

“Lockstep Parallel Motion”  
between Democrats and Republicans  
In Cast Vote Records  
Proves Algorithmic Manipulation

Declaration of Roger W. Fuller

Roger W. Fuller declares, under penalty of perjury, pursuant to 28 U.S.C. § 1746, that all following tabulations and graphs are true and correct to the State Certified Cast Vote Records and drawn to proper scale.

Executed on June 5, 2026.

A handwritten signature in black ink that reads "Roger W. Fuller". The signature is written in a cursive style with a large initial 'R'.

## What IS “Lockstep Parallel Motion”?

In many cases, it can be shown that the records of ballot tabulation show patterns where Democrats and Republicans are (apparently) voting on ballot measures in unnatural “lockstep” coordination. The opposition to a ballot measure by Democrats and Republicans rises or falls together as the ballots arrive in the sequence of tabulation as detailed in the Cast Vote Record (CVR). This is not unique to a specific voting machine vendor or region of the country. Usually, we see these patterns across the whole sequence of tabulation, but some records show a stable pattern during early voting with a drastic change in opposition between early voting and mail voting – again with unnatural coordination between Democrat and Republican voters.

# How is “Lockstep Parallel Motion” Revealed?

The Cast Vote Record (CVR) of an election is downloaded from a county website. Usually, the CVR is an Excel spreadsheet with one line per ballot. The first rows are usually a header to show the content of the columns below. The first few columns contain information about the ballot such as CVR number (showing the position in the tabulation sequence where the current ballot arrived), precinct, voting method (examples: early, mail, election day, provisional), ballot style, etc. The following columns are usually the political contests organized with one column per candidate. Following all the political races are ballot measures, with a column for “Yes” and a column for “No”. In candidate contests, a vote for a candidate is indicated by a ‘1’ in the column for that candidate, with “0” in the cells for the other candidates. For measures, there will be a ‘1’ in the “Yes” column for a yes vote or a ‘1’ in the “No” column for a no vote; again with ‘0’ in the other column. A candidate contest or measure with all ‘0’s is an “undervote”. Most contests are “vote for one”. Some are “vote for two”. A contest with more votes than allowed or a measure with a vote for both “Yes” and “No” is an “overvote”. The images below are from the Cast Vote Record from Arapahoe Co. CO 2020 general election. The upper image shows the first columns of the Presidential votes. The lower image shows columns from a few ballot measures.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	2020 Arapahoe	5.11.3.1											
2									Presidential Electors (Vote For=1)	Presidential Electors (Vote For=1)	Presidential Electors (Vote For=1)	Presidential Electors (Vote For=1)	Presidential Electors (Vote For=1)
3									Joseph R. Biden / Kamala D. Harris	Donald J. Trump / Michael R. Pence	Don Blankenship / William Mohr	Bill Hammons / Eric Bodenstab	Howie Hawkins / Angela Nicole Walker
4	CvrNumber	Tabulator	BatchId	RecordId	Imprinted	CountingGroup	PrecinctPortion	BallotType	DEM	REP	ACN	UNI	GRN
5	1	4	1	50	4/1/1950	Mail	1260303140 (1260303140 - 44)	44	1	0	0	0	0
6	2	4	1	33	4/1/2033	Mail	6260303128 (6260303128)	62	1	0	0	0	0
7	3	4	1	32	4/1/2032	Mail	1260303136 (1260303136)	33	1	0	0	0	0

	EL	EM	EN	EO	EP	EQ	ER	ES
1								
2	Arapahoe	Arapahoe	Amendment B (Constitutional) (Vote For=1)	Amendment B (Constitutional) (Vote For=1)	Amendment C (Constitutional) (Vote For=1)	Amendment C (Constitutional) (Vote For=1)	Amendment 76 (Constitutional) (Vote For=1)	Amendment 76 (Constitutional) (Vote For=1)
3	NO	YES/FOR		NO/AGAINST	YES/FOR	NO/AGAINST	YES/FOR	NO/AGAINST
4								
5	0	0			1		1	
6	0	0			1		1	
7	1	0			1		1	

## The Overall Process – Three Passes through the CVR

The objective is to measure the difference in opposition to a ballot measure dependent on the partisan choice of the voter. To examine how the difference changes from the beginning to the end of the tabulation process, we look at the sequence as if it were a ballot-time “clock” where each “tick” of the clock is the arrival of the next ballot in the CVR sequence. To do this, the CVR is processed in three passes. The **first pass** is to select and count ballots that have a vote for either the chosen Conservative candidate (**R**) or the chosen Liberal candidate (**D**) AND a vote for either “**Yes**” or “**No**” on the measure. Every selected ballot falls into one of four categories: **R&No**, **D&No**, **R&Yes** or **D&Yes**. The **second pass** is to construct a “rolling average window” of approximately 3% of the selected ballots and advance this across the sequence to generate the output file. The **third pass** measures the difference between each output step and the previous output step to produce rate-of-change data – a first derivative of the changing preferences against “ballot time”.

## Selecting Ballots

In the example Arapahoe 2020 election, the **R** candidate is **Trump** and the **D** candidate is **Biden**. As each ballot line is read from the CVR in the **first pass** the ballot data is examined. Ballots with a vote for one of the other candidates are left out. Ballots with an undervote or overvote on the candidates or measure are left out. Only ballots with a vote for **Trump** OR **Biden** AND a vote for “**Yes**” OR “**No**” are considered.

## Constructing the Rolling Averages

Each ballot can only have one of four possible “states”: **Trump&No**, **Biden&No**, **Trump&Yes**, **Biden&Yes**. Now imagine four totalizing counters *s*, *t*, *u* and *v*. As each ballot is examined, if it is **Trump&No** the *s* counter is incremented. If it is **Biden&No** the *t* counter is incremented. If **Trump&Yes** the *u* counter is incremented. If **Biden&Yes** the *v* counter is incremented. This continues until approximately 3% of the total selected ballots have been processed. Think of each of these counters as a “stack” of ballots - after the last ballot of the 3% is added to the top of the stack, the averages from the ballots in the window are calculated and output. Then the data from the ballot on the bottom of the stack is subtracted. When the next ballot is processed, it is added to the top of the stack, the averages from the stack are calculated and output, and the ballot at the bottom of the stack is removed. As each ballot is processed, the averages from the previous 3% “window” of ballots are output.

## Details of Calculating the Averages

The “averages” in the rolling window are not the averages of the integer values in the counters  $s$ ,  $t$ ,  $u$  and  $v$ . Three “preference ratios” are calculated from the integer values in the “rolling window” for output. The three “preference ratios” are :

$$\text{Repub Opposition} = \frac{\text{Trump\&No}}{(\text{Trump\&No} + \text{Trump\&Yes})} = \frac{s}{s + u}$$

$$\text{Dem Opposition} = \frac{\text{Biden \&No}}{(\text{Biden \&No} + \text{Biden \&Yes})} = \frac{t}{t + v}$$

$$\text{Overall Opposition} = \frac{(\text{Trump\&No} + \text{Biden\&No})}{(\text{Trump\&No} + \text{Biden\&No} + \text{Trump\&Yes} + \text{Biden\&Yes})} = \frac{s + t}{s + t + u + v}$$

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## Constructing the Derivatives and Regression Data

In the **second pass**, as each new ballot arrives, the “window” values of the “Opposition Ratio” averages are computed and output. The values of the averages are also saved with the ballot as it is added to the top of the stack. After the 6% point has been reached, the difference between each current average and the value of that average at the bottom of the stack is also computed and output, giving the derivative or rate of change of the rolling average across the whole set of ballots. Also during the second pass, the values of the data points and their squares are added up to provide the data to do the least-squares regression to measure the correlation between **Repub** and **Dem** Opposition.

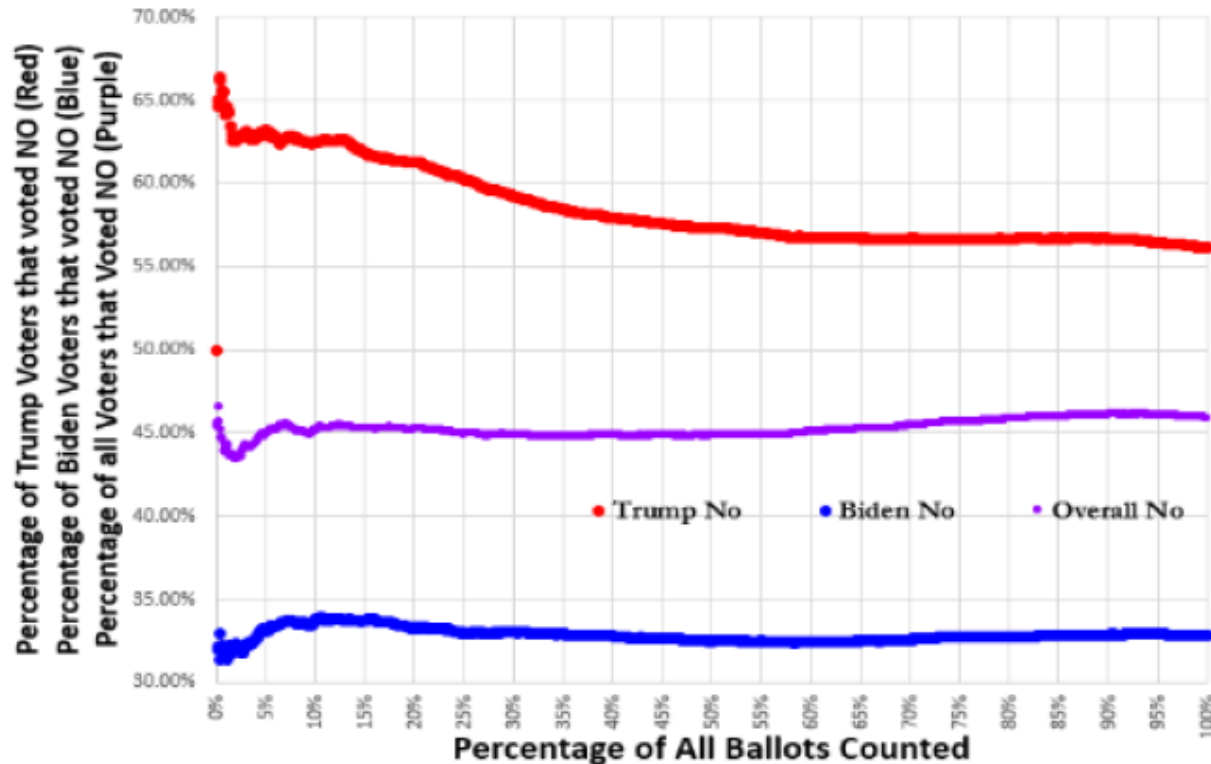
## Final Processing

The **third pass** outputs a second smaller spreadsheet file which contains 100 evenly spaced rolling averages and derivatives. This also includes the regression slopes, intercepts and R-squared values. This file then can be opened in Excel to create graphs as seen in the following slides.

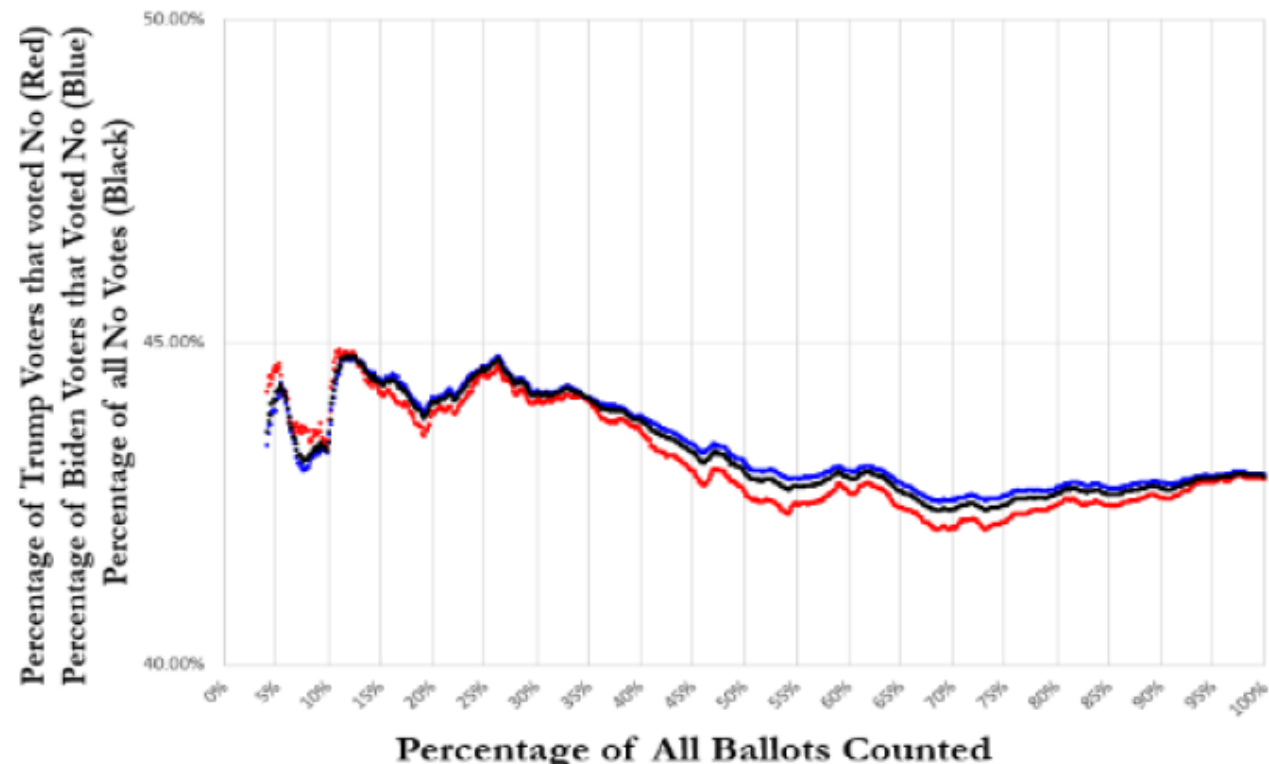
## What Should be Seen and What Shows Up in the Actual Record

In a “normal” election, one would expect Dem and Repub opposition to each rapidly converge onto different straight horizontal lines and stay there through the tabulation process to the end, as in the graph on the left below. What is seen in the data is the graph on the right where the two partisan and overall averages are right on top of each other – **“Lockstep Motion”**

El Paso, 2020: No Percentage on Prop B (Republican vs Democrat)



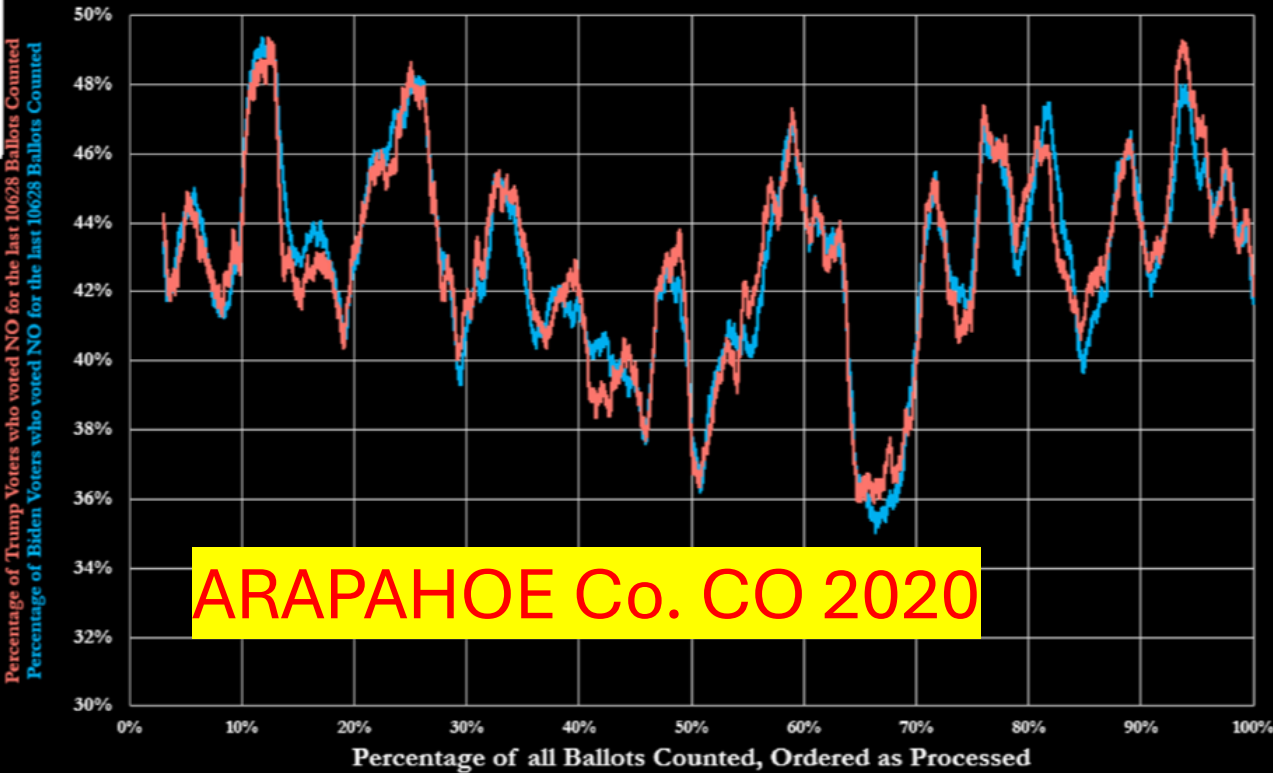
Arapahoe 2020: Percentage of No Voters, Republican vs Democrat



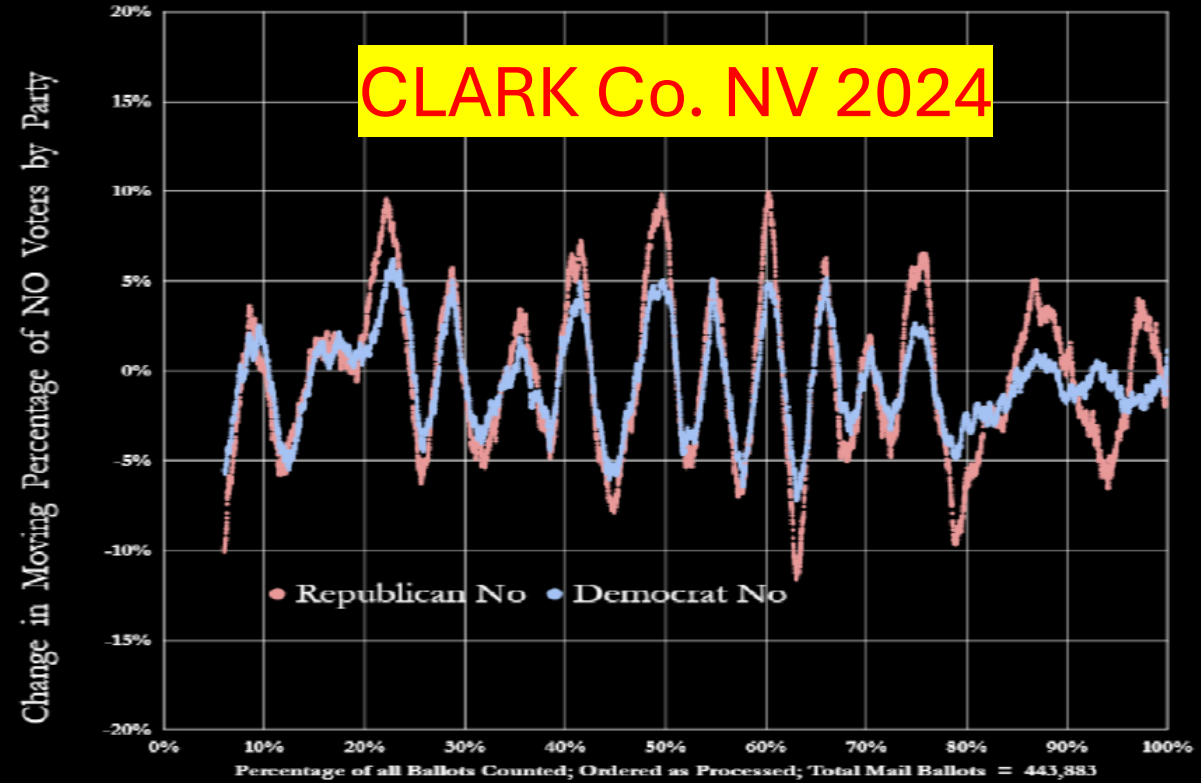
The **LOCKSTEP MOTION** in the cast vote record **CANNOT HAPPEN NATURALLY!**  
**ONLY** by **ALGORITHMIC MANIPULATION!** In other words, it is **A FORGERY!**

### The De Facto Rigged Elections of Arapahoe County, Colorado, 2020 and Clark County, Nevada, 2024

Arapahoe County 2020 General Election; Proposition B by Party  
Moving Percentage Share of the Last 10628 Ballots Cast On Proposition B.  
Red and Blue are the Percentage of Trump and Biden Voters who Voted No

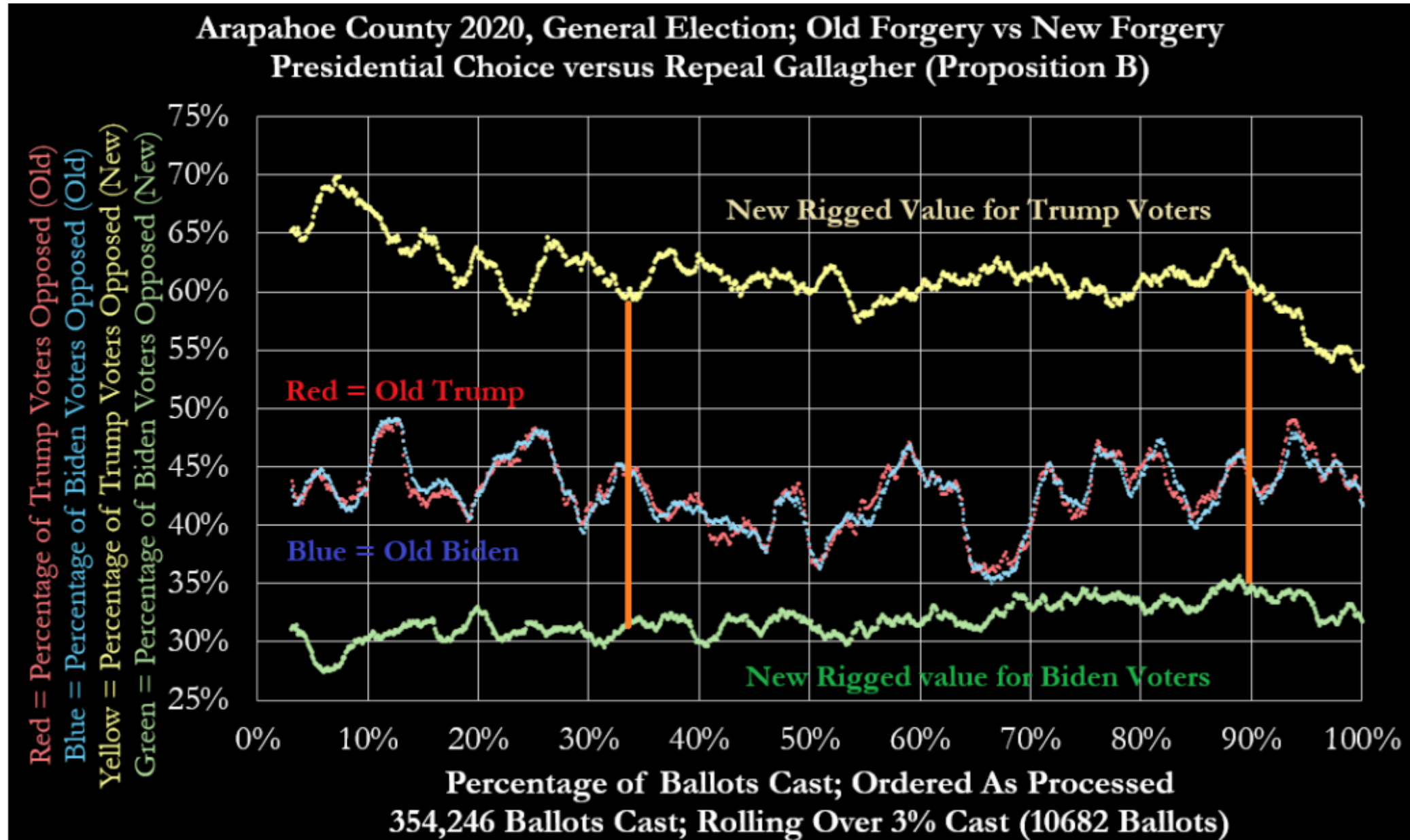


Ranked Choice Voting Separated by Party, Clark County; First Derivative  
First Derivative of Moving Share per Mail-in 13,316 ballots



That since two elections, in two different counties, in two different states, in two consecutive general elections (2020 and 2024) were synthetically engineered, by proprietary software on Dominion machines, that this constitutes an Act of Forgery of the Cast Vote Record, which denies the People of Colorado and Nevada their Guarantee of a Republican Form of Government under Article IV, Section 4, of the United States Constitution. Free and Fair Elections are an immutable tenet of that which constitutes a Republican Form of Government.

Suddenly, on (or about) April 2, 2025, the Cast Vote Record for Arapahoe 2020 is **REPLACED** with a **NEW FORGERY!**



The New Cast Vote Record for Arapahoe 2020 was carefully REBUILT to ELIMINATE the LOCKSTEP MOTION where both Dems and Repubs voted at 42.9%.

The **NEW FORGERY** shows

**Biden voters voting at 31.7% against Prop B and**

**Trump voters voting at 60.01% against Prop B!**

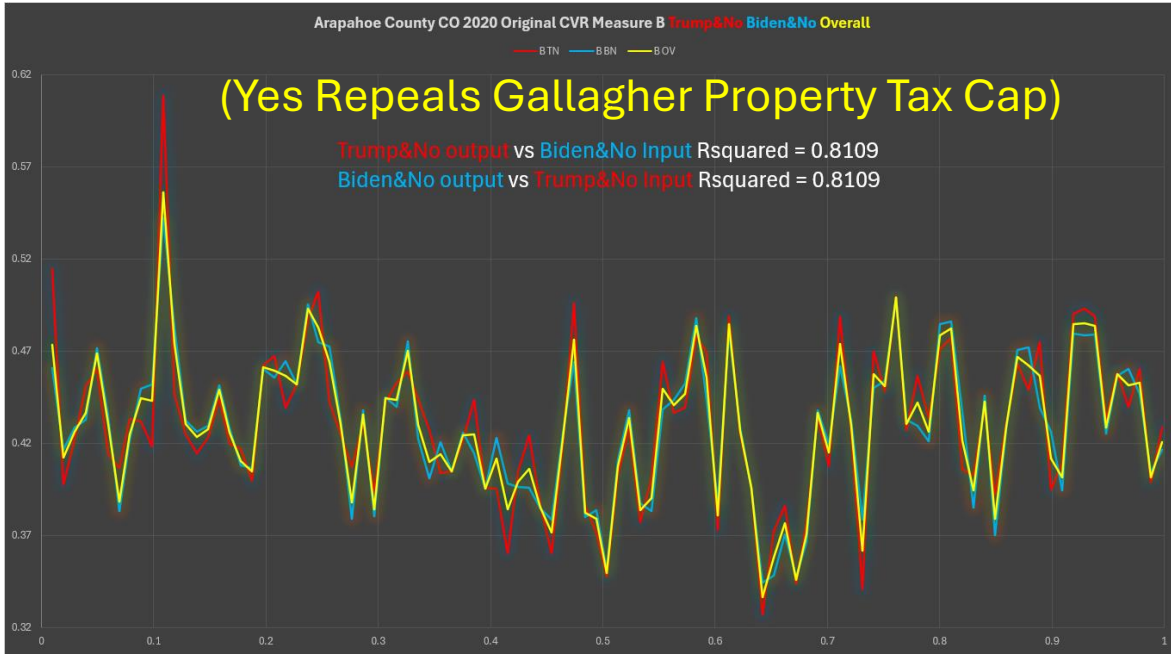
Very similar pattern to the results in the rest of the Colorado Counties!

**They also removed the “Counting Group” column which gives the Mail, Early, Election Day voting method – not used here but critical in Nevada and other states!**

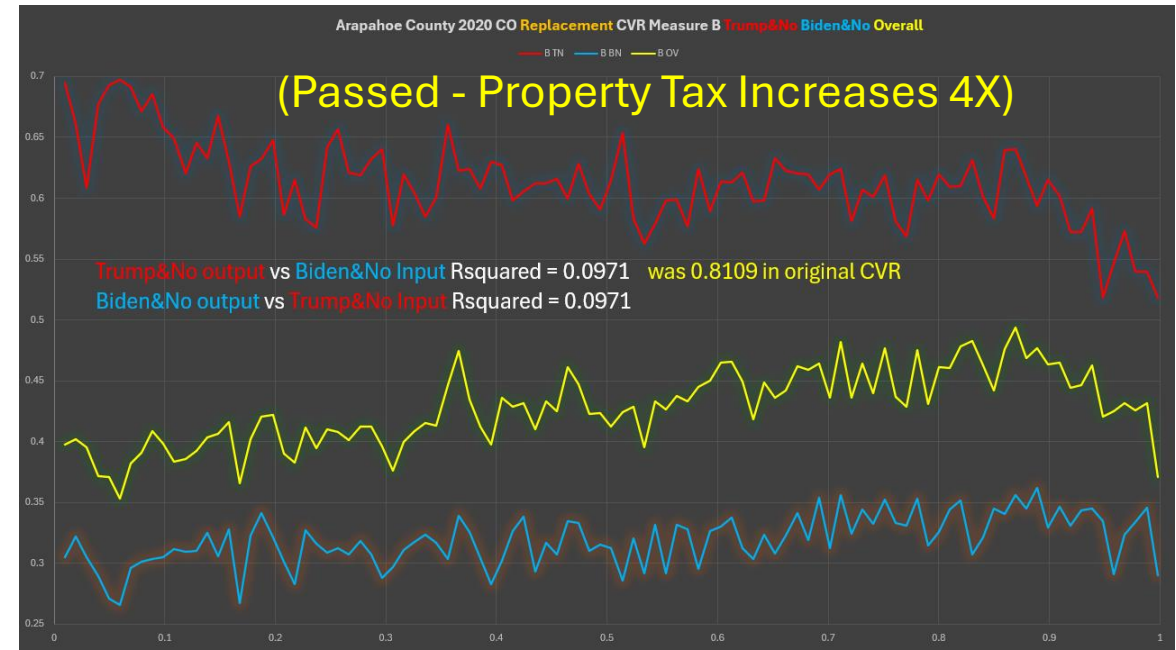
The Presidential-Proposition Results of STUV (County-Wide Totals):

- (a) Trump-No:  $S = 50,666$  in the old CVR;  $S = 72,394$  in the new CVR. A difference of  $+21,728$ .
- (b) Biden-No:  $T = 85,097$  in the old CVR;  $T = 62,676$  in the new CVR. A difference of  $-22,421$ .
- (c) Trump-Yes:  $U = 67,454$  in the old CVR;  $U = 46,271$  in the new CVR. A difference of  $-21,183$ .
- (d) Biden-Yes:  $V = 112,979$  in the old CVR;  $V = 135,056$  in the new CVR. A difference of  $22,077$ .
- (e) Percentage of Trump Voters Opposed:  $M = \frac{S}{S+U} = 42.89\%$  in the old CVR;  $M = \frac{S}{S+U} = 61.01\%$  in the new CVR.
- (f) Percentage of Biden Voters Opposed:  $N = \frac{T}{T+V} = 42.96\%$  in the old CVR;  $N = \frac{T}{T+V} = 31.70\%$  in the new CVR.
- (g) Old CVR: Total Trump and Biden Votes,  $S+U = 118,120$  and  $T+V = 198,076$ ; Total No and Yes,  $S+U = 135,763$  and  $T+V = 180,433$
- (h) New CVR: Total Trump and Biden Votes,  $S+U = 118,665$  and  $T+V = 197,732$ ; Total No and Yes,  $S+U = 135,070$  and  $T+V = 181,327$
- (i) Net Changes: Trump margin change =  $+545$ ; Biden margin change =  $-344$ ; Against/No margin change =  $-693$ ; For/Yes Margin Change =  $+894$ .

# Original Data Showing Lockstep Motion Measure B



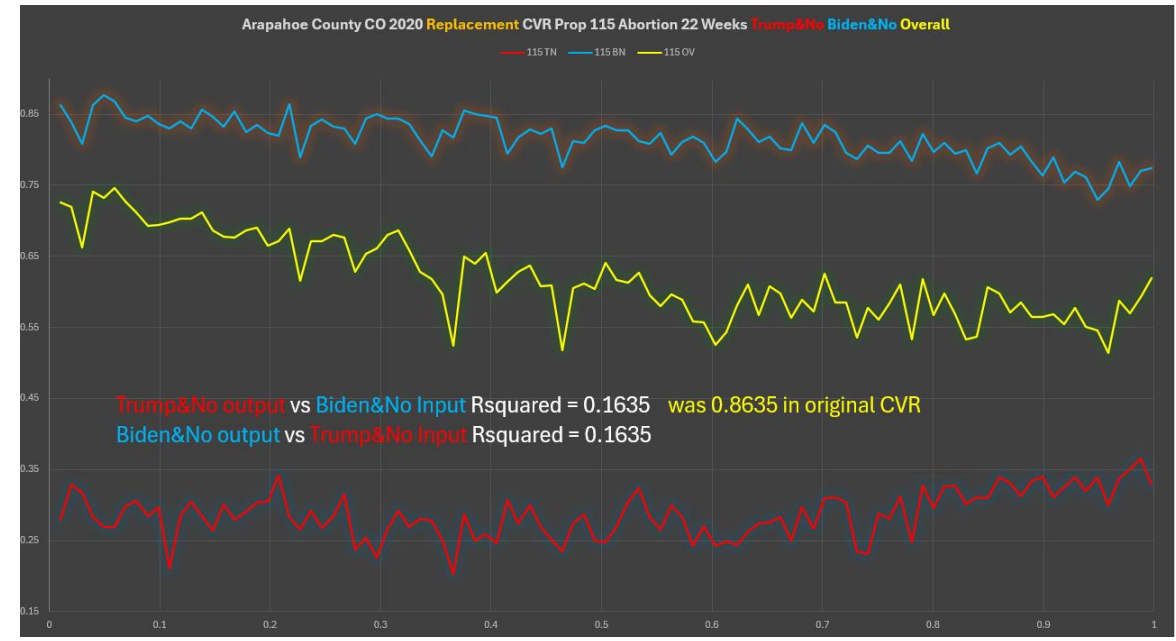
# Replaced Data Measure B Virtually No Correlation



# Original Data Prop 115 Abortion Lockstep Motion



# Replaced Data Prop 115 Abortion Low Correlation



## Table showing 11 Propositions and Outcomes And R-squared values of correlation on Original CVR and Replacement CVR

Proposition	Title	Original CVR R-squared	Replaced CVR R-squared	outcome	outcome result
Measure B	Repeal Ghallager Amdt	0.8109	0.0971	passed	raises property taxes across state
Measure C	Gaming Licenses	0.6935	0.3390	failed	Would have required organizations to exist 3 years before getting license
Prop 76	Voter Citizenship	0.8939	0.1826	passed	changed Constitution to "only" citizens instead of existing "every" citizen
Prop 77	Allow Gaming 3 places	0.8511	0.0226	passed	allows 3 regions to vote to expand gaming
Measure EE	Tax on Nicotine	0.8891	0.3962	passed	increases tax on tobacco and liquid nicotine
Prop 113	Presidential National Popular Vote	0.9340	0.1635	passed	CO joins the National Popular Vote Interstate Compact Referendum
Prop 114	Gray Wolves	0.8886	0.5481	passed	reintroduces wolves on public lands
Prop 115	Abortion up to 22 weeks	0.8635	0.1806	failed	if passed, would have prohibited abortion after 22 weeks
Prop 116	Reduce Income Tax	0.8777	0.6256	passed	reduces state income tax
Prop 117	Voter Approval to exempt from tax	0.7843	0.2552	passed	requires voter approval of new tax exempt enterprises revenue > \$50 mil
Prop 118	Paid Medical Leave	0.9516	0.2712	passed	Established program for paid medical and family leave

Tax measures: Measure B increasing property tax, Measure EE increasing tobacco/nicotine tax, Prop 116 lowering income tax and Prop 117 requiring voter approval to exempt taxes were used to do further in-depth analysis of timing patterns.

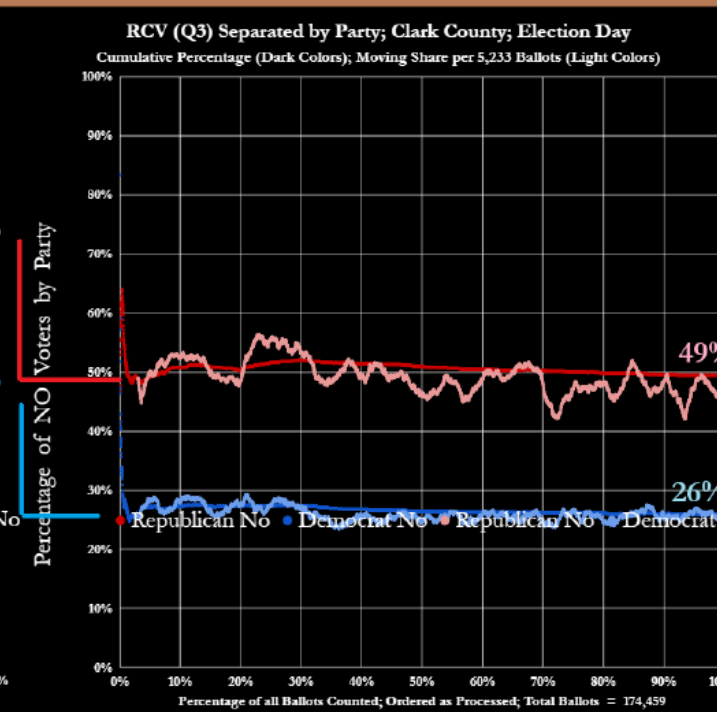
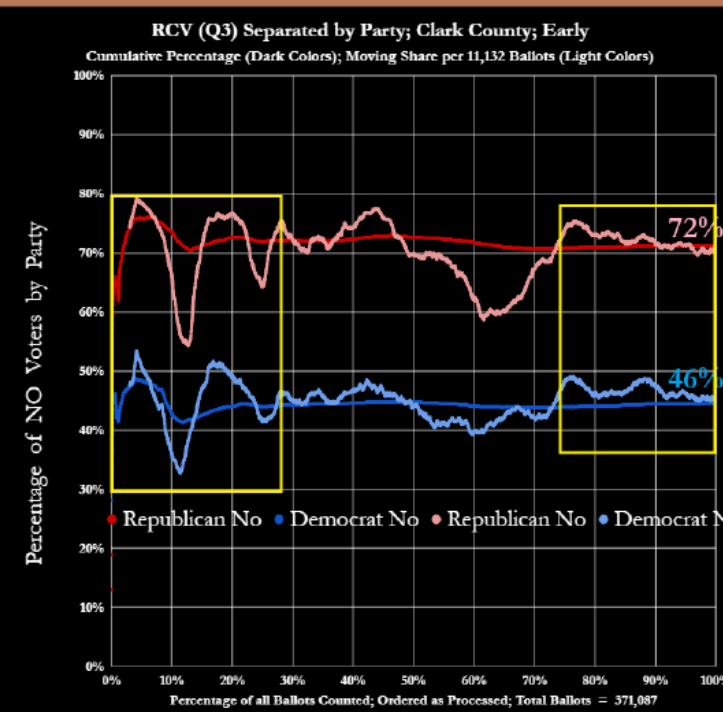
# SHOW US THE MONEY! Expenditures on Ballot Measures

Ballot Measure	Support Contributions	Oppose Contributions	Outcome
Colorado Amendment 76, Citizenship Requirement for Voting Initiative (2020)	\$1,446,689.09	\$59,825.18	✓
Colorado Amendment 77, Allow Voters in Central, Black Hawk, and Cripple Creek Cities to Expand Authorized Games and Increase Maximum Bets Initiative (2020)	\$4,022,609.10	\$0.00	✓
Colorado Amendment B, Gallagher Amendment Repeal and Property Tax Assessment Rates Measure (2020)	\$7,848,712.10	\$722,140.10	✓
Colorado Amendment C, Charitable Bingo and Raffles Amendment (2020)	\$0.00	\$0.00	✗
Colorado Proposition 113, National Popular Vote Interstate Compact Referendum (2020)	\$5,453,011.14	\$1,784,350.10	✓
Colorado Proposition 114, Gray Wolf Reintroduction Initiative (2020)	\$2,403,079.01	\$1,060,184.14	✓
Colorado Proposition 115, 22-Week Abortion Ban Initiative (2020)	\$785,819.66	\$9,794,256.44	✗
Colorado Proposition 116, Decrease Income Tax Rate from 4.63% to 4.55% Initiative (2020)	\$1,556,208.33	\$3,193,676.40	✓
Colorado Proposition 117, Require Voter Approval of Certain New Enterprises Exempt from TABOR Initiative (2020)	\$2,175,026.19	\$3,258,177.40	✓
Colorado Proposition 118, Paid Medical and Family Leave Initiative (2020)	\$9,039,577.89	\$799,926.02	✓
Colorado Proposition EE, Tobacco and E-Cigarette Tax Increase for Health and Education Programs Measure (2020)	\$4,722,266.09	\$4,545,670.20	✓

>10X!

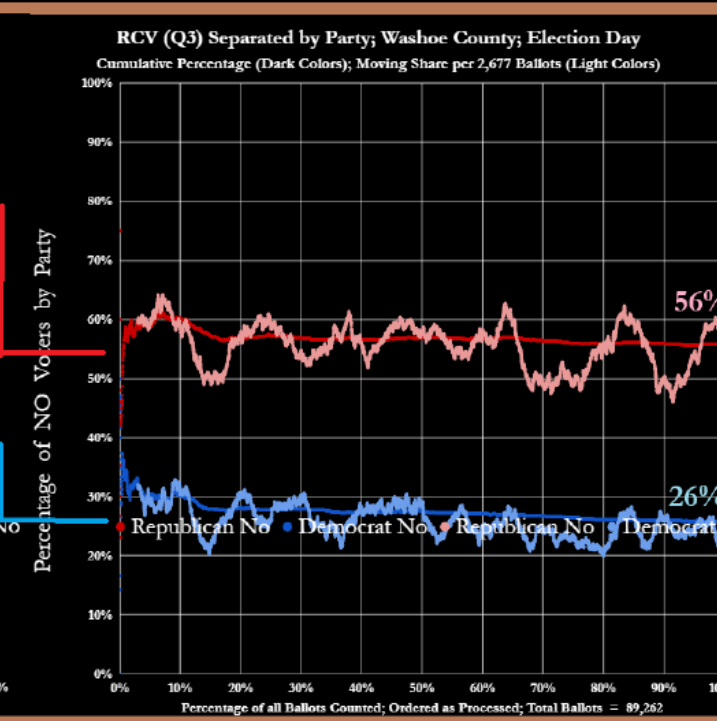
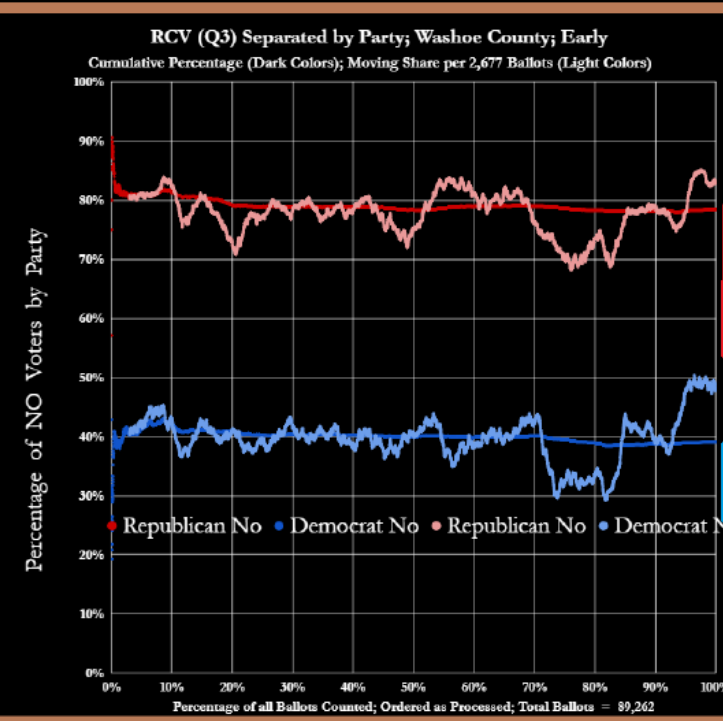
>10X!

These graphs show another pattern of lockstep motion where there is steady opposition in early in-person voting with a drastic change in opposition in the election day vote.



Upper right is NV 2024 Question 3 on Ranked Choice Voting in the Election Day Vote in Clark Co. **Repub opposition drops 30% from 79% to 49%**  
**Dem opposition drops almost half from 46% to 26%**

Upper left is NV 2024 Question 3 on Ranked Choice Voting in the Early Vote in Clark Co.  
**Repub opposition 72%**  
**Dem Opposition 46%**



Lower right is NV 2024 Question 3 on Ranked Choice Voting in the Election Day Vote in Clark Co. **Repub opposition drops 24% from 80% to 56%**  
**Dem opposition drops one-third from 40% to 26%**

Lower left is NV 2024 Question 3 on Ranked Choice Voting in the Early Vote in Washoe Co.  
**Repub opposition 79%**  
**Dem Opposition 40%**

The Stadium images below starkly demonstrate the pattern shown in the previous slide. Both images are of a 100,000 seat stadium. In both images the fans in the stadium are **ALL REPUBLICANS**.

The image on the left is the EARLY VOTE and the image on the right is ELECTION DAY.

In both groups, the fans in the **RED** section voted **AGAINST** Question 3, the fans in the **Green** section voted **FOR** question 3.

On the left, **THREE QUARTERS** voted **against** Question 3.  
The outcome is obvious, you wouldn't need to count the votes.

On the right, **JUST OVER HALF** voted **against** Question 3.  
The outcome is NOT obvious.  
You **WOULD** need to count the votes.

