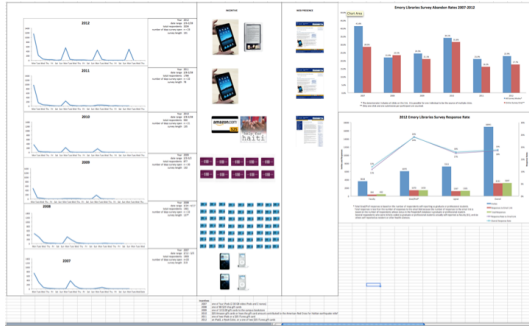# Reversing the Trend of Declining Survey Response Rates—Was it Something We Did?

Susan Bailey

Vince Carter

Stacey Martin

EMORY LIBRARIES
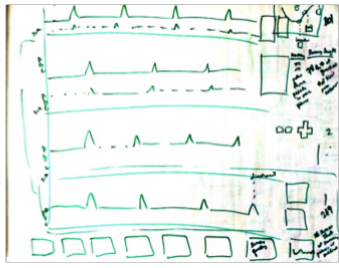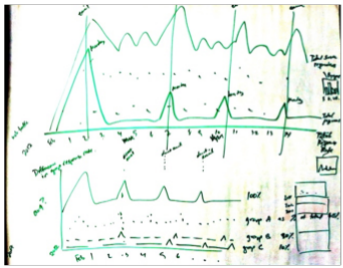
Analysis
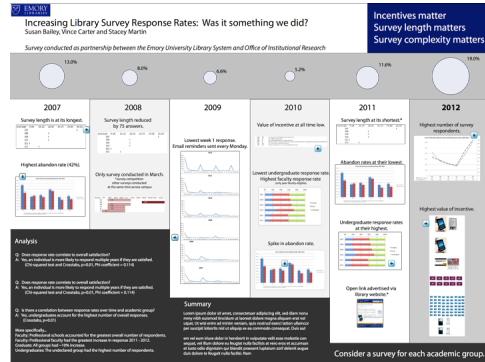
Visualization
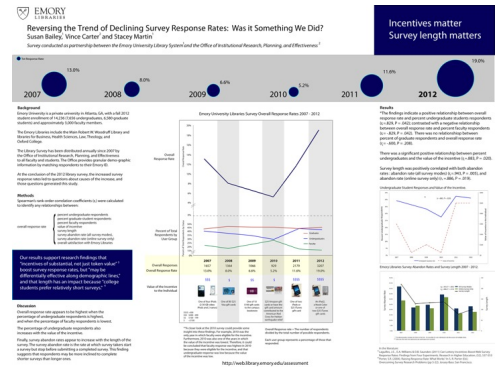
Purpose of Research

The purpose of this research was to test several theories about why people respond to surveys and in the process to gain a better understanding about why the response rate to the Emory University Libraries survey increased between 2011 and 2012. If we could identify the groups that are most responsive to surveys and why they respond, that information may be useful to other libraries involved with surveying users and facilitate efforts to provide the best return on the investment we make in survey design and analysis.

Institutional Background

- Emory University is a private university in Atlanta, GA. Emory represents the third largest private employer (University and Healthcare) in the Atlanta area.
- Fall 2012 enrollment is 14,236 (7,656 undergrads and 6,580 graduate and professional school students). There are about 3,000 regular full-time faculty.
- The Emory Libraries include the Main Robert W. Woodruff Library and libraries for Business, Health Sciences, Law, Theology, and Oxford College.

Survey Background

- The Library Survey has been distributed annually since 2007 by the Office of Institutional Research, Planning, and Effectiveness on behalf of the Library to all students and faculty. The Office provides granular demographic information by matching respondents to their Emory ID.
- First year response rate was 13%
- We made adjustments, hoping to increase response rate, through changing incentives and survey length; however, survey response declined through 2010.
- Response rates in 2011 and 2012 were substantially improved.

	2007	2008	2009	2010	2011	2012
Total respondents	1657	1364	1066	929	2179	3207
Highest Value of Individual Incentive	$299	$25	$100	$25	$500	$500
Length	219	127	132	135	78	101
Date Range	2/12-3/5	3/24-4/17	2/9-3/2	2/8-2/28	2/8-2/28	2/6-2/28
Open link	No	No	No	No	Yes	Yes
Scale	No change	No change	No change	No change	No change	Change

Timeline--
What changes did we make?

We increased access to the survey.

- 2007-2010: email only

- 2011: email + open link + paper option
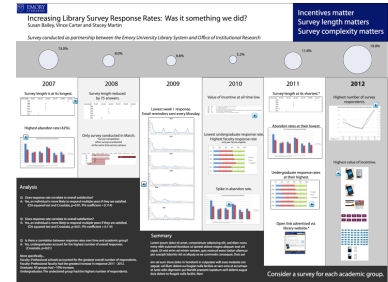
- 2012: email + open link (no paper option)

- We reduced the survey length.

  - length defined by number of answers that can be provided. one question could have multiple answers.

- We usually surveyed in Feb, except in 2008, we surveyed in March due to known conflicts.

- We always sent weekly reminders on Mondays.

- The incentive changed every year.

Baseline response rate is 13%
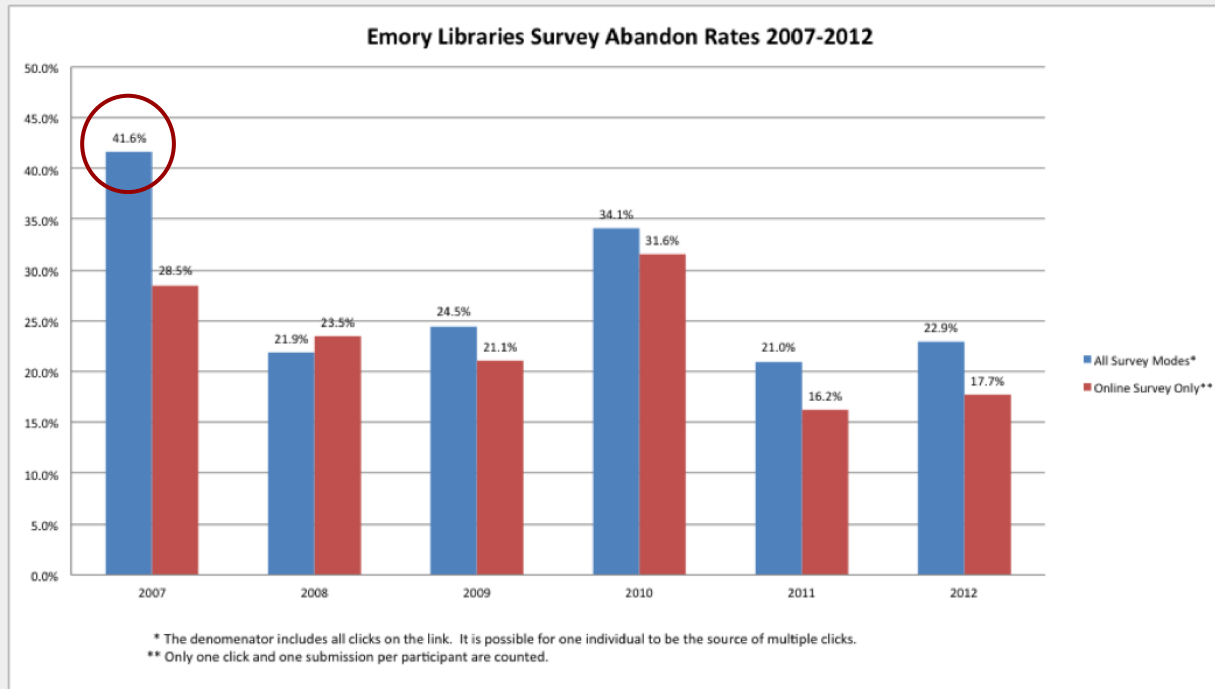
Survey length is at its longest.

Survey Length	75-100	101-125	126-150	151-175	176-200	201-225
2007						X
2008			X			
2009			X			
2010			X			
2011	X					
2012		X				

Highest abandon rate (42%).

Emory Libraries Survey Abandon Rates 2007-2012

* The denomenator includes all clicks on the link. It is possible for one individual to be the source of multiple clicks.
** Only one click and one submission per participant are counted.

Response rate drops to 8%

Survey length reduced by 75 answers.

Only survey to be conducted in March.
(survey competition - other surveys conducted at the same time across campus)

Survey Dates	Feb1-7	Feb8-14	Feb15-21	Feb22-28	Mar1-7	Mar8-14	Mar15-21	Mar22-28	Mar29-Apr4	Apr5-11	Apr12-18
2007		12-Feb									
2008								24-Mar			
2009		9-Feb									
2010		8-Feb									
2011		8-Feb									
2012	6-Feb										

Response rate drops to 6.6%

Lowest week 1 response.
Email reminders sent every Monday.

Response rate at all time low of 5%

Value of incentive at all time low.

Year	Value	Incentive
2007	$$$	One of four iPods (2 30G video iPods and 2 iPod nanos)
2008	$$	One of 80 $25 Visa gift cards
2009	$$	One of 10 $100 gift cards to the campus boostore
2010	$	One of 40 $25 Amazon gift cards or have the gift card amount contributed to the American Red Cross for Haitian earthquake relief
2011	$$$	One of two iPads or a $25 iTunes gift card
2012	$$$	An iPad2, a Nook Color, or one of two $25 iTunes gift cards

Lowest undergraduate response rate. Highest faculty response rate (only year faculty eligible). Spike in abandon rate.

Emory Libraries Survey Abandon Rates 2007-2012

* The denominator includes all clicks on the link. It is possible for one individual to be the source of multiple clicks.
** Only one click and one submission per participant are counted.

Response rate jumps to 11.6%

Open link to survey advertised via library website.*

Survey length at its shortest.*

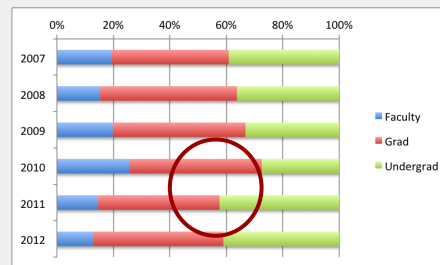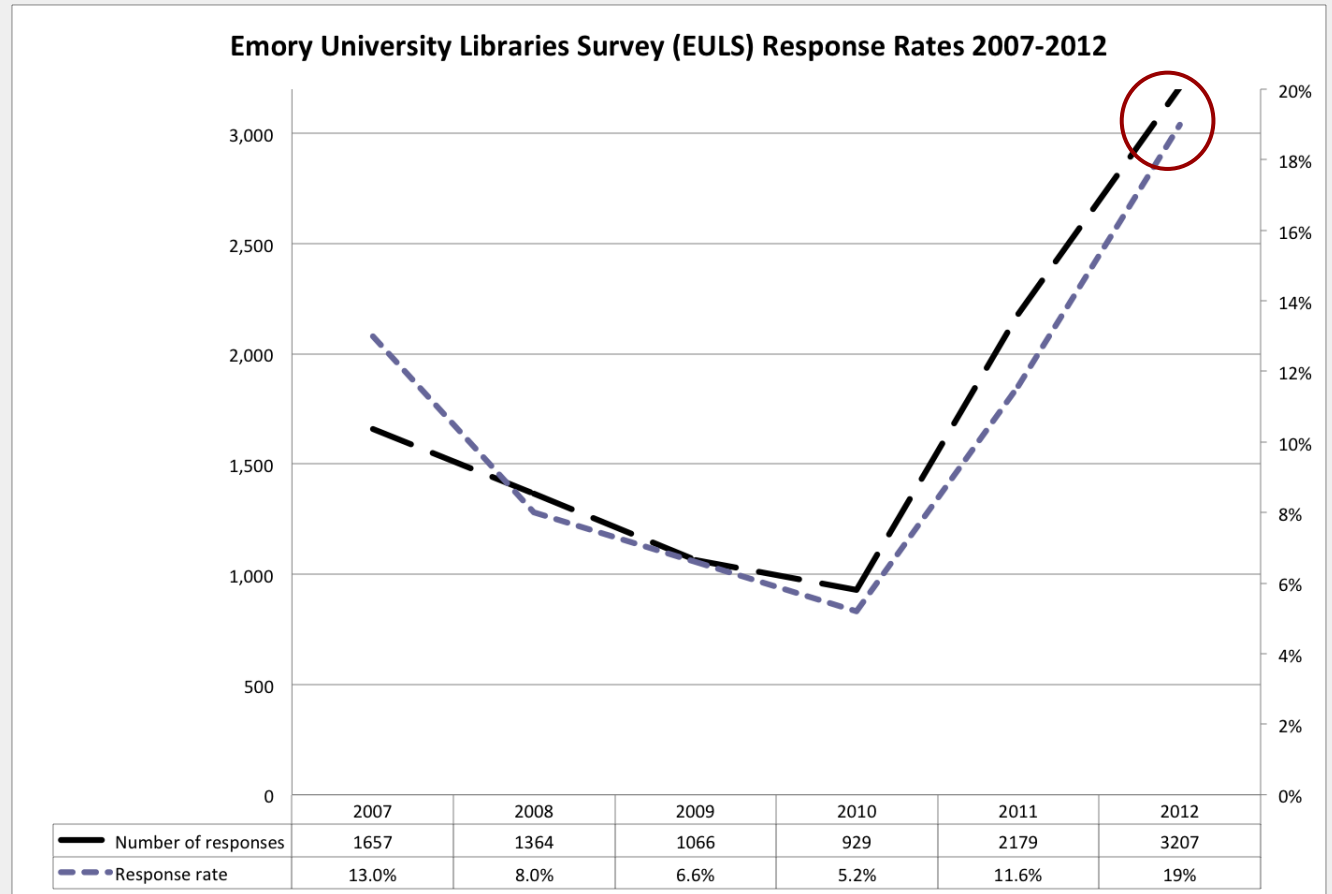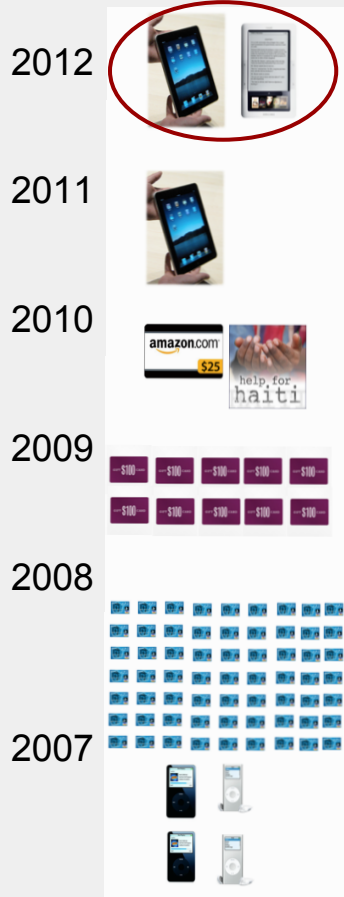| Survey Length	75-100	101-125	126-150	151-175	176-200	201-225
2007						X
2008			X			
2009			X			
2010			X			
2011	X					
2012		X				

Abandon rates at their lowest.

Undergraduate response rates at their highest.

Response rate all time high of 19%

Highest number of survey respondents.
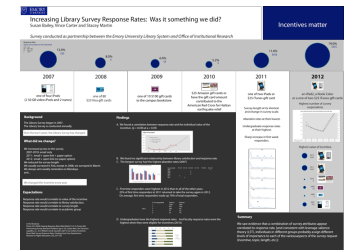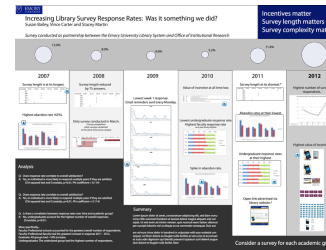## Highest maximum value of incentive (tie with 2011)

2012

2011

2010

2009

2008

2007

Emory University Libraries Survey (EULS) Response Rates 2007-2012

	2007	2008	2009	2010	2011	2012
— Number of responses	1657	1364	1066	929	2179	3207
----Response rate	13.0%	8.0%	6.6%	5.2%	11.6%	19%

Response rate all time high of 19%

Of Unknown Impact: Scale Change

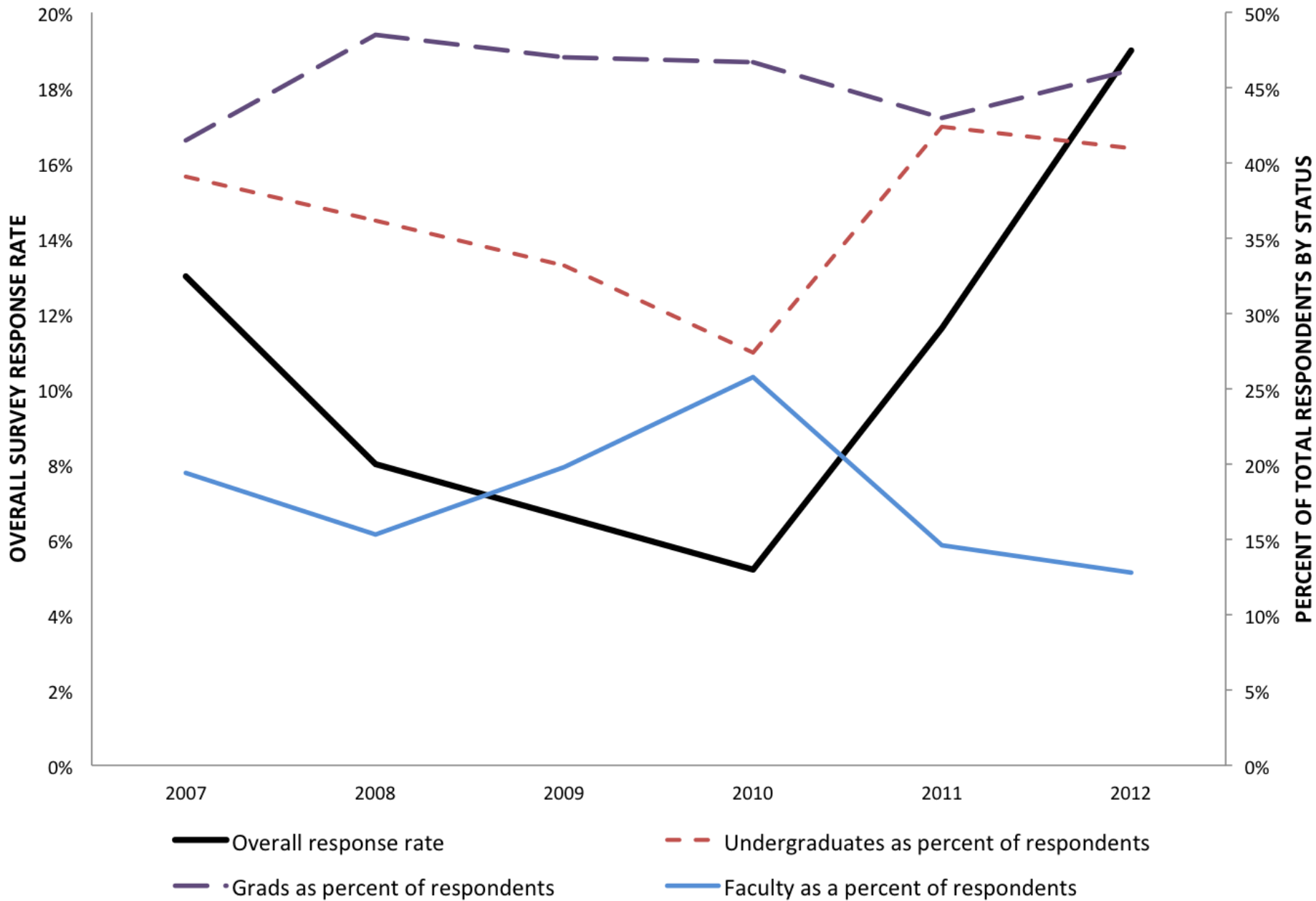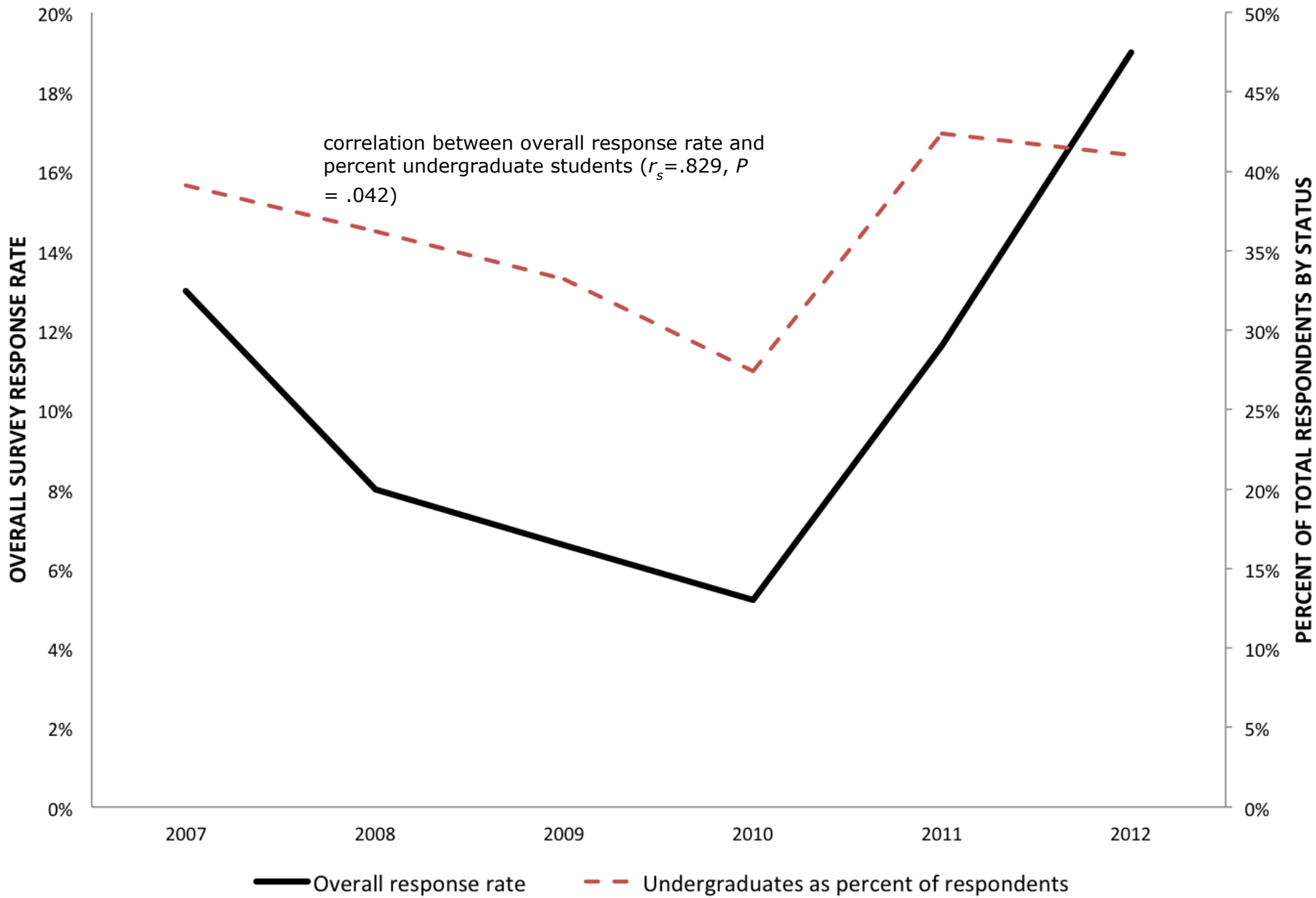| Scale 2011 Satisfaction						Scale 2012 Satisfaction					
Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable	5 Very Satisfied	4	3	2	1 Not Satisfied	Not Applicable

Statistical Analysis

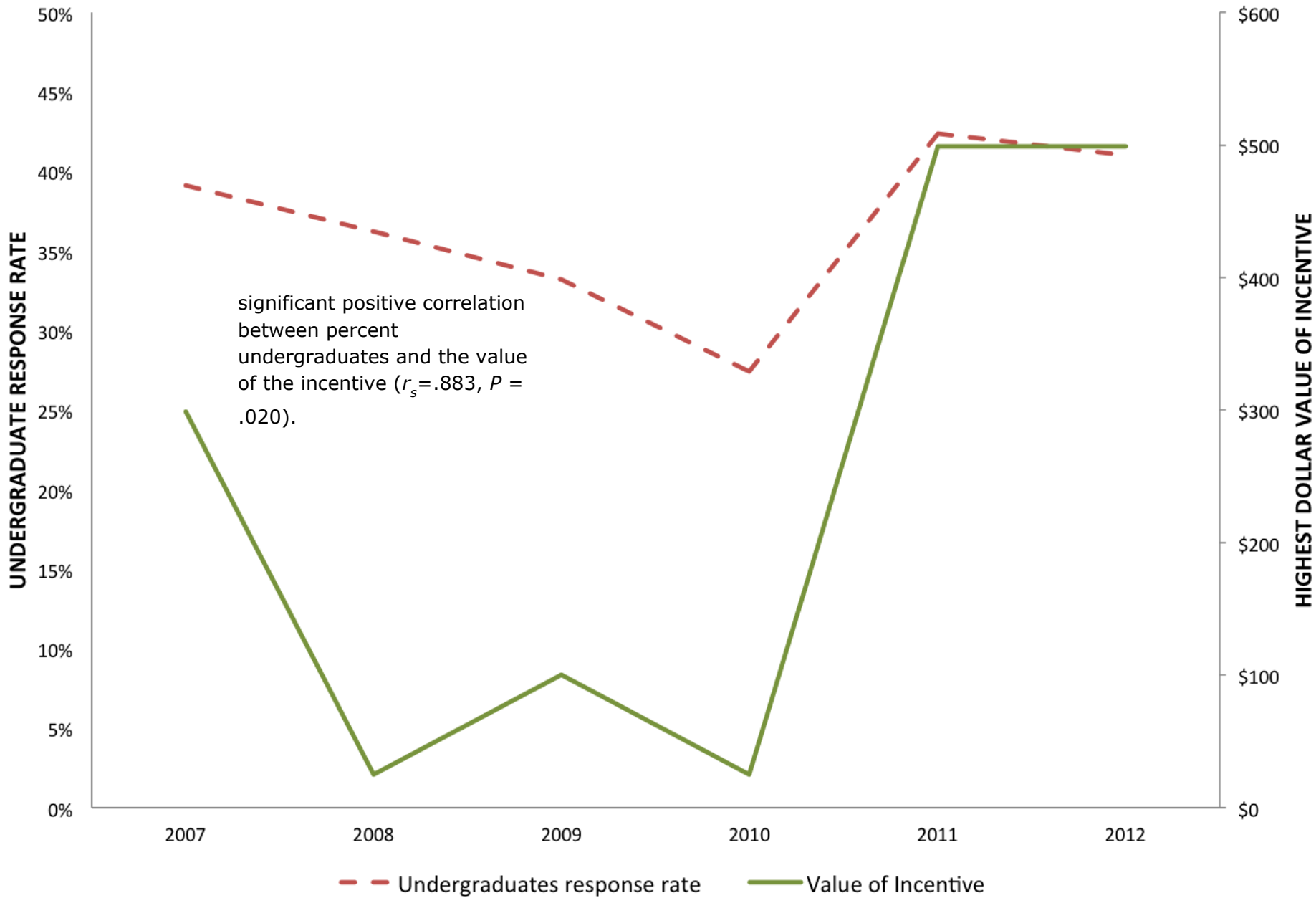| Correlations		Overall Response Rate	Percent Undergraduate Students	Percent Graduate Students	Percent Faculty	Value of Incentive	Survey Length	Abandon Rate (All Survey Modes)	Abandon Rate (Online Survey Only)	Overall Satisfaction
Spearman's rho	Overall Response Rate	1.000								
	Percent Undergraduate Students	.829*	1.000							
	Percent Graduate Students	-.600	-.600	1.000						
	Percent Faculty	-.829*	-.886*	.257	1.000					
	Value of Incentive	.794	.883*	-.706	-.736	1.000				
	Survey Length	-.314	-.657	-.086	.771	-.530	1.000			
	Abandon Rate (All Survey Modes)	-.143	-.543	-.257	.657	-.294	.943**	1.000		
	Abandon Rate (Online Survey Only)	-.486	-.771	.143	.771	-.765	.886*	.771	1.000	
	Overall Satisfaction	-.174	-.290	-.029	.493	-.328	.667	.493	.406	1.000

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Y-axis (left): OVERALL SURVEY RESPONSE RATE — 0%, 2%, 4%, 6%, 8%, 10%, 12%, 14%, 16%, 18%, 20%

Y-axis (right): PERCENT OF TOTAL RESPONDENTS BY STATUS — 0%, 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%

X-axis: 2007, 2008, 2009, 2010, 2011, 2012

Overall response rate

Undergraduates as percent of respondents

Grads as percent of respondents

Faculty as a percent of respondents

correlation between overall response rate and percent undergraduate students (r_s=.829, P = .042)

significant positive correlation between percent undergraduates and the value of the incentive (r_s=.883, P = .020).

Legend: — — Undergraduates response rate —— Value of Incentive
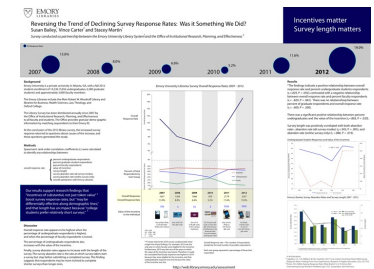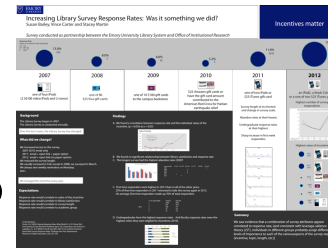
Results of Statistical Analysis

- Spearman's rank-order correlation coefficients were calculated to identify any relationships between the overall response rate, percent undergraduate respondents, percent graduate student respondents, percent faculty respondents, value of incentive, survey length, survey abandon rate (all survey modes), survey abandon rate (online survey only), and overall satisfaction with Emory Libraries.
- First, the findings indicate a positive correlation between overall response rate and percent undergraduate students (r_s=.829, $P = .042$); contrasted with a negative correlation between overall response rate and percent faculty (r_s= -.829, $P = .042$).
- Second, there was a significant positive correlation between percent undergraduates and the value of the incentive (r_s=.883, $P = .020$).
- Third, survey length was positively correlated with both abandon rates measured in the analysis: abandon rate (all survey modes) (r_s=.943, $P = .005$), and abandon rate (online survey only) (r_s=.886, $P = .019$).

Discussion of Statistical Results

- Overall response rate appears to be highest when the percentage of undergraduate respondents is highest, and when the percentage of faculty respondents is lowest.
- The percentage of undergraduate respondents also increases with the value of the incentive.
- A closer look at the 2010 survey could provide some insight into these findings. For example, 2010 was the only year in which faculty were eligible for the incentive. Furthermore, 2010 was also one of the years in which the value of the incentive was lowest. Therefore, it could be concluded that faculty response was highest in 2010 because they were eligible for the incentive, and that undergraduate response was low because the value of the incentive was low.
- Finally, survey abandon rates appear to increase with the length of the survey. The survey abandon rate is the rate at which survey takers start a survey but stop before submitting a completed survey. This finding suggests that respondents may be more inclined to complete shorter surveys than longer ones.

Results of our Analysis

Our results are consistent with research findings (Laguilles, 2011) that "incentives of substantial, not just token value" boost survey response rates, but "may be differentially effective along demographic lines," and length has an impact because "college students prefer relatively short surveys." (Porter, 2004)

In the Literature

Laguilles, J.S. , E.A. Williams & D.B. Saunders (2011) Can Lottery Incentives Boost Web Survey Response Rates? Findings from Four Experiments. *Research in Higher Education, 52,* 537-553.

Porter, S.R. (2004). Raising Response Rate: What Works? In S. R. Porter (Ed.) *Overcoming Survey Research Problems* (pp. 5-22). Jossey-Bass: San Francisco.

Follow-up: We could take a more direct approach to answer the original research question?

Here are a few examples of the types of questions we might include at the end of the survey to get feedback from participants about the survey. These questions may also help us to more directly address our original research question.

We might say something like "The Emory Library is continually working to improve the quality of our survey, and your feedback will be very helpful in this ongoing effort. Please answer a few brief questions about the survey." Some examples are:

1.   Was the survey too long, too short, or just right?

2.   Was the survey too difficult, too easy, or just right? (The idea here is to address the issue of complexity.)

3.   Was the incentive too much, too little, or just right?

4.   Would you have participated in the survey if no incentive was offered?

5.   Did you complete the survey mainly because you wanted to express your satisfaction or dissatisfaction with Emory Libraries? (It could also be split into two questions, with one asking about satisfaction and the other asking only about dissatisfaction.)

Contact Information

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- Vince Carter (Office of Institutional Research, Planning, and Effectiveness) vcarter@emory.edu
- Stacey Martin (Woodruff Library) slmart3@emory.edu

Reversing the Trend of Declining Survey Response Rates: Was it Something We Did?

Susan Bailey,[1] Vince Carter[2] and Stacey Martin[1]

Survey conducted as partnership between the Emory University Library System[1] and the Office of Institutional Research, Planning, and Effectiveness[2]

Incentives matter
Survey length matters
Assessment matters

● Overall Response Rate

2007	2008	2009	2010	2011	2012
13.0%	8.0%	6.6%	5.2%	11.6%	19.0%

Background

Emory University is a private university in Atlanta, GA, with a fall 2012 student enrollment of 14,236 (7,656 undergraduates, 6,580 graduate students) and approximately 3,000 faculty members.

The Emory Libraries include the Main Robert W. Woodruff Library and libraries for Business, Health Sciences, Law, Theology, and Oxford College.

The Library Survey has been distributed annually since 2007 by the Office of Institutional Research, Planning, and Effectiveness to all faculty and students. The Office provides granular demographic information by matching respondents to their Emory ID.

At the conclusion of the 2012 library survey, the increased survey response rates led to questions about causes of the increase, and those questions generated this study.
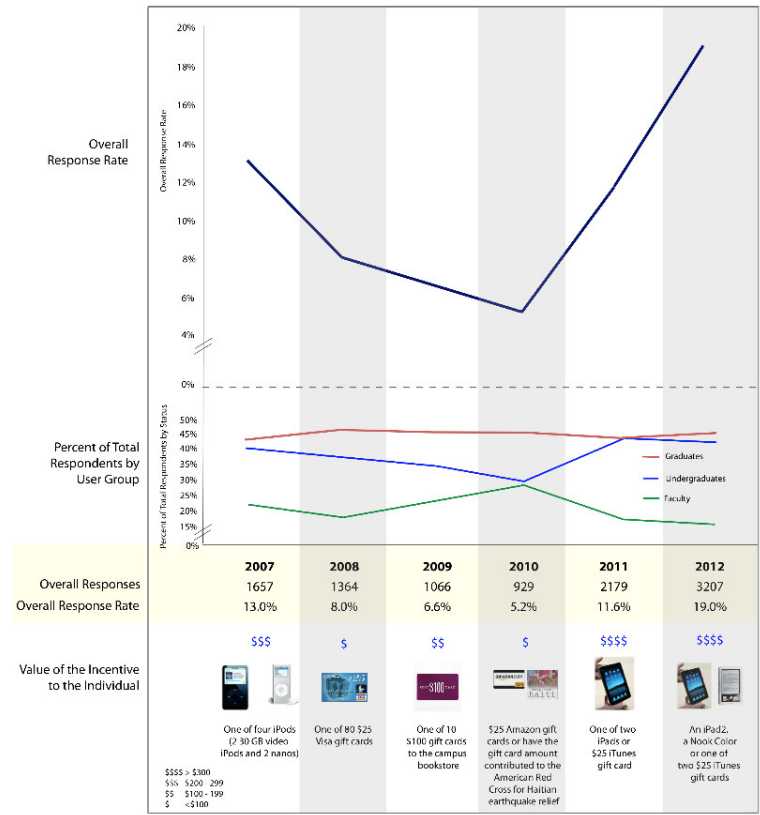
Methods

Spearman's rank-order correlation coefficients (r_s) were calculated to identify any relationships between:

overall response rate
{
- percent undergraduate respondents
- percent graduate student respondents
- percent faculty respondents
- value of incentive
- survey length
- survey abandon rate (all survey modes)
- survey abandon rate (online survey only)
- overall satisfaction with Emory Libraries
}

Our results support research findings that "incentives of substantial, not just token value"[3] boost survey response rates, but "may be differentially effective along demographic lines," and that length has an impact because "college students prefer relatively short surveys."[4]

Discussion

Overall response rate appears to be highest when the percentage of undergraduate respondents is highest, and when the percentage of faculty respondents is lowest.

The percentage of undergraduate respondents also increases with the value of the incentive.

Finally, survey abandon rates appear to increase with the length of the survey. The survey abandon rate is the rate at which survey takers start a survey but stop before submitting a completed survey. This finding suggests that respondents may be more inclined to complete shorter surveys than longer ones.

Emory University Libraries Survey Overall Response Rates 2007 - 2012

	2007	2008	2009	2010	2011	2012
Overall Responses	1657	1364	1066	929	2179	3207
Overall Response Rate	13.0%	8.0%	6.6%	5.2%	11.6%	19.0%
Value of the Incentive to the Individual	$$$	$	$$	$	$$$$	$$$$
	One of four iPods (2 30 GB video iPods and 2 nanos)	One of 80 $25 Visa gift cards	One of 10 $100 gift cards to the campus bookstore	$25 Amazon gift cards or have the gift card amount contributed to the American Red Cross for Haitian earthquake relief	One of two iPads or $25 iTunes gift card	An iPad2, a Nook Color or one of two $25 iTunes gift cards

$$$$ > $300
$$$ $200 - 299
$$ $100 - 199
$ <$100

*A closer look at the 2010 survey could provide some insight into these findings. For example, 2010 was the only year in which faculty were eligible for the incentive. Furthermore, 2010 was also one of the years in which the value of the incentive was lowest. Therefore, it could be concluded that faculty response was highest in 2010 because they were eligible for the incentive, and that undergraduate response was low because the value of the incentive was low.

Overall response rate = The number of respondents divided by the total number of possible respondents.

Each user group represents a percentage of those that responded.

Results

The findings indicate a positive relationship between overall response rate and percent undergraduate student respondents ($r_s =.829$, $P = .042$); contrasted with a negative relationship between overall response rate and percent faculty respondents ($r_s = -.829$, $P = .042$).* There was no relationship between percent of graduate student respondents and overall response rate ($r_s = -.600$, $P = .208$).

There was a significant positive relationship between percent undergraduates and the value of the incentive ($r_s =.883$, $P = .020$).

Survey length was positively correlated with both abandon rates : abandon rate (all survey modes) ($r_s =.943$, $P = .005$), and abandon rate (online survey only) ($r_s =.886$, $P = .019$).

Undergraduate Student Responses and Value of the Incentive.
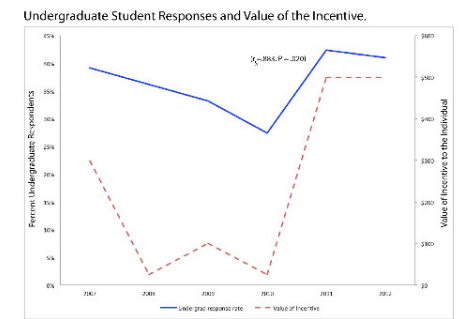
Emory Libraries Survey Abandon Rates and Survey Length 2007 - 2012.
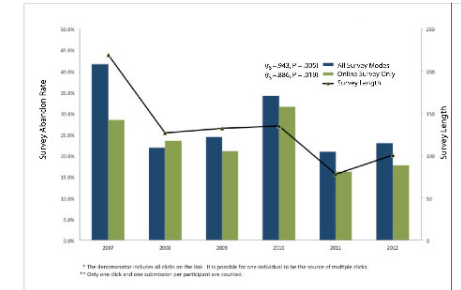
In the literature:
[3] Laguilles, J.S. , E.A. Williams & D.B. Saunders (2011) Can Lottery Incentives Boost Web Survey Response Rates? Findings from Four Experiments. Research in Higher Education, (52), 537-553
[4] Porter, S.R. (2004). Raising Response Rate: What Works? In S. R. Porter (Ed.) Overcoming Survey Research Problems (pp 5-22). Jossey-Bass: San Francisco.

http://web.library.emory.edu/assessment