Assessing and Addressing Survey Non-Response in National Liberal Arts Colleges and Universities
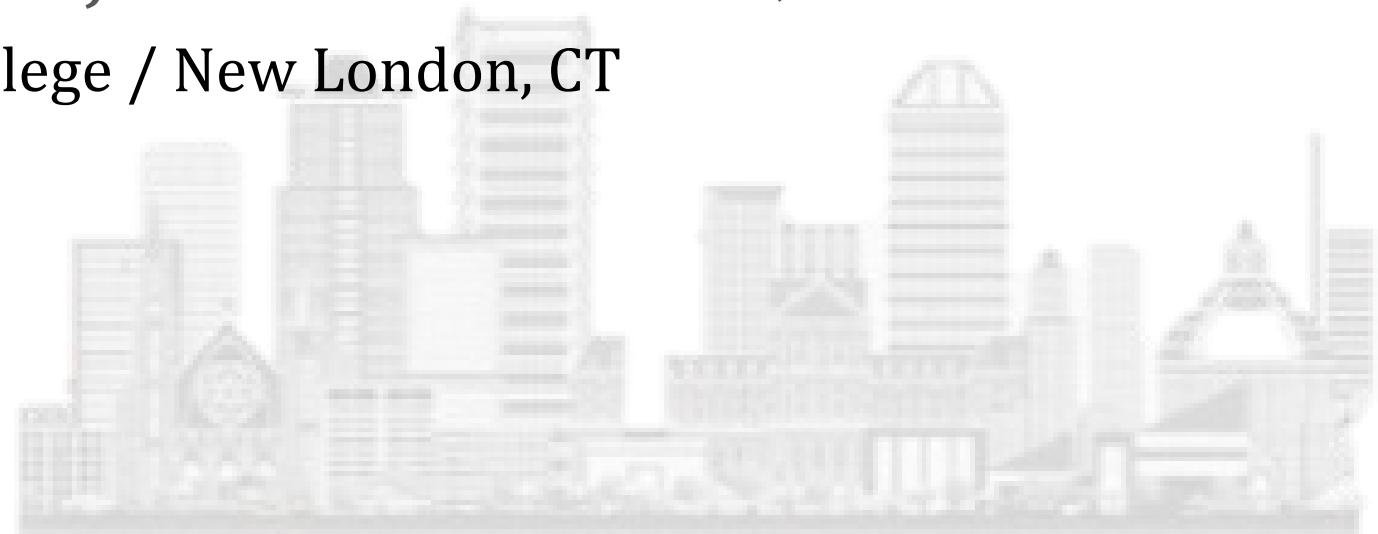
John D. Nugent, Ph.D.   Sanjeewa Karunaratne, MPA, MSR, LLM
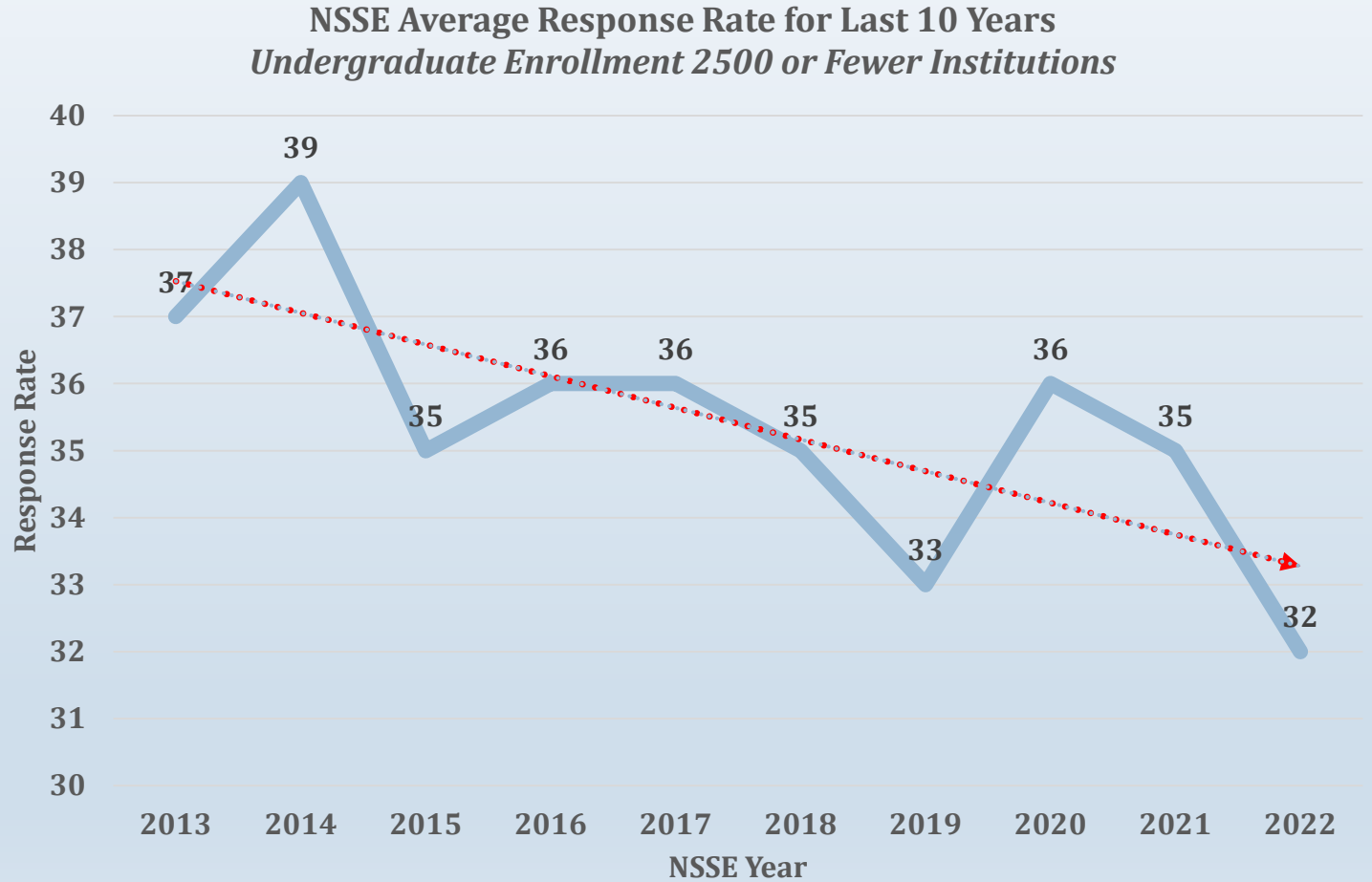
Connecticut College / New London, CT

NEAIR 2023
Baltimore
Nov 5-7

Have you struggled getting survey responses?

- National trends
- Experiences on your campus
- Lots of possible explanations

NSSE Average Response Rate for Last 10 Years
Undergraduate Enrollment 2500 or Fewer Institutions

Source: National Survey of Student Engagement (NSSE) Overview Report Table 2

Why worry about non-response?

- Data-driven decision-making <u>and</u> equity and inclusion depend on reliable survey findings

- Usually, we are trying to learn something about an entire population from the responses of just a subset of that population's members

- Nonresponse bias

  "Nonresponse bias can occur when the people who complete the survey (respondents) differ from people who do not complete the survey (nonrespondents)."   *– U.S. Census Bureau*

  "[T]he experiences or outcomes of those who don't respond could wildly differ to the experiences of those who do respond. As a consequence, the results may then over or underrepresent a particular perspective."
        – Qualtrics

- We're concerned about this and want to understand the nature of nonresponse. Who **aren't** we regularly hearing from on our surveys?

About our national survey of IR directors

- Directors of institutional research or registrar's offices at national liberal arts colleges and universities

- We asked about survey practices generally and asked for disaggregated response rates on one major survey from 2021-22

- Administered online April 4 - May 15, 2023

- Six sections in this presentation

Methods   Results   Best practices   Applications   Conclusions

Methods

- Literature review; six focus groups; wrote questionnaire; pre- and post-testing; online survey invite plus three reminders; postcard reminders

- Stephen Porter, Michael Whitcomb, Don Dillman

- Incentive to participate ($15 Amazon gift card)

Survey disposition :

Total emails sent	Bounced	Started	Finished	Completion rate	Breakoff	RR
185	5	112	70	62.5%	37.5%	38.9%

Methods: Reminder postcards to partial completers

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Dear Brian,

The Office of Institutional Research and Planning at Connecticut College recently sent an email requesting your participation in **a brief 10-minute survey** regarding response rates in undergraduate surveys. Your input is essential for the success of this study, and we will share the results report with you once the work is completed.

If you haven't had a chance to complete the survey, there is still a chance to do so until the extended deadline of May 15.

The survey has been approved by the Connecticut College Institutional Review Board. Your participation in the survey is voluntary, and your responses will be kept confidential. **As a token of our appreciation, you will be included in a drawing for one hundred $15 Amazon gift cards.** Your chance of winning a gift card is more than 50%.

Best wishes for the rest of the academic year,

John Nugent and Sanjeewa Karunaratne
Office of Institutional Research and Planning
Connecticut College

Scan this QR for the survey!

Break-off Rate (1-CO) =   37.5%

Assumptions?

May not be collecting demographic info; not easy to tabulate respondent and non-respondent demographics, simply didn't want to continue

Methods: Respondents vs. Non-Respondents

Table 1.1 - Population and Respondent Sample by 2023 US News Ranking

		Contact_List		Respondent_List	
		Count	Column N %	Count	Column N %
OVERALL RANK	0-20	19	10.6%	11	15.7%
	21-40	21	11.7%	9	12.9%
	41-60	16	8.9%	7	10.0%
	61-80	17	9.4%	8	11.4%
	81-100	20	11.1%	10	14.3%
	101-150	45	25.0%	16	22.9%
	151-201	42	23.3%	9	12.9%
	Total	180	100.0%	70	100.0%

Gap between contact list and finished respondent %
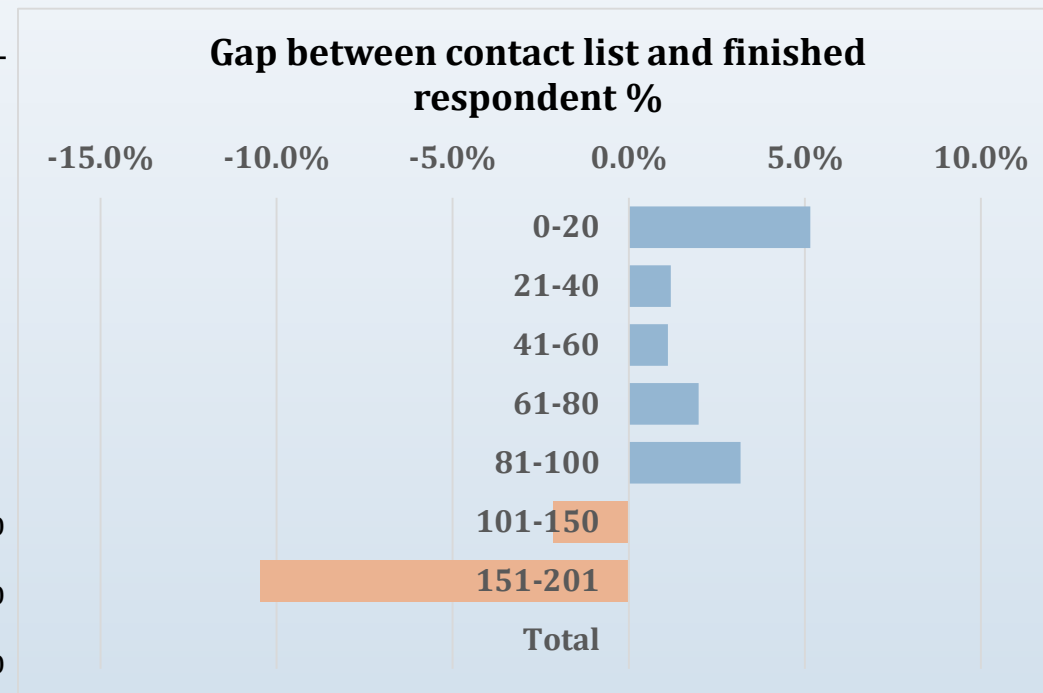
Results

- Response rates from recent undergrad surveys (2021-22)

	Response Rate			
	Frequency	Percent	Valid Percent	Cumulative Percent
0-25%	6	8.6	8.6	8.6
25-50%	33	47.1	47.1	55.7
50-75%	19	27.1	27.1	82.9
75-100%	12	17.1	17.1	100.0
Total	70	100.0	100.0	

Over 50% RR   44.2%

- Over 50% response rate reported in the following surveys

Senior survey or graduating student survey (internal)	13	41.9%
HEDS New Student Survey	3	9.7%
HERI-CIRP Freshman Survey (TFS)	3	9.7%
National Survey of Student Engagement (NSSE)	3	9.7%
COFHE Senior Survey	3	9.7%

First-year or freshman survey (internal)	2	6.5%
End of First Year Survey	1	3.2%
HEDS Graduating Student Survey	1	3.2%
Internal Student Satisfaction Survey	1	3.2%
Noel-Levitz Student Satisfaction Inventory (NSL)	1	3.2%

Results: Female and Male - population vs. survey respondents

Male Diff by Overall Response Rate

Female Diff by Overall Response Rate
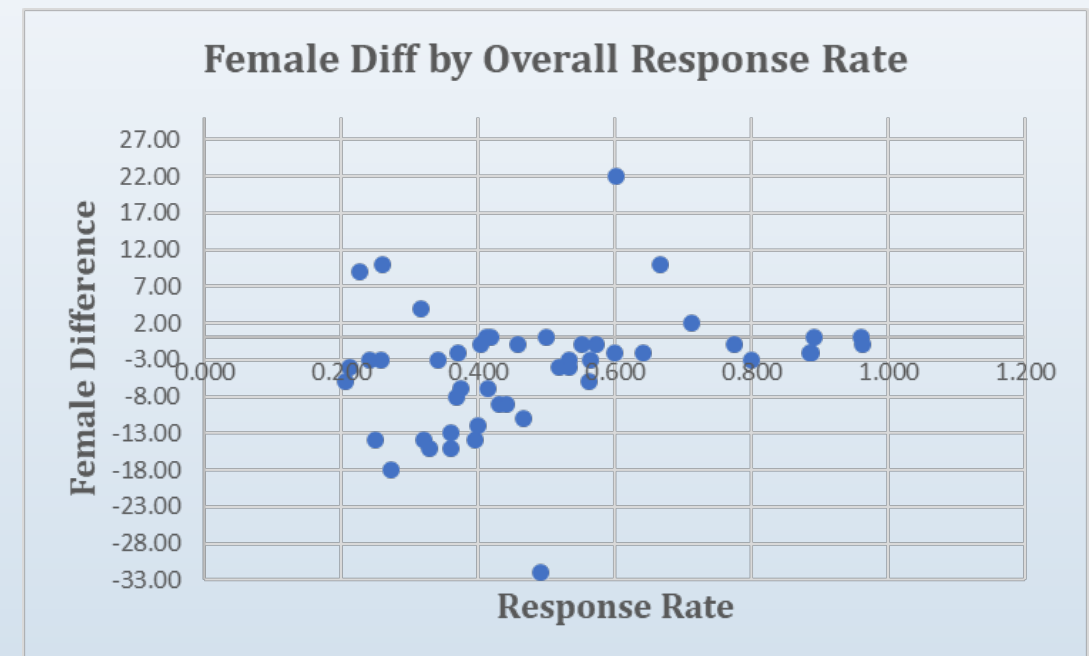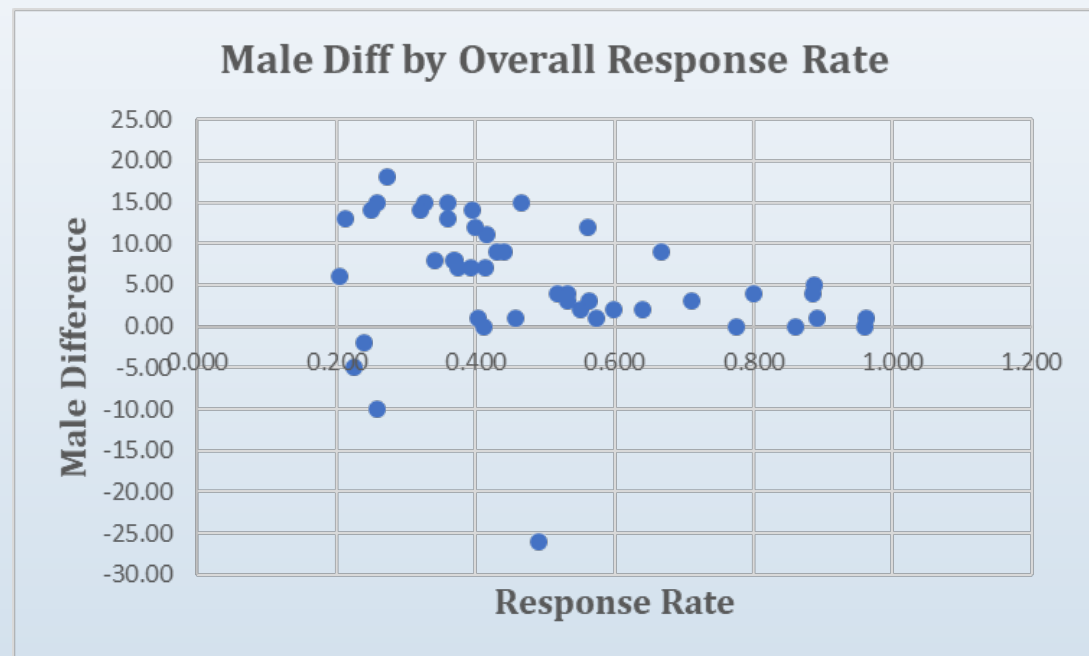
Comparison of means : female and male response rate differentials in paired sample T-test

		Paired Samples Test								
		Paired Differences							Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	Male_Diff - Female_Diff	10.54545	11.91921	1.79689	6.92168	14.16923	5.869	43	0.000	0.000

Statistically significant difference in male and female response rate differentials

New Camel Survey (First-year)

| | | Q26 Which of the following best describes your gender identity? - Selected Choice | | | | | |
| | | Man | | Woman | | Total | |
		Count	Column Valid N %	Count	Column Valid N %	Count	Column Valid N %
Q25 How would you characterize your political views?	Far left	76	11.4%	191	13.2%	267	12.6%
	Liberal	438	65.6%*	1153	79.6%*	1591	75.2%
	Conservative	150	22.5%*	103	7.1%*	253	12.0%
	Far right	4	0.6%	2	0.1%	6	0.3%
	Total	668	100.0%	1449	100.0%	2117	100.0%

Significant at 95% Z test for proportions

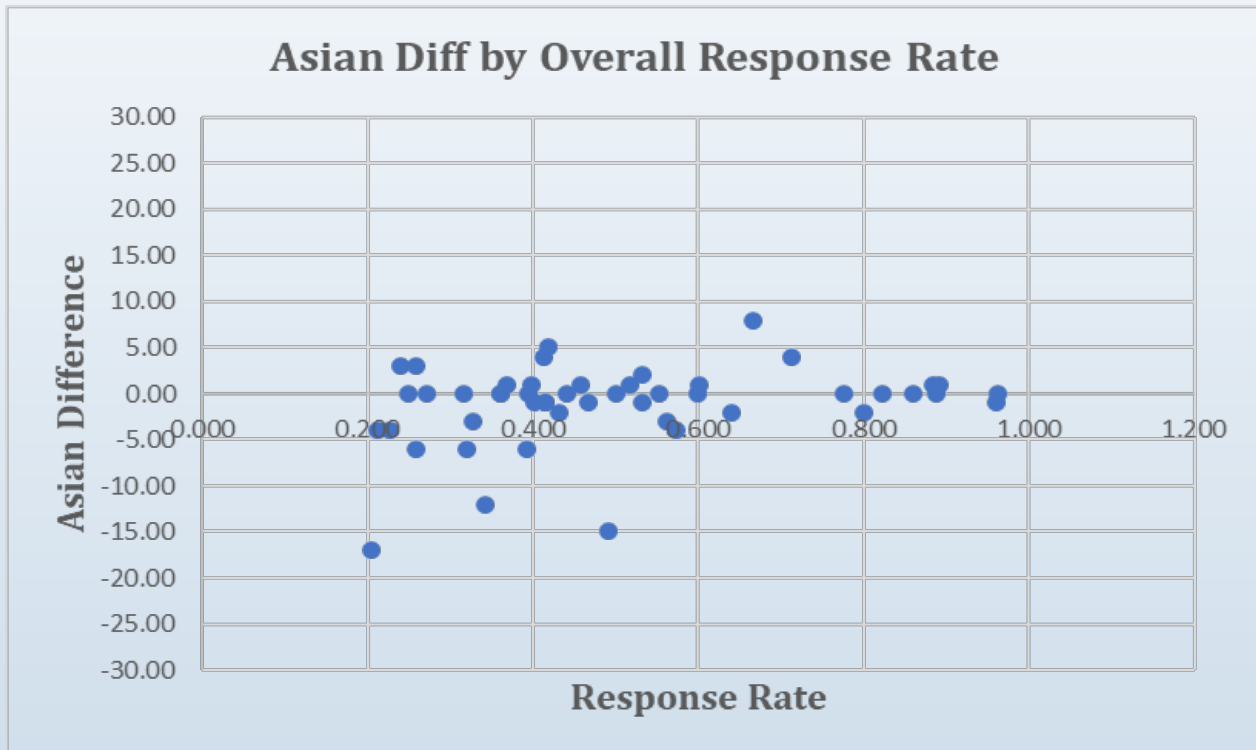# Results: Hispanic or Latino - population vs. survey respondents
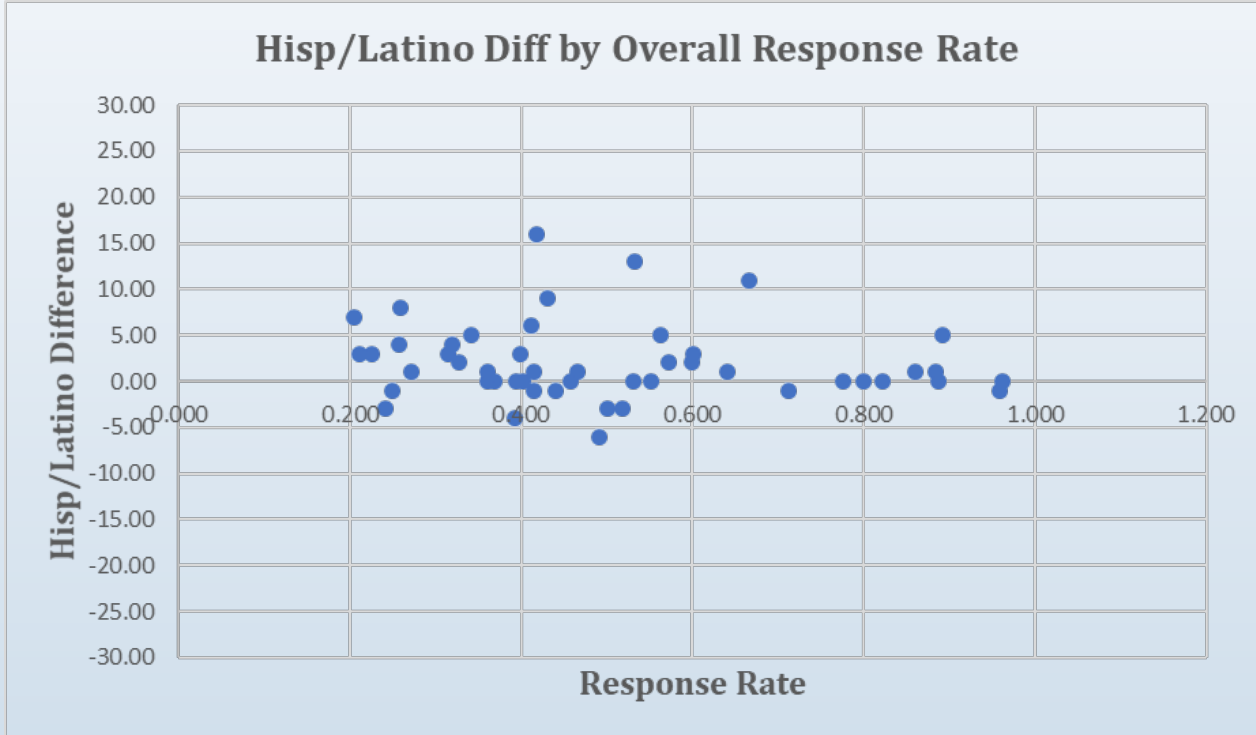
Hisp/Latino Diff by Overall Response Rate

Paired Samples Test

		Paired Differences							Significance	
					95% Confidence Interval of the Difference				One-Sided	Two-Sided
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	p	p
Pair 1	White_Diff - Hisp_Latino_Diff	-3.00000	12.13981	1.73426	-6.48696	0.48696	-1.730	48	0.045	0.090

Statically significant difference in White and Hispanic/Latino response rate differentials

Results: Asian - population vs. survey respondents

Asian Diff by Overall Response Rate

Paired Samples Test

		Paired Differences							Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	White_Diff - Asian_Diff	0.12245	12.31975	1.75996	-3.41620	3.66110	0.070	48	0.472	0.945

Results: Black or Afr. Amer. - population vs. survey respondents
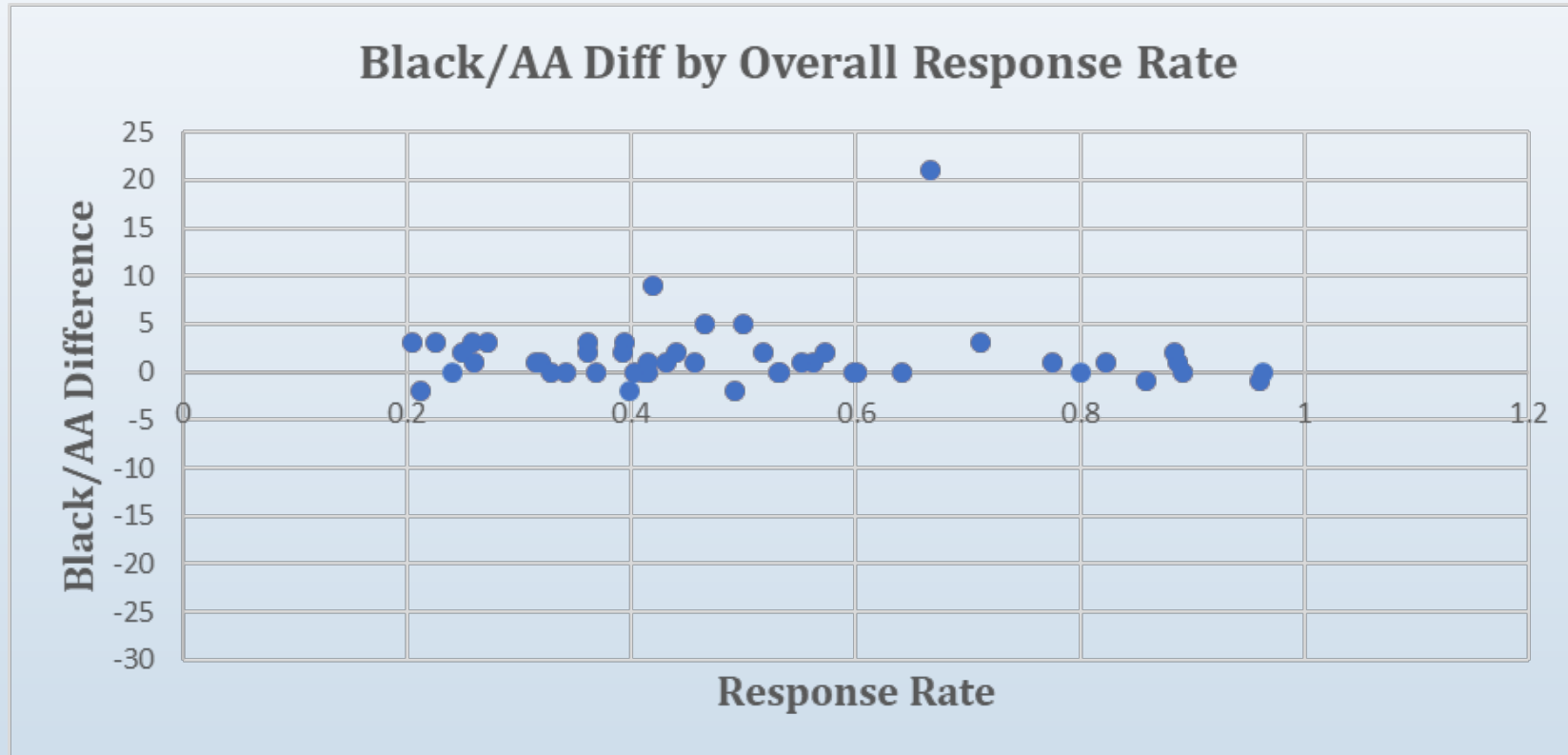
Black/AA Diff by Overall Response Rate

Paired Samples Test

| | | Paired Differences | | | | | | | Significance | |
| | | | | | 95% Confidence Interval of the Difference | | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	White_Diff - Black_AA_Diff	-2.61224	11.80892	1.68699	-6.00416	0.77967	-1.548	48	0.064	0.128

Results: White - population vs. survey respondents
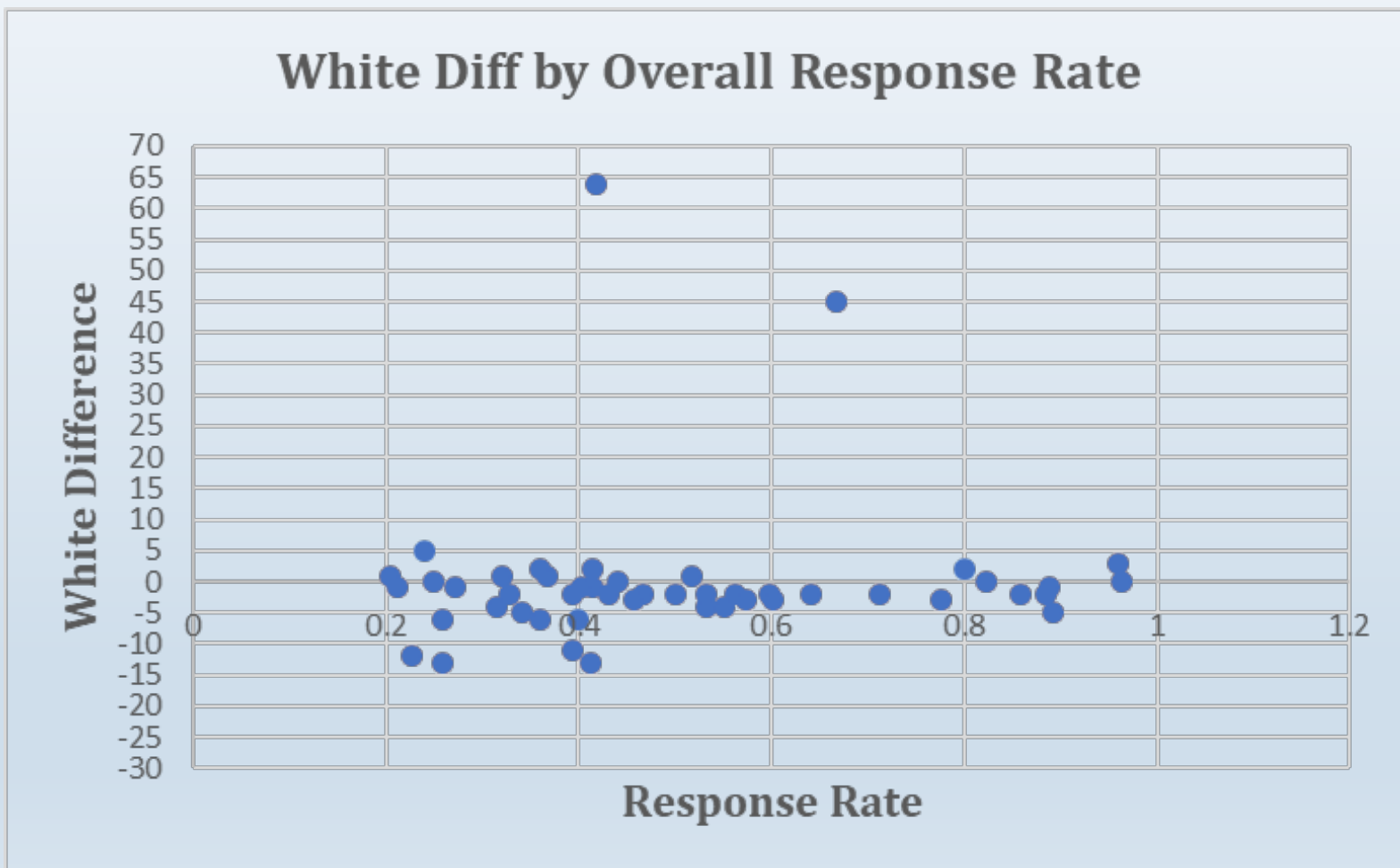
Best practices – Sampling and Data Weighting

Table 1.2 - Sampling and Data Weighting

		Count	Column N %	
In your practice over the years, how often have you surveyed a sample of students rather than the entire student population in a survey?	Always	1	1.4%	
	Frequently	4	5.7%	
	Sometimes	19	27.1%	
	Rarely	26	37.1%	Rarely or Never 65.7%
	Never	20	28.6%	
	Total	70	100.0%	
In your practice over the years, how often have you had the chance to perform data weighting to make the survey respondent population look similar to your student population?	Always	1	1.4%	
	Frequently	2	2.9%	
	Sometimes	11	15.7%	
	Rarely	25	35.7%	Rarely or Never 78.6%
	Never	30	42.9%	
	Unknown	1	1.4%	
	Total	70	100.0%	

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Best practices — Mitigating Survey Fatigue

Number of surveys sent to at least 10% of the undergraduate population?

Pie chart segments:
- 70%
- 17%
- 6%
- 3%
- 8%
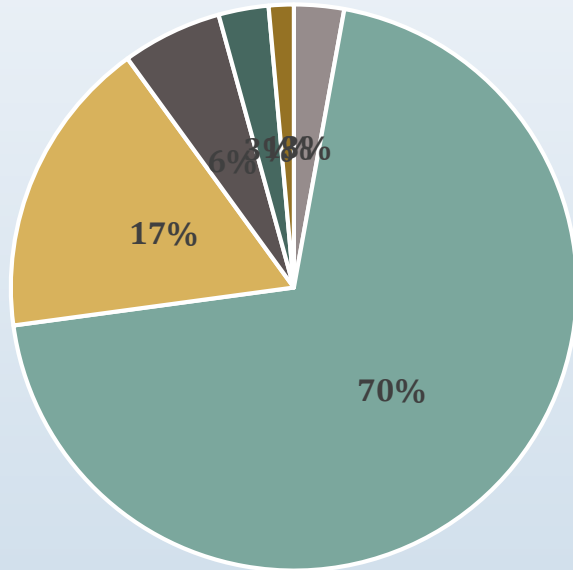
Legend: ■ None ■ 1-5 ■ 6-10 ■ 11-15 ■ 16-20 ■ More than 30

One to five surveys a year **70.0%**

How many reminders, excluding the invitation, were sent?

Pie chart segments:
- 3%
- 6%
- 8%
- 33%
- 27%
- 10%
- 13%
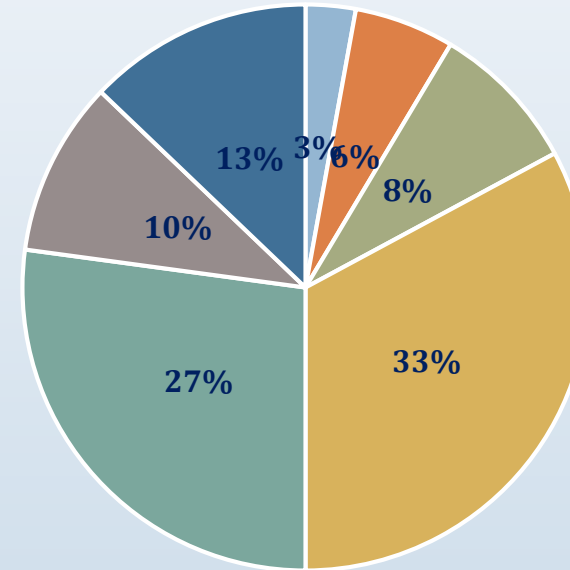
Legend: ■ None ■ One ■ Two ■ Three ■ Four ■ Five ■ Six or more

Three or four reminders **60.0%**

Best practices — Mitigating Survey Fatigue

Have you done any of the following when administering student surveys over the years to reduce survey "load"

	Responses		Percent of Cases
	N	Percent	
Managed the scheduling of the surveys through survey coordination with other offices, or similar process	57	15.2%	81.4%
Administered external surveys such as NSSE, CIRP, NSL, or HEDS in rotational basis (i.e., every other year)	56	15.0%	80.0%
Cut down the number of internal surveys	46	12.3%	65.7%
Made surveys that are shorter in length	36	9.6%	51.4%
Communicated survey best practices to on-campus researchers	34	9.1%	48.6%
Made surveys that take less time to complete	34	9.1%	48.6%
Combined or consolidated similar internal surveys	32	8.6%	45.7%
Managed access to survey software such as Survey Monkey or Qualtrics	27	7.2%	38.6%
Had a survey pre-approval process such as a form or IRB approval process	25	6.7%	35.7%
Allowed only some offices or departments to send out surveys	18	4.8%	25.7%
Something else	9	2.4%	12.9%

Best practices – Open-ended question

- We asked respondents to name one practice they think helps improve response rates
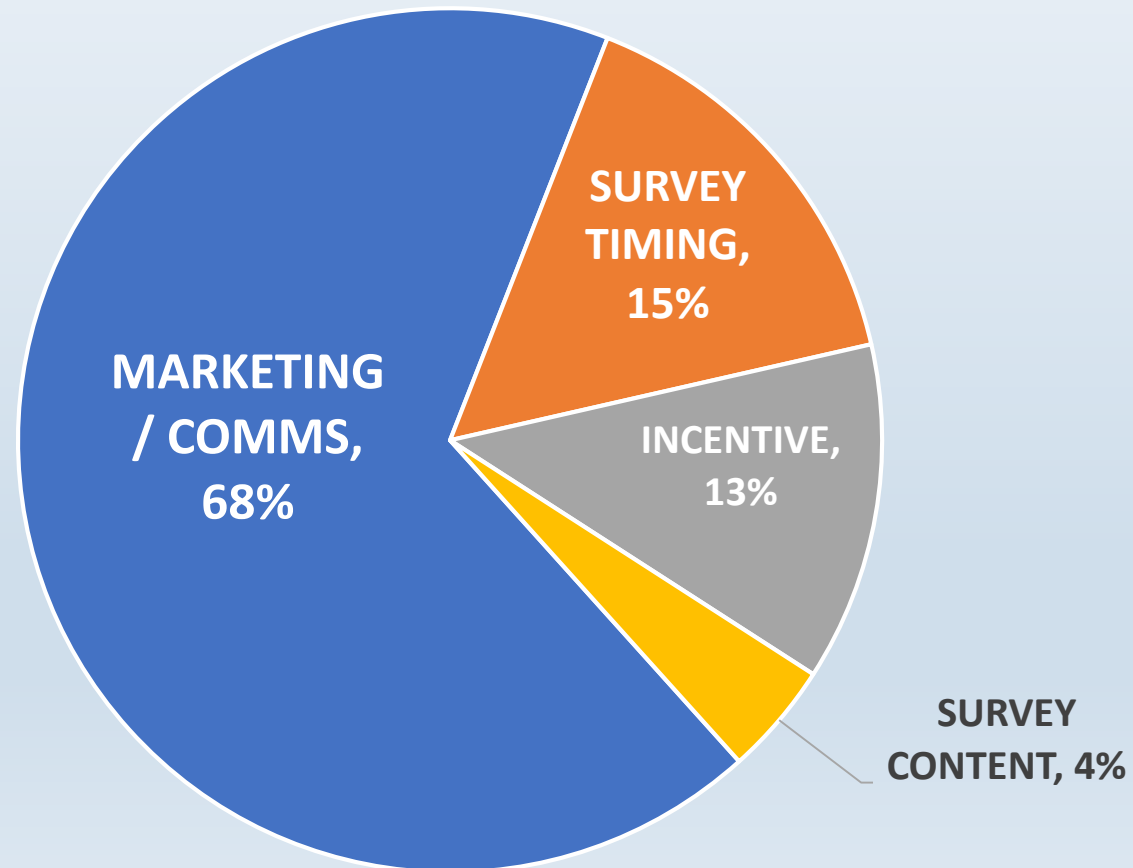
Best practices – Top responses

- Ask people in various roles on campus to announce survey and encourage its completion -- coaches, faculty, student support offices' staff, etc. [*n*=17]

- Explain how the data will be used; point to concrete changes that happened as a result of past survey responses [*n*=8]

- Embed the survey link in student learning management system/portal (increases views and makes it clear it's not a phishing attempt) [*n*=7]

- Set aside time in classes, events, practices, work shifts, etc. to complete survey (proctored time) [*n*=7]

- Big incentive [*n*=7]

Best practices – Did you do any of the following? (select all apply)

Response rate below 50% (top-10)

	N	Percent of Cases
Sent pre-notification emails to students about the upcoming survey	17	48.6%
Spread information about the survey by word-of-mouth	14	40.0%
Posted fliers on campus	13	37.1%
Communicated with faculty to spread the word	10	28.6%
Posted digital messages on campus TV screens	9	25.7%
Contacted resident hall assistants or staff to spread the word	8	22.9%
Posted on your institution's social media (e.g., Twitter, Instagram, or Facebook)	8	22.9%
Posted digital messages on student portal (e.g., Banner)	7	20.0%
Contacted departments or divisions	6	17.1%
Posted digital notices on campus website	5	14.3%

Response rate 50% or higher (top-10)

	N	Percent of Cases
Sent pre-notification emails to students about the upcoming survey	16	61.5%
Something else (please describe)	14	53.8%
Communicated with faculty to spread the word	9	34.6%
Contacted departments or divisions	7	26.9%
Spread information about the survey by word-of-mouth	7	26.9%
Posted fliers on campus	5	19.2%
Posted digital messages on student learning management system (e.g., Moodle)	4	15.4%
Posted on your institution's social media (e.g., Twitter, Instagram, or Facebook)	4	15.4%
Contacted resident hall assistants or staff to spread the word	4	15.4%
Posted digital notices on campus website	3	11.5%
Posted digital messages on student portal (e.g., Banner)	3	11.5%

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Best practices – Something else (summary)?

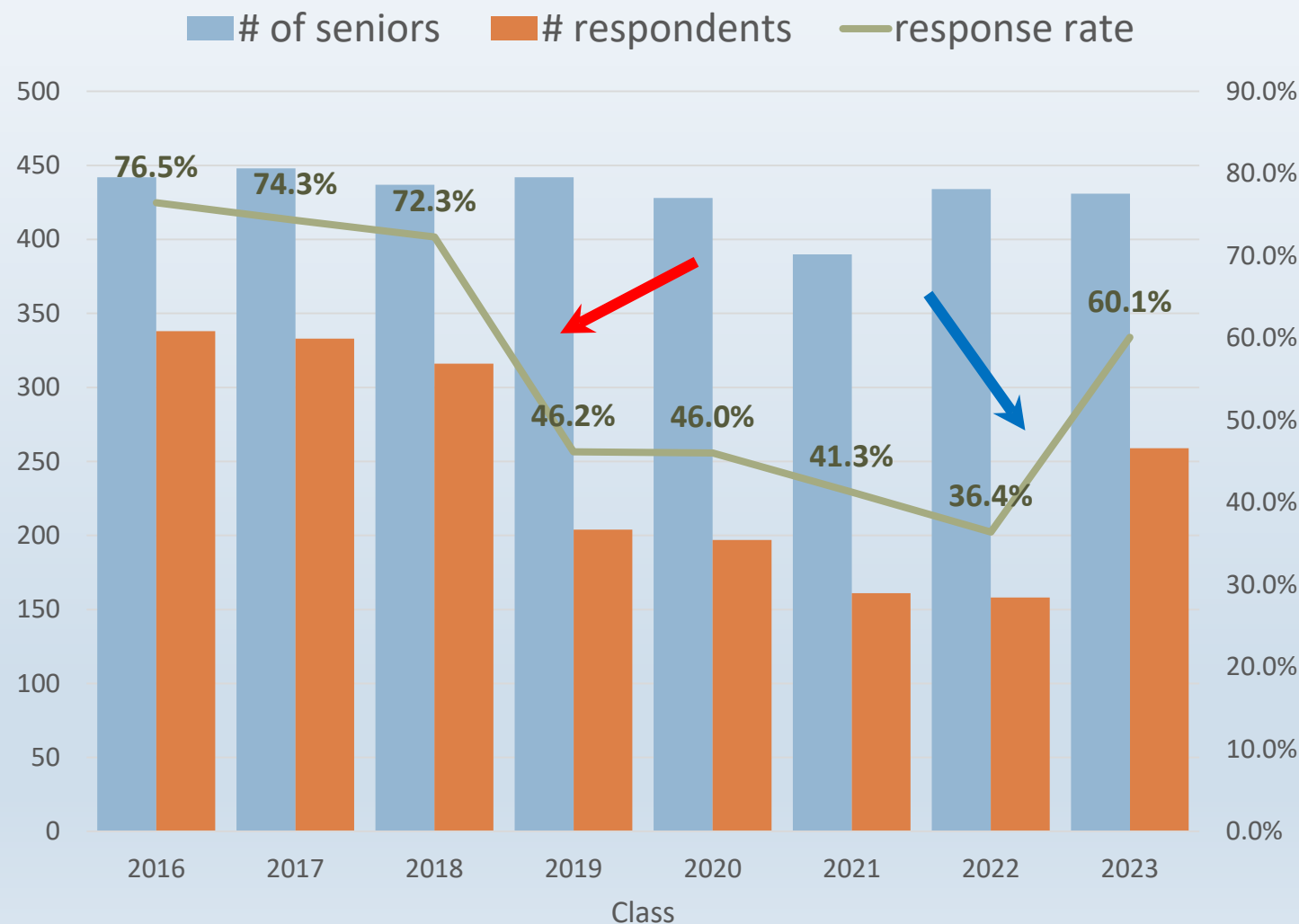| |
|---|
| Academic Deans sent out emails |
| Administered in-person during orientation |
| Chance to take the survery when collecting cap and gown |
| Coordinated with commencement plans |
| In commencement planning communications i.e., cap and gown pick up |
| Reminded in cap and gown pick up |
| Set up tables and kiosks for in-person |
| Administered in-person during orientation |
| Table tents in dining halls for in-person & ads in student newspaper |
| Part of checklist of things to do by freashman |
| Adminstered in-person during first year seminar |
| Time during new student orientation to complete in-person |

Application: Our Spring 2023 senior survey

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Legend: # of seniors | # respondents | response rate

Chart data (Class, response rate):
- 2016: 76.5%
- 2017: 74.3%
- 2018: 72.3%
- 2019: 46.2%
- 2020: 46.0%
- 2021: 41.3%
- 2022: 36.4%
- 2023: 60.1%

Class

To reverse declining response rates, this year, we did most of the things that respondents suggested:

- Pre-tested the survey with students for clarity, length, and desirability of incentives
- Deans sending invites
- Fliers with QR code
- Mix of incentives
- Faculty, coaches, residential
- Commencement emails and other communications
- Cap and gown pick-up flier
- Advertisement in student paper

Application: Our Fall 2023 New Camel survey
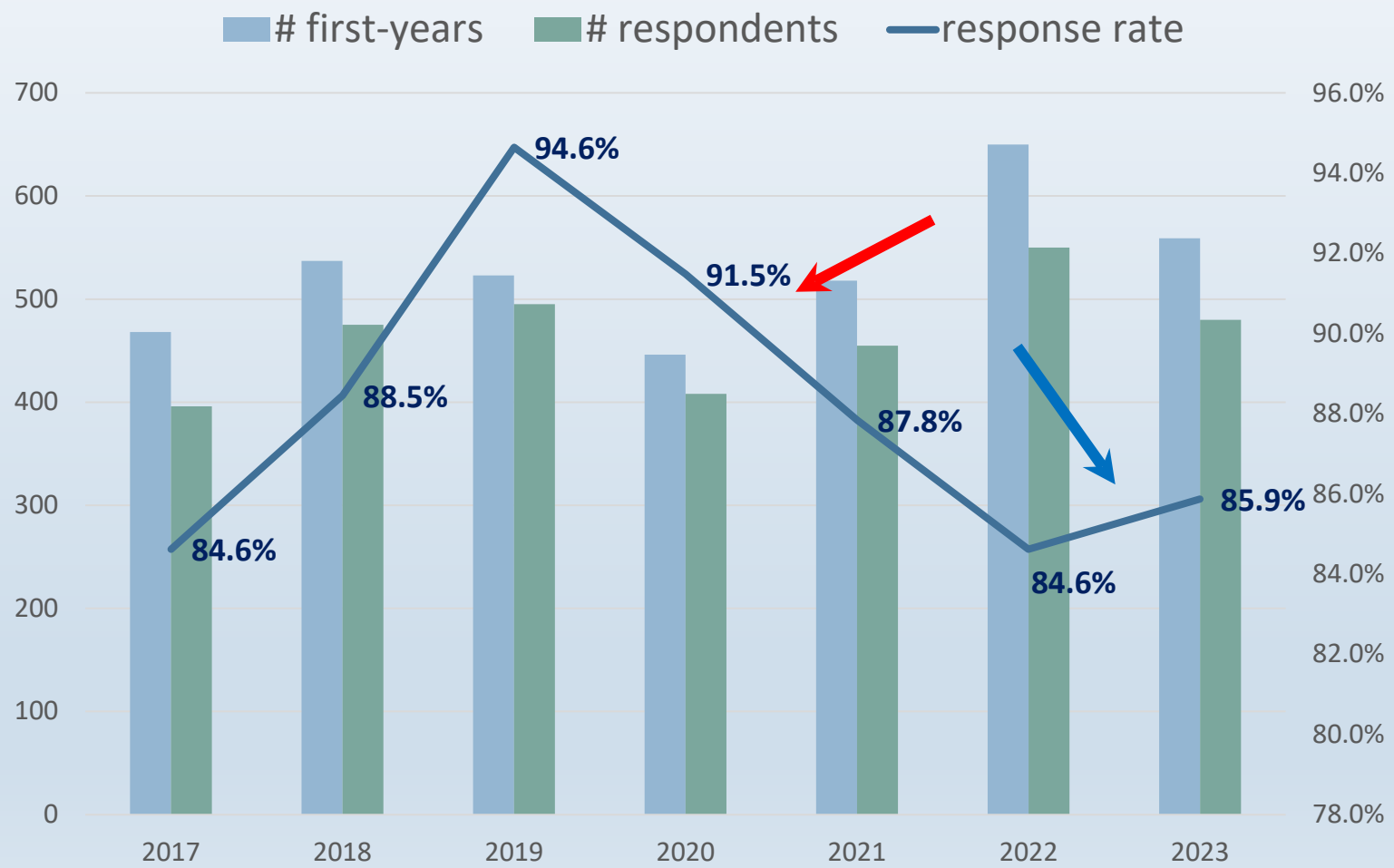
Historically, the new camel survey distributed as a generic link to students via text and email messages by first-year dean. Following changes were made in fall 2023:

- Customized link appeared on each students Camel Experience portal, similar to an LMS link
- Emails were sent via Qualtrics, with personalized messages
- Emails were sent on behalf of the first-year dean

Conclusions

- Study your own survey practices to identify response-rate variation.

- Resp. rates do appear to differ among student subgroups, but with higher survey response rates, subgroup response rates converge.

- Extra efforts needed to bridge resp.-rate gaps between males/females and Hispanic/Latino response-rate differences

- Good survey research is pretty hard. Low-quality surveying is easy, but with some extra planning, creativity, and legwork, results can be improved/professionalized.

- Institutional research office is a natural location for promoting collaborative survey excellence on your campus.
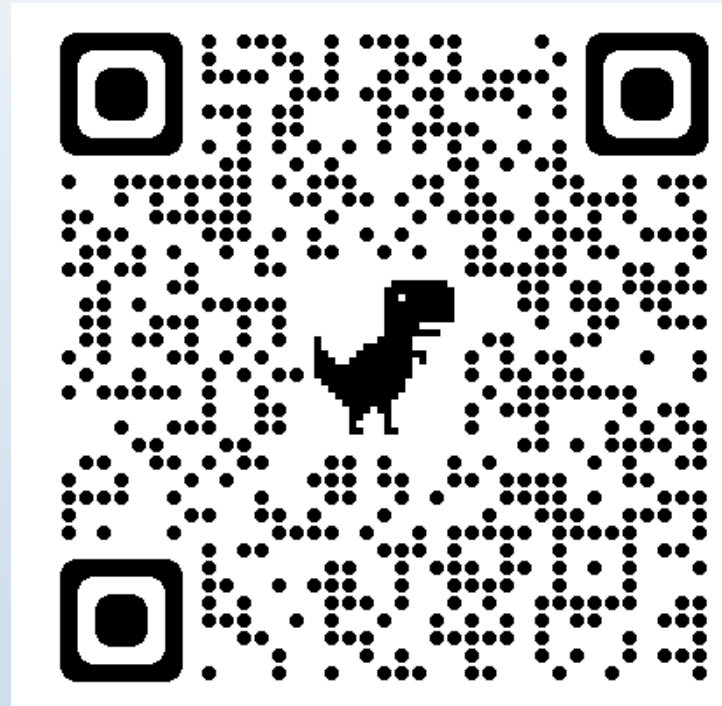
Big shout out to Conn's Center for Critical Study of Race and Ethnicity (CCSRE)!

**Thank you!
Any questions?**

Link to our Best Practices handout:

Contact the Office of Institutional Research and Planning with questions or for more information.

ir@conncoll.edu

Application: Incentives

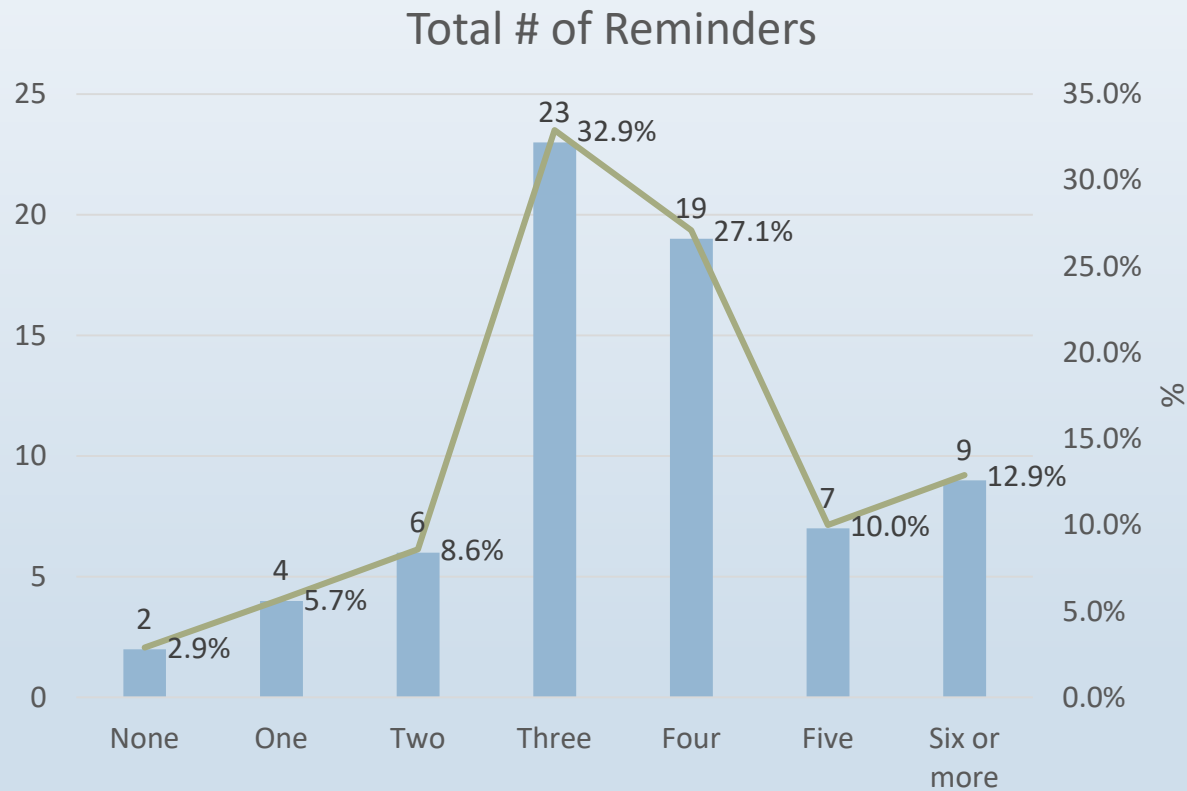| Incentive	Frequency	Percent
Gift cards	12	35.3
Other	9	26.5
Amazon gift cards	7	20.6
Book store gift cards	5	14.7
Unknown	1	2.9
Total	34	100.0

School sweatshirts
Campus dining credit
Class time credit
Early registration
Mug with class year
Diploma frame
Tuition credit
Commencement tickets

Application: Reminders

Total # of Reminders

	Correlations		
	Q11 How many reminders, excluding the invitation, were sent during the administration of the [QID1-ChoiceGroup-SelectedChoicesTextEntry]? (The reminders include any reminder notification sent to students, either by the external organization or by the institution.)		RR
Pearson Correlation		1	-0.158
Sig. (2-tailed)			0.208
N		65	65
Pearson Correlation		-0.158	1
Sig. (2-tailed)		0.208	
N		65	65