Student Satisfaction Survey (Spring 2023): Differences by Race/Ethnicity

Office of Research Planning and Institutional Effectiveness (ORPIE)

Chabot College

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Acknowledgements

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Agenda

- Introduction to the Student Satisfaction Survey

- Sampling Methodology

- Analysis Methodology
    - How to Count Race: Federal and Umoja Methods
    - Omnibus Chi-Square Test of Independence

- The Results

Brief History of Student Satisfaction Survey

- Administered roughly every other year since 1995! Almost 30 years.

- Methodology developed by Dr. Carolyn Arnold, previous Faculty Coordinator of Institutional Research

- The only survey ORPIE regularly runs with randomized sampling methodology – >

- Goal of generalizing survey responses to the population (i.e., Chabot Student Population).

- Previous Student Satisfaction Survey results:

Student Surveys

ORPIE	
▸ Home	
Data	
▸ Student Characteristics	
▸ Student Success and Outcomes	
▸ Student Survey Results	
▸ Employee Characteristics and Survey Results	
▸ Presentations	

Institutional Effectiveness, Strategic Planning, and Shared Governance

▸ Measuring Institutional Effectiveness

▸ Institutional Learning Outcomes

▸ Environmental Scans

Program and Area

Please contact anyone on our team if you cannot locate old files or would like help navigating the new website.

Spring 2023 Student Satisfaction Survey	+
Fall 2019 Student Satisfaction Survey	+
Fall 2017 Student Satisfaction Survey	+
Chabot Student Body Surveys Spring 2020 - Spring 2022	+
Student Transfer and Graduation Survey	+

Sampling Methodology

- Course sections are chosen by a method roughly similar to "balanced sampling," balancing along the variables of subject, course number, section, and modality.*

- The method might also be called "systematic sampling from an ordered list."**

- The goal of this method is to ensure that the actual number of sections sampled in a department within each modality is almost exactly in proportion to the fraction of sections owned by that department in that modality (+/-1 section).

- A few details…
  - We generate a list of all class sections that includes subject, number, section, modality
  - Divide lists into separate lists for each modality
  - Determine goal number of students to survey per modality and use that--along with anticipated response rate by modality--to determine how many sections per modality need to be surveyed.
  - Generate **a random number** "N" between 1 and X for each modality.
  - Start the Nth section and add every Xth section to the sample.

- **Blah, Blah, Blah ;)**

- **Representative and Random**

*Gordon, personal communication
**Ho, personal communication

Sampling Methodology: Limitations

- We do a LOT of work to get a representative and random sample.
- But we are not perfect.
- [Student Survey Demographics](#) compares the survey respondents to the student population.
- Following groups are somewhat over-represented:
  - New Students
  - Full-Time Students
  - Transfer-/Degree-Seeking Students
  - Asian American/Asian Students
  - Female Students (slightly)
  - Younger age groups of students (21 and younger)
- Survey respondents in face-to-face classes had significantly higher response rates, leading to an overrepresentation in the sample.
  - This also means students who responded in asynchronous classes may represent those who had strong opinions.

Analysis Methodology

- ORPIE produces multiple handouts with analyses for: overall results, demographics of respondents, and disaggregations of responses by race/ethnicity, and sexual orientation and gender (coming soon).

- Check out these results on ORPIE's Student Surveys Website

- Purpose of today's presentation: understand the results we produce on race and ethnicity.

Analysis Methodology: How to Count Race

Survey Results by Race Ethnicity

?

- But how do we decide who gets counted in each box?

?   ?

				Percentage who were satisfied or very satisfied				
African American/ Black (n = 100)	Asian American/ Asian (n = 270)	Filipino/a/x (n = 129)	Latino/a/x or Hispanic (n = 348)	Mid. East/ N. African (n = 24)	Native American (n = 21)	Pacific Islander (n = 35)	White Only (n = 72)	Multi- racial (n = 156)
84%	88%	85%	87%	79%	86%	83%	86%	89%
79%	87%	85%	87%	79%	86%	88%	85%	91%
72%	81%	78%	84%	78%	80%	94%	82%	86%
64%	67%	70%	67%	71%	86%	69%	67%	71%
71%	68%	68%	66%	58%	67%	66%	57%	65%
60%	64%	66%	66%	70%	75%	74%	67%	68%
77%	78%	82%	79%	71%	84%	74%	77%	83%
82%	82%	80%	82%	63%	85%	74%	81%	83%
58%	59%	63%	55%	52%	71%	45%	51%	64%
58%	47%	49%	47%	50%	55%	47%	46%	46%

- [How to Count Race in the Student Satisfaction Survey](): This presentation gives an in-depth explanation, including survey results, that support ORPIE's decisions on how to count race for this survey.

Analysis Methodology: How to Count Race

- Where do students get counted who check off multiple racial/ethnic groups?
  - E.g., If student checks off Native American, Latinx, Black, and White, which group(s) should they count in?
- How to count or measure race/ethnicity is not straight-forward.
- Measurement and defining terms is not value-neutral.
- **Federal Way**: Any student who answers yes to: "Are you of Hispanic, Latino or Spanish Origin?" will be counted as Latinx (regardless of if they check off other racial/ethnic groups).
- ORPIE uses the "Federal Way" for state/federal reporting and most ORPIE handouts, in which we want to count each student once.
- ORPIE does NOT use this method for the Student Satisfaction Survey.

Analysis Methodology: How to Count Race

- The "**Umoja Way**": Count Students in Every Racial/Ethnic Group They Select (Do Not Include Multiracial White Students in the White Only Group)
  - A student who checks off Black, Filipinx, and Native American, will be counted in data for Black, Filipinx, Native American, and Multiracial students.
  - A student who checks off Black, Latinx, and White, will be counted in data for Black, Latinx, and Multiracial students.
    - (This student would not be counted in the "White Only" group.)
  - Count students who *only* check off White in the "White Only" group.
- Benefits: Students are counted in every group with which they may identify. Increases the likelihood students' voices are heard and we're capturing the racial/ethnic group that best aligns with their lived experiences and how they navigate the world.
  - Counting students who only check off White in a separate group is consistent with critical race theory and equity-minded approaches because it allows us to analyze whether campus climate is experienced differentially by White students and any of the minoritized racial/ethnic student groups.
- Limitation: we do not know which race/ethnicity groups students identify with.
- *Reminder: [How to Count Race in the Student Satisfaction Survey](#) gives an in-depth explanation of these decision, including results of a survey given to equity-minded individuals asking their recommendations.*

Analysis Methodology: Statistical Significance

- **Is race-ethnicity related to satisfaction with campus climate and access to resources?**

- When we disaggregate results by race and ethnicity, we can see trends and differences, but how do we know that something is different "enough" that we cannot attribute the difference to chance?

- Statistical significance testing is a tool to make standardized decisions.

- Overall, the purpose of doing the statistical analyses is to have a standardized way of analyzing whether differences in responses are due to chance and to draw conclusions about the *population* of Chabot students (versus just talking about Chabot survey *respondents*).

Analysis Methodology: Statistical Significance

- The details for the mathematically inclined…

- There are **over 3,000** statistical comparisons we could analyze for metrics in **Student Survey Results by Race/Ethnicity**.

- First, we need a way to narrow down potential results of interest →
  - We use the residuals from the Omnibus Chi-Square Test of Independence to check if the **observed data*** and the **expected data**** are different "enough" for any racial/ethnic groups that we should investigate further. Threshold: Chi-Square value for 8 degrees of freedom/9 (the number of racial/ethnic groups) for a p-value of 0.1.

- Next we want to know if the metrics with large "residuals" (big differences between observed and expected outcomes) are statistically significant→
  - We run a Chi-Square Test of Independence in which we analyze the observed and expected values of *one racial/ethnic group* (e.g., Black students) and the observed and expected values for the collective responses of *all other racial/ethnic groups* to see if the results are different enough that we can be reasonably sure the difference is not due to chance. We use a p-value of 0.1.

- In the next slides, we will show you which results had statistically significant Chi-Square values for each of the racial/ethnic groups.

*Observed data = how survey participants of various racial and ethnic groups responded to survey question.
**Expected data = What we would expect there were no differences in survey responses based on race/ethnicity.

The Results: Satisfaction with Campus Climate

- Handout: Satisfaction with Campus Climate by Race/Ethnicity

GENERAL IMPRESSIONS OF CHABOT COLLE				
				Percentage who were
Based on your overall experience, how satisfied are you with:	African American/ Black (n = 100)	Asian American/ Asian (n = 270)	Filipino/a/x (n = 129)	Latino/a/x or Hispanic (n = 348)
Overall experience at Chabot College	84%	88%	85%	87%
Overall experience with instructors	79%¯	87%	85%	87%
Overall experience with instruction	72%¯	81%	78%	84%
Class availability (getting into classes in semester I need them)	64%	67%	70%	67%

- The image above shows that African American/Black students had statistically significant lower satisfaction with their overall experience with instructors and instruction.

The Results: Satisfaction with Campus Climate

- We counted the frequencies with which racial/ethnic groups were more or less satisfied with campus climate.

Frequencies of Significant Differences	African American/ Black (n = 100)	Asian American/ Asian (n = 270)	Filipino/a/x (n = 129)	Latino/a/x or Hispanic (n = 348)	Mid. East/ N. African (n = 24)	Native American (n = 21)	Pacific Islander (n = 35)	White Only (n = 72)	Multi-racial (n = 156)
Total number of times the group experienced (statistically significant) LESS or LOWER satisfaction with a campus climate issue.	11	0	0	1	4	0	1	3	0
Total number of times group experienced (statistically significant) MORE or HIGHER satisfaction with a campus climate issue.	0	0	1	4	0	0	1	1	1

- The image above shows the frequencies of statistically significant lower and higher satisfaction with campus climate by race and ethnicity. These data points will be described in the next slides.

The Results: Satisfaction with Campus Climate

- **African American/Black** students reported **lower satisfaction with campus climate more frequently** than any other racial/ethnic group (11 times).
  - In particular, Black respondents reported lower respect on campus for a number of identities (e.g., disability, gender, sexual orientation, etc.).
  - A lower sense of respect also came up for Black respondents in how they reported being treated by instructors.

The image below shows that African American/Black students had statistically significant lower satisfaction with general respect for differences in various demographic identities (e.g., disability, gender, age, sexual orientation, native language, and religion) more frequently than other racial/ethnic groups.

CAMPUS CLIMATE

Please tell us whether you agree or disagree with the following statements about the campus climate:	Percentage who agree or strongly agree							
	African American/ Black (n = 100)	Asian American/ Asian (n = 270)	Filipino/a/x (n = 129)	Latino/a/x or Hispanic (n = 348)	Mid. East/ N. African (n = 24)	Native American (n = 21)	Pacific Islander (n = 35)	White Only (n = 72)
I feel welcome at Chabot	82%	80%	77%	81%	75%	86%	80%	83%
I feel a sense of belonging at Chabot	68%	54%	59%	65%	50%	62%	49%	55%
Overall, I feel safe at Chabot	75%	79%	78%	78%	67%	67%	66%	82%
I am treated w/ respect by instructors, administrators, & other staff	85%	87%	87%	91%	83%	95%	83%	86%
At Chabot, there is general respect for differences in:								
race-ethnicity	85%	87%	88%	89%	75%⁻	90%	86%	84%
disability	68%⁻	82%	84%	83%	71%	81%	77%	81%
gender (men/women)	79%	85%	86%	86%	71%⁻	90%	74%	81%
gender (transgender, gender nonbinary, genderqueer)	67%⁻	79%	80%	77%	63%	71%	62%⁻	76%
age	76%⁻	83%	87%	84%	71%	76%	77%	84%
sexual orientation	69%⁻	79%	81%	82%	71%	81%	71%	80%
native language	68%⁻	81%	81%	84%⁺	71%	81%	74%	76%
religion	69%⁻	78%	77%	81%⁺	70%	76%	69%	71%

The Results: Satisfaction with Campus Climate

- This calls attention to the importance of policies, events, and professional development that **support a respectful campus climate for intersectional identities that include being Black**.

- **Reflection:**
  - What else do you think the results call attention to?
  - What policy, event, PD, or program ideas do you have to address these results?

The Results: Satisfaction with Campus Climate

- The next two groups who more frequently reported **lower satisfaction with campus climate were Middle Eastern/North African (four times) and White Only (three times) students.**
  - **Reflection:**
    - What campus policies and/or practices do you think might lead Middle Eastern/North African and White Only students having lower satisfaction than other groups?
- In terms of reporting **statistically significantly higher satisfaction** with campus climate than other groups, **Latinx** was the only group that stood out, **reporting higher satisfaction** four times.
  - **Reflection:**
    - What campus policies and/or practices do you think might lead to Latinx students having higher satisfaction with campus climate than other groups?

The Results: Access to Resources

- Second handout with all questions relating to Access to Resources (e.g., technological devices, transportation, money for basic needs like housing and food, etc.)

- Same process and notation applies with red (-) superscript indicating less access to resources and green (+) superscript indicating more access to resources.

Devices									
	Percentage who selected the device								
	African American/ Black (n = 100)	Asian American/ Asian (n = 270)	Filipino/a/x (n = 129)	Latino/a/x or Hispanic (n = 348)	Mid. East/ N. African (n = 24)	Native American (n = 21)	Pacific Islander (n = 35)	White Only (n = 72)	Multi-racial (n = 156)
Do you typically have access to a laptop and/or tablet?	89%⁻	97%⁺	96%	93%	96%	80%⁻	97%	99%	92%

The Results: Access to Resources

- We counted the frequencies with which racial/ethnic groups indicated they had more or less access to resources.

Frequencies of Significant Differences	African American/ Black (n = 100)	Asian American/ Asian (n = 270)	Filipino/a/x (n = 129)	Latino/a/x or Hispanic (n = 348)	Mid. East/ N. African (n = 24)	Native American (n = 21)	Pacific Islander (n = 35)	White Only (n = 72)	Multi-racial (n = 156)
Total Number of Times Group experienced (statistically significant) LESS or LOWER access to resources.	9	1	1	1	3	1	2	0	1
Total Number of Times Group experienced (statistically significant) MORE or HIGHER access to resources.	1	2	0	0	0	2	0	10	1

- The image above shows the frequencies of statistically significant lower and higher satisfaction with campus climate by race and ethnicity. These data points will be described in the next slides.

The Results: Access to Resources

- **African American/Black students** reported **lower access to resources more frequently** (nine times) than any other racial/ethnic group.
  - For example, Black respondents reported lower access to money for transportation, housing, and food.
- The next two groups who **more frequently reported lower access to resources** than other racial/ethnic groups were **Middle Eastern/North African** (three times) and **Pacific Islander** students (two times).
- In terms of reporting **statistically significantly higher access to resources, White Only** students stood out, reporting **higher access** 10 times.

The Results: Access to Resources

- The survey illustrates the key importance of ensuring, in particular, that African-American/Black students are aware of and can easily access campus resources to reach their educational goals and meet basics needs.

- **Reflection:**
  - What ideas do you have for policies and practices that would increase awareness of and ease of access to basic needs resources for the African-American/Black students who experience lower access to basic needs?

Next Steps

- Spring semester is winding down. In the fall, feel free to invite myself or another ORPIE team member to shared governance, senate, leadership, and division meetings to present that data and reflect on how we can take action to make our campus more equitable.

- Dr. Alex Karan is already working on the statistical analysis so that we can produce similar reports/presentations disaggregating by students' Sexual Orientation and Gender Identities. (SOGI)

Questions, comments, discussion?

Thank you from the Office of Research, Planning, and Institutional Effectiveness