



Analysis to Insights: Creative Ways to Present Survey Findings

Elisa Hertz | CUNY Guttman Community College
Association for Institutional Research | September 2019

Good afternoon, I'm Elisa Hertz. I'm the Director of the Center for College Effectiveness at Guttman Community College, which is part of the City University of New York and located in midtown Manhattan.

Thanks for your interest in learning about creative ways to present survey findings. This webinar builds on ideas communicated in the 2019 AIR keynote presentation by Tricia Wang. She stressed the importance of not just reporting data, but driving insights.

How to . . .



- ✓ Use techniques to strengthen audience's focus on key findings
- ✓ Customize survey results for three types of stakeholders
- ✓ Leverage survey data for departmental planning and assessment

In terms of today's objectives, I am going to share examples that will help you to:
Use techniques to strengthen your audience's focus on key findings;
Customize survey results for three types of stakeholders; and
Leverage survey data for departmental planning and assessment.

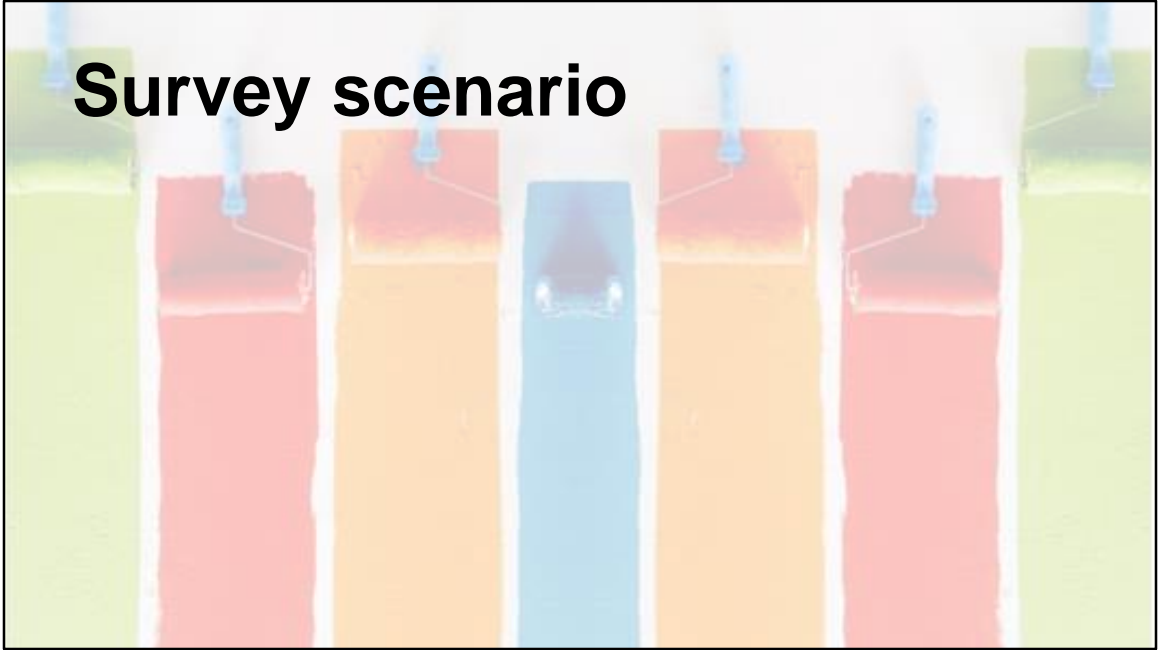
Topics



- ✓ Survey scenario
- ✓ Three types of stakeholders
- ✓ Three types of survey reports

To meet these objectives, we'll start with a survey scenario and some background about how I got started on this new reporting approach. Then, I'll give an explanation of the three types of stakeholders the reports are written for, which will be followed by creative examples from three different types of survey reports. I'll also mention a few ways to make the reports accessible.

Survey scenario



First, let's start with a scenario.



Imagine a conference planner is conducting a member survey to find out who likes going to conferences. She asks for your help analyzing the data.

Row #	Do you like going to conferences?
1	Yes
2	Yes
3	Yes
4	Yes
5	No
6	No
7	No
8	No
9	No
10	Yes



Here are the results to the question: Do you like going to conferences?

Row #	Do you like going to conferences?
1	<u>Yes</u>
2	<u>Yes</u>
3	<u>Yes</u>
4	<u>Yes</u>
5	No
6	No
7	No
8	No
9	No
10	<u>Yes</u>

How would you communicate these responses to the conference planner?

50% like to
50% go to
conferences.

You see there are 5 yeses and 5 nos.

How would you communicate these responses to the conference planner?

Maybe a pie chart?

A bar chart

A number?

Or summarizing the information in words?

Row #	Do you like going to conferences?	Position
1	<u>Yes</u>	<u>Analyst</u>
2	<u>Yes</u>	<u>Analyst</u>
3	<u>Yes</u>	<u>Analyst</u>
4	<u>Yes</u>	<u>Analyst</u>
5	No	<u>Analyst</u>
6	No	Director
7	No	Director
8	No	Director
9	No	Director
10	<u>Yes</u>	Director

50% like to go to conferences.

80% of analysts & 20% of directors like to go to conferences.

How does this additional information about position type change your approach?

You see that by disaggregating the results by position—

The original 50% of yeses leads to a more valuable interpretation.

80% of the 5 analysts and 20% of the 5 directors like going to conferences.

Row #	Do you like going to conferences?	Position	Comment
1	<u>Yes</u>	<u>Analyst</u>	Like to learn
2	<u>Yes</u>	<u>Analyst</u>	Professional development
3	<u>Yes</u>	<u>Analyst</u>	Advance my skills
4	<u>Yes</u>	<u>Analyst</u>	
5	No	<u>Analyst</u>	Too much work
6	No	Director	Too busy
7	No	Director	Don't have time
8	No	Director	No budget
9	No	Director	Can't get away from office
10	<u>Yes</u>	Director	I like to present

Finally, how does reviewing survey comments influence your interpretation? We see that analysts are interested in professional growth, and most directors are too busy. Reviewing all of this information affirms there are multiple ways to communicate findings. Our purpose today and every time we present survey results is to decide what are the effective ways to communicate the findings for the many, many surveys we do.

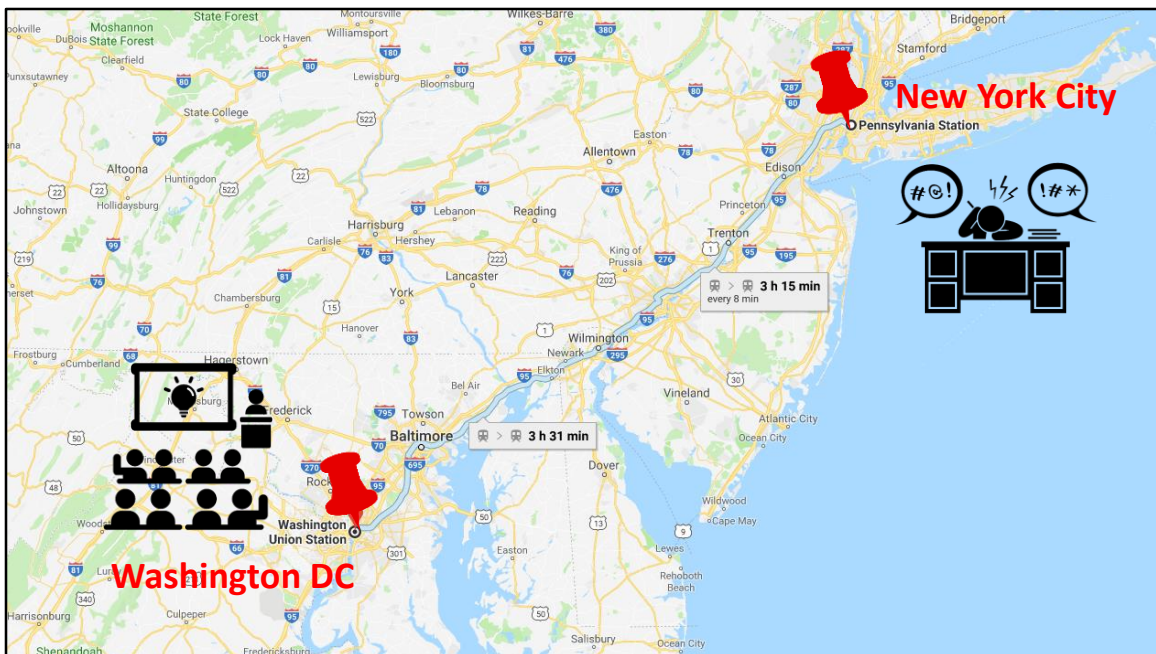
Getting started

- ✓ College Orientation Survey
- ✓ College Summer Bridge Survey
- ✓ College Student Survey
- ✓ College Employee Survey
- ✓ College Alumni Survey
- ✓ Ruffalo Noel Levitz SSI
- ✓ Ruffalo Noel Levitz CESS
- ✓ CCSSE
- ✓ SENSE
- ✓ Ad-hoc Surveys

Like many of you, my college does a lot of surveys. We have student surveys and employee surveys. We have regularly scheduled annual surveys and ad-hoc surveys. We have internally design surveys and nationally designed surveys. All of these surveys led to an overwhelming amount of data and survey fatigue. Now, by survey fatigue—I don't mean student survey fatigue. I mean IR professional survey fatigue.



And I had it. Yes, I was suffering from survey fatigue. I reached a point where I dreaded preparing and especially proofreading reports. I was bored with the reports. They results were too broad and generic. And, if I couldn't get enthusiastic about the survey reports, how could I motivate others to find them useful? Then I had a turning point.



In 2017, I went from NY to DC for the American Evaluation Association conference. I attended a session by Stephanie Evergreen, the data visualization expert who was the keynote speaker at the 2018 AIR conference. As you may recall, she shuns dry reports and promotes purposeful creativity. She stressed, whatever quantitative or qualitative data you are presenting, ask yourself:

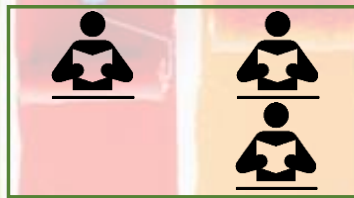
What is the point?

What does your audience need?

What are the insights you want to communicate?

She gave me the inspiration boost I needed. And on my way home, I started reworking a report. Hopefully, today's examples give you a little inspiration for your next report.

Three types of readers



Level 1: Just key points

**Level 2: Key points +
evidence/examples**

Level 3: Everything

To build on Stephanie Evergreen's advice, let's ask: What does your audience need?
I have identified three types of readers.

Level 1 are those who want to know just key points.

Level 2 are those who want to know key points and see some evidence or examples.

Level 3 are those who want to know everything.

Most of our readers fall into groups 1 and 2, but many reports are written for group 3, which can lead to information overload and drown your key points.

The other questions to ask yourself are:

What is the point of your report?

What are the insights you want to communicate?

Three types of reports

- ✓ **Flash Feedback**
- ✓ **Institutional Survey Reports**
- ✓ **Departmental Assessment Reports**

To answer these questions, I am going to show examples from three types of survey reports:

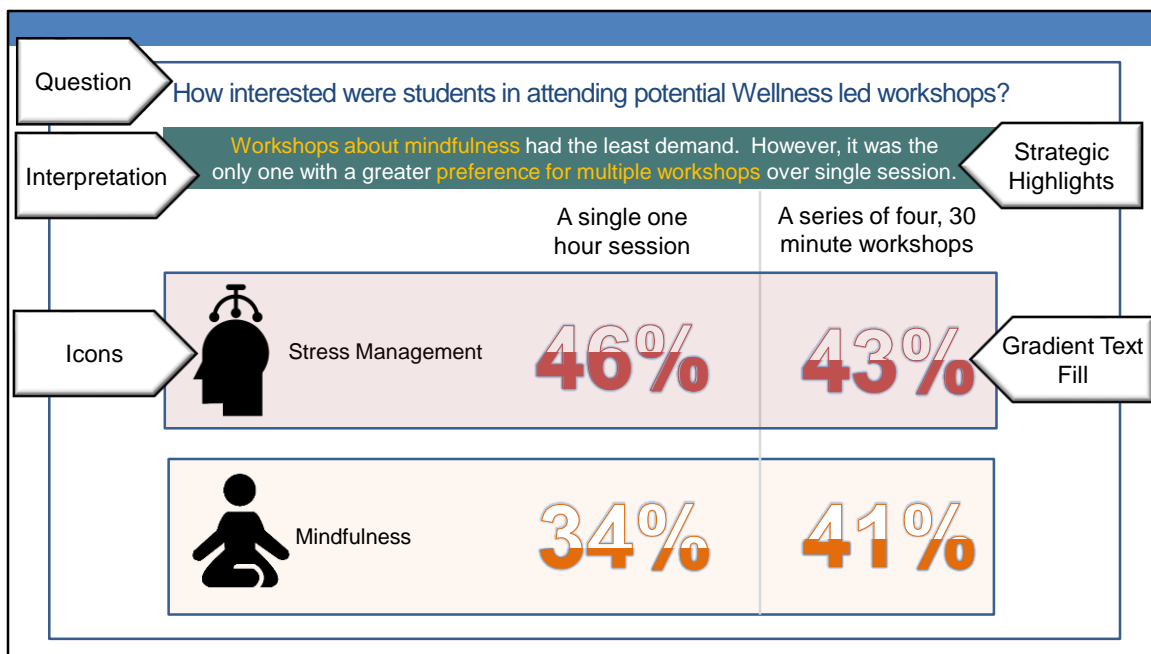
Flash Feedback, Institutional Survey Reports, and Departmental Assessment Reports. The recurrent theme throughout is: what strategies can be used to focus the readers' attention on your key points.

Three types of reports

- ✓ **Flash Feedback**
- ✓ Institutional Survey Reports
- ✓ Departmental Assessment Reports

So let's take a look at a Flash Feedback report. Flash Feedback is a series of short and simple questions designed to obtain student opinion about timely topics when departments need to make decisions. I partner with departments across the college when they have a need for custom questions. I'll work with them to design the questions and then administer it on their behalf to minimize the number of surveys circulating at once. Because it's Flash Feedback we promise results within one week, so the summaries need to be concise.

Because these surveys are short, they also give us a chance to experiment with some report design methods.



This excerpt comes from results for our wellness office. After struggling with low attendance at its events, it wanted to better understand student interest. I'm going to go over typical features for presenting the information. The actual results are not the focus.

The question is on top of page to focus the reader's attention on what is being addressed.

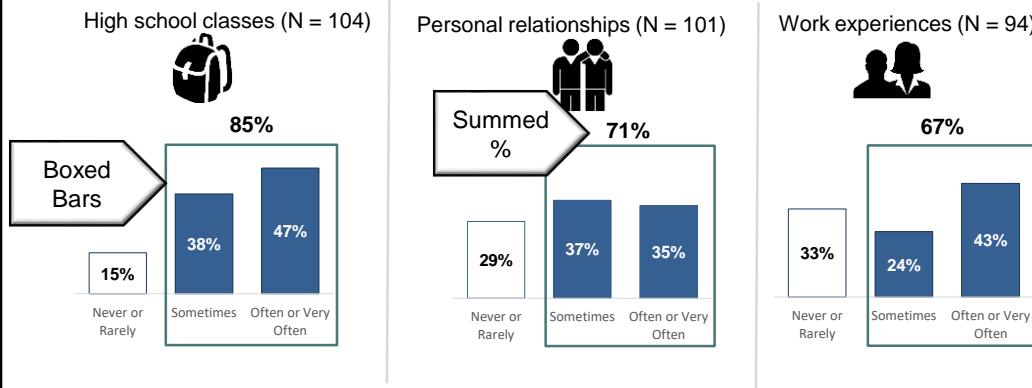
The interpretation or key insight is shown on top as well, so there is minimum effort for the reader to understand the material. Strategic highlights further reinforce the key points.

Gradient text fill is used with a small number of values to show differences across percentages. It's like a bar graph disguised as a number. This can be created in word or powerpoint using the text fill gradient option.

Icons are used to reinforce the topic.

How often did students *at least sometimes* apply prior knowledge to their Guttman studies?

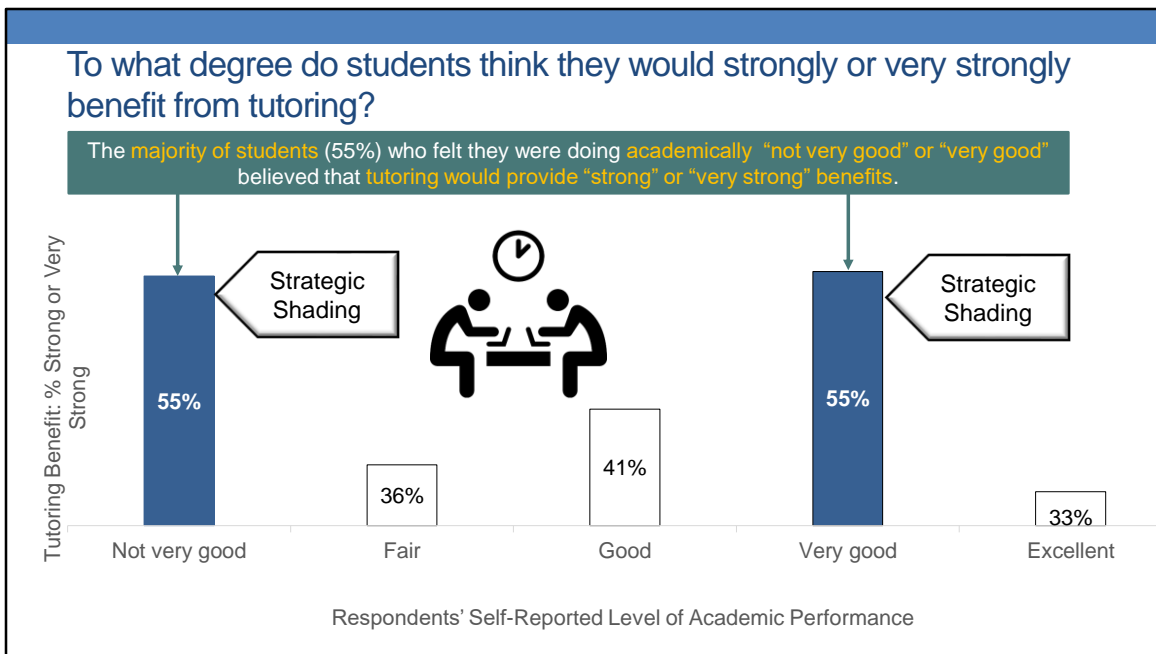
When considering **using prior knowledge at least sometimes**, respondents **most frequently** made connections from **high school classes** and **personal relationships** to their Guttman studies. Nevertheless, respondents often/very often applied knowledge from work at higher rates than they did for personal relationships.



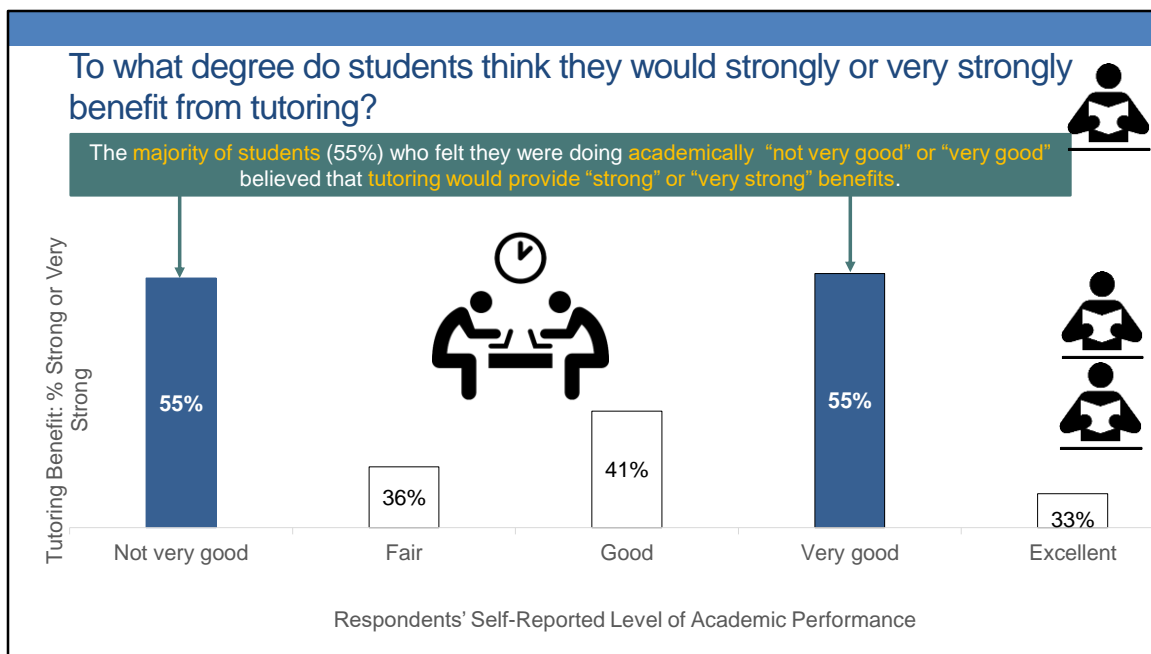
This excerpt is from a partnership with one of the learning outcomes assessment teams. It includes the standard features we went over, plus:

Boxed bars to draw attention to specific evidence.

Summed % for figures that the reader would most likely be calculating in their heads anyway.

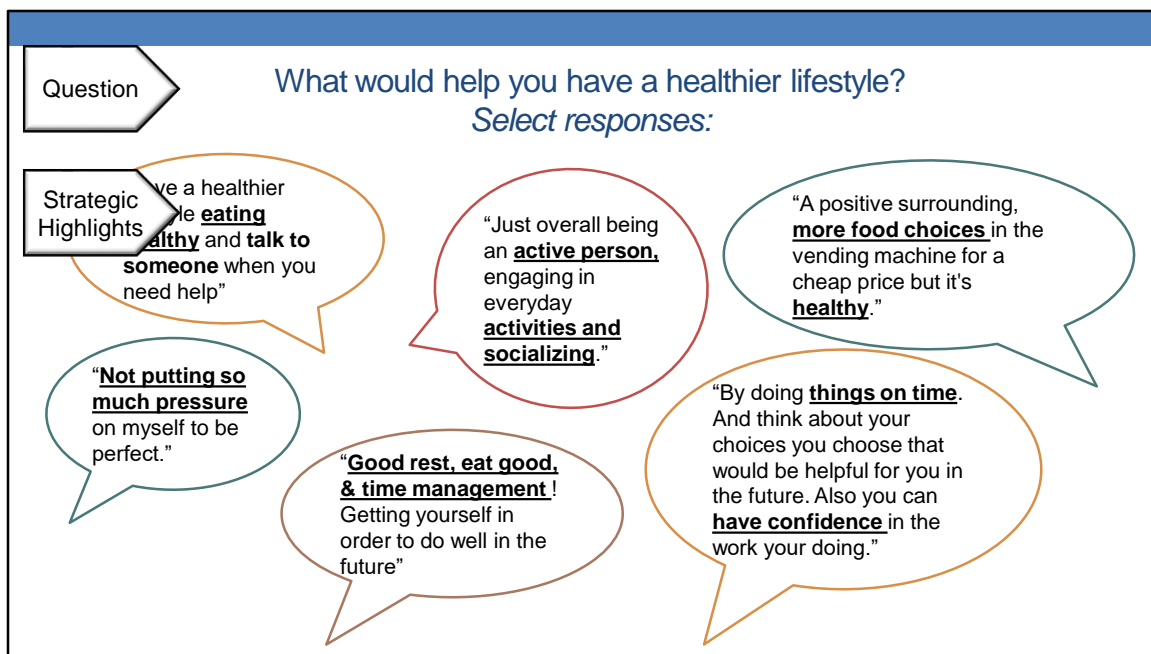


The third excerpt is from a partnership with the tutoring office. It uses strategic shading to draw attention to the certain areas featured in the interpretation in the green box up top.



In terms of our audience:

The top part of the report is geared to level 1 readers—who just want the key points. The bottom part of the report is geared to level 2 readers—who also want to see some evidence.



Finally, Flash Feedback also includes at least one qualitative item. Due to the short report turnaround time and staff capacity, there are limitations to what we can do with the qualitative responses. A few basic strategies are:

Selecting quotes that represent emergent themes and presenting them in speech bubbles to reinforce that this is the student voice.

We also keep with the format of using a question at the top.

And strategic highlighting within the text.

Three types of reports

- ✓ Flash Feedback
- ✓ **Institutional Survey Reports**
- ✓ Departmental Assessment Reports

The next example is our institutional survey report for our big, formal surveys.

FEEDBACK FORUM



Key Findings

- Guttman's quality of advising, its caring and helpful environment, its welcoming community, and faculty expertise were recognized among the Institutional Strengths.
- Guttman surpassed the national peer group's satisfaction levels in areas of advising; transitioning new students into college; and providing help in career services, tutoring, and financial aid.
- Institutional Challenges revealed that students' expectations for quality of instruction, library resources, enjoying their college experience, getting timely notification about class progress or financial aid awards were not being met.
- The national peer group outperformed Guttman on satisfaction with study areas, intellectual growth, library resources, course variety, and class instruction.
- Students did not have strong positive views about their overall college experiences, based on their overall satisfaction, the extent to which the college met their expectations, and the likelihood of choosing to enroll in Guttman again.
- Across programs of study, IT majors were the most satisfied with quality of instruction and their advisors; liberal arts majors had the lowest overall satisfaction with their college experience; and human services majors enjoyed their college experience the least.
- Gaps in satisfaction emerged with first-year students having more positive advising experiences than continuing students; with females having their college expectations met more so than males; and with African American students experiencing lower overall satisfaction.
- When focusing on Guttman-specific elements, students acknowledged their satisfaction with Starfish kudos, but did not see the value of ePortfolio or Studio.

This is the standard first page of our institutional report. It's a modified executive summary—a one pager with the essential facts. If you read nothing else, this first page would give you working knowledge of the results. It has a brief background—not a lengthy methodology. It has a brief respondent overview—with more details in the appendix for any level three reader who is interested in them. The important feature is the key findings. This is a high level summary of insights. It ties together themes from different sections of the report and from qualitative and quantitative responses. This is where you can find out “the butler did it” without reading through the whole report.



FEEDBACK FORUM

THE CENTER FOR COLLEGE EFFECTIVENESS | NOVEMBER 2018

The Student Experience: Results of the Noel-Levitz Student Satisfaction Inventory

Background

In April 2018, the Center for College Effectiveness (CCE) administered the **Noel-Levitz Student Satisfaction Inventory (SSI)**. SSI is a nationally administered instrument that asks students to rate both the importance of and their satisfaction with items related to their college experience and that compares the institution's results to a national peer group. The survey features ten dimensions composed of conceptually similar survey items, as well as Guttman-specific items. Some SSI items were associated with multiple dimensions. For reporting purposes, dimensions were consolidated, so that items were only presented once in the main report.



Respondents

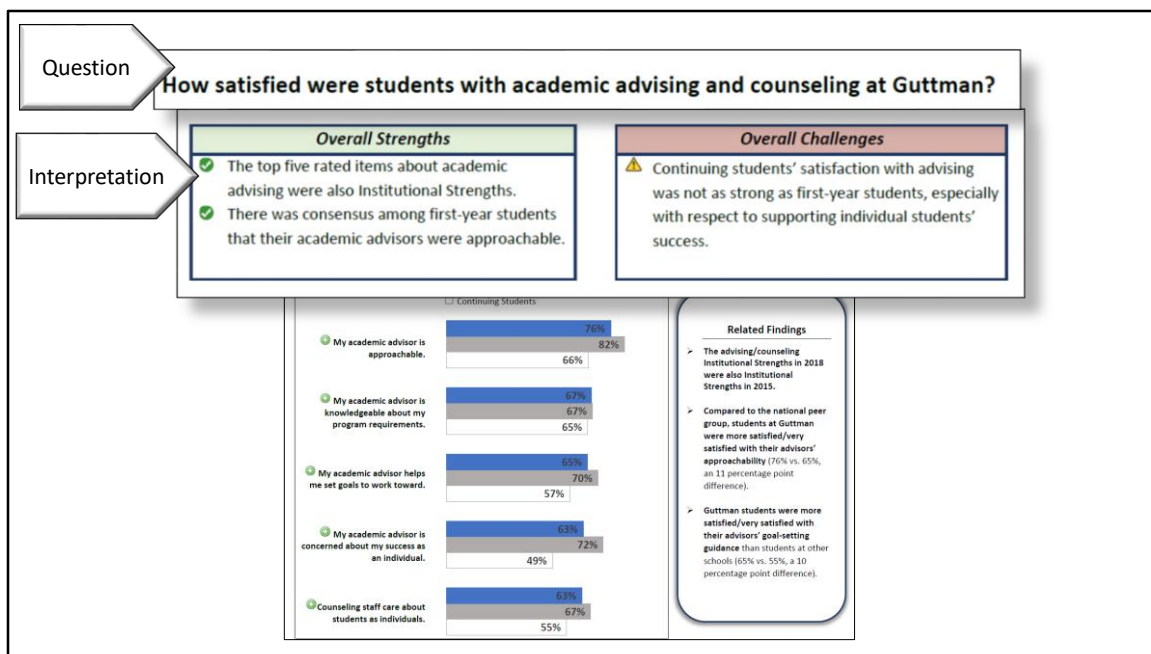
- The online survey was administered to 547 students in LaBSS and select program of study courses.
- 407 students completed the survey, resulting in a 74% response rate.
- Respondents included 245 first-year students, 156 continuing students, and 6 unknown.



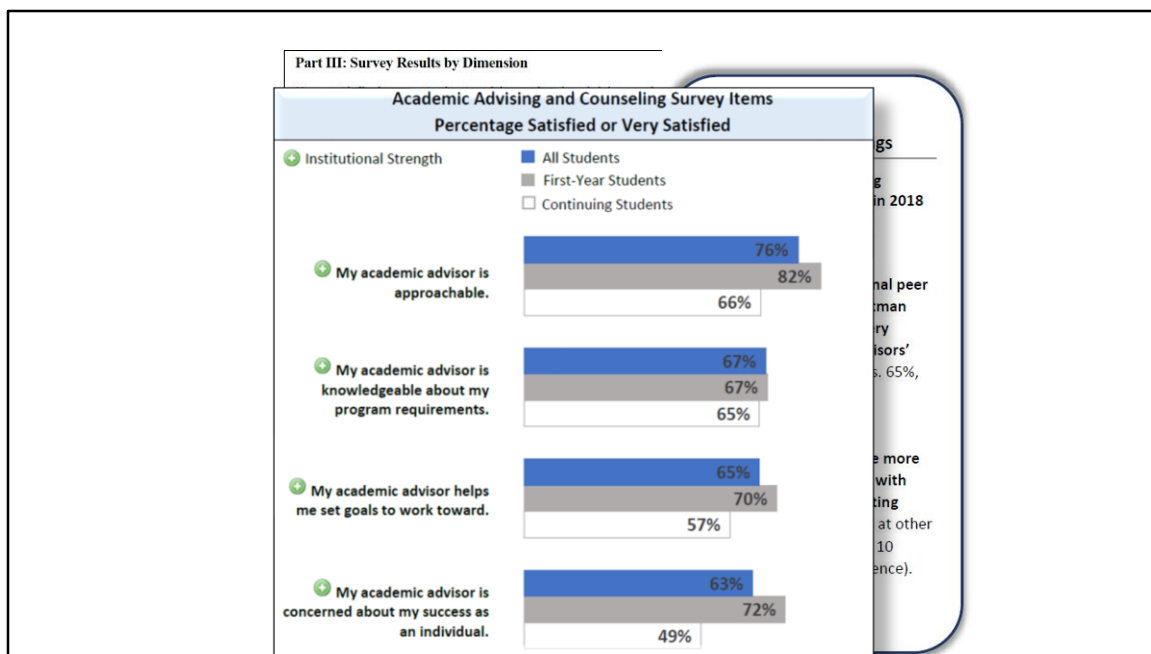
Key Findings

- Guttman's quality of advising, its caring and helpful environment, its welcoming community, and faculty expertise were recognized among the Institutional Strengths.
- Guttman surpassed the national peer group's satisfaction levels in areas of advising; transitioning new students into college; and providing help in career services, tutoring, and financial aid.

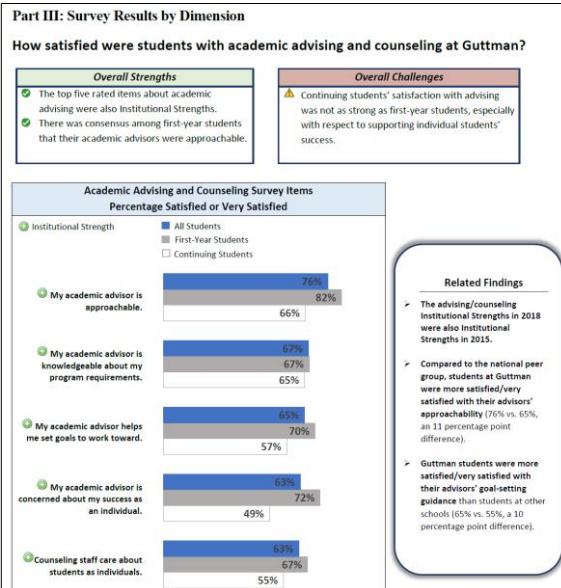
This page is for the level one reader.



This is the standard template for a results page in the report. It starts with a question, which is followed by an interpretation of strengths and challenges, which are the key insights related to the questions. These strengths and challenges are the building blocks of the first page findings. They also provide concise information that we use again in the annual emergent themes report that my office prepares for strategic planning. Synthesizing the overall survey strengths and challenges in the annual emergent themes report is a way to represent the voice of the college from feedback we've received from students, employees, and alumni and use that information to check how well we've been meeting strategic plan goals and to set priorities for the next year.

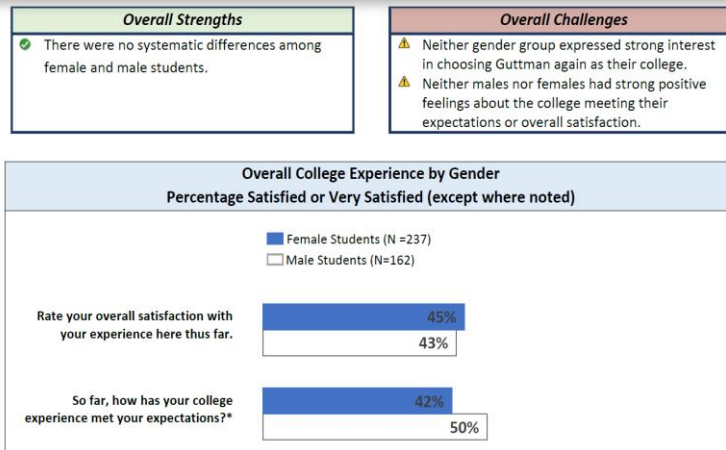


The survey items are organized by dimension, which is more targeted for user needs. In that regard, each page could be a stand alone report. We report % satisfied or very satisfied because %s are easier for our audience to understand. We found they got overfocused with small differences, like hundredths of a decimal, when we reported mean scores. Mean scores and standard deviations are included in the appendices for those who are interested, but for the general audience, this does the job. Within the chart we have a clean design. We remove axes and remove grid lines. The standard disaggregation is by first-year and continuing students. Additional disaggregation is in another section of the report. On the side, related findings reference additional information that would be too distracting and labor intensive to present in its entirety, but are valuable to note. Related findings may include comparisons to national peer groups, comparisons over time, or qualitative comments.



This page is for the level two readers who wants to know key findings and some evidence. This template evolved over a series of reports. The design experimentation took the longest amount of time. Now that we've settled on this format, I find I am no longer bored by reading my own reports, so I can finish them faster.

How did perceptions about students' overall college experience compare between genders?



As I mentioned, there is an interest in disaggregated comparisons, especially by gender and ethnicity, which are related to my college's equity strategic plan goals. To keep the workload manageable, we select a few questions—typically ones considered to be more summative measures and show breakouts by gender, ethnicity, academic majors, prior survey results. Your college may have other priorities that it focuses on. No matter what your comparisons focus on, I want to stress the importance of disaggregation and going beyond totals in developing your insights.

Part V: Student Comments

What did student comments reveal about positive aspects of Guttman?

Overall Strengths

- ✓ Students frequently cited Guttman's contribution to their personal and educational growth.
- ✓ Students expressed satisfaction with the support and care they received from faculty and staff.
- ✓ Students were happy with Guttman's student support resources and academic support services.
- ✓ Students felt that Guttman created a welcoming environment.

✓ Service Excellence: Satisfaction with Faculty and Staff (28 Responses)

- "I like how . . . concerned the faculty are with the students."
- "I appreciate the level of concern this school has for its students."
- "I've failed and with staff members helped I have picked myself back up. majority care for your education. . ."
- "Great School, I love the support and help that I receive day in and day out"

Related Finding

- 60% of students felt the campus staff was caring and helpful. It was an Institutional Strength.

There is another section to highlight the qualitative results. It includes a question, interpretation, select quotes, and related findings to quantitative ratings.

Appendix A. Respondent Information

Female	Survey Respondent Percent*	Actual Population
Male	59%	56%
	41%	44%
Please indicate your ethnicity/race		
African-American	Survey Respondent Percent*	Actual Population
American Indian or Alaskan Native	21%	28%
Asian or Pacific Islander	1%	>1%
Caucasian/White	5%	6%
	6%	8%
Hispanic	55%	58%
Other race	7%	N/A
	6%	N/A
Race - Prefer not to respond		

The appendices include the nitty gritty about respondent information. This is for the level 3 reader.

Part VII: Appendices



Appendix A. Respondent Information

Please indicate your gender	Survey Respondent Count	Survey Respondent Percent*	Actual Population
Female	237	59%	56%
Male	162	41%	44%

Please indicate your ethnicity/race	Survey Respondent Count	Survey Respondent Percent*	Actual Population
African-American	83	21%	28%
American Indian or Alaskan Native	3	1%	>1%
Asian or Pacific Islander	20	5%	6%
Caucasian/White	23	6%	8%
Hispanic	223	55%	58%
Other race	27	7%	N/A
Race - Prefer not to respond	23	6%	N/A

Part VII: Appendices

Appendix C.1. Satisfaction and Importance Mean Score Across Survey Years

Item #	Appendix C.1. Satisfaction and Importance Mean Scores Across Survey Years	Guttman 2018				Guttman 2015				Comparison
		Imp (scale 1-7)	Sat (scale 1-7)	Std Dev	Imp-Sat. Difference	Imp (scale 1-7)	Sat (scale 1-7)	Std Dev	Imp-Sat. Difference	Satisfaction Difference
1	Most students feel a sense of belonging here	5.79	5.23	1.46	0.56	5.65	5.41	1.43	0.24	-0.18
2	Faculty care about me as an individual	6.00	5.58	1.33	0.42	5.86	5.60	1.35	0.26	-0.02
3	The quality of instruction in the vocational/technical programs is excellent+	5.62	5.16	1.33	0.46	5.54	5.25	1.36	0.29	-0.09
4	Security staff are helpful	5.76	5.31	1.56	0.45	5.71	5.38	1.45	0.33	-0.07
5	The personnel involved in registration are helpful	5.96	5.64	1.29	0.32	5.84	5.62	1.32	0.22	0.02
6	My academic advisor is approachable	6.30	5.98	1.40	0.32	6.26	6.11	1.21	0.15	-0.13

It also includes more traditional level 3 tables with means and standard deviations.

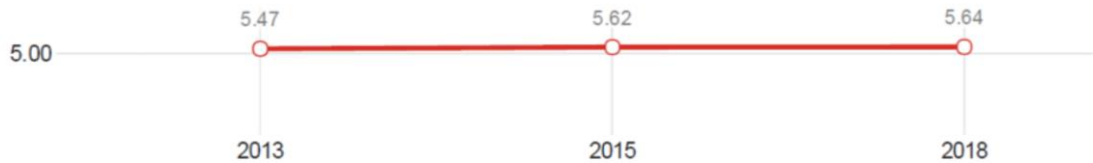
Three types of reports

- ✓ Flash Feedback
- ✓ Institutional Survey Reports
- ✓ **Departmental Assessment Reports**

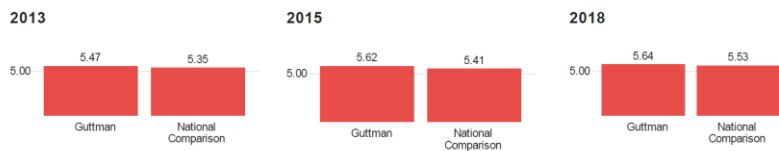
For the third type of report, we repurposed the institutional survey reports into departmental assessment reports.

The personnel involved in registration are helpful.

Guttman Mean Scores Over Time (7-Point Scale)



Mean Score Comparison Between Guttman and National Comparison Group Over Time (7-Point Scale)



These report compile survey results specific to a department for it to use in its annual assessment reports. Again, the effort is setting up the template the first time; but once that is done, the reporting is standard. Now, in these reports, IR does not provide the interpretations. The purpose is for departments to develop their own insights. So, we provide professional development on how they can interpret the information. I'm going to show you parts of the exercise we do with participants.

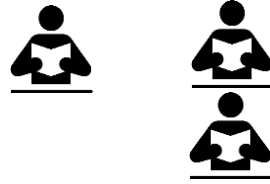
Transmuting Your Data



Data



Insights



This was a Harry Potter themed professional development. This idea was to transform data into insights or take level 3 data and turn it into level 1 or level 2 interpretations.

Transmuting Your Data

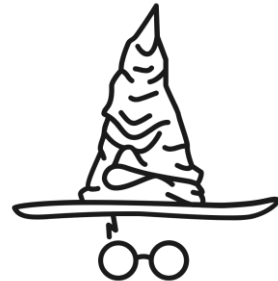


I am satisfied with the All Hogwarts Meeting



Mean Score = 3.50

Success
Or
Challenge?



We shared a sample question and sample result to start a conversation about whether a result represents a success or challenge.

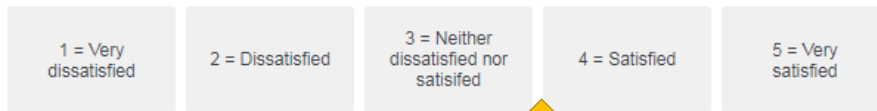
Transmuting Your Data



What is the scale?

5 – Point Scale

I am satisfied with the All Hogwarts Meeting



Mean Score = 3.50

We explain the importance of the scale in interpreting a mean score and how the value may have a different interpretation on a 5 point scale, where it is above the middle value than . . .

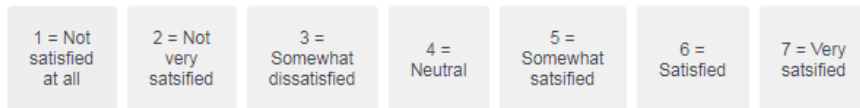
Transmuting Your Data



What is the scale?

7 – Point Scale

I am satisfied with the All Hogwarts Meeting



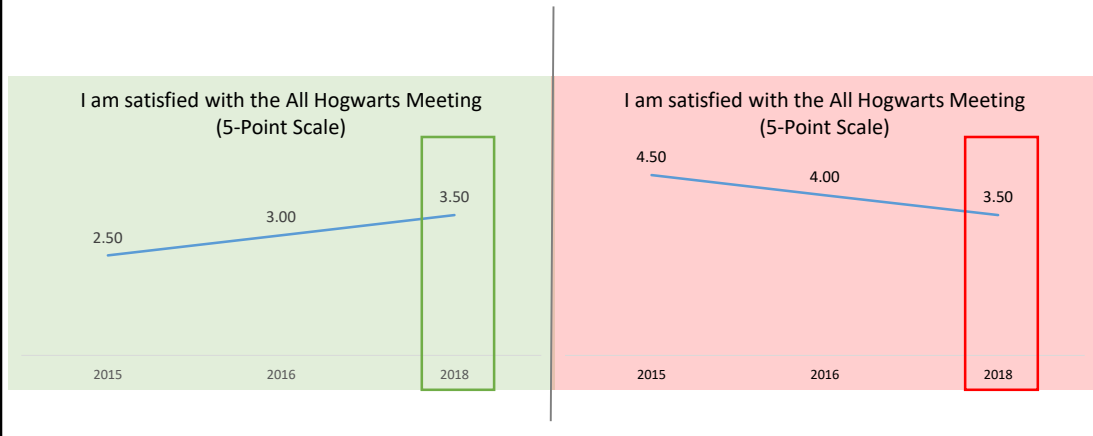
Mean Score = 3.50

on a 7 point scale, where it is below the middle value.

Transmuting Your Data



How has the mean score changed over time?

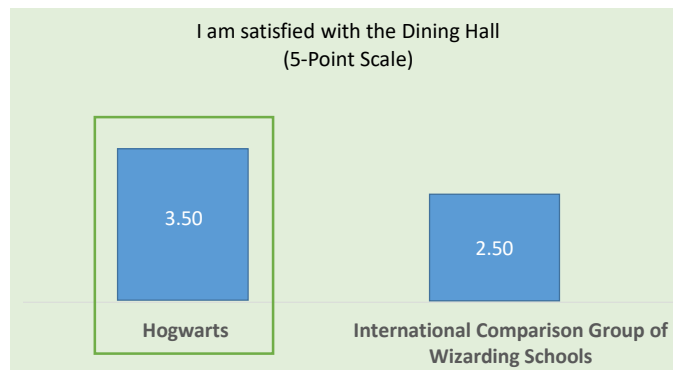


We also explain the importance of reviewing how ratings have changed over time. A 3.5 may represent an increase in performance or it may represent a decrease in performance.

Transmuting Your Data



How does the mean score compare to similar groups?



For cases when we have comparison data from national surveys, we explain the value of using an external comparison for additional perspective about the department's performance.

Transmuting Your Data



Tips for interpreting ratings

- understand your scale
- See how the score has changed across years
- See how the score compares with similar groups
- THE NUMBER IS NOT THE NARRATIVE!

In summary, in helping the departments or any of us transform level 3 data to level 1 or level 2 insights, we stress the importance of understanding the scale, studying changes over time, and using a comparison group, when available. Ultimately, the message is that the number is not the narrative and, it is up to us to provide context and explain what are strengths and challenges.

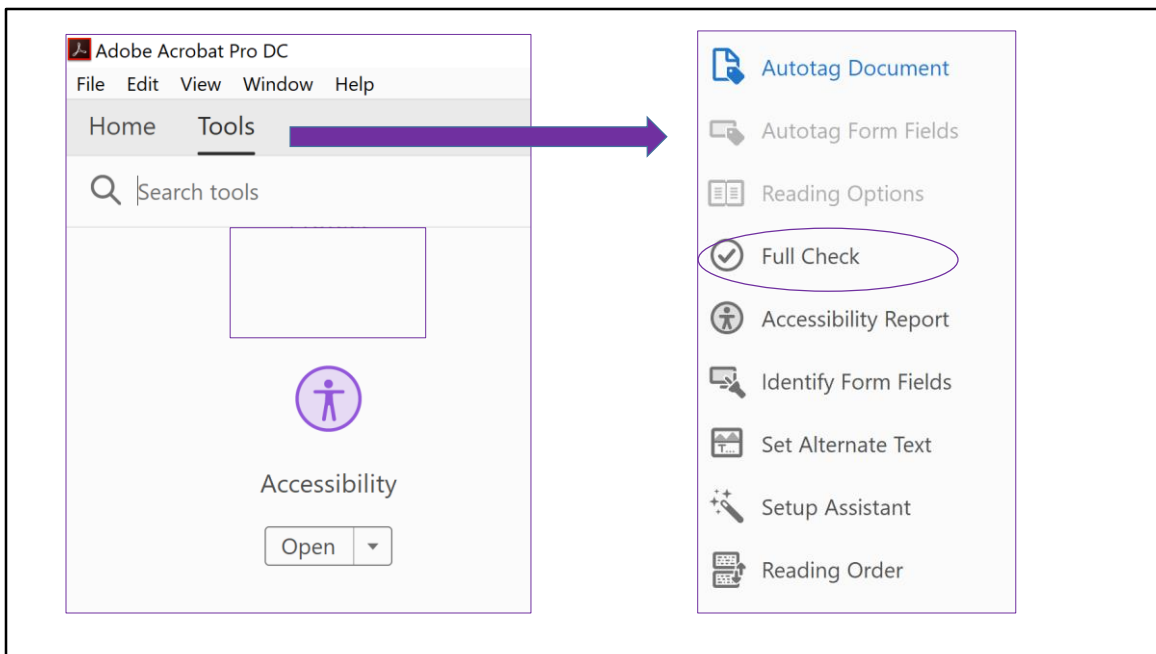


Three types of reports

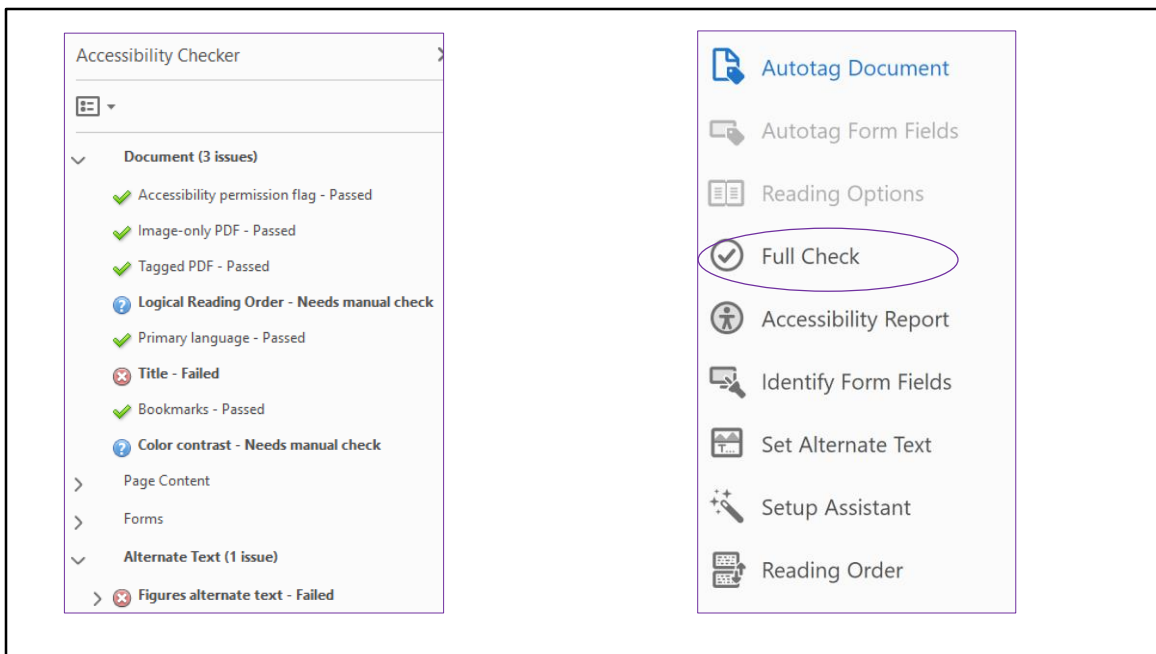
ACCESSIBILITY

- ✓Flash Feedback
- ✓Institutional Survey Reports
- ✓Departmental Assessment Reports

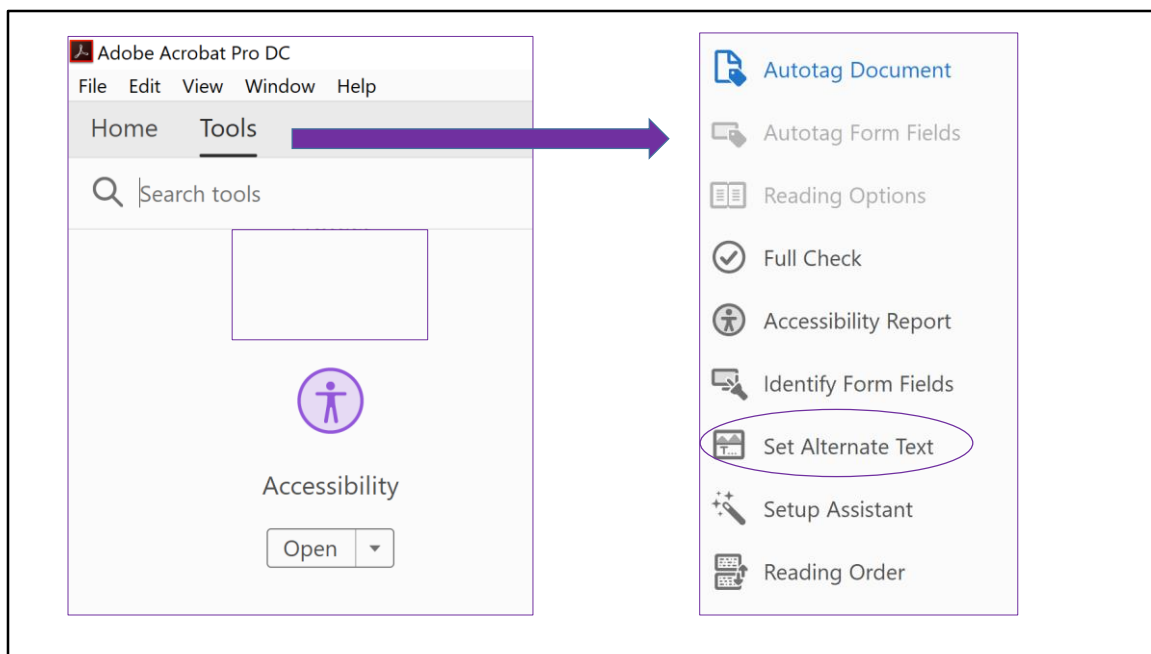
Now that we've looked at a number of report examples, I want to briefly mention a few approaches to ensuring accessibility. This is a complicated topic that could be an entirely separate webinar and by no means are my tips comprehensive. The reports I showed are distributed as pdfs.



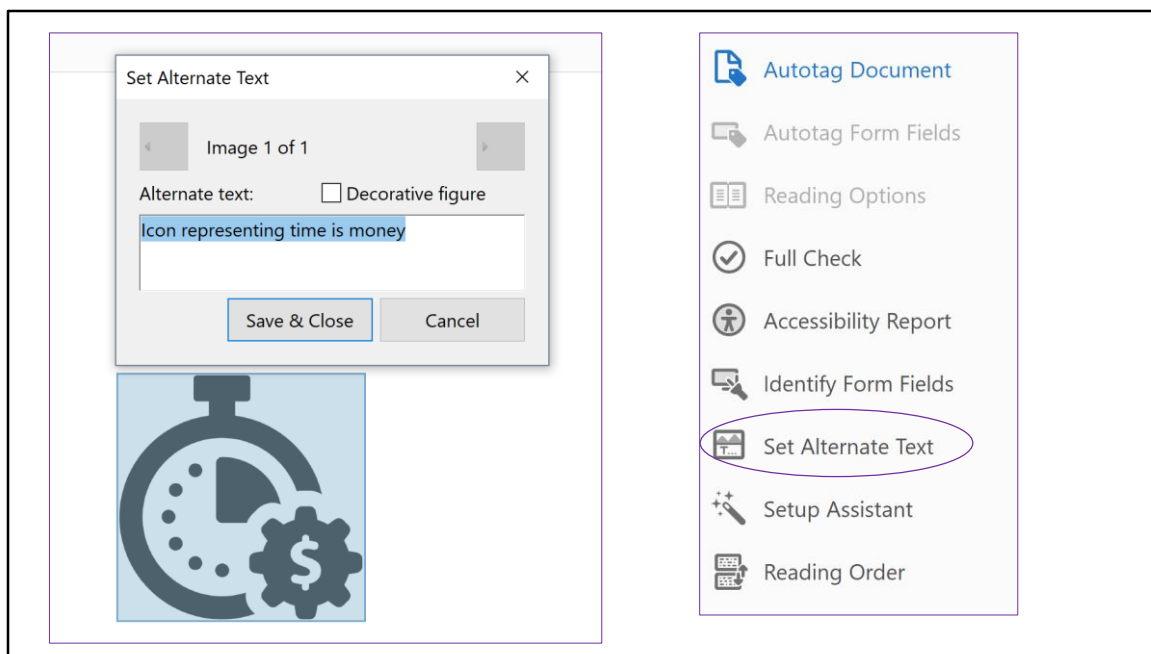
Adobe has a tool that lets you run an accessibility check.



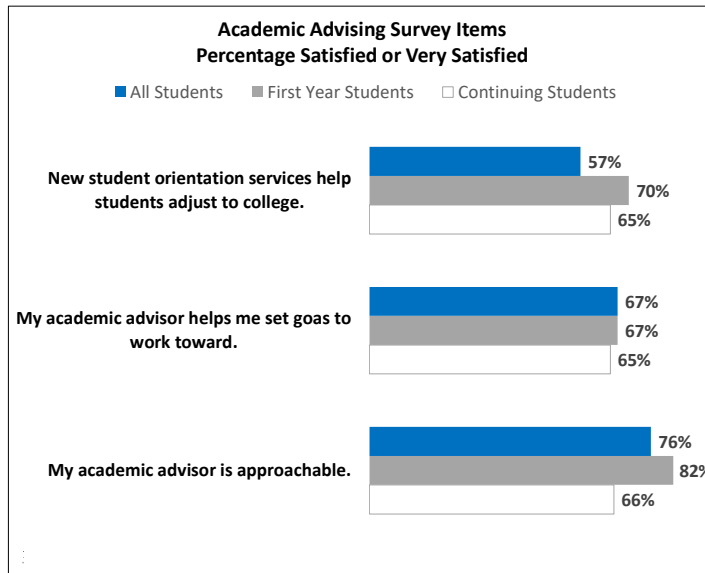
It provides a report that indicates what needs to be fixed.



Another option in the Adobe tool is to set alternative text for images.

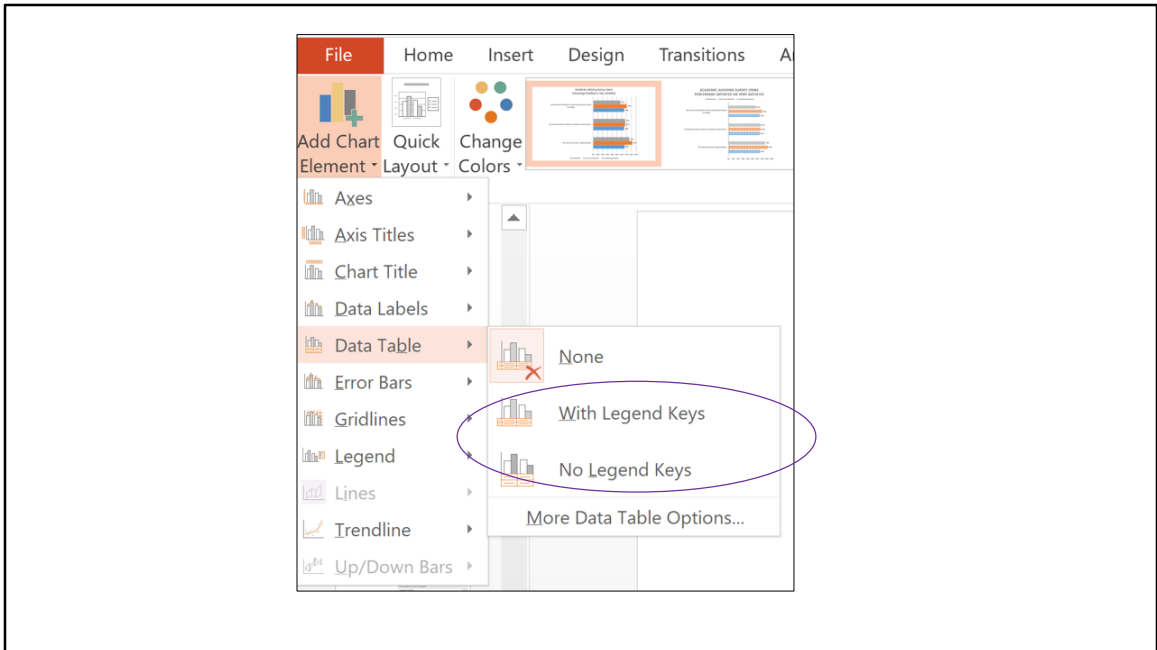


For example, you can add a description for images, so it will be processed by a screen reader.

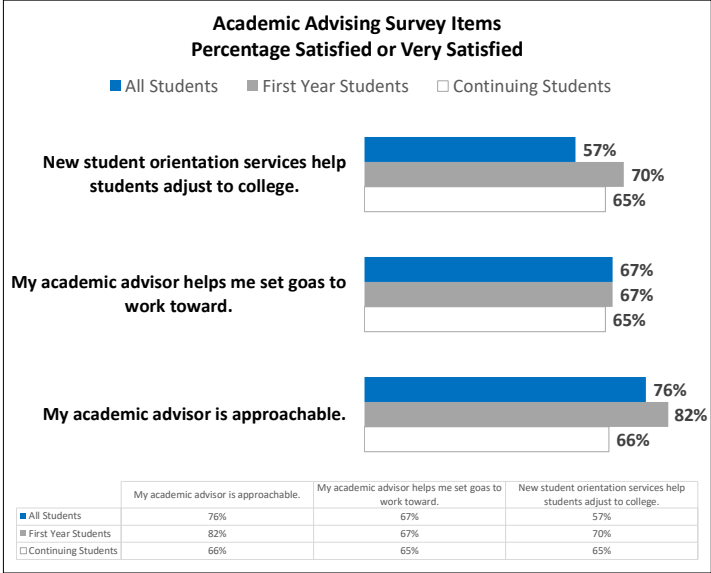


While screen readers have trouble with charts, formatted tables typically pass the accessibility test.

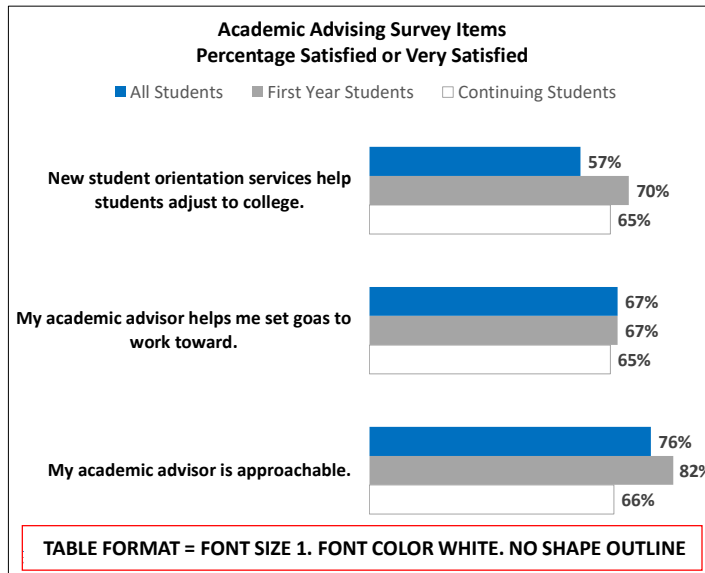
Based on a technique shared by Stephanie Evergreen on her website, to preserve the look of your chart and pass the accessibility test.



You can supplement your chart by adding a data table.

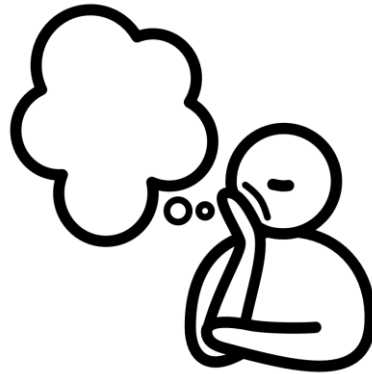


Your chart looks the same, plus it has the data table



If you don't want the data table to show, set table format to font size 1, font color to white, and select no shape outline.

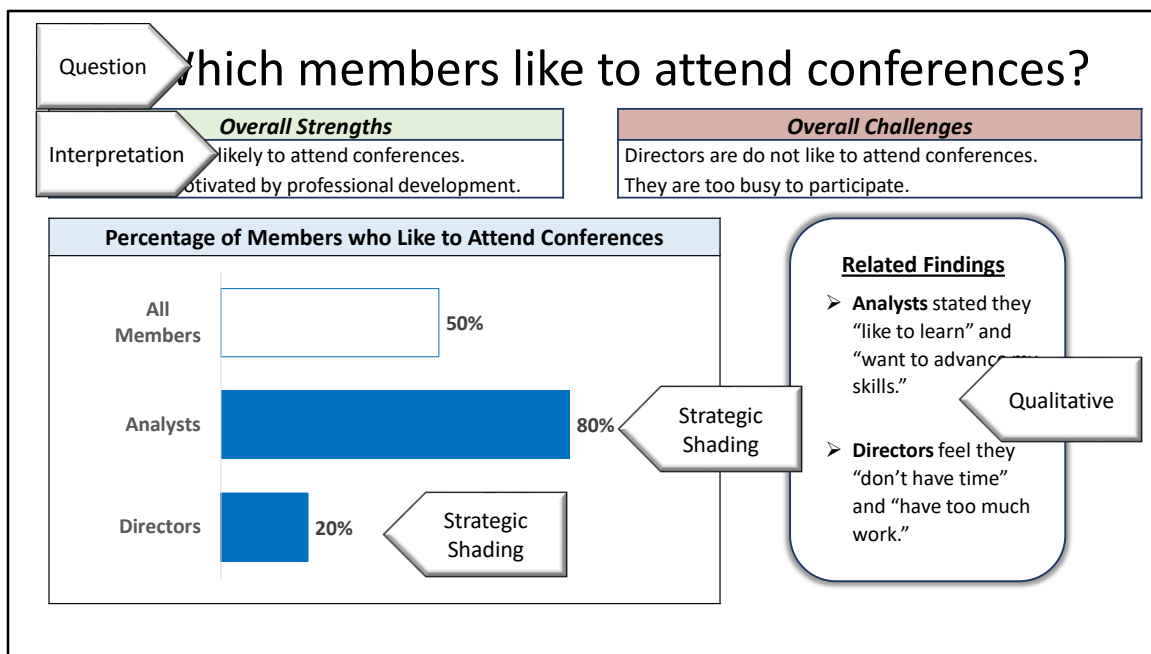
Then the screen reader can still read the information, but it will not appear on your paper report. You still need to give attention to reading order to make sure the table values are read in the right sequence. For additional details, I included the link to Stephanie Evergreen's post at the end of the presentation.



With all of the information shared today, let's return to the original survey scenario, and see how we can apply some of the strategies to helping the conference planner with her survey data.

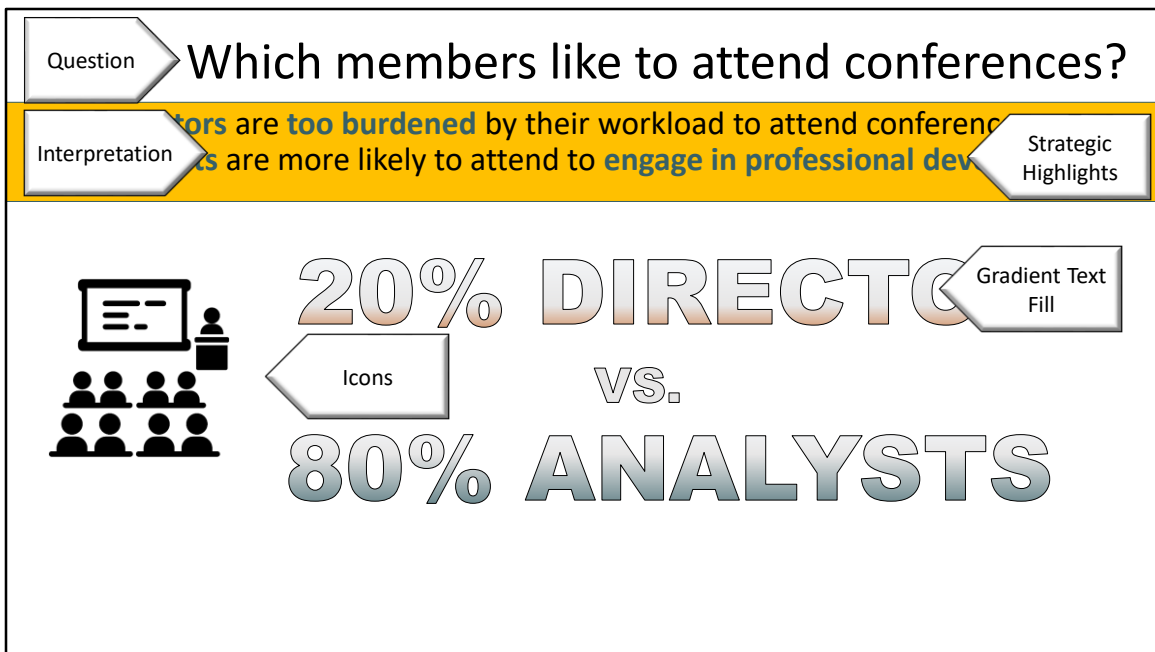
Row #	Do you like going to conferences?	Position	Comment
1	Yes	Analyst	Like to learn
2	Yes	Analyst	Professional development
3	Yes	Analyst	Advance my skills
4	Yes	Analyst	
5	No	Analyst	Too much work
6	No	Director	Too busy
7	No	Director	Don't have time
8	No	Director	No budget
9	No	Director	Can't get away from office
10	Yes	Director	I like to present

Here is the data set that we originally looked at.



Here is one approach that I would take to presenting the information about: Which members like to attend conferences?

It features: A question at the top of the page; an interpretation underneath the question; strategic shading for evidence that supports key points; and qualitative comments in related findings.



Here is a second approach. Once again, it starts with the question on the top of the page. Followed by the interpretation. Strategic highlights are used to emphasize the key points. Gradient text fill is used to show the differences in percentages. Icons are used to reinforce the topic

Takeaways

- ✓ Write the report you want to read.
- ✓ Remember: What's the point?
- ✓ Highlight key findings early in report.
- ✓ Focus attention through:
 - ✓ Guiding questions.
 - ✓ Simple graphics and icons.
 - ✓ Easy to read chart layout.
- ✓ Consider accessibility features.
- ✓ There is more than one way. Experiment! Then, template.



In conclusion, what are the takeaways?

First, write the report you want to read.

Second, remember to ask: What's the point? when crafting your message.

Highlight key findings early in the report to capture level 1 readers' attention.

Focus attention through guiding questions, simple graphics and icons, easy to read chart layout.

Consider accessibility features.

Finally, there is more than one way. Experiment! Then, template.

Resources

Inspiration

Evergreen Data - Intentional Reporting & Data Visualization

<http://stephanieevergreen.com/>

Storytelling with Data

<http://www.storytellingwithdata.com/>

Images

Noun Project - Icons for Everything

<https://thenounproject.com/>

Unsplash - Free images and photos

<https://unsplash.com/>

Accessibility

<https://stephanieevergreen.com/508-compliance-data-visualization/>

<http://colorbrewer2.org>



These are a list of my go-to resources when I am preparing reports. It includes inspiration from Stephanie Evergreen and from Cole Nussbaumer Knaflic's "Storytelling with Data." The icons I used were from Noun Project, which has free options or unlimited access at an educational discount. The photos are from Unsplash and can be used for free for commercial and noncommercial purposes. Finally, I included links to the accessibility information.

Thank you



Elisa Hertz

Director of the Center for College Effectiveness

CUNY Guttman Community College

elisa.hertz@guttman.cuny.edu



Finally, many thanks for taking the time to participate in the webinar. I hope this information will be helpful when you prepare your next set of survey reports.