



# Optimal Offer Strategies in a Paperless World – Incentive Experiment Results from a Multi- Wave Student Survey

Jill Connelly, Karen Grigorian,  
and Scott Sederstrom

April 17, 2018

# Acknowledgements

- **Ben Castleman**, *Principal Investigator, University of Virginia*
- **Karen Arnold**, *Co-Principal Investigator, Boston College*
- **Bryden Sweeney-Taylor**, *CEO for America Achieves*
- **Sheila Kirby**, *Senior Fellow at NORC*

# Overview

Reporting on results from an incentive experiment conducted during Wave 1 of the CollegePoint Virtual Advising Program Evaluation Surveys

## Presentation Outline

- Background of CollegePoint Program and the Evaluation Surveys
- Incentive Experiment Design and Implementation
- Results from Wave 1 Survey
- Results from Wave 2 Survey

# CollegePoint Virtual Advising Program

- College advising initiative funded by Bloomberg Philanthropies and coordinated by America Achieves
- Pairs low- to moderate- income high school students with college advisors from one of four organizations.
- Advisors communicate with students with virtual communications – text message, email, skype, etc.
- Provide help identifying schools that meet needs, help with applications, essays, etc., and applying for financial aid.

# CollegePoint Virtual Advising Program Evaluation Surveys

- Initial Design: 3 waves of data collection with the high school class of 2016 CollegePoint advisees
- Sample of approximately 8,000 high school seniors
- Baseline / Wave 1 Survey
  - Started March 2016
  - 8 week field period
  - 10-15 minute questionnaire
  - Programmed for web administration – computer or mobile device
  - Contact by email, SMS text message, and eventually telephone

# How to optimize incentive offer for online survey

1. What is the best way to offer incentives in an online survey?
  - Prepaid cash or gift card
  - Postpaid cash or gift card
  - Combination of prepaid & postpaid
2. What is the right amount?
3. How does the survey sample inform choices about implementing incentives?
4. How might incentives offered in the baseline affect response in later waves of a multi-wave study?

# CollegePoint Incentive Experiment

- **Objective:** Determine the optimal incentive offer for a multi-wave survey of high school seniors where texting/emailing is the primary mode of contact
- **Experiment Design:** Control for three conditions
  1. Incentive Amount: \$10 or \$15
  2. Timing of incentive delivery: Prepaid or Postpaid
  3. Messaging: Impact of message foreshadowing future surveys and potential to receive additional incentives
- **Incentive:** Amazon Gift Code

# CollegePoint Incentive Experiment

## *Selection into experiment groups*

- Sample of 7,903 students
- Randomly divided into eight experiment groups
- Used serpentine sorting to maximize the similarity of adjacent cases during assignment
- Sorted cases on six characteristics:
  - Advising intensity: low vs. high
  - U.S. Region of high school
  - Record Quality
  - Advising program
  - Available Email
  - Available Phone



# CollegePoint Incentive Experiment Groups

*The 8 Incentive Experiment Treatment Groups and Sample Sizes*

Incentive Timing & Future Survey Messaging	\$10 gift code	\$15 gift code
<b>Prepaid</b>		
<i>Foreshadowing</i>	400	400
<i>No foreshadowing</i>	400	400
<b>Postpaid</b>		
<i>Foreshadowing</i>	1,575	1,576
<i>No foreshadowing</i>	1,577	1,575
<b>Total</b>	3,952	3,951

# CollegePoint Incentive Experiment: Implementation

Initial invitation to participate sent by email

## Incentive Statement

### Prepaid Groups

To thank you in advance for your participation in this survey, we have included a \$10/\$15 Amazon gift code below.

### Postpaid Groups

We will send you a \$10/\$15 Amazon code to thank you for your participation when we receive your complete, eligible College Application Survey.

## Foreshadowing Message

We may also contact you later this year to participate in two additional surveys. If you are contacted for these, you'll have the opportunity to receive two more \$10/15 Amazon gift codes plus a \$20 bonus code for a total of \$50/65 if you participate in all three surveys.

# CollegePoint Data Collection Overview

Data Collection Phase	Weeks	Outreach
Phase 1: Invitation	Weeks 1-3	<ul style="list-style-type: none"><li>• Initial Email invitation/SMS invite</li><li>• Weekly prompts to complete</li></ul>
Phase 2: Follow-up	Weeks 4-6	<ul style="list-style-type: none"><li>• Email &amp; SMS prompts continue</li><li>• Follow-up telephone calls</li><li>• Targeted messages</li></ul>
Phase 3: Last Chance	Weeks 7-8	<ul style="list-style-type: none"><li>• Increased incentive for \$10 groups</li><li>• Last chance prompting messages</li><li>• Targeted phone calls to those who'd promised completion</li></ul>

# Results After Phase 1 & 2

What was the effect of the three conditions by week 6 (end of Phase 2)?

1. \$15 was more effective

- 53.1% survey yield for \$10
- 57.6% survey yield for \$15

2. Postpaid was more effective

- 52.7% survey yield for Prepaid
- 56.0% survey yield for Postpaid

3. Foreshadow message did not appear to make much difference

- 55.1% survey yield for foreshadow message
- 55.4% survey yield for no foreshadowing

# Results from Phase 1 & 2

Group No.	Experiment group	Phase 1+2 Survey yield Weeks 0- 6	Difference from Average
1	\$10 Prepaid Foreshadow	54.1%	-0.9%
2	\$10 Prepaid No foreshadow	48.4%	-6.6%
3	\$10 Postpaid Foreshadow	52.3%	-2.7%
4	\$10 Postpaid No foreshadow	54.0%	-1.0%
5	\$15 Prepaid Foreshadow	55.9%	0.9%
6	\$15 Prepaid No foreshadow	51.5%	-3.5%
7	\$15 Postpaid Foreshadow	57.5%	2.5%
8	\$15 Postpaid No foreshadow	59.0%	4.0%
<b>Total</b>		55.0%	0.0%

# Phase 3 – Weeks 7-8

- Approach changed in the last two weeks (n=3,513)
  - Last chance contacts sent by email and SMS
  - Targeted phone calls
  - Increased incentive for remaining cases in \$10 experiment groups from \$10 to \$15
  - Different message for pre- and post-paid \$10 groups

Initial Incentive	Phase 3 Offer
\$10 Prepaid	Reminded of \$10 prepaid gift code & promised additional \$5 code
\$10 postpaid	Promised \$15 gift code for participation

# Phase 3 Results for Late-Stage Cases (n=3,513)

Group No.	Experiment group	Thru Phase 2 Survey Yield	Phase 3 Survey Yield	Difference from Average
1	\$10 Prepaid Foreshadow	54.1%	18.7%	1.5%
2	\$10 Prepaid No foreshadow	48.4%	20.7%	3.5%
3	\$10 Postpaid Foreshadow	52.3%	17.4%	0.2%
4	\$10 Postpaid No foreshadow	54.0%	18.0%	0.8%
5	\$15 Prepaid Foreshadow	55.9%	11.4%	-5.8%
6	\$15 Prepaid No foreshadow	51.5%	19.7%	2.5%
7	\$15 Postpaid Foreshadow	57.5%	16.8%	-0.4%
8	\$15 Postpaid No foreshadow	59.0%	15.8%	-1.4%
<b>Total</b>		55.0%	17.2%	0.0%

# Final Wave 1 Results

Group No.	Experiment group	Final Wave 1 Survey Yield	Difference from Average
1	\$10 Prepaid Foreshadow	62.9%	-0.1%
2	\$10 Prepaid No foreshadow	59.6%	-3.4%
3	\$10 Postpaid Foreshadow	61.0%	-2.0%
4	\$10 Postpaid No foreshadow	62.4%	-0.6%
5	\$15 Prepaid Foreshadow	61.0%	-2.0%
6	\$15 Prepaid No foreshadow	61.1%	-1.9%
7	\$15 Postpaid Foreshadow	65.0%	2.0%
8	\$15 Postpaid No foreshadow	65.7%	2.7%
<b>Total</b>		63.0%	0.0%



# Wave 2

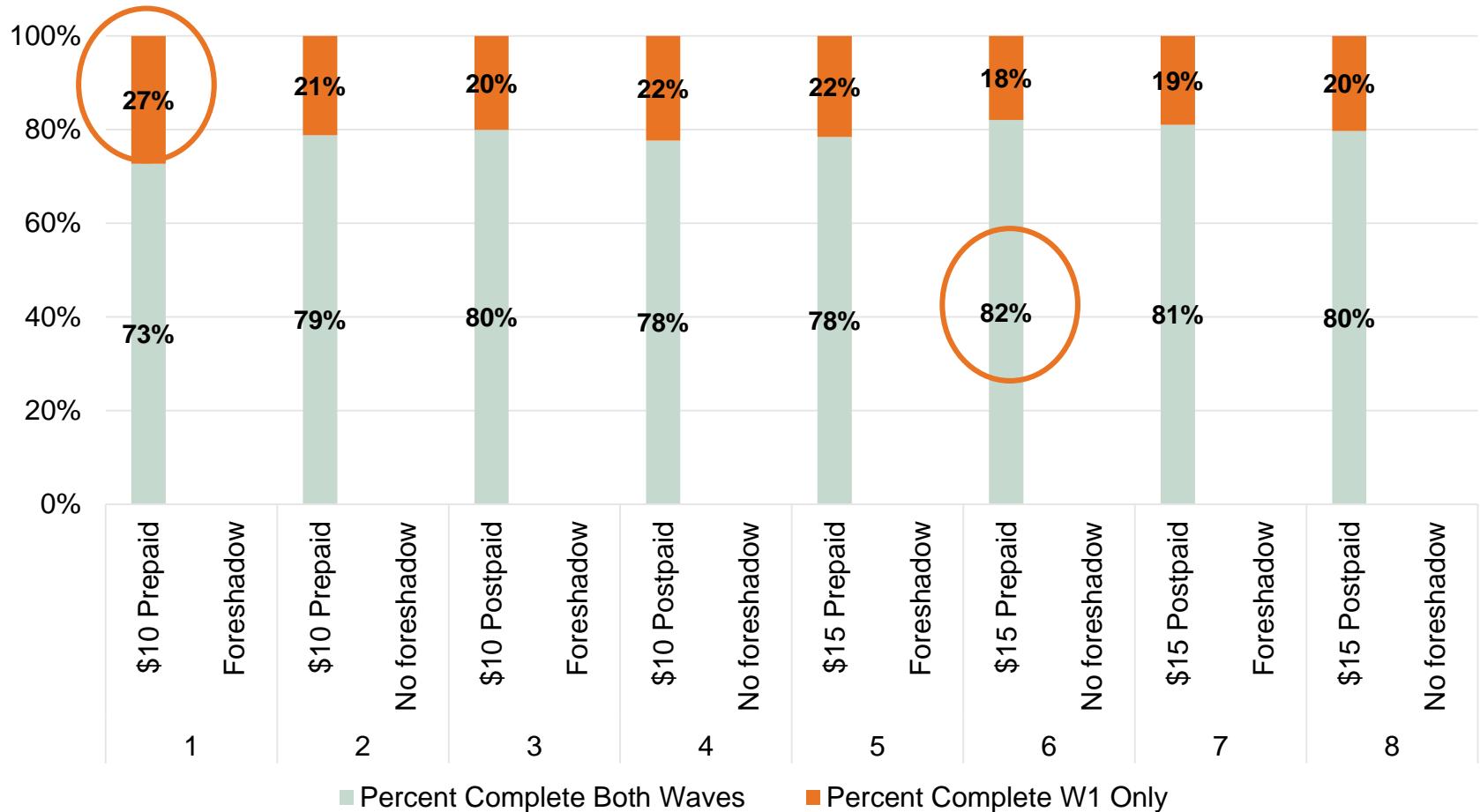
- Wave 2: late September – early December 2016
- Incentives structured differently
  - Amount consistent with final Wave 1 offer
  - All postpaid
  - No foreshadowing
- Data Collection followed same approach
  - 10-15 minute questionnaire
  - Contact by email, SMS text message, and telephone

# Wave 2 Summary of Results

- Wave 1 Early Responders – those that completed in first 6 weeks
  - More positive response from those cases whose wave 1 prepaid \$15 incentive had been flipped to a postpaid in wave 2
  - Wave 1 \$10 prepaid incentive groups underperformed others – possibly had lingering negative effect on survey participation
- Wave 1 Late Remainders – those remaining in last two weeks
  - Greatest gain in groups that had a \$15 prepaid in wave 1 & switched to postpaid
  - Wave 1 \$10 prepaid groups had responded better in wave 2 after their incentive switched to a postpaid \$15.

# W1 Early Responders: W1 and W2 Response

*About 21% Nonresponse in Wave 2*



# W1 Late Remainders: Completion Rates across Waves

Group No.	Experiment group	Percent completed W1 only	Percent completed W2 only	Percent completed both waves	Difference from Average
1	\$10 Prepaid* Foreshadow	7.6%	27.2%	11.4%	0.4%
2	\$10 Prepaid* No foreshadow	6.3%	24.6%	15.5%	4.5%
3	\$10 Postpaid* Foreshadow	6.8%	23.8%	11.3%	0.3%
4	\$10 Postpaid* No foreshadow	7.7%	22.3%	10.4%	-0.6%
5	\$15 Prepaid Foreshadow	2.8%	27.5%	8.4%	-2.6%
6	\$15 Prepaid No foreshadow	4.6%	26.2%	14.9%	3.9%
7	\$15 Postpaid Foreshadow	6.8%	22.7%	10.7%	-0.3%
8	\$15 Postpaid No foreshadow	6.5%	22.7%	9.7%	-1.3%
<b>Total</b>		6.6%	23.6%	11.0%	0.0%

\* Additional \$5 postpaid offer in Final 2 Weeks for remaining non-respondents.

# Conclusions

- For this population, \$15 was more effective than \$10.
- Postpaid was more effective than prepaid – we speculate that individuals (a) expect and (b) trust postpaid offers for online surveys versus prepaid offers particularly when the offer is made via email or text.
- Foreshadowing helped gain response with a prepaid offer, but appeared to harm it with a postpaid offer.
- Additional research is needed for offering pre- and postpaid incentives to other populations when the survey mode is online and all outreach is electronic. Do our findings that suggest postpaid is optimal hold up?

# Selected References

- Birnholtz, J.P., D.B. Horn, T.A. Finholt and S.J. Bae. 2004. The effects of cash, electronic, and paper gift certificates as respondent incentives for a web-based survey of technologically sophisticated respondents. *Social Science Computer Review* 22(3): 355–362.
- Coopersmith, J., L. K. Vogel, T. Bruursema and K. Feeney. 2016. Effects of Incentive Amount and Type of Web Survey Response Rates. *Survey Practice*. 9 (1).
- DeCamp, W. and M. J. Manierre. 2016. “Money Will Solve the Problem:” Testing the Effectiveness of Conditional Incentives for Online Surveys. *Survey Practice*. 9 (1).
- Dillman, D. A., J. D. Smyth, and L. M. Christian. 2009. *Internet, mail, and mixed mode surveys: The tailored design method*. 3rd ed. New York: John Wiley & Sons, Inc.
- Downes-Le Guin, T., Janowitz, P., Stone, R., & Khorram, S. 2002. Use of pre-incentives in an internet survey. *Journal of Online Research*.
- Goritz, A. S. 2006. Incentives in web studies: Methodological issues and a review. *International Journal of Internet Science* 1:58–70.
- Patrick, M.E., E. Singer, C.J. Boyd J.A. Cranford and S.E. McCabe. 2013. Incentives for college student participation in web substance use surveys. *Addictive Behaviors* 38(3): 1710–1714.
- Singer, E. and C. Ye. 2013. The use and effects of incentives in surveys. *The Annals of the American Academy of Political and Social Science* 645(1): 112–141.

Questions?

[connelly-jill@norc.org](mailto:connelly-jill@norc.org)

**Thank You!**



**NORC**  
*at the UNIVERSITY of CHICAGO*

 insight for informed decisions™

# Additional Reference Tables

The following tables are for reference if needed will not be included in presentation.



# Wave 2 Results for W1 Early Responders

Group No.	Experiment group	Final Wave 2 Survey Yield	Difference from Average
1	\$10 Prepaid Foreshadow	73.0%	-6.4%
2	\$10 Prepaid No foreshadow	79.2%	-0.2%
3	\$10 Postpaid Foreshadow	80.1%	0.7%
4	\$10 Postpaid No foreshadow	77.7%	-1.7%
5	\$15 Prepaid Foreshadow	78.7%	-0.7%
6	\$15 Prepaid No foreshadow	82.4%	3.0%
7	\$15 Postpaid Foreshadow	81.0%	1.6%
8	\$15 Postpaid No foreshadow	79.7%	0.3%
Total		79.4%	0.0%

# Wave 2 Results for W1 Late Remainders

Group No.	Experiment group	Final Wave 2 Survey Yield	Difference from Average
1	\$10 Prepaid* Foreshadow	39.0%	3.7%
2	\$10 Prepaid* No foreshadow	40.9%	5.6%
3	\$10 Postpaid* Foreshadow	35.8%	0.5%
4	\$10 Postpaid* No foreshadow	33.5%	-1.8%
5	\$15 Prepaid Foreshadow	36.8%	1.5%
6	\$15 Prepaid No foreshadow	42.3%	7.0%
7	\$15 Postpaid Foreshadow	33.8%	-1.5%
8	\$15 Postpaid No foreshadow	33.1%	-2.2%
<b>Total</b>		35.3%	0.0%

\* Additional \$5 postpaid offer in Final 2 Weeks for remaining non-respondents.

# W1 Early Responders: Completion Rates across Waves

Group No.	Experiment group	Percent Complete W1 Only	Percent Complete W2 Only	Percent Complete Both Waves	Difference from Average
1	\$10 Prepaid Foreshadow	27.3%	0.0%	72.7%	-6.5%
2	\$10 Prepaid No foreshadow	21.2%	0.0%	78.8%	-0.5%
3	\$10 Postpaid Foreshadow	20.1%	0.0%	79.9%	0.7%
4	\$10 Postpaid No foreshadow	22.4%	0.0%	77.6%	-1.7%
5	\$15 Prepaid Foreshadow	21.6%	0.0%	78.4%	-0.8%
6	\$15 Prepaid No foreshadow	18.0%	0.0%	82.0%	2.7%
7	\$15 Postpaid Foreshadow	19.0%	0.0%	81.0%	1.7%
8	\$15 Postpaid No foreshadow	20.3%	0.0%	79.7%	0.5%
<b>Total</b>		20.8%	0.0%	79.2%	0.0%