TO: NextGen Climate
From: Joshua Kalla
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RE: Results from 2016 Online Ad Voter Turnout Experiment

During the 2016 general election, NextGen Climate conducted a 1.2 million person experiment to assess whether online advertising increases voter turnout. Across New Hampshire, Nevada, and Pennsylvania, NextGen Climate randomly assigned 1,041,952 voters to receive GOTV online ads while the remaining 195,368 were randomly assigned to a control group. Overall, we find that the ads likely caused a small, marginally significant increase in voter turnout of 0.14 percentage points ($p=0.15$). At a total cost of \$691k (with $\frac{2}{3}$ of the spend on Facebook), this experiment had an average cost per net vote of \$474.¹

As shown in the below table, the largest turnout effects were among the youngest voters (18-22) and those with very low turnout scores (0-23). Yet, even among the lowest turnout quartile, the average cost per net vote was still an expensive \$221.²

	Turnout Effect (95% confidence interval)
Overall Effect	0.14 pp (-0.1 to 0.3 pp)
Motivation Audience ³	0.16 pp (-0.1 to 0.4 pp)
Turnout Audience ⁴	0.12 pp (-0.1 to 0.4 pp)
Age ⁵ : 18-22	0.32 pp (-0.3 to 0.9 pp)
Age: 23-25	0.04 pp (-0.5 to 0.5 pp)
Age: 26-30	-0.001 pp (-0.3 to 0.3 pp)
Age: 31-35	0.09 pp (-0.3 to 0.5 pp)
Turnout Quartile 1: 0-23	0.30 pp (0.04 to 0.6 pp)
Turnout Quartile 2: 23-35	-0.18 pp (-0.7 to 0.3 pp)
Turnout Quartile 3: 35-42	-0.09 pp (-0.5 to 0.3 pp)

¹ $691005 / (1041952 * .0014) = 474$. 850000 is the total program cost. 1041952 is the treatment group size. .0014 is the assumed effect size.

² $(691005 * .25) / (1041952 * .25 * 0.003) = 221$. This divides both the total program cost and treatment group size by four, for the quartile. The assumed effect size is 0.30 percentage points.

³ This motivation universe was defined as “decent persuasion targets, mediocre turnout targets.” A total of \$350k was spent on the motivation audience.

⁴ This turnout universe was defined as “mediocre persuasion targets, decent turnout targets.” A total of \$341k was spent on the motivation audience.

⁵ Age buckets were defined and pre-specified ex-ante.

Turnout Quartile 4: 42-100	0.16 pp (-0.2 to 0.6 pp)
New Hampshire ⁶	-0.28 pp (-1.1 to 0.6 pp)
Nevada ⁷	0.30 pp (-0.1 to 0.7 pp)
Pennsylvania ⁸	0.1 pp (-0.1 to 0.3 pp)

In addition, within the treatment group, we further randomly assigned how long the ads ran (2 vs. 3 weeks) and whether they included only plan-making or social pressure with plan-making. Overall, we find turnout effects of:

- 2 Week + Plan-Making Only: 0.13pp (-0.1 to 0.4 pp)
- 2 Week + Plan-Making + Social Pressure: 0.07pp (-0.2 to 0.3 pp)
- 3 Week + Plan-Making Only: 0.27pp (0.03 to 0.5 pp)
- 3 Week + Plan-Making + Social Pressure: 0.10pp (-0.1 to 0.3 pp)

Overall, our best guess is that adding social pressure language to GOTV ads likely has no effect on their efficacy. While we find that a third week of GOTV ads increases their efficacy by 0.08 percentage points compared to only two weeks, this difference is not statistically significant ($p=0.27$).

This experiment suggests that GOTV ads likely have modest effects and that their efficacy is concentrated among the voters with the lowest turnout scores and the youngest. This underscores the importance of targeting voters who are likely not already being reached by campaigns and other political organizations, similar to the findings in the 2016 Illinois text message experiment. But tactically, digital GOTV ads in presidential elections are likely a poor value proposition.

⁶ N=71,900. \$45k was spent in New Hampshire.

⁷ N=245,968. \$144k was spent in Nevada.

⁸ N=919,452. \$501k was spent in Pennsylvania.