Extracting Numbers from Customer Satisfaction and Generic Results

Event Profile

First Name	JOHN		
Last Name	AGENT		
Primary County	Lone Star		
Additional County			
Type of Plan	Outcome		
State Goal	Goal 2 (Agriculture, Natural Resources, Economic and Environmental Education)		
TExAS Plan Number	47647		
TExAS Task Number	1784514		
Type of Event	Group educational event		
Event Title	HARRIS COUNTY VEG MGMT CONF		
Event Date	14-JAN-2022		
Economic Benefit an Explicit Go	Yes		
CEUs Offered	Pesticide		
Partial Cost Recovery Event	Yes		
Zip Code Where the Event Occurred	77520		
Scan Form ID	61230		
Batch number assigned by OD	53667		
Surveys Returned	71		
Total Attendance	75		
Survey Response Rate	94.7%		

The first page of your output (below) is standard for most results sent by the Office of Data and Accountability (ODA). It contains a profile of your event built mostly with information from your cover sheet. ODA adds the calculation of a **response rate** by comparing the **number of surveys returned** versus **attendance**. You may want to report these three pieces of information.

In this example, 71 survey forms were processed while attendance was listed as 75 on the cover sheet, for a response rate of 94.7%

	Your understanding of	Mean Before	Mean After	Percent Change
1	Feral Hog Control Methods	2.22	3.61	46.3%
2	Feral Hogs and the impact on natural resources	2.59	3.62	34.3%
3	Right aways and conservation methods	2.47	3.40	31.0%
4	Keeping accurate records	2.76	3.63	29.0%
5	Feral hog habitats and environmental factors	2.53	3.66	37.7%
6	How conservation methods affect the communities we live in	2.52	3.52	33.3%
7	The differences between boring insects and sap sucking insects	2.29	3.46	39.0%
8	Proper dress and safety measures to use when applying herbicides and pesticides	3.02	3.75	24.3%

Table: Pre Means, Post Means & Percent Change

Percent Change = ((Post Mean - Pre Mean) / 3) * 100

The next table shows the mean score in <u>level of understanding</u> for each statement before and after the program (highlighted in blue) using a 4-point scale where 1=Poor, 2=Fair, 3=Good, and 4= Excellent. For example, the mean level of feral hog control methods was 2.22 <u>before</u>; then 3.61 <u>after</u> the program (a 46.3% percent increase on the scale). Here is an example statement to report this:

• As a result of the program, there was a 46.3% increase in mean level of understanding (post vs. pre) of feral hog control methods.

However, some may find it easier to interpret change in level of understanding by discussing the proximity of the mean scores to the four points on the scale rather than the percent change value. Here are a few example statements using that approach:

- On average, participants moved roughly from a "fair" understanding to "goodexcellent" understanding of feral hog control methods (on a 4-point scale).
- On average, participants moved roughly from a "good" understanding to an "excellent" understanding of proper dress and safety measure to use when applying herbicides and pesticides (on a 4-point scale).

Percent change (highlighted in red) is calculated using the following formula:

Percent Change = ((Post Mean - Pre Mean) / (Number of Scale Points - 1) * 100

This differs from the traditional percent change formula as this takes scale points into consideration. The traditional formula returns the relative increase or decrease between two values (pre and post), expressed as a percentage of the initial value (pre). On other hand, the modified percent change calculation returns the relative increase or decrease along the length of the scale. There are two arguments in favor of using this formula over the traditional calculation of percent change:

- Percent change does not exceed 100 (traditional percent change can exceed 100)
- Percent change is consistent for the same "post pre" distance on the scale (traditional percent change will produce different numbers). For example:
 - Traditional percent change
 - Pct Chg = (3.50 2.25) / 2.25 = 55.6%
 - Traditional percent change with same "post pre" distance of 1.25
 - Pct Chg = (4.00 2.75) / 2.25 = 45.5%
 - Percent change on a scale
 - Pct Chg = (3.50 2.25) / 3 = 41.7%
 - Percent change on a scale with same "post pre" distance of 1.25.
 - Pct Chg = (4.00 2.75) / 3 = 41.7%

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	3	4.2	4.7	4.7
	Good	22	31.0	34.4	39.1
	Fair	25	35.2	39.1	78.1
	Poor	14	19.7	21.9	100.0
	Total	64	90.1	100.0	
Missing	System	7	9.9		
Total		71	100.0		

1a. BEFORE UNDERSTANDING: Feral Hog Control Methods

1a. AFTER UNDERSTANDING: Feral Hog Control Methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	39	54.9	60.9	60.9
	Good	25	35.2	39.1	100.0
	Total	64	90.1	100.0	
Missing	System	7	9.9		
Total		71	100.0		

1a. CHANGE IN UNDERSTANDING: Feral Hog Control Methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increased	56	78.9	87.5	87.5
	No change	7	9.9	10.9	98.4
	Decreased	1	1.4	1.6	100.0
	Total	64	90.1	100.0	
Missing	System	7	9.9		
Total		71	100.0		

One of the tables you might encounter is **Change in Understanding**. In the example above (3rd table), 87.5% of participants perceived an increase in understanding of feral hog control methods (highlighted in green). This includes any participant with an **AFTER** rating higher than their **BEFORE** rating (poor to fair, poor to good, poor to excellent, fair to good, fair to excellent, and good to excellent).

Valid Percent columns are highlighted in <u>blue text</u>. The Valid Percent column excludes missing values, as compared to the **Percent** column which includes missing values. If a survey question does not have any missing values, the percentages in these two columns will be the same. On Question 10, for example, there was 7 missing data points (highlighted in blue). Typically, Valid Percent columns are used to report percentages. **Cumulative Percent** adds up percentages in the Valid Percent column across answer choices. This can be useful for quickly seeing the combined percentages of the top two categories (highlighted in red). In the example, 100% of participants had an "Excellent" or "Good" understanding of feral hog control methods <u>after</u> the program vs. 39.1% <u>before</u> the program (60.9% percentage point increase).

Percent Point Difference is the simple subtraction of the pre percent from the post percentage (in this case, 100% - 39.1% = 60.9).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Probably will not	1	1.4	2.6	2.6
	Undecided	1	1.4	2.6	5.1
	Probably will	5	7.0	12.8	17.9
	Definitely will	32	45.1	82.1	100.0
	Total	39	54.9	100.0	
Missing	Already adopted	28	39.4		
	System	4	5.6		
	Total	32	45.1		
Total		71	100.0		

2c. INTENTIONS TO ADOPT: Safety procedures when working with chemicals and pesticides

For the **Intentions to Adopt** section, there is a frequency count for participants who "Probably will" and "Definitely will" adopt a certain practice/technology. These are the answer choices of most interest.

<u>Using the Percent column</u>: Of <u>all</u> program participants, 52.1% indicated they will "probably" or "definitely" adopt safety procedures when working with chemicals and pesticides (45.1% definitely).

Roughly four of ten participants (39.4%) had already adopted these safety procedures.

<u>Using the Valid Percent column</u>: Of those **who haven't already adopted**, almost all (94.9%) indicated they would "probably" or "definitely" adopt safety procedures when working with chemicals and pesticides (82.1% definitely). So, the program was very effective in getting participants to move towards actual adoption of safety procedures when using chemicals and pesticides.

Descriptive Statistics

	N	Mean
3. Overall satisfaction with this activity.	59	4.61
4a. Satisfaction with accuracy of the information.	64	4.53
4b. Satisfaction with the information being easy to understand.	64	4.61
4c. Satisfaction with the timeliness of the information.	64	4.45
4d. Satisfaction with helpfulness of the information in decision about your own situation.	64	4.48
4e. Satisfaction with relevance of the examples used.	65	4.51
4f. Satisfaction with the instructor's knowledge level.	64	4.75
Valid N (listwise)	53	

The next table displays the mean score for each customer satisfaction question. Means are calculated based on a 5-point scale: 1 = Not at all, 2 = Slightly, 3 = Somewhat, 4 = Mostly, 5 = Completely. Mean is a measure of central tendency and represents, on average, how participants rated each customer satisfaction question.

In this case, participants for this program were mostly to completely satisfied with each program item asked about.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely	40	56.3	60.6	60.6
	Quite	23	32.4	34.8	95.5
	Somewhat	3	4.2	4.5	100.0
	Total	66	93.0	100.0	
Missing	System	5	7.0		
Total		71	100.0		

8. Overall, how valuable to you is the information and programs provided by Extension?

High percentages for the top categories of this question are common and indicative of Extension's value in putting together unique and effective educational experiences. For example, we can report that almost all participants (95.5%) indicated the information and programs provided by Extension were "extremely" or "quite" valuable.

9. Gender						
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Female	6	8.5	9.0	9.0	
	Male	61	85.9	91.0	100.0	
	Total	67	94.4	100.0		
Missing	System	4	5.6			
Total		71	100.0			

10. Your age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 30	8	11.3	11.9	11.9
	30 - 49	31	43.7	46.3	58.2
	50 - 69	23	32.4	34.3	92.5
	70 or older	5	7.0	7.5	100.0
	Total	67	94.4	100.0	
Missing	System	4	5.6		
Total		71	100.0		

In the demographics section, you'll see a lot of frequency tables. These will indicate how many people selected each answer choice (Frequency) and the percentage that frequency represents of all responses (Valid Percent).

For this event, roughly nine of ten (91.0%) were male (91.0%) and roughly half of the participants were between the ages of 30-49 (46.3%).

Distribution	Distribution of Client Categories for Your Event			
		Count	Column Valid N %	1 NPS = 100 - 0.0
		Count		
Client Category	Promoters	31	100.0%	Net Promoter
	Passives	0	0.0%	Score for Your
	Detractors	0	0.0%	Your Score: 100.0

The Net Promoter Score® (NPS) is a measure of clientele loyalty. NPS is calculated from responses to one simple question, measured on a 0-to-10 rating scale: "Would you recommend us to a friend or colleague?" Based on the NPS, each client is placed into one of three categories: promoters, passives, and detractors. Ultimately, the goal of using the NPS is to increase promoters and decrease detractors. Promoters are 9-10 on the scale, passives are 7-8, and detractors are 6 and below.

- Net Promoter Score (NPS) = % Promoters % Detractors
- Maximum score possible = 100
- Minimum score possible = -100

In this example, all 31 participants (100%) were classified as promoters of Extension programs.

For more information on Net Promoter Scores, visit:

https://oda.tamu.edu/net-promoter-score/

Texas A&M AgriLife Extension Service, Office of Data and Accountability, May 2025