

CPEV Allocation Tool - Overview

CPEV = Cost Per Electoral Vote

September 21st, 2024



Samir Saluja



Darin Klein

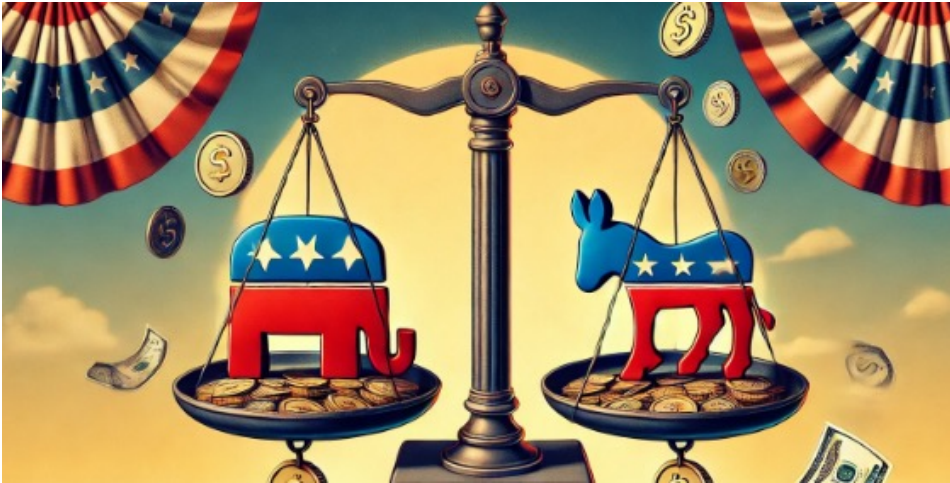


Manish Gupta

AGENDA:

- 1) How the CPEV Tool Works
- 2) Data Behind the Algorithm
- 3) Key Outputs
- 4) Demo

What is CPEV?



- The CPEV (Cost Per Electoral Vote™) tool is meant to be leveraged by Democratic Presidential Campaign operatives to support decision making on allocating funds across states, media channels, and non-media efforts to provide the highest probability of winning.
- The CPEV tool leverages an econometrics model trained with historical US Presidential polling data, voting outcomes, and campaign expenditures to derive an algorithm that provides recommendations on spending decisions.

CPEV – Model Inputs



Your Data

- 1) FEC Data (2000-Present), expenditures updated weekly + longitudinal historical vote counts.
- 2) Historical disaggregated media expenditures, paid and committed (2016 – Present), updated weekly
- 3) Weekly Consensus Polling Data – (2020-current) updated weekly
- 4) Custom Configuration with your own polling data and state strategy!!

CPEV Key Decision-Making Metrics



The following key decision-making metrics can be viewed nationally and, on a state,-by-state basis:

- Total spending needed to win
- Spending cut by media vs. non-media
- A breakout of media spending by channel – broadcast, digital, cable, radio, and satellite

Model Validation

- This econometric model is robust to random fluctuations in the data. It looks at changes in voting patterns over time and analyzes how money has been spent.
- **Model Validation:** Applying the same party strategies and polling differentials to the 2020 election cycle yields 80% accuracy across Democratic Party expenditures from that cycle.



CPEV TOOL OUTPUTS

Key Outputs

Democratic Party National Scoreboard													
Recommended Incremental Spend			Recommended Incremental Media Spend			Current Media Spending		Total Media Spend					
Total	Non-Media	Media	Broadcast	\$140,619,505	54.2%	\$534,837,949	45.3%	\$675,457,453	46.9%				
\$1,003,898,714	\$744,314,370	\$259,584,344	Digital	\$71,897,438	27.7%	\$430,405,736	36.4%	\$502,303,174	34.8%				
Incremental Spend Ratios Compared to Rep. Party			Cable	\$30,874,845	11.9%	\$151,806,669	12.8%	\$182,681,514	12.7%				
1.94	1.44		Radio	\$14,252,752	5.5%	\$62,182,017	5.3%	\$76,434,769	5.3%				
			Satellite	\$1,939,805	0.7%	\$2,673,812	0.2%	\$4,613,617	0.3%				
			Total	\$259,584,344		\$1,181,906,184		\$1,441,490,527					
Strategic Options				Election Cycle		Spend		Weekly Change		Monthly Change		YTD	
# Electoral Votes	2024 YTD Spend	Incremental Spend Allocated			Total Spend								
Battle	93	\$1,070,485,593	\$665,427,940	2024 YTD	\$3,363,969,515	Non-Media							
Leaning	155	\$816,904,542	\$287,546,597	2020	\$3,805,691,617	Media							
Safe	158	\$1,235,844,683	\$28,263,499	2016	\$854,516,411	Total							
Concede	132	\$240,734,697	\$22,660,678	2012	\$791,255,949								
Total	538	\$3,363,969,515	\$1,003,898,714	2008	\$1,169,611,712								

Republican Party National Scoreboard													
Incremental Spend			Recommended Incremental Media Spend (Model Estimates \$66M but this has already been exceeded)			Current Media Spending		Total Media Spend					
Total	Non-Media	Media	Broadcast	\$0	0.0%	\$515,335,452	37.8%	\$515,335,452					
\$518,082,752	\$518,082,752	\$0	Digital	\$0	0.0%	\$319,571,125	23.4%	\$319,571,125					
Spend Ratios Compared to Democratic Party			Cable	\$0	0.0%	\$146,338,605	10.7%	\$146,338,605					
0.52	0.70	0.00	Radio	\$0	0.0%	\$86,529,323	6.3%	\$86,529,323					
			Satellite	\$0	0.0%	\$297,294,848	21.8%	\$297,294,848					
			Total	\$0		\$1,365,069,352		\$1,365,069,352					
Strategic Options				Election Cycle		Spend		Weekly Change		Monthly Change		YTD	
# Electoral Votes	2024 YTD Spend	Incremental Spend Allocated			Total Spend								
Battle	62	\$565,379,900	\$225,630,285	2024 YTD	\$2,748,625,435	Non-Media							
Leaning	110	\$362,388,142	\$142,010,207	2020	\$3,889,613,853	Media							
Safe	212	\$1,421,355,472	\$86,260,200	2016	\$2,584,404,165	Total							
Concede	154	\$399,501,921	\$23,241,885	2012	\$2,802,615,611								
Total	538	\$2,748,625,435	\$477,142,578	2008	\$2,159,043,692								

Key Outputs

Democratic Party National Scoreboard

Recommended Incremental Spend		
Total	Non-Media	Media
\$1,003,898,714	\$744,314,370	\$259,584,344

Incremental Spend Ratios Compared to Rep.Party		
1.94	1.44	

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Non-Media			
Media			
Total			

Key Outputs

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Spend	Weekly Change	Monthly Change	YTD
Non-Media			
Media			
Total			

Example Battleground Data - Arizona

Democratic Party: AZ State View			
AZ			
Incremental Spend			
Total	Non-Media	Media	
\$78,706,531	\$60,669,275	\$18,037,256	
Total Spend	\$272,597,800		
Electoral Votes	11		
Cost per Electoral Vote	\$24,781,618		
Recommended Incremental Media Spend			
Broadcast	\$10,355,064	57.4%	
Digital	\$4,361,367	24.2%	
Cable	\$2,379,141	13.2%	
Radio	\$791,292	4.4%	
Satellite	\$150,392	0.8%	
Total	\$18,037,256		
Current Media Spend			
	\$52,273,467	53.0%	
	\$27,705,350	28.1%	
	\$14,317,228	14.5%	
	\$4,292,757	4.4%	
	\$0	0.0%	
	\$98,588,802		
Election Cycle	State Spend	Current Polling	Media Spend
2024 YTD	\$193,891,269	45.6%	\$98,588,802
		Vote Share	
2020	\$188,054,311	49.4%	\$108,979,241
2016	\$31,842,922	45.1%	\$5,485,820
2012	\$34,200,492	44.6%	
2008	\$34,554,927	45.1%	
Voter Persuadability Index™		0.02	
Dem-Rep VPI Ratio*		0.55	
* Dem-Rep VPI Ratio measures the relative effectiveness of spending by Democratic Party compared to the Republican Party. A ratio less than 1 indicates Dem spend is less effective than Rep; ratio of 1 indicates both parties are evenly matched; greater than 1 indicates Dem spend is more effective			

Example Battle Ground State

Democratic Party: PA State View			
PA			
Incremental Spend			
Total	Non-Media	Media	
\$135,947,644	\$99,599,841	\$36,347,803	
Total Spend	\$308,620,678		
Electoral Votes	19		
Cost per Electoral Vote	\$16,243,194		
Recommended Incremental Media Spend		Current Media Spend	
Broadcast	\$21,902,522	60.3%	\$137,825,810
Digital	\$7,323,983	20.1%	\$52,173,837
Cable	\$4,901,344	13.5%	\$31,211,712
Radio	\$2,001,398	5.5%	\$15,197,591
Satellite	\$218,555	0.6%	\$1,116,141
Total	\$36,347,803		\$237,525,091
Election Cycle	State Spend	Current Polling	Media Spend
2024 YTD	\$172,673,034	49.4%	\$237,525,091
		Vote Share	
2020	\$106,108,910	50.0%	\$229,245,073
2016	\$53,357,385	47.5%	\$34,794,578
2012	\$94,112,535	52.0%	
2008	\$70,380,160	54.5%	
Voter Persuadability Index™		0.27	
Dem-Rep VPI Ratio *		0.60	
* Dem-Rep VPI Ratio measures the relative effectiveness of spending by Democratic Party compared to the Republican Party. A ratio less than 1 indicates Dem spend is less effective than Rep; ratio of 1 indicates both parties are evenly matched; greater than 1 indicates Dem spend is more effective			

CPEV TOOL CONFIGURATION

Tool Configuration

State Configuration						
State	Dem_Strategy	Baseline Poll - Dem	Custom Polls - Dem	Rep_Strategy	Baseline Poll - Rep	Custom Polls - Rep
AK	0	42%	42%	2	47%	47%
AL	0	29%	29%	2	56%	56%
AZ	1	46%	46%	1	48%	48%
AR	0	40%	40%	2	55%	55%
CA	2	62%	62%	0	35%	35%
CO	3	53%	53%	0	42%	42%
CT	2	49%	49%	0	33%	33%
DE	3	46%	46%	3	36%	36%
FL	3	46%	46%	2	50%	50%
GA	1	46%	46%	1	48%	48%
HI	2	50%	50%	0	36%	36%
ID	0	25%	25%	0	54%	54%
IL	3	58%	58%	3	42%	42%
IN	0	41%	41%	2	58%	58%
IA	0	43%	43%	2	47%	47%
KS	0	39%	39%	2	44%	44%
KY	0	29%	29%	2	52%	52%

- 1) Custom Polling Numbers – While the baseline outputs leverage 538 consensus polling data, you may configure the tool to replace those data with your own polling data
- 2) State Battle Strategy – Although the baseline outputs leverage 270toWin labeling to categorize states as Battleground, Safe, Leaning, or Concede, you are invited to configure custom labels for both the Democratic and Republican strategy

Incremental Allocation for Conceded States			
Strategy	Strategy #	DEM	REP
Concede	0	10%	10%
Battle	1	50%	50%
Safe	2	10%	10%
Leaning	3	30%	30%
Incremental Allocation is applied to other strategies from the Conceded states expenditure pool			

1. Tool Access – submit request to Page Gardner at pagegardner@innovatingforpublicgood.org
2. Access will be granted by Samir Saluja upon approval sks@deriveone.com
3. Weekly refreshes posted to our SharePoint site.

Project Leads - Bios

Derive One Profile

Samir Saluja

Managing Partner at DeriveOne



Samir is the Founder and Managing Partner of Derive One (D1), a company that specializes in strategy consulting, insights, and technology solutions. D1 helps large businesses align their data and insights strategies with their core decision-making processes. Over the last six years, Derive One has assisted Fortune 500 clients in crafting strategic initiatives and research approaches to address emerging technology trends.

Through D1's Simile joint venture, Samir supervised the development of product features focusing on metaphor annotation and machine learning tools. These tools aim to identify and quantify metaphors, offering insights into consumers' subconscious thought processes.

Before establishing D1, Samir held a leadership role at Microsoft, where he initiated the Microsoft Professional Program. This program aimed to introduce curriculum in data science and artificial intelligence to the market. Samir's teams at D1 have supported clients in research and development, as well as the integration of AI capabilities into their existing applications.

In addition to his professional experience, Samir has served with the Peace Corps in Bolivia and is proficient in four languages. He holds degrees in economics and political science from the University of Michigan.

Derive One Profile

Darin Klein, Ph.D.

Senior Advisor at Derive One



Darin has nearly 25 years' experience working in marketing strategy and insights. He has extensive experience in brand communication, advertising, messaging and positioning, having worked at Fortune 100 technology firms Microsoft, Intel, and Verizon. He has also worked in senior roles at several different market research and insights consulting firms, including The Modellers, Ipsos, and now Derive One. Darin brings a wealth of experience and expertise in quantitative and qualitative market research methods and techniques to his role.

Darin started his career working in Democratic politics while completing his undergraduate degree in anthropology at the University of Pennsylvania and after. While living in Washington, DC he worked at the Democratic Policy Commission, which was part of the DNC, the Paul Douglas Foundation, which was Paul Simon's 501(c)3, and for a US Senate campaign.

Darin returned to the University of Pennsylvania to pursue and complete his M.A. and Ph.D. at the Annenberg School for Communication, where much of his research was focused on political communication. He worked closely with Kathleen Hall Jamieson, a MacArthur Foundation award winner, who served on his dissertation committee and is the founder of the Annenberg Public Policy Center and factcheck.org.

Prior to working on the industry side, Darin served as an assistant professor at Georgia State University where he taught political communication, communication ethics, and research methods.

Derive One Profile

Manish Gupta

at Derive One



Manish has more than 25 years of experience in developing and deploying production Machine Learning and AI models for clients in multiple industries including financial services, retail, technology, and healthcare. His prior experience includes Microsoft, Oliver Wyman, and Wharton Econometrics.

He is an economist by academic training, having received his M.A. in Economics from Tufts University and The Fletcher School. He has expertise in applying rigorous analytical methods to real-world data to derive actionable insights. His models have helped sales organizations prioritize higher potential leads, increasing sales. He has also developed fast and efficient algorithms to forecast attendance at entertainment venues.

Prior to his current role as an advisor on AI to companies, he co-founded a boutique investment advisory service company in New Delhi, India called Cogence Advisors. One of his key accomplishments at Cogence has been to successfully petition the Government of India for operationalizing an Emergency Response Service similar to the 911 system in the U.S. He assisted in sourcing the appropriate technology, experts on operations, logistics, and other support services.

He is an avid squash player and carpenter. His interest in woodworking started in middle school wood shop and continues until today. He uses artisanal craft methods and opts for hand tools for his projects.