S24 Excel 3 Documentation Form

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* Paragraph 1: a) Describe your data, b) # of rows and columns, c) describe what is in the data and d) where you got it - source.

1. The data I have used here is a description of the annual sales of food at home (FAH) and food away from home (FAFH). It is described in both nominal terms (at the existing dollar value) and constant dollar value (after being adjusted for inflation).
2. The number of rows in my data is about 102 with about 8 columns.
3. The data states the FAH food sales, FAFH food sales, total food sales in nominal and constant dollar terms for the years 2021 and 2022.
4. The source of this data is the USDA, Economic Research Service (ERS) Food Expenditure Series (FES). This is a comprehensive dataset by the USDA, from which I have pulled the data relevant to my project.

* Paragraph 2: a) Describe what each worksheet is about, b) what analysis is performed, c) what you learned about your data & d) your analysis conclusions.

1. The first worksheet “Data” is an extract from the source data to sort the data by the year and also alphabetically.
2. Yearly Constant Dollar Data: This worksheet is a PivotTable from the DATA worksheet to show the yearly constant dollar data. This is helpful as it makes way for comparison between the years because of the presentation of the data for each year in columns. It also has filters for the user to select if they want a single year’s data and if they want to compare a few specific states.
3. Yearly Nominal Data: Just like the previous worksheet, this one presents the same data but in terms of nominal sales. This worksheet also has the same filters (slicers) available.
4. FAFH Comparison Sheet: As the name suggests, this sheet compares the FAFH sales for both years and also provides the percentage change for each. This helps one understand the way that FAFH sales have changed within the two years in the US across the states.
5. FAH Comparison Sheet: Again, this sheet performs the same function as above for FAH sales for both years.
6. FAH Change Graph: This is a PivotTable and Chart that puts the nominal and constant dollar change in FAH between the two years side by side for easier comparison, and allows user to narrow down on specific states to look at how their charts may compare.
7. NominalFAHChangeTop10: This filtered worksheet gives you a look at the Top 10 states that had the most change in their FAH Nominal food sales per capita between 2021 and 2022.
8. Const$FAHChangeTop10: This filtered worksheet gives you a look at the Top 10 states that had the most change in their FAH Constant dollar food sales per capita between 2021 and 2022.
9. Request State Summary: This interactive worksheet allows the user to look at a summary of the data for one state at a time. It also presents this data in a clustered column chart. This sheet is protected to ensure that the user does not accidentally change the formula to incorrectly present the data.
10. Feedback: This worksheet asks for the user’s input about the project overall by asking for a rating and then providing my email for them to share more about it.
11. In this project, we are analysing the changes and trends related to the food sales in the US across different states. The focus remains on the changes in Food at home and how that has changed over the two years. For the last couple of worksheets, the Top 10 for change in FAH in each type of sales provides a good idea of the levels of inflation that the country has seen and how that affects the food sales.
12. It was interesting to see how the percentage change in FAH sales might look to be a positive number in terms of nominal sales, but after taking inflation into account, it shows that the sales have actually reduced in dollar volumes.
13. This leads me to the conclusion that the inflation in the country has led to lower food sales as what should be expected from the country which can be a key determinant to understand the dietary conditions of the country along with a key factor in health-related research.

* Skills Table – fill this out. Do not delete any rows. Only add comments to the 3 right-most columns

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skill letter** | **Skill** | **Used in which worksheet** | **Used in which cells** | **How used** |
| a | Wrapped titles that stay wrapped when column width increased | DATA | F3, I3 | To ensure that the |
| b | Named tabs w/ color | DATA | DATA | To highlight the tab that contains the source data |
| c | Chart w/gradient, color font, background | FAH Change Graph | Chart 1 | Used in the change graph, more visible when narrowed down to fewer states. |
| d | Date function – so date changes when worksheet is opened | DATA, Request State Summary | B1, B2 | Display the date at the first screen of the file, and before the user requests data. |
| e | Named range | DATA, Yearly Nominal Sales Data | AllData, fah2022nominal | Primarily used to assist with using the xlookup function |
| f | Vlookup w/iferror | FAFH Comparison Sheet, Request State Summary | C3, C9 | Used to pull data to create the comparison sheet, used to display relevant data for user |
| g | IF function | FAH Comparison Sheet | E3: E53, H3:H53 | To ensure that the negative percentages are calculated and presented correctly. |
| h | Color borders | FAH Comparison Sheet, Feedback | B2:H53, C6 (merged) | To highlight data, to highlight the input cell |
| i | Color fonts | DATA | B1 | To highlight the data |
| j | Merge & centered data | DATA | B2 | To make the cell contents look more organized and show as a title. |
| k | Conditional formatting | FAH Comparison Sheet, FAFH Comparison Sheet | E3:E53 and H3:H53 | To highlight outlier values out of a certain range from the average value |
| L | Note or comment feature | DATA | D3, E3 | To inform of the meaning of acronym used |
| m | Shape feature | FAFH Comparison Sheet, NominalFAHChangeTop10, Const$FAHChangeTop10: | Speech Bubble: Rectangle with Corners Rounded 1, Rectangle: Rounded Corners 2, Rectangle: Rounded Corners 1 | Used for notes to the viewer about the worksheet. |
| n | Worksheet protection | Request State Summary, Feedback | C6, C6 | All other cells are locked to prevent editing. |
| o | Data validation | Feedback | C6 | To ensure that the user enters a rating for the project, between 1 to 10. |
| p | Calculation formulas | FAFH Comparison Sheet, Request State summary | E3:E53 and H3:H53, C11, C12, C15, C16, C21, C22, C25, C26 | To show correct relevant calculations. |
| q | Sorted data | DATA | AllData (B3:I105) | To display the data in an organized manner, make it easier to read. |
| r | 2 pivot tables, 1 with a chart | Yearly Nominal Sales Data, FAH Change Graph | B3:H57, B3:D54 | To display the relevant data, make it easier to compare and understand. |
| s | 2 filtered worksheets | NominalFAHChangeTop10, Const$FAHChangeTop10 | E2:E54; H2:H54 | To show the top 10 states for each field, to draw a comparison how they are performing in the corresponding fields |
| t | Data formatted, aligned - consistent, attractive | DATA | AllData (B3:I105) | To allow for easier viewing for the user. |