NEAIR 51ST ANNUAL CONFERENCE
INSPIRE ASPIRE

# "A Rising Tide Lifts All Boats" Assessing and Addressing Survey Non-response

## *Results of Two National Surveys*

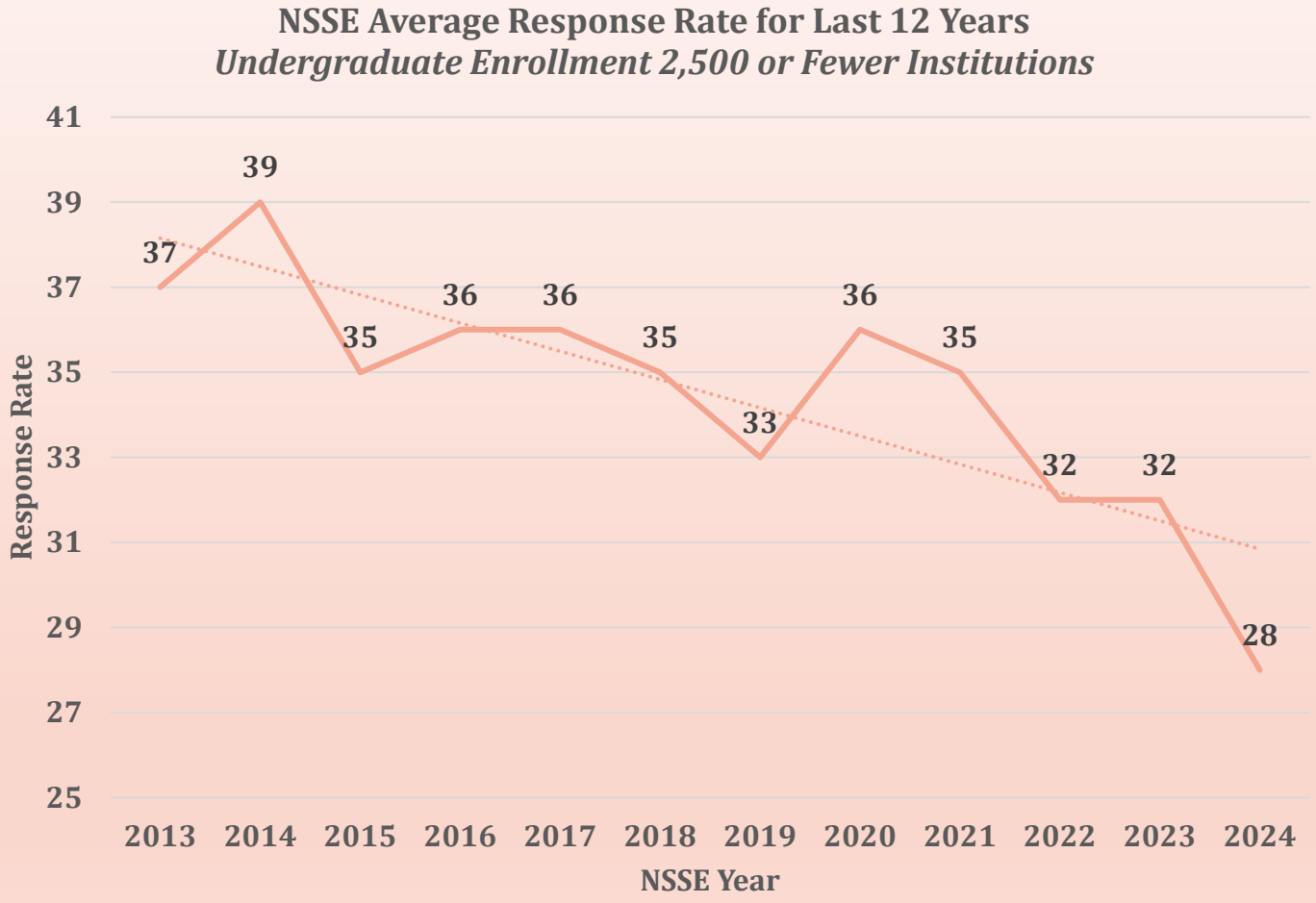
John D. Nugent, Ph.D. Sanjeewa Karunaratne, MPA, MSR, LLM

Connecticut College / New London, CT

BUILDING AN IR COMMUNITY *for the next 50 years*

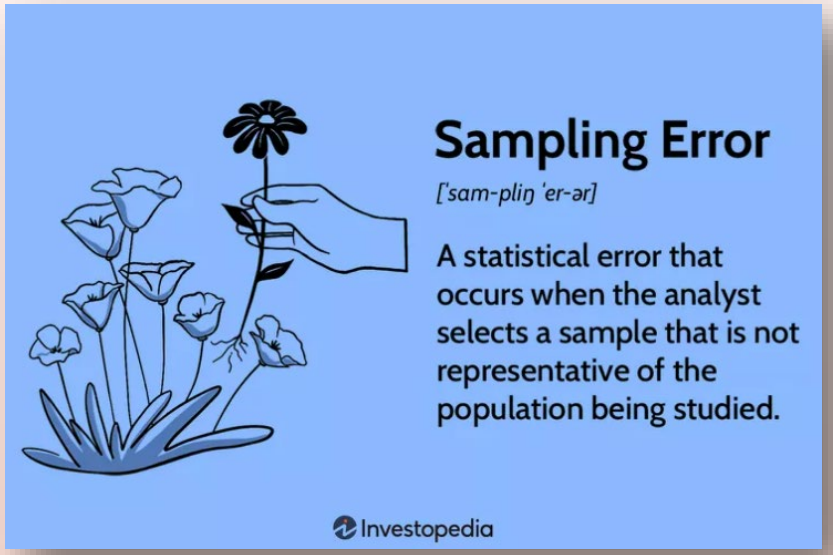
# Have you struggled getting survey responses?

- National trends
- Experiences on your campus
- Lots of possible explanations
- Conn College NSSE 2024 RR: 42.5%




*Source: National Survey of Student Engagement (NSSE) Overview Report Table 2. NSSE 2023 Table 2 is publicly unavailable.*

# Why it matters: sampling error




- Sampling error or margin of error occurs because we gather a data *sample* from the population, and the makeup of the sample may differ from and be unrepresentative of the population.
- We wanted to understand the nature of nonresponse (variations), and how to mitigate it.
- Who ***aren't*** we regularly hearing from on our surveys?

# About our national surveys

- Two surveys: Directors of institutional research at national liberal arts colleges (April-May 2023) and at national universities (May-June 2024)
- We asked about survey practices generally and asked for disaggregated response rates on a major survey
- 70 responses from 185 liberal arts colleges (38.9%) and 89 responses from 361 national universities (24.7%). Liberal arts and universities data combined for this analysis
- Case study: NSSE 2024, Senior Survey 2024, new-student survey 2023
- Five sections in this presentation

Methods

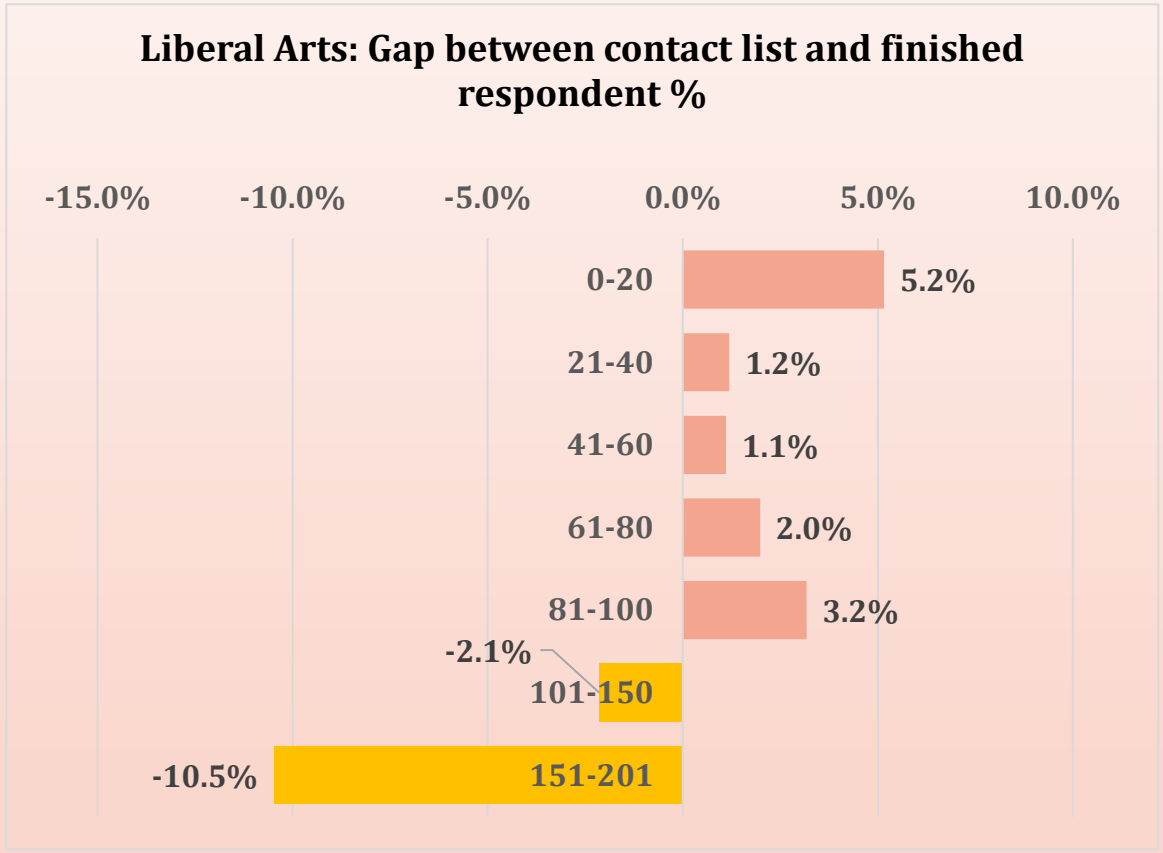
Results

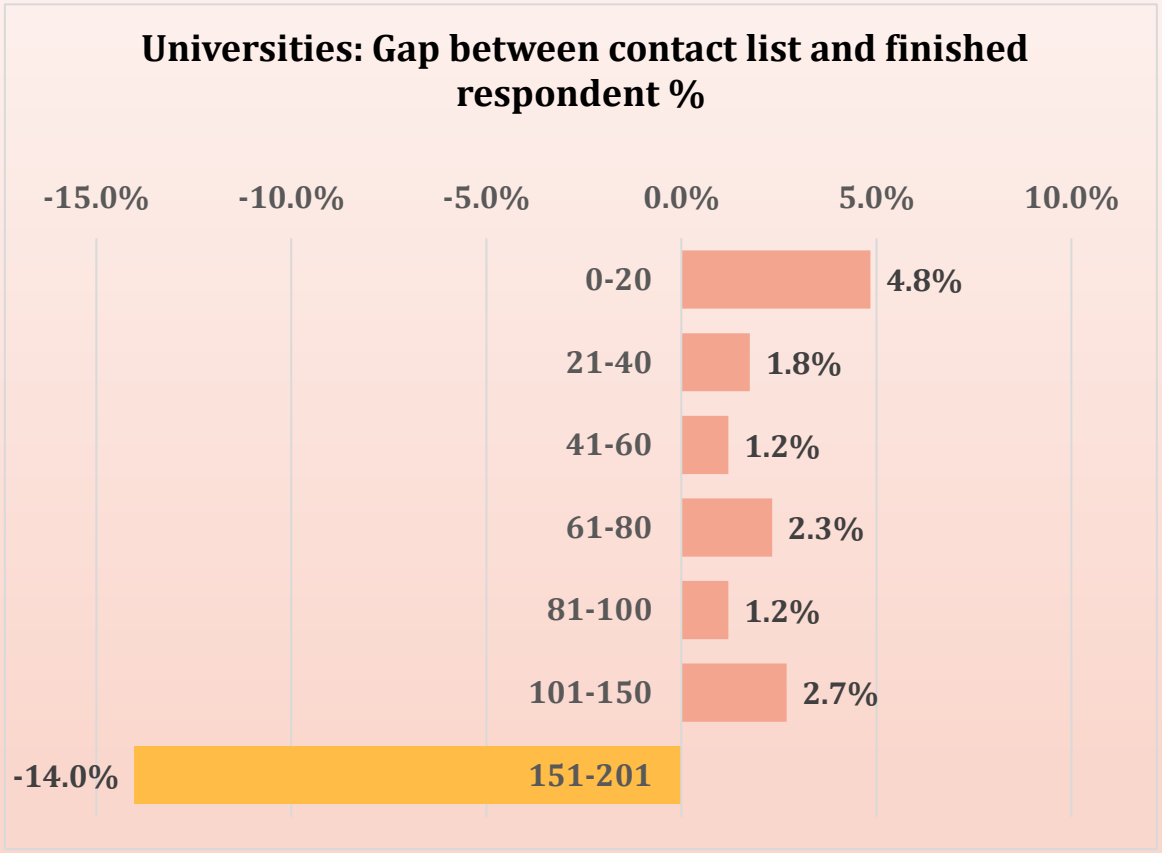
Best practices

Applications

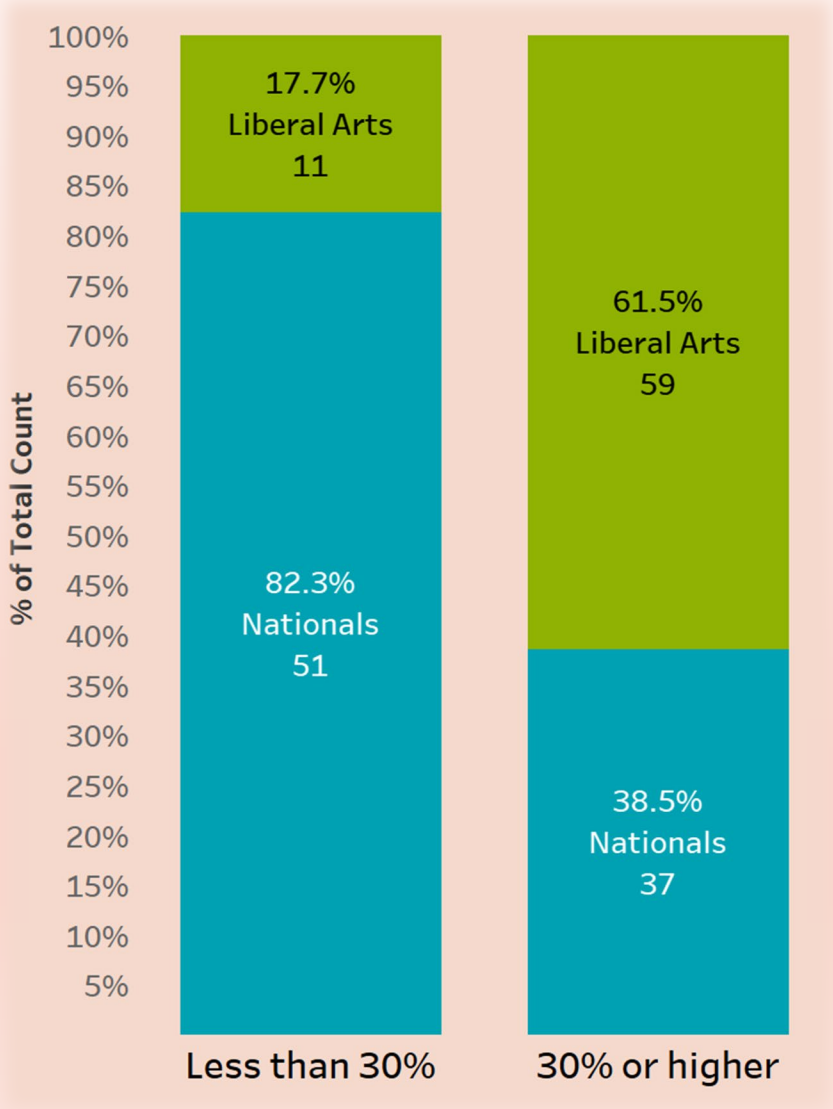
Conclusions

# National surveys – Response rates by institution type



# National surveys – Response rates by "ideal response rate"



# Why bother? An era of data-driven decision making

CONNECTICUT COLLEGE

| | | 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% |

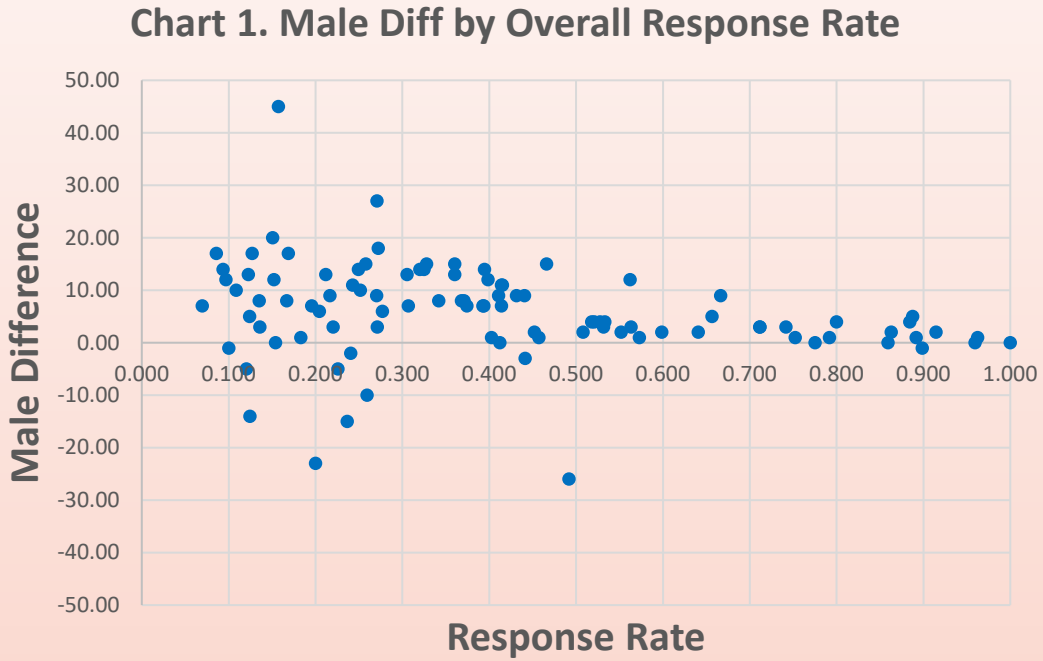
** Significant at 95% chi-square test*

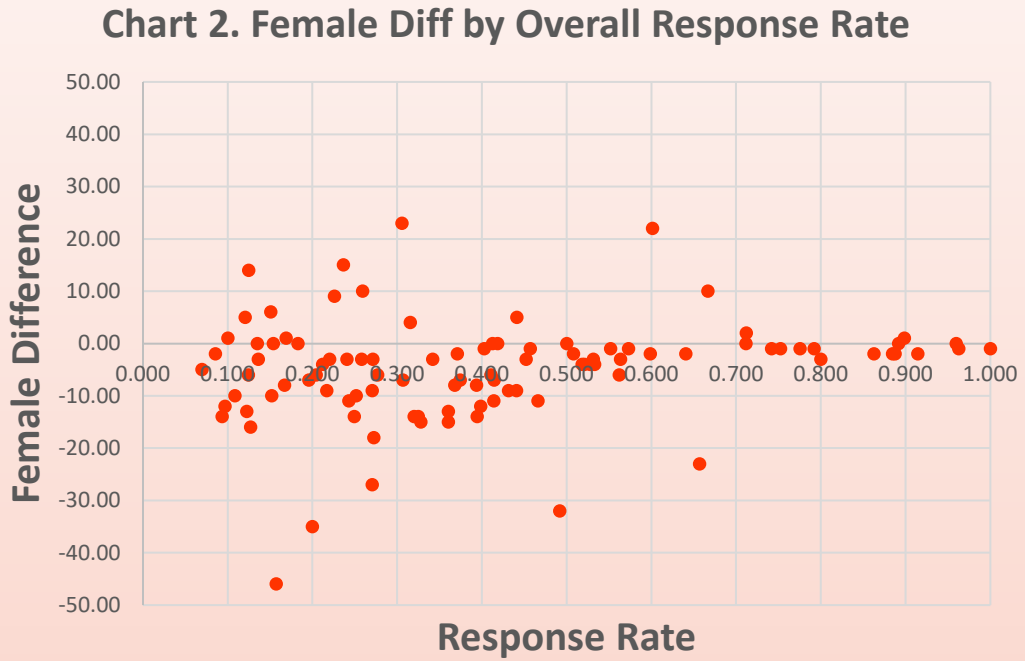
Chi-Square Tests

| | Value | df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|---|---|---|---|---|---|
| Pearson Chi-Square | 101.370[a] | 1 | 0.000 | | |
| Continuity Correction[b] | 99.913 | 1 | 0.000 | | |
| Likelihood Ratio | 94.324 | 1 | 0.000 | | |
| Fisher's Exact Test | | | | 0.000 | 0.000 |
| N of Valid Cases | 1844 | | | | |

*Statistically significant association between gender and ideology*

# Results: Female and Male - population vs. survey sample



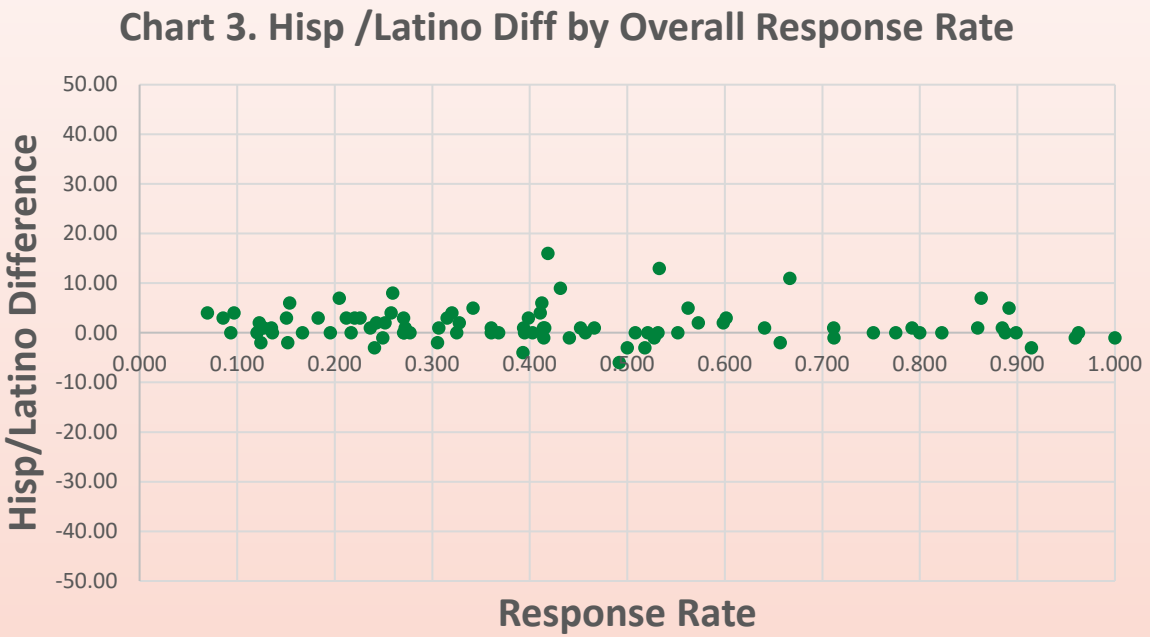



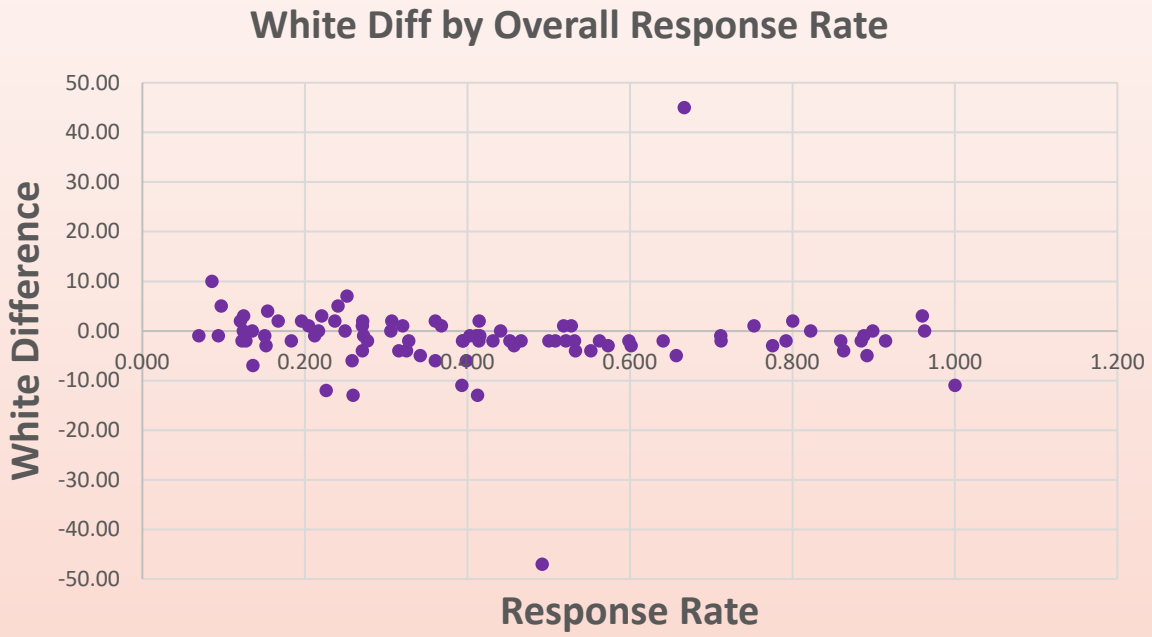

Paired Samples Test

| | 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 |
| Male_Diff - Female_Diff | 11.26316 | 15.49482 | 1.58974 | 8.10670 | 14.41961 | 7.085 | 94 | 0.000 | 0.000 |

*Statistically significant difference in male and female response rate differences*

# Results: Hispanic or Latino - population vs. survey sample



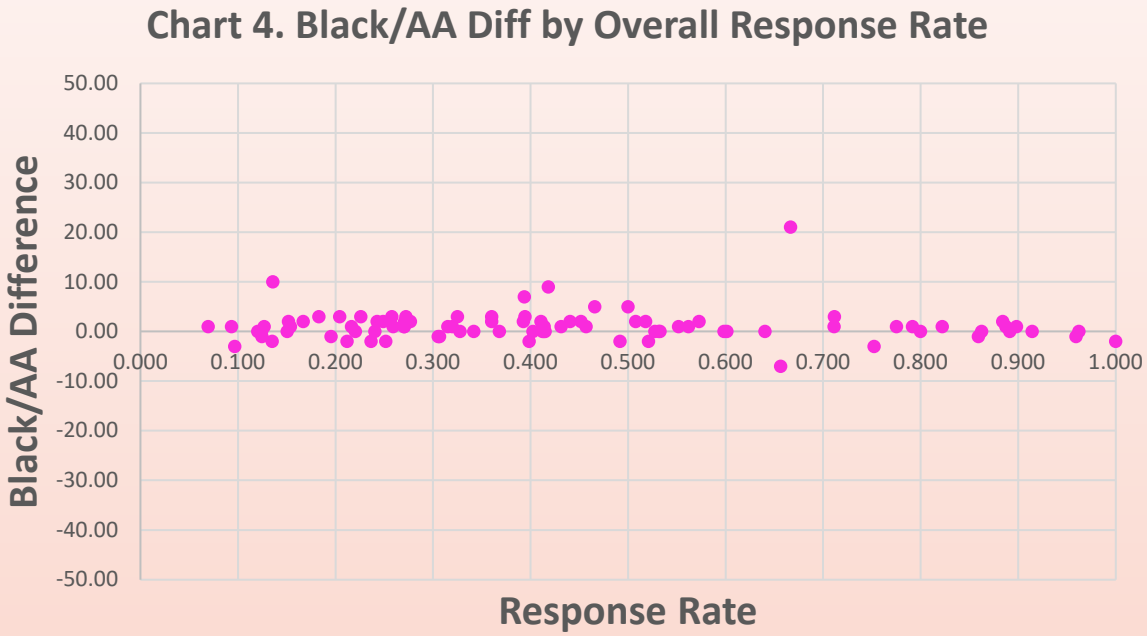



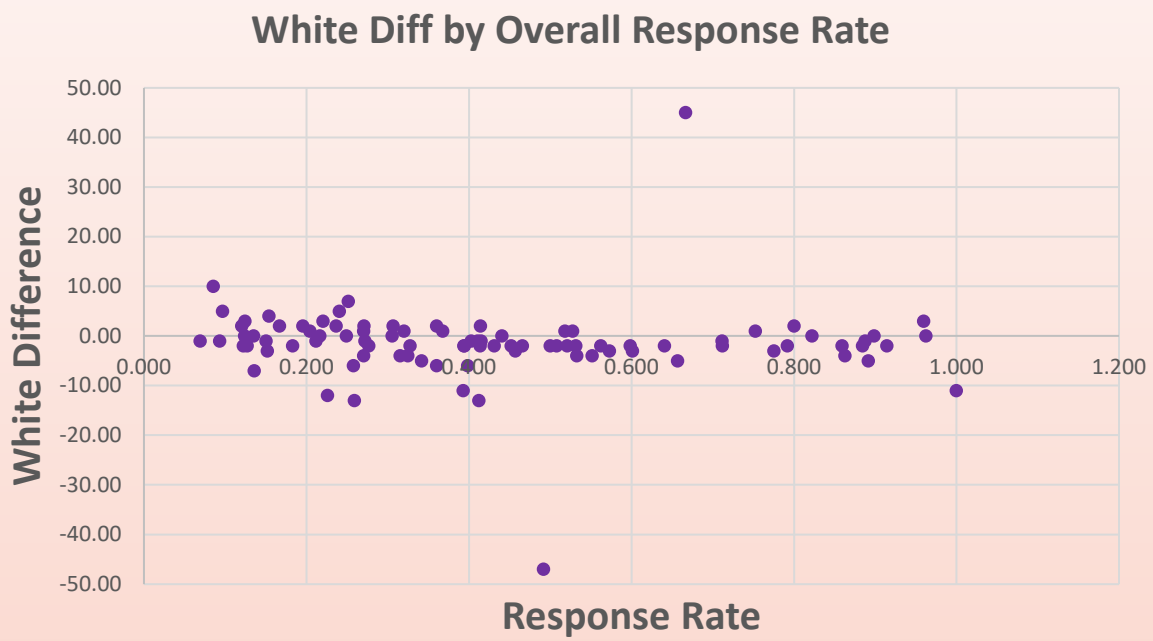

Paired Samples Test

| | 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 |
| White_Diff - Hisp_Latino_Diff | -2.28571 | 9.22952 | 0.96752 | -4.20786 | -0.36357 | -2.362 | 90 | 0.010 | 0.020 |

*Statically significant difference in White and Hispanic/Latino response rate differences*

# Results: Black or Afr. Amer. - population vs. survey sample



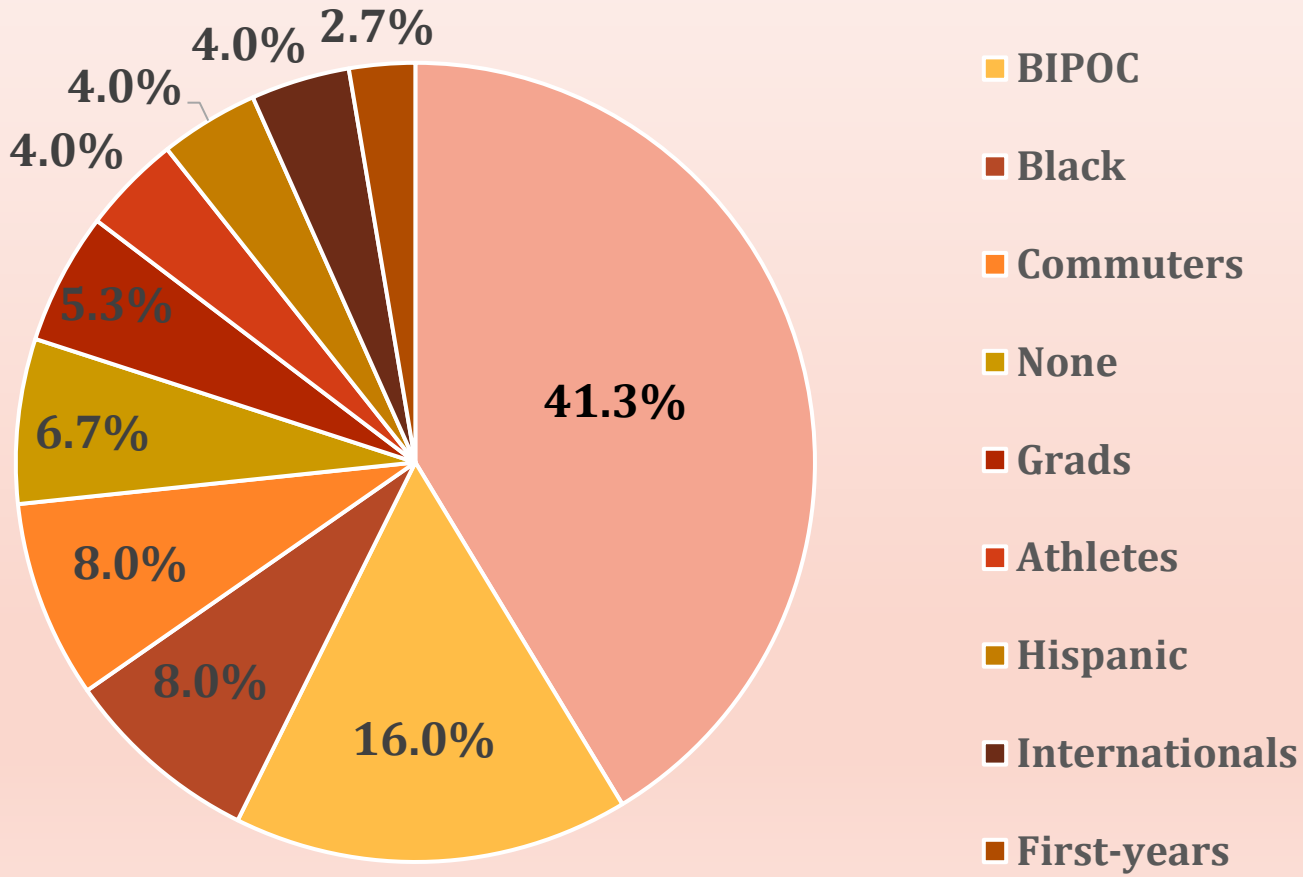




Paired Samples Test

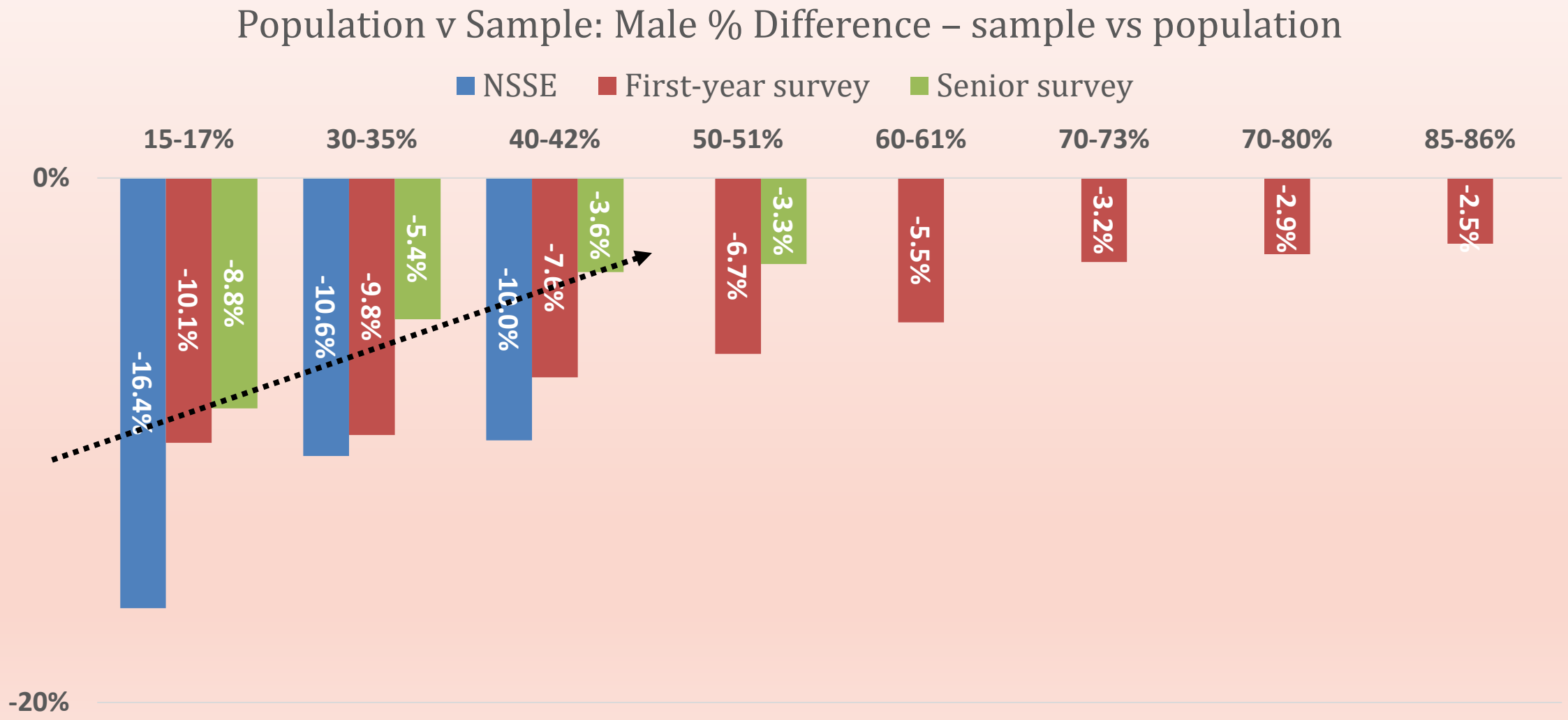
| | Paired Differences | | | | | t | df | Significance | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | One-Sided p | Two-Sided p |
| White_Diff - Black_AA_Diff | -1.93407 | 9.20363 | 0.96480 | -3.85081 | -0.01732 | -2.005 | 90 | 0.024 | 0.048 |

*Statically significant difference in White and Black / AA response rate differences*

# Results: Name one student subgroup or population that is harder to reach



# Case Study - "Rising Tide Lifts All Boats"



# Best practices – Sampling and Data Weighting

**Chart 1.1 Surveyed a sample of students rather than the entire student population?**

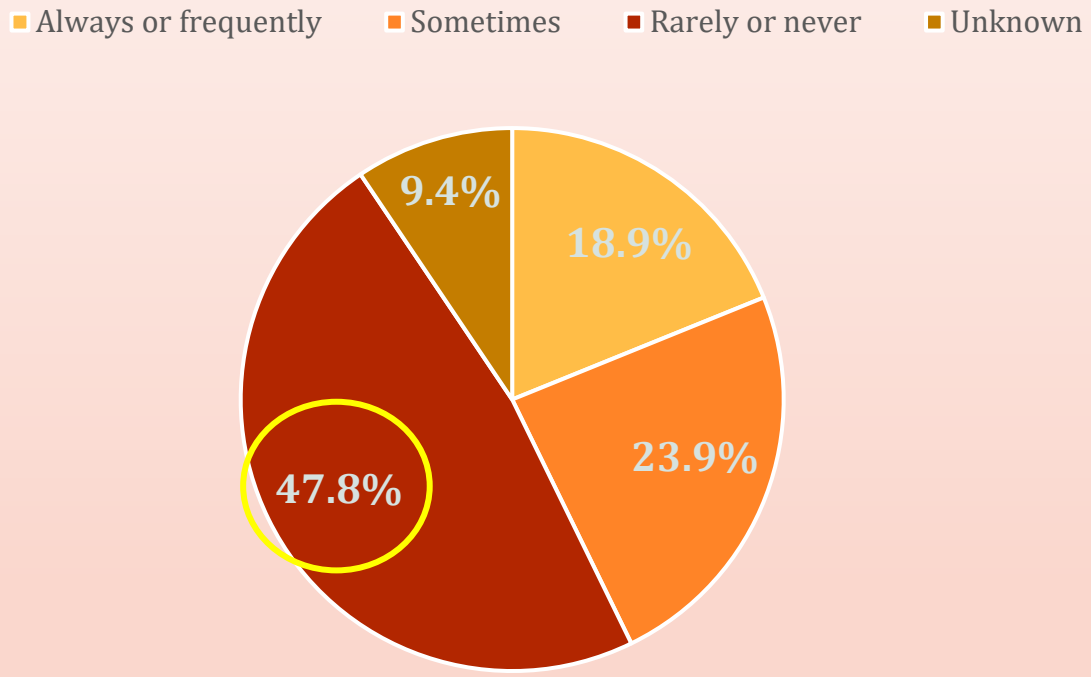
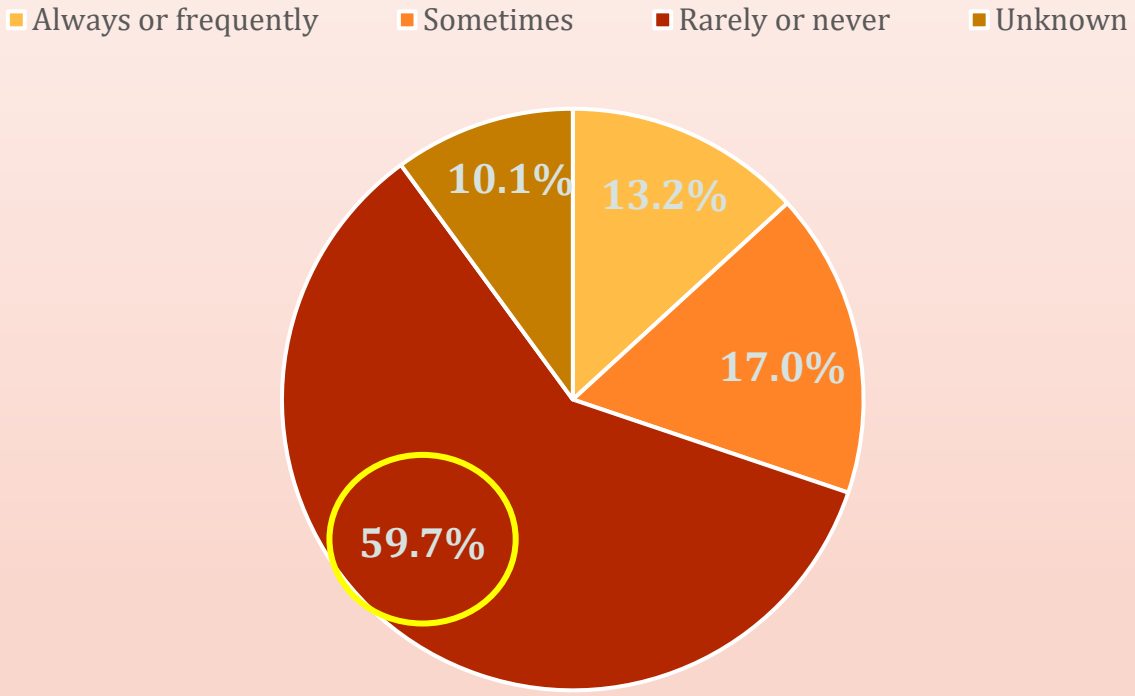
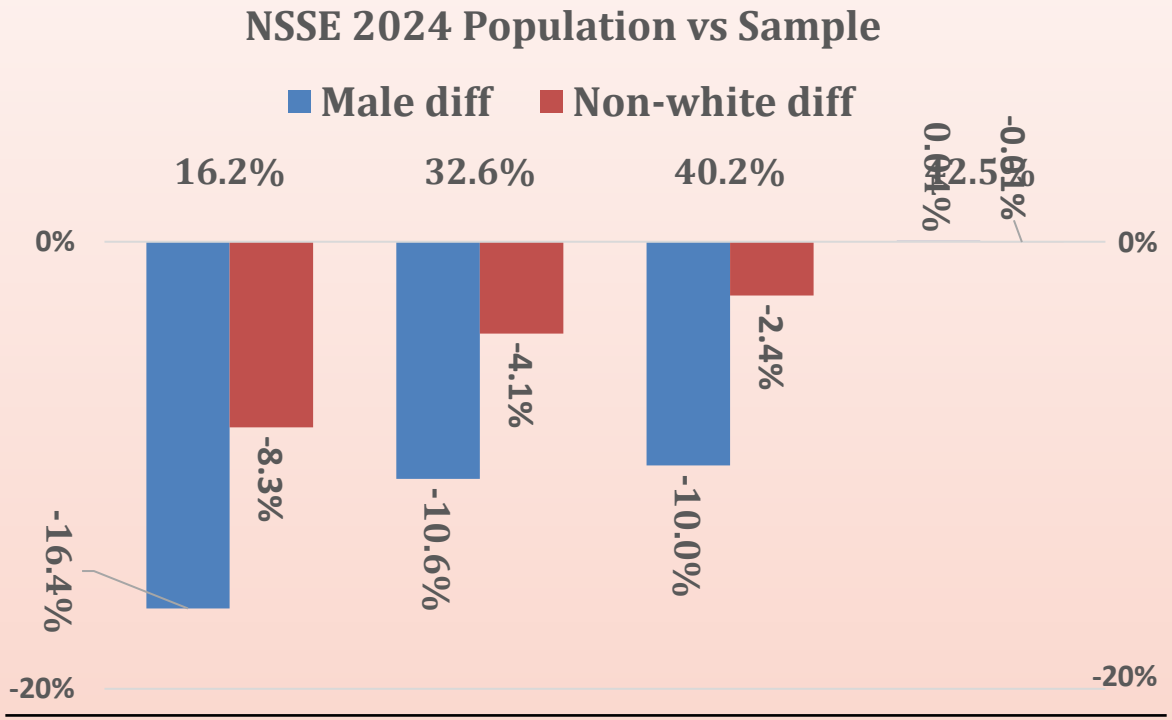
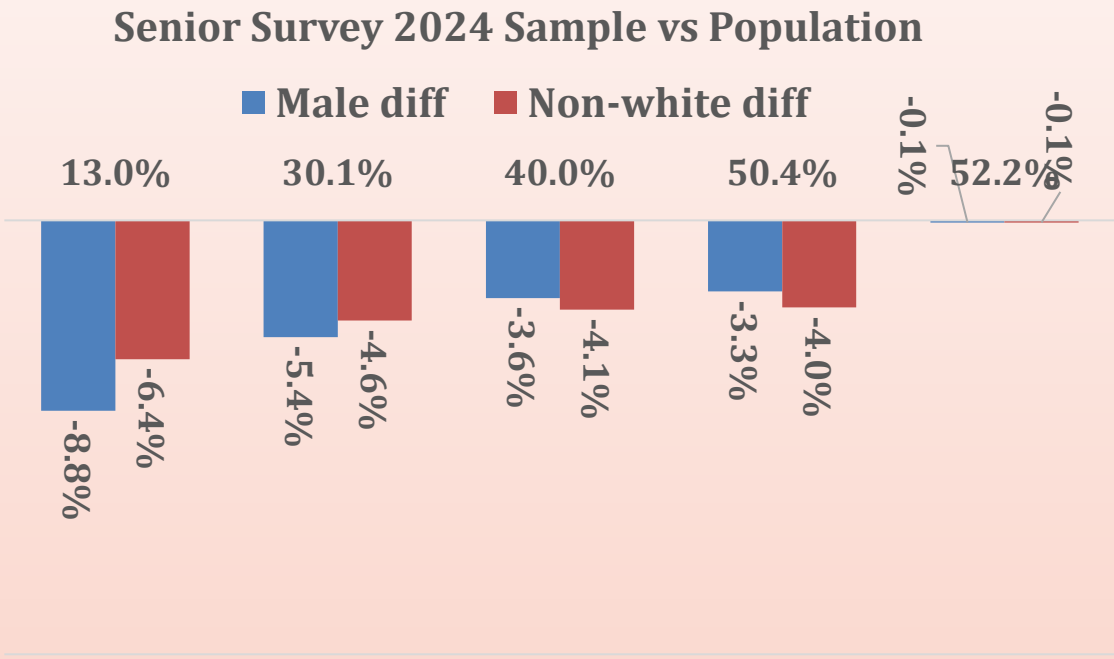



**Chart 1.2 Performed data weighting to make the sample look like population**



# Best practices – Post-stratification Data Weighting



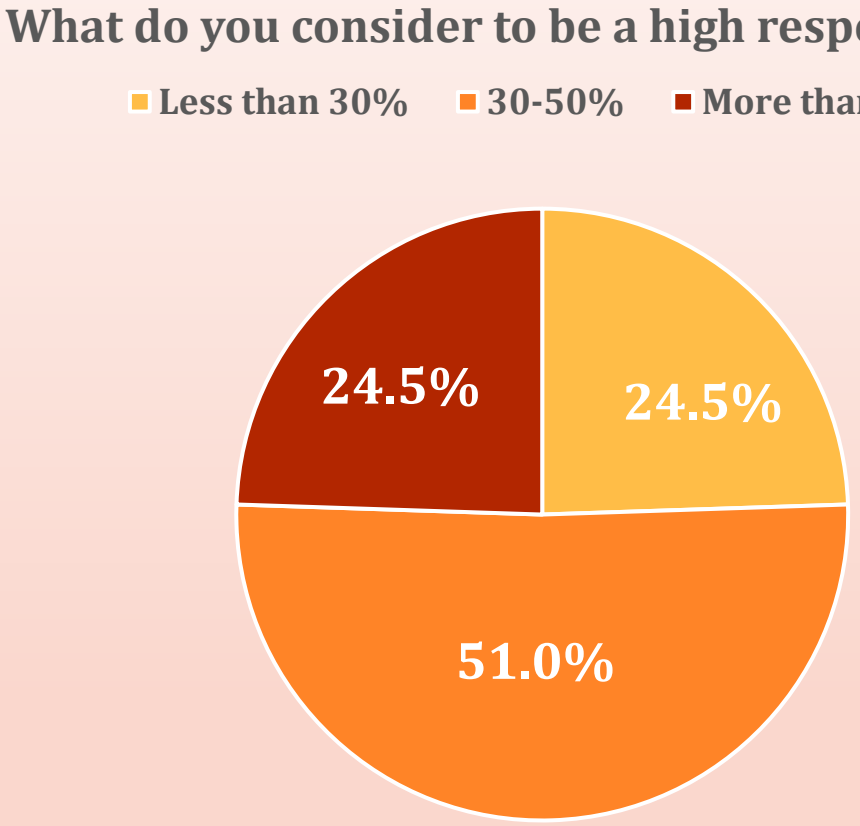




Internal NSSE weight matrix

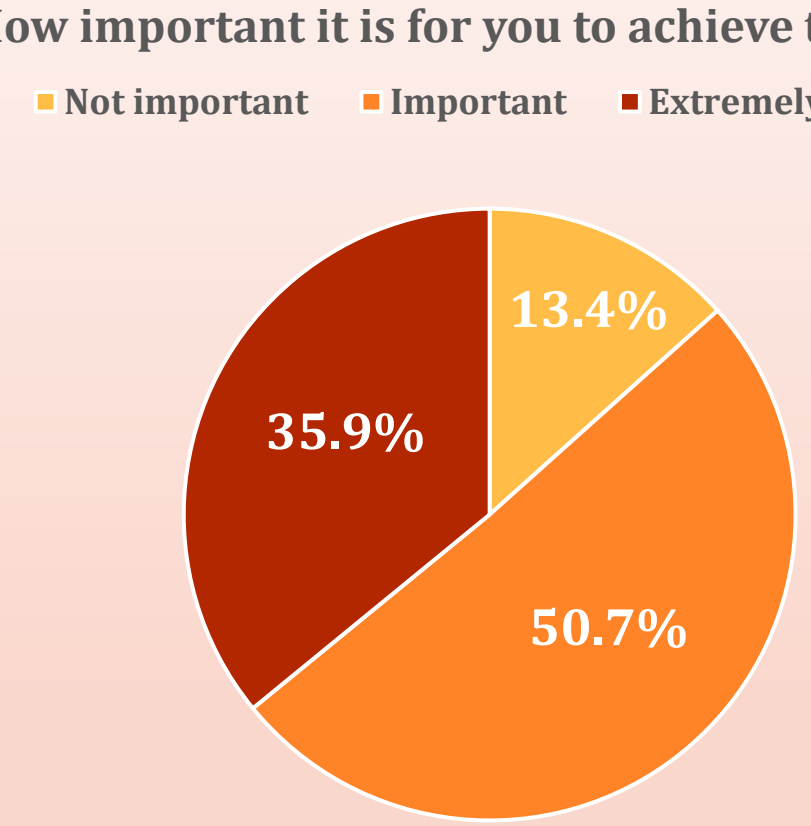
| | # | % | Exp | Obs | wgt1 | exp2 | obs2 | wgt2 |
|---|---|---|---|---|---|---|---|---|
| F | 577 | 61.6% | 236 | 275 | 0.85987 | 222 | 222 | 0.99859 |
| M | 360 | 38.4% | 148 | 109 | 1.35353 | 138 | 138 | 1.00227 |
| TOTAL | 937 | | | 384 | | | 360 | |

# Best practices – How important is high response rate?

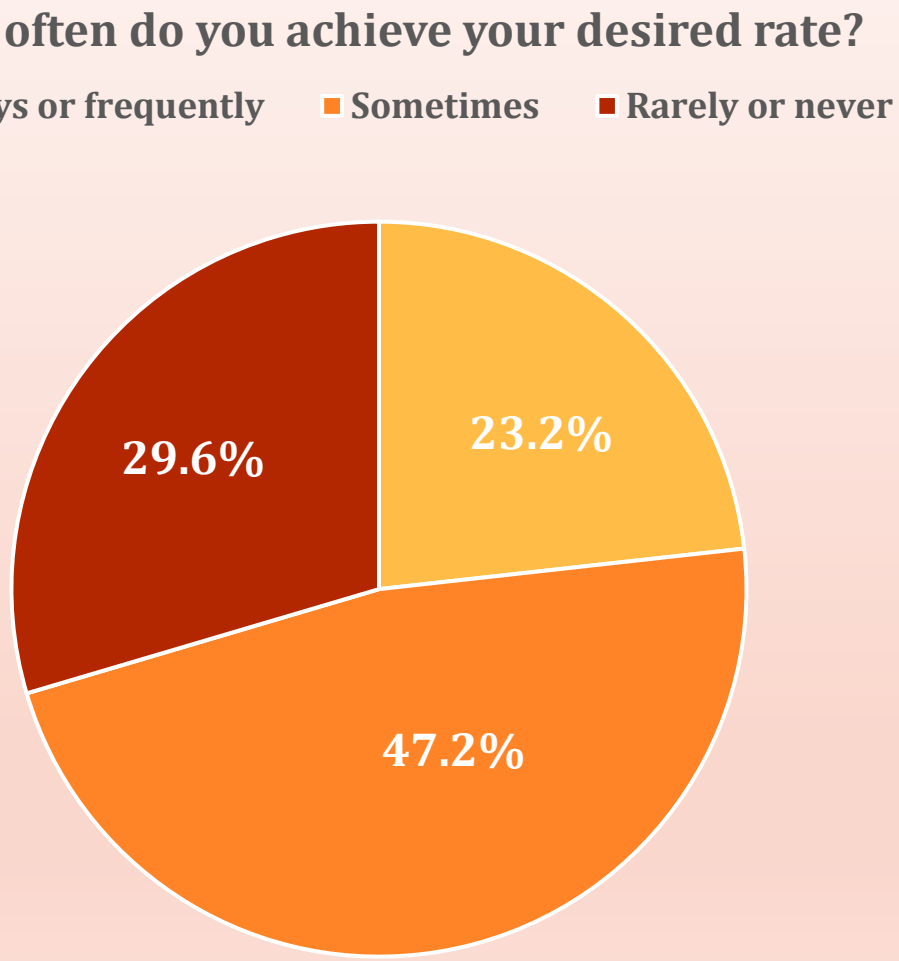
**What do you consider to be a high response rate?**




**How important it is for you to achieve this rate?**



# Best practices – How important is high response rate?



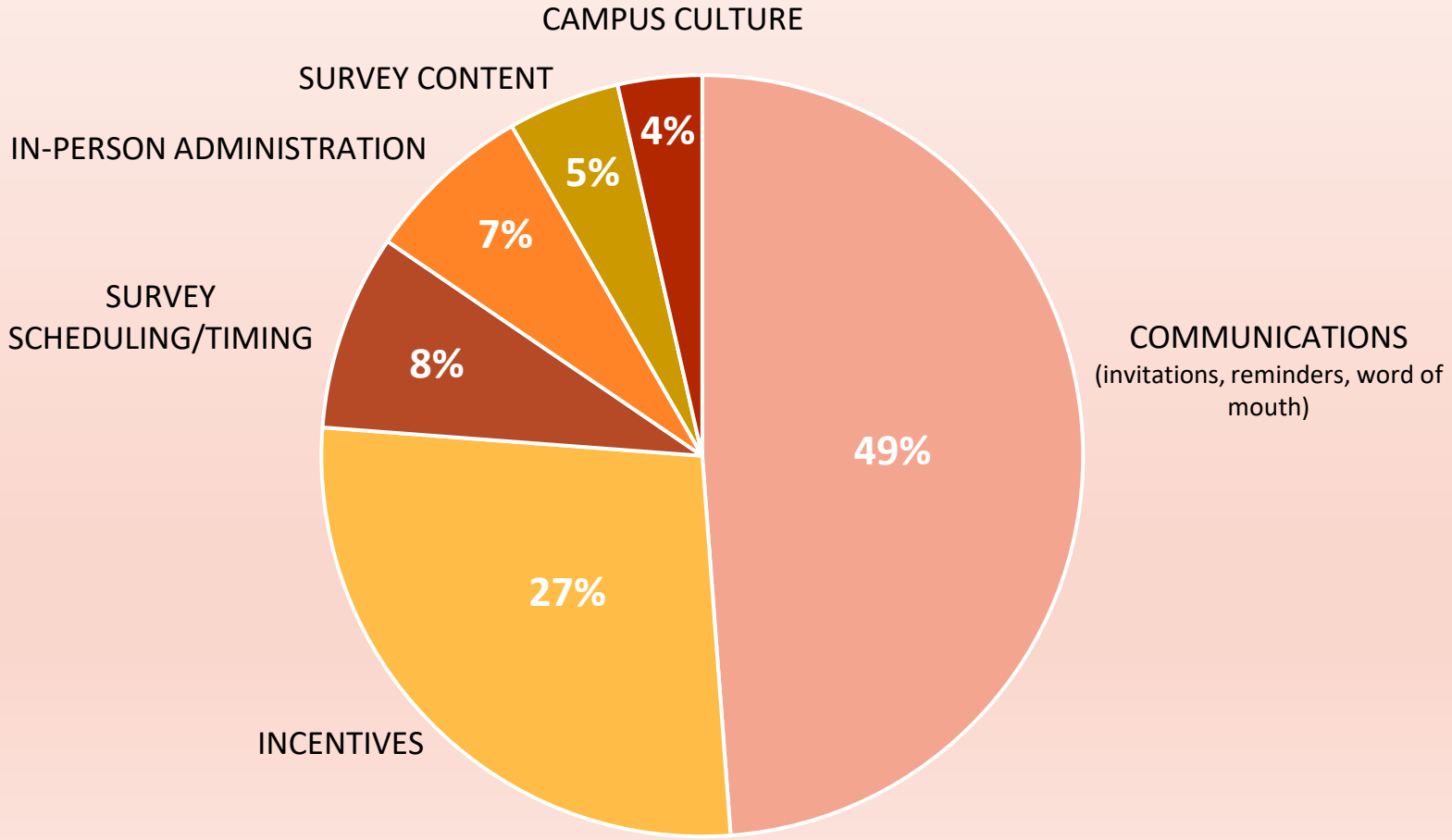
# Best practices – Mitigating Survey Fatigue

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

| | Responses | | Percent of Cases |
|---|---|---|---|
| | N | Percent | |
| Administered external surveys such as NSSE, CIRP, NSL, or HEDS in rotating basis (e.g., every other year) | 113 | 15.0% | 78.5% |
| Managed the scheduling of the surveys through survey coordination with other offices, or similar process | 110 | 14.6% | 76.4% |
| Cut down the number of internal surveys | 86 | 11.4% | 59.7% |
| Made surveys that are shorter in length | 76 | 10.1% | 52.8% |
| Made surveys that take less time to complete | 74 | 9.8% | 51.4% |
| Communicated survey best practices to on-campus researchers | 72 | 9.5% | 50.0% |
| Combined or consolidated similar internal surveys | 66 | 8.7% | 45.8% |
| Had a survey pre-approval process such as a form or IRB approval process | 54 | 7.2% | 37.5% |
| Managed access to survey software such as Survey Monkey or Qualtrics | 54 | 7.2% | 37.5% |
| Allowed only some offices or departments to send out surveys | 32 | 4.2% | 22.2% |
| Something else | 18 | 2.4% | 12.5% |

# Best practices – Open-ended question

We asked respondents open-ended to name one practice they think helps improve response rates



# Best practices – Top responses

- Offer a well-chosen incentive (one big prize, small prizes to every completer, non-monetary prizes, a prize each week, early responder prizes, etc.) [*n*=23]
- Ask people in respected/high-profile roles on campus to announce survey and encourage its completion – college leadership, faculty, student support office staff, advisors, coaches, etc. [*n*=19]
- Find ways to administer surveys other than just via email: in person, with posters/table tents with QR codes, through LMS, etc. [*n*=11]
- Explain how the data will be used; point to concrete changes that happened as a result of past survey responses; cite survey results in reports; write articles about results for student newspaper [*n*=8]

# Conclusions

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

- Try everything you can think of. Study your own survey practices to identify response-rate variations.

- Good survey research is pretty hard. Low-quality surveying is easy, but with some extra planning, creativity, and legwork, results can be improved/professionalized. Get out of your office an engage with students and possible surveying partners on campus.

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

- 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:

https://docs.google.com/document/d/1jVvymlXYhqEfL4BJIDVilvuuAkRRSnNxdmok7_j4IuU/edit?tab=t.0

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

ir@conncoll.edu