	St. Louis	krhin-j	1
8/12/26 11:19 AM	St. Louis	lindell-m	2
8/12/26 11:19 AM	St. Louis	qualls-k	4
8/12/26 11:31 AM	St. Louis	qualls-k	1
8/12/26 3:18 PM	Stevens	demuth-l	2
8/12/26 1:28 AM	Swift	blue-l	3
8/12/26 1:28 AM	Swift	demuth-l	6
8/12/26 1:28 AM	Swift	estrada-r	5
8/12/26 1:28 AM	Swift	krhin-j	1
8/12/26 1:28 AM	Swift	lindell-m	4
8/12/26 1:28 AM	Swift	nova-r	2
8/12/26 1:28 AM	Swift	qualls-k	14
8/12/26 2:09 AM	Swift	blue-l	3
8/12/26 2:09 AM	Swift	demuth-l	6

8/12/26 2:09 AM	Swift	estrada-r	5
8/12/26 2:09 AM	Swift	krhin-j	1
8/12/26 2:09 AM	Swift	lindell-m	4
8/12/26 2:09 AM	Swift	nova-r	2
8/12/26 2:09 AM	Swift	qualls-k	7
8/12/26 2:29 AM	Swift	blue-l	24
8/12/26 2:29 AM	Swift	demuth-l	48
8/12/26 2:29 AM	Swift	estrada-r	40
8/12/26 2:29 AM	Swift	krhin-j	8
8/12/26 2:29 AM	Swift	lindell-m	32
8/12/26 2:29 AM	Swift	nova-r	16
8/12/26 2:29 AM	Swift	qualls-k	56
8/12/26 12:51 AM	Todd	blue-l	2
8/12/26 12:51 AM	Todd	demuth-l	528
8/12/26 12:51 AM	Todd	estrada-r	2
8/12/26 12:51 AM	Todd	krhin-j	15
8/12/26 12:51 AM	Todd	lindell-m	567
8/12/26 12:51 AM	Todd	nova-r	7
8/12/26 12:51 AM	Todd	qualls-k	328
8/12/26 12:59 PM	Wabasha	demuth-l	14
8/12/26 12:59 PM	Wabasha	lindell-m	24
8/12/26 12:59 PM	Wabasha	qualls-k	13
8/12/26 1:08 AM	Washington	blue-l	2
8/12/26 1:08 AM	Washington	demuth-l	250
8/12/26 1:08 AM	Washington	estrada-r	2
8/12/26 1:08 AM	Washington	krhin-j	4
8/12/26 1:08 AM	Washington	lindell-m	97
8/12/26 1:08 AM	Washington	nova-r	2
8/12/26 1:08 AM	Washington	qualls-k	121
8/12/26 11:23 AM	Washington	demuth-l	109
8/12/26 11:23 AM	Washington	lindell-m	75
8/12/26 11:23 AM	Washington	qualls-k	59
8/12/26 12:28 PM	Wright	demuth-l	2

3. Unnatural Vote Increase Correlation

Each time the votes were updated during election night, the number of votes represented in that update can be calculated. Based upon these, the percentage change from one update to the next can be calculated. For instance, if a candidate had 100 votes, and the next update reported as 200, the percent change would be $200/100 = 2$ (200%). If they were reported as having 300 the next update, then the percent change would be $300/200=1.5$ (150%). This tells us the “rate of change” of their votes over time.

Based upon a statistical analysis of the entire election of all seven candidates in the Governor’s race, I make the following observation.

The series are **extremely** highly correlated. Their rates of change move together very strongly.

This pattern is consistent with the series being driven by the same underlying factor (or factors that themselves move together), rather than independent processes.

This is potential evidence of a common algorithm determining the counts via a simple mathematical equation.

For those with a statistical analysis background, the following are the exact correlation findings:

Pearson correlation matrix:

	Blue	Demuth	Estrada	Krhim	Lindell	Nova	Qualls
Blue (Series1)	1.000	0.697	0.810	0.889	0.697	0.854	0.862
Demuth (Series2)	0.697	1.000	0.980	0.916	0.998	0.956	0.944
Estrada (Series3)	0.810	0.980	1.000	0.967	0.983	0.985	0.971
Krhim (Series4)	0.889	0.916	0.967	1.000	0.923	0.980	0.968
Lindell (Series5)	0.697	0.998	0.983	0.923	1.000	0.959	0.945
Nova (Series6)	0.854	0.956	0.985	0.980	0.959	1.000	0.984
Qualls (Series7)	0.862	0.944	0.971	0.968	0.945	0.984	1.000

Key observations:

- DeMuth and Lindell are essentially the same series ($r = 0.9979$).
- Demuth, Estrada, Lindell, Nova, and Qualls form a very tight cluster (most pairwise $r > 0.94$), with Krhim also strongly linked.
- Blue is more loosely related (especially to Demuth/Lindell) which could be an artifact of having less votes and thus much smaller movement from update to update.

All the high correlations have p-values far below any normal significance threshold (many are 10^{-40} to 10^{-90}). Numbers that small mean the probability of seeing correlations this strong by pure random chance — if the series were independent, naturally occurring sequences with no underlying shared process — is effectively zero. In practical terms, this level of agreement is what you expect from

series that are deliberately linked by a common equation or generating mechanism, not from unrelated natural variation.

Hypothesis

The extremely high correlations among Series 2–7 (and the still-strong links to Series 1 and Series 4) are best explained by the idea that **all seven series are generated from a single common underlying signal**, with only a small number of parameters differing between them.

Two simple models capture this:

Model 1 – Multiplicative / proportional skew

$$S_i = 1 + k_i \cdot (X - 1)$$

or equivalently

$$S_i = (1 - k_i) + k_i \cdot X$$

Here X is the shared underlying process and k_i is a series-specific “skewing factor” that stretches or compresses the deviations of X away from 1. This model naturally produces values that stay near 1 most of the time while allowing large synchronized spikes — exactly the pattern visible in the data.

Model 2 – General linear transformation

$$S_i = a_i + b_i \cdot X$$

This is the more flexible version. Each series is allowed its own intercept a_i and slope b_i . When the data are tightly linear (as they are for most pairs among Series 2–7), Model 2 reduces to a simple rescaling of the same common signal X .

How the models apply across the seven series

- **Series 2 and Series 5** are the cleanest example: they are related by $S_5 \approx 0.853 \cdot S_2 + 0.161$ ($R^2 \approx 0.996$). This is precisely the form predicted by either model with different skewing coefficients.
- **Series 3, 6 and 7** form a second tight cluster that is itself linearly related to Series 2/5. They can be expressed as further linear transformations of the same X .
- **Series 4** follows the same pattern but with a noticeably smaller slope (more compressed response to the common signal).
- **Series 1** shares the major spikes and overall direction of movement, yet its correlations are lower. It is still consistent with the same framework, only with a more distinct pair of coefficients (a_1, b_1) or a larger idiosyncratic noise term.

In short, the seven series behave as different linear (or near-linear) projections of one common generating process. Changing only the skewing parameters k_i (Model 1) or the pair (a_i, b_i) (Model 2) is

sufficient to turn one series into the others. This is the signature of an artificial, equation-driven relationship rather than independent natural variation.

Note: Grok assisted in validating these numbers and explaining the findings.