Contemporary Analysis
Work smart.

Campaigning with Predictive Analytics

PREDICTIVE ANALYTICS WORLD — CHICAGO

PRESENTED BY

Nate Watson, President

Contemporary Analysis
11429 Davenport St.
Omaha, NE 68154

Our past clients.

#394 OF FORTUNE 500

Mutual of Omaha

#243 OF FORTUNE 500

Kiewit

TOP 10 ONLINE UNIVERSITY

BELLEVUE UNIVERSITY

37signals

BCBS NEBRASKA

#150 OF FORTUNE 500

CenturyLink™

- Metropolitan Community College
- University of Nebraska
- Georgia Regional Transit Authority
- Werner Enterprises
- Greater Omaha Chamber
- Yamaha

- Catholic Health Systems
- West Corporation
- Bruning for Governor
- Physician's Mutual
- Signal 88
- Lindsay Corporation
- Mutual First Federal Credit Union
- Continuum Worldwide
- Farm Credit Services of America

Case Study

In the 2014 NE Gubernatorial Race, 3 weeks before the election, CAN correctly predicted:

- Voter turnout within 0.27% or 876 votes out of 324,227
- Voter count within 2.8% or 1,577 out of 56,324

1. Purchase Analytics
2. Engage Actual Voters
3. Find the Undecided Voters
4. Do not Target Outside the Target
5. Know When More Data Does Not Give You More
6. Focus Your Resources
7. Use the Right Message
8. Know What Motivates Voters
9. Know What Issues to Avoid
10. Prepare for Unseen Events

#1 of 10

Purchase Analytics.

With technology's fast paced adoption, what Obama did in 2008, even state and local campaigns will be doing in 2016. Predictive Analytics should now be considered a "bare minimum" of any political campaign.

#2 of 10

Engage actual voters.

Even with the greatest efforts, some people will not head to the polls; make sure you're spending your time on those most likely to vote.

#3 of 10

Find the undecided voters.

Your race could be determined by only a few individual decisions — target the undecided voters needed to win your campaign.

Political Micro-Targeting & Predictive Analytics:

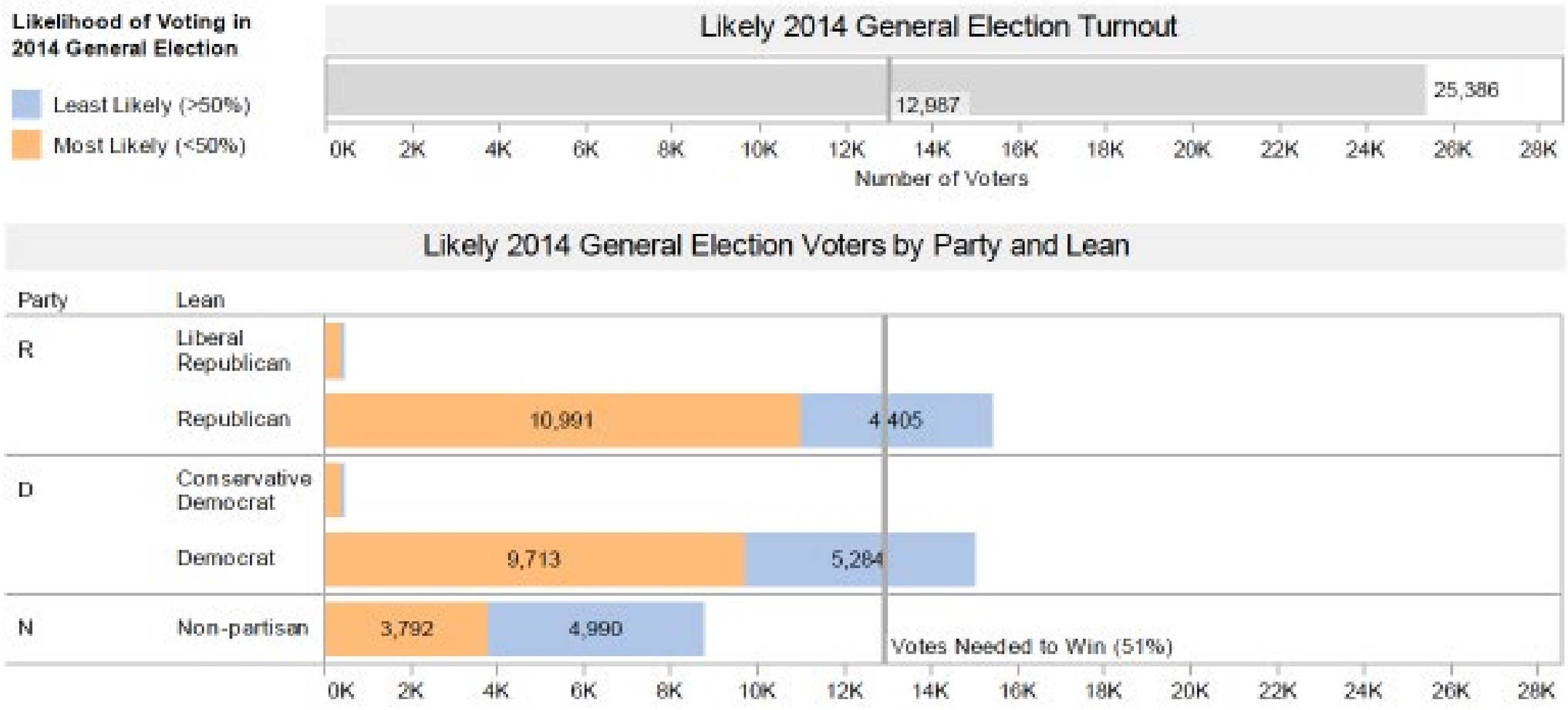
Your race will be determined by thousands of individual decisions — target the undecided voters needed to win your campaign.

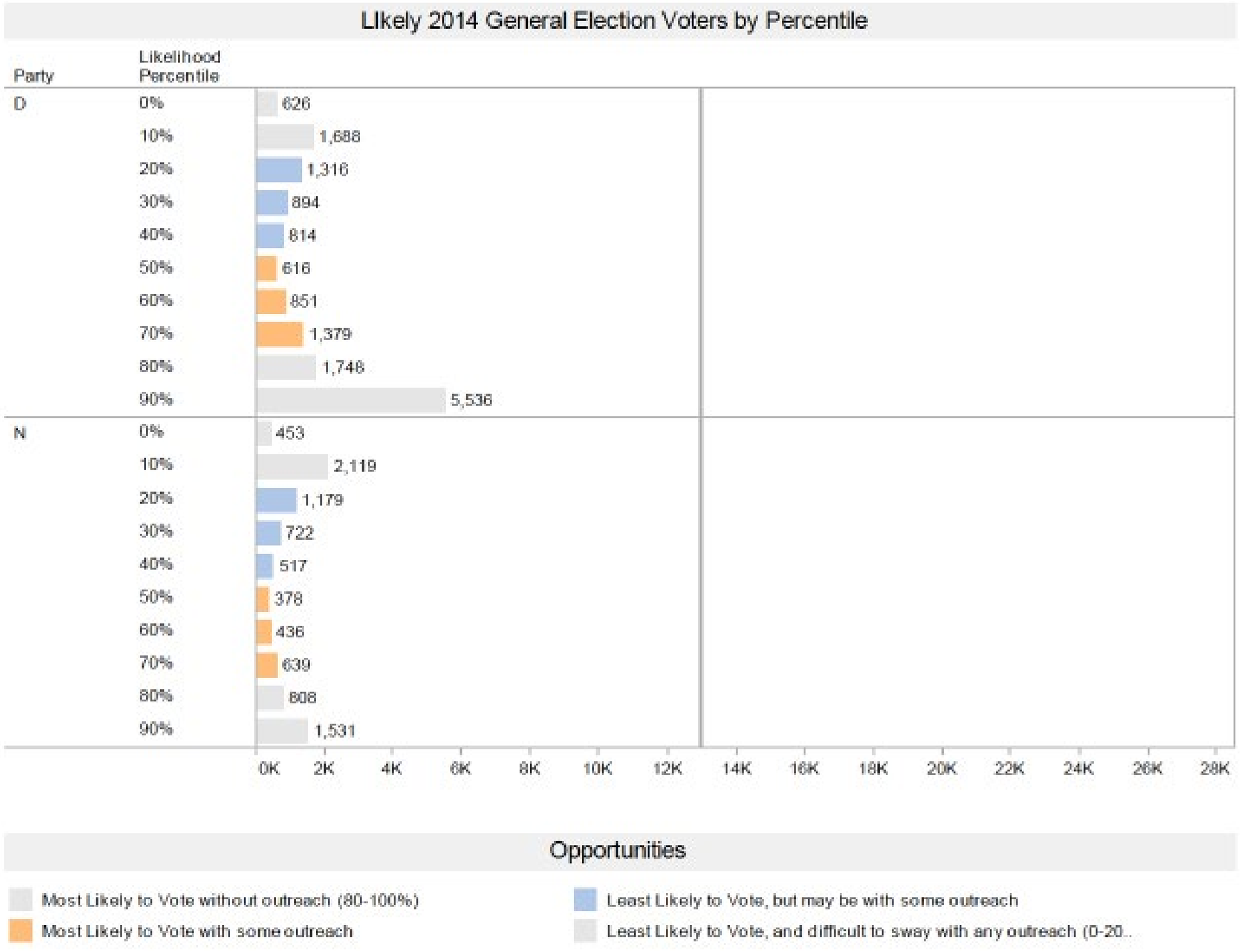
Your Target Market

Exclude those already likely to vote for you with no encouragement.

Focus on the undecided and persuadable voters needed to win.

Ignore the potential voters, that, no matter what, are unlikely to vote for you.


Likelihood of Voting in 2014 General Election
Least Likely (>50%)
Most Likely (<50%)
Likely 2014 General Election Turnout
12,987
25,386
0K 2K 4K 6K 8K 10K 12K 14K 16K 18K 20K 22K 24K 26K 28K
Number of Voters
Likely 2014 General Election Voters by Party and Lean
Party
Lean
R
Liberal Republican
Republican
10,991
4,405
D
Conservative Democrat
Democrat
9,713
5,284
N
Non-partisan
3,792
4,990
Votes Needed to Win (51%)
0K 2K 4K 6K 8K 10K 12K 14K 16K 18K 20K 22K 24K 26K 28K


LIkely 2014 General Election Voters by Percentile
Party
Likelihood Percentile
D
0%
626
10%
1,688
20%
1,316
30%
894
40%
814
50%
616
60%
851
70%
1,379
80%
1,748
90%
5,536
N
0%
453
10%
2,119
20%
1,179
30%
722
40%
517
50%
378
60%
436
70%
639
80%
808
90%
1,531
0K
2K
4K
6K
8K
10K
12K
14K
16K
18K
20K
22K
24K
26K
28K
Opportunities
Most Likely to Vote without outreach (80-100%)
Most Likely to Vote with some outreach
Least Likely to Vote, but may be with some outreach
Least Likely to Vote, and difficult to sway with any outreach (0-20..

#4 of 10

Stay on Target.

Just as important as targeting those that need a little push, some voters will vote against you if presented with the wrong messaging.

#5 of 10

Know when to stop.

Campaigns spend a lot of money on data that provides little or no improvement of accuracy.

Simple Model Example: Prediction Classification Table

	General Election (Predicted)		
General Election (Observed)	Not Voting	Voting	**Percentage Correct**
Did not vote	**72167**	9483	88%
Voted	15131	**66136**	81%
	Overall Correct Percentage		85%

Simple Model Example: Variables

Variable	B (Coefficients)	Standard Error	Wald	Significance	95% C.I. for EXP(B) Lower	Upper
Age_life_bin_1	.344	.019	312.341	.000	1.358	1.466
Age_life_bin_2	.282	.017	266.954	.000	1.282	1.372
Age_life_bin_3	.180	.017	109.330	.000	1.158	1.239
Age_life_bin_4	.133	.018	53.146	.000	1.102	1.184
Age_life_bin_5	.055	.019	8.719	.003	1.019	1.096
Age_life_bin_7	-.342	.029	139.262	.000	.671	.752
Age_life_bin_8	-1.949	.029	4636.533	.000	.135	.151
Party_affiliation_D	.523	.037	202.630	.000	1.570	1.814
Party_affiliation_R	.692	.027	656.239	.000	1.895	2.106
NumberOfPastRaces	.480	.002	63659.304	.000	1.611	1.623
Constant	-1.332	.017	6041.871	.000		

Overstuffing Example: Training Classification Table

	General Election (Predicted)		
General Election (Observed)	Did not vote	Voted	**Percentage Correct**
Did not vote	**93029**	39397	70%
Voted	36228	**374871**	91%
	Overall Correct Percentage		86%

OVERFITTING

Overstuffing Example: Variables

Variable	B (Coefficients)	Standard Error	Wald	Significance	95% C.I. for EXP(B) Lower	Upper
Age_life_bin_1	.331	.020	286.120	.000	1.339	1.446
Age_life_bin_2	.281	.017	263.325	.000	1.281	1.371
Age_life_bin_3	.184	.017	113.157	.000	1.162	1.243
Age_life_bin_4	.134	.018	53.857	.000	1.103	1.185
Age_life_bin_5	.058	.019	9.629	.002	1.022	1.099
Age_life_bin_7	-.348	.029	143.259	.000	.667	.748
Age_life_bin_8	-1.959	.029	4687.305	.000	.133	.149
Party_affiliation_D	.513	.037	194.040	.000	1.554	1.796
Party_affiliation_R	.684	.027	637.417	.000	1.879	2.089
NumberOfPastRaces	.478	.002	62834.614	.000	1.608	1.620
Residential_Zip_3	-.364	.127	8.181	.004	.541	.892
Residential_Zip_7	.360	.063	32.902	.000	1.268	1.622
Residential_Zip_8	.428	.218	3.834	.050	1.000	2.354
Residential_Zip_16	-.125	.023	28.277	.000	.843	.924
Residential_Zip_17	.127	.058	4.797	.029	1.013	1.272
Residential_Zip_18	-.356	.044	64.141	.000	.642	.764
Residential_Zip_19	-.283	.026	117.878	.000	.716	.793
Residential_Zip_21	.115	.037	9.801	.002	1.044	1.206
Residential_Zip_22	.113	.026	19.024	.000	1.064	1.178
Residential_Zip_25	-.182	.024	59.045	.000	.796	.873
Residential_Zip_26	.074	.032	5.248	.022	1.011	1.148
Residential_Zip_27	-.132	.033	16.081	.000	.821	.935
Residential_Zip_28	-.077	.023	11.484	.001	.885	.968
Residential_Zip_29	-.160	.038	17.765	.000	.791	.918
Residential_Zip_30	-.191	.044	18.638	.000	.758	.901
Residential_Zip_33	-.059	.030	3.945	.047	.889	.999
Residential_Zip_35	.104	.026	15.662	.000	1.054	1.168
Residential_Zip_41	.140	.018	57.675	.000	1.109	1.193
Residential_Zip_42	.156	.039	16.010	.000	1.083	1.262
Residential_Zip_45	.138	.024	32.782	.000	1.095	1.204
Residential_Zip_46	-.065	.018	12.838	.000	.904	.971
Residential_Zip_48	.261	.022	136.998	.000	1.243	1.357
Residential_Zip_50	.164	.025	41.633	.000	1.121	1.239
Residential_Zip_51	.157	.031	26.169	.000	1.102	1.243
Residential_Zip_53	.114	.033	11.628	.001	1.050	1.197
Residential_Zip_54	.104	.029	13.215	.000	1.049	1.174
Residential_Zip_56	.116	.032	13.238	.000	1.055	1.196
Residential_Zip_59	.094	.032	8.647	.003	1.032	1.170
Local_School_District_6	-.375	.055	47.296	.000	.618	.765
Local_School_District_7	.078	.016	23.389	.000	1.047	1.115
Local_School_District_9	-.501	.057	77.534	.000	.542	.677
Local_School_District_10	-.255	.033	61.473	.000	.727	.826
Constant	-1.332	.018	5513.792	.000		

#6 of 10

Focus your resources.

Know who has the greatest likelihood of being persuaded by a single phone call, mailer, or email — and act accordingly.

#7 of 10

Use the right message.

Engage voters on an individual level — target the right message, to the right person, at the right time.

#8 of 10

Motivate voters.

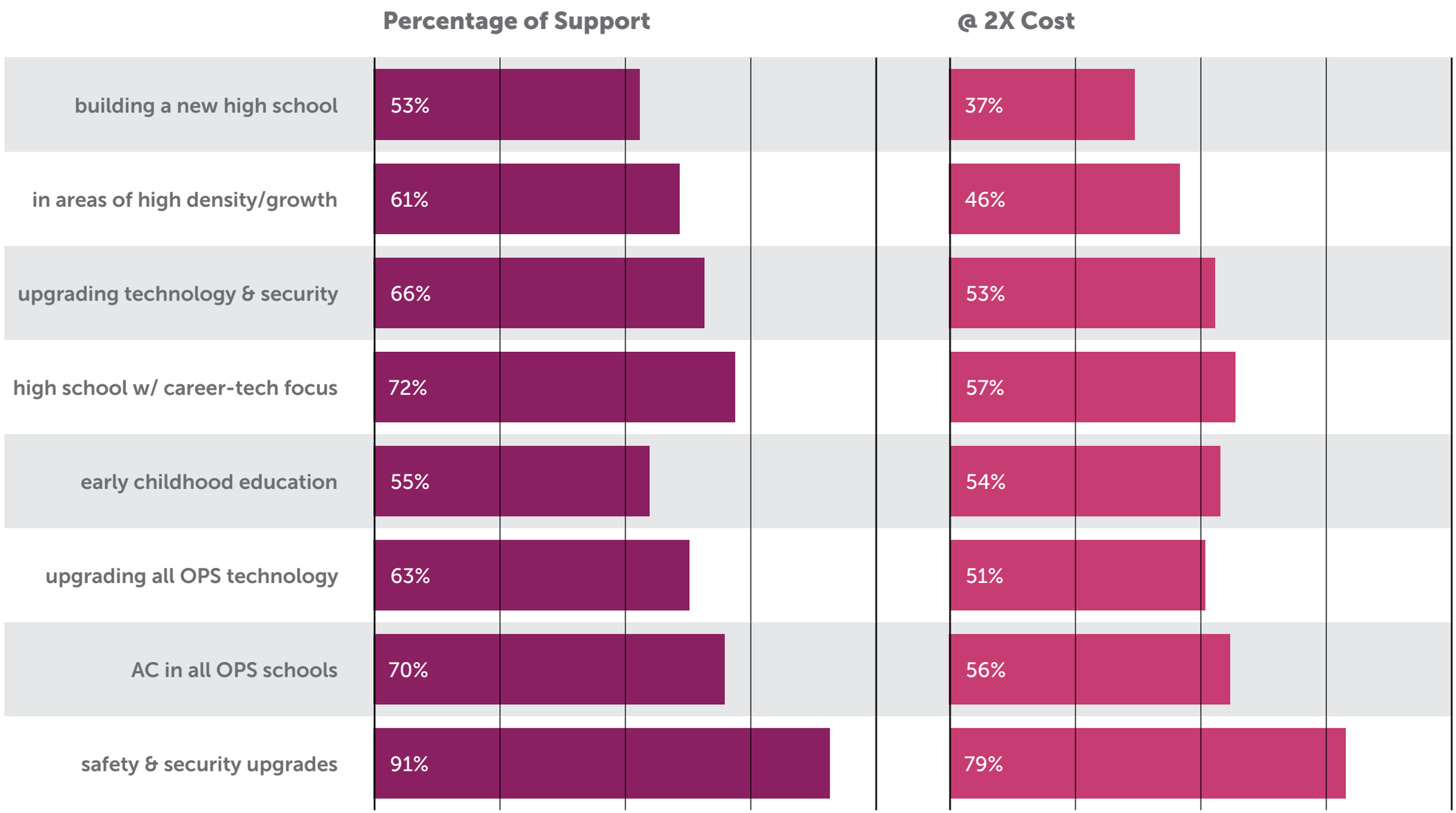
Determine the topics that motivate your constituency, and then gain support by individually targeting the issues they truly care about.

#9 of 10

Avoid Weaknesses.

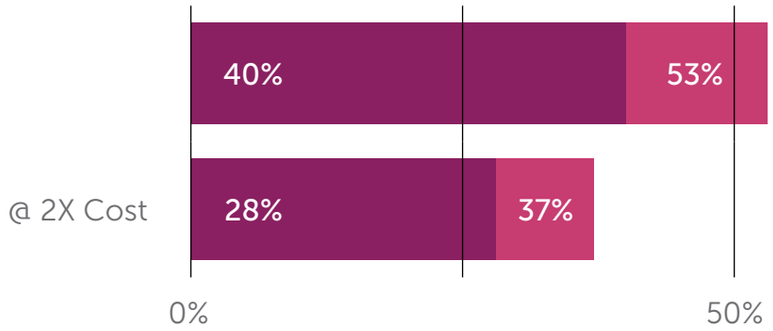
In an ever-changing political landscape, just as you need to know which topics to promote, you need to know which to avoid. Don’t risk alienating your audience with the wrong messaging.

Summary of support by topic:



Support for building a new high school.

Percentage of Support



Shift in Support Based on Cost:

General Support (Support ranking of 6-10)

Extreme Support (Support ranking of 8-10)

#10 of 10

Prepare for unforeseen events.

Important events, endorsements, and other changes impact on your campaign. **Use simulations to stay prepared.**

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QUESTIONS OR COMMENTS?

Nate Watson

President

Contemporary Analysis
11429 Davenport St.
Omaha, NE 68154

(402-516-8087)