

Cadmium Online User Tool – Quick Start User Guide

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Contents

Introduction to Cadmium	3
Getting Started	4
Creating and Saving a Report	10
Functions.....	17
Report Properties.....	20



Introduction

- **Cadmium** is a password-protected web-based tool that allows you to conduct data analysis and produce custom tables in the MacroMonitor dataset. It is also an easy way to generate tables in Excel for use in graphic reports.
- There is no limit to the number of users within your company who can access the tool.
- Cadmium replaces the previous version called Ruby Laser that required the Silverlight plug-in. *The Silverlight plug-in is no longer required. Cadmium is accessible from any browser.*
- **Cadmium Premium** includes all of the questions in the MacroMonitor and many calculated variables. This version is available as an add-on to your MacroMonitor subscription.
- **Cadmium Basic** is available to all subscribers to the MacroMonitor, this version includes a subset of the survey questions and variables.
- If your organization is not a **Cadmium Premium** subscriber, contact CFD to learn more about maximizing your subscription to the MacroMonitor with access to Cadmium Premium.
- **CFD is available to conduct Cadmium trainings upon request.**



Getting Started



Accessing Cadmium

Cadmium is accessible via your CFD Landing Page. If you do not have the one-click link to your Landing Page (or bookmarking instructions), please contact CFD, or your company's MacroMonitor contact.



Consumer Financial Decisions (CFD)

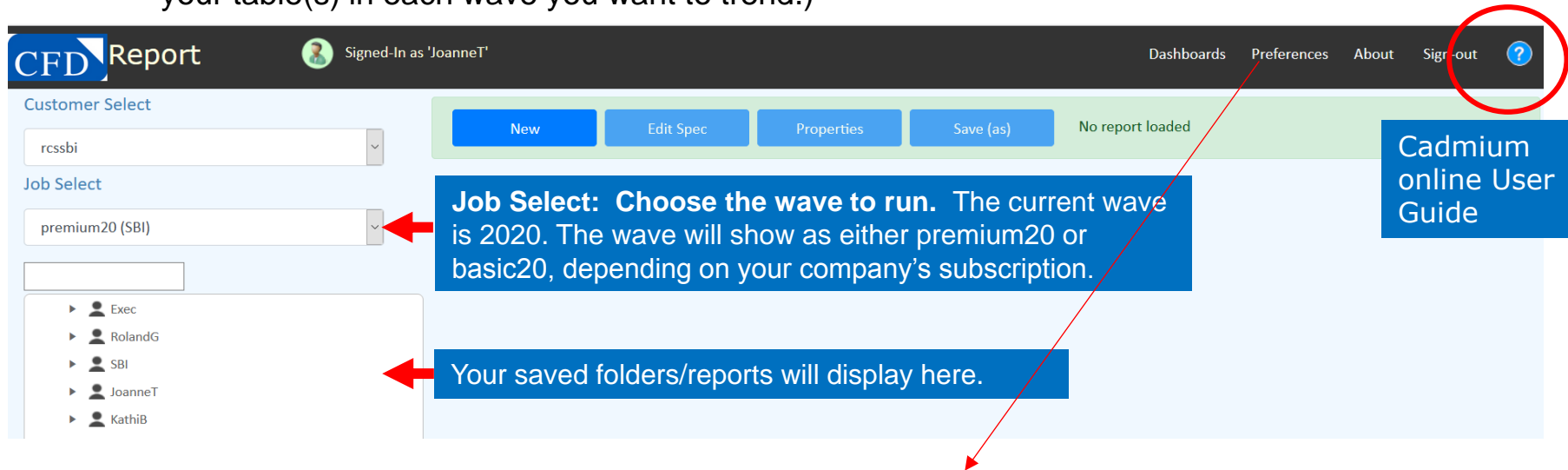
- [MacroMonitor Data Analysis Tool \(Cadmium\) !\[\]\(7b96e44edff40c0903544dd532958dd3_img.jpg\)](#)
- [Trends Newsletter ▶](#)
- [References and Resources ▶](#)
- [CFD YouTube Videos ▶](#)



Main Report Page

The Cadmium link opens to the Report Page.

Under **Job Select**, choose the MacroMonitor Wave you want to run. The current wave is “20.” (NOTE: Each wave’s dataset is a separate file. To show trend data, you will need to recreate your table(s) in each wave you want to trend.)



Customer Select: rcssbi

Job Select: premium20 (SBI)

Exec: RolandG, SBI, JoanneT, KathiB

Buttons: New, Edit Spec, Properties, Save (as), No report loaded

Annotations:

- Job Select: Choose the wave to run. The current wave is 2020. The wave will show as either premium20 or basic20, depending on your company's subscription.
- Your saved folders/reports will display here.
- Cadmium online User Guide

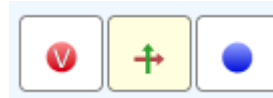
In Preferences – we recommend setting the default table view to **Axis view**. This view displays the table as it appears in the standard cross-tabs. **You will only need to do this once.** (Hit Save in Preferences to set as a default.)

User Preferences	
Current Value	Description
AliceBlue	Page background colour
#333333	Header background colour
Axis	Preferred specification tree

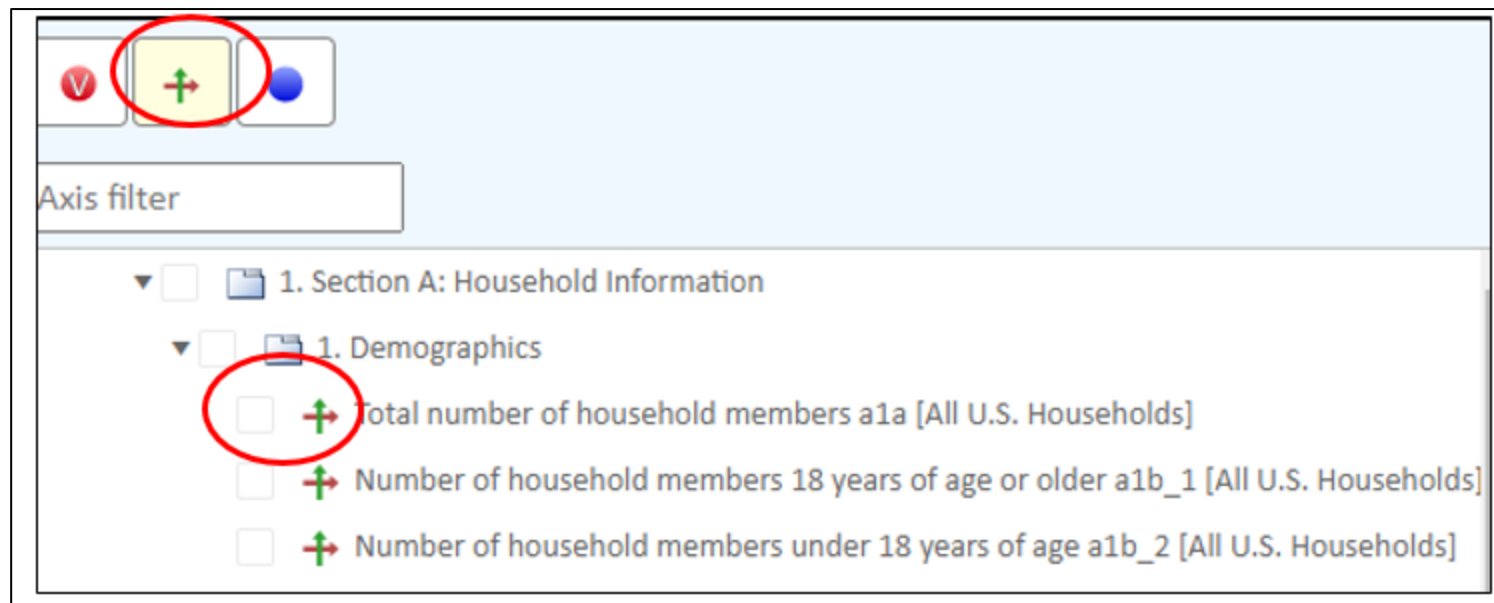
Content Folder Views: (1) Axis View

There are three folder views with different functionalities. Toggle to each, as needed.

- **Variable** tree view (Red dot)
- **Axis** tree view (Green/Red Cross)
- **Functions** tree view (Blue dot)



Axis View (red/green cross) – We recommend this as the default view (set in Preferences). It will run the straight table, as presented in CFD's cross-tabulations. You have limited ability to manipulate a table in this view, such as deleting a code when in the work area. Use this view when you don't need to make any changes prior to running the table. You'll know you're in Axis View if you see the Red/Green cross next to the variables.

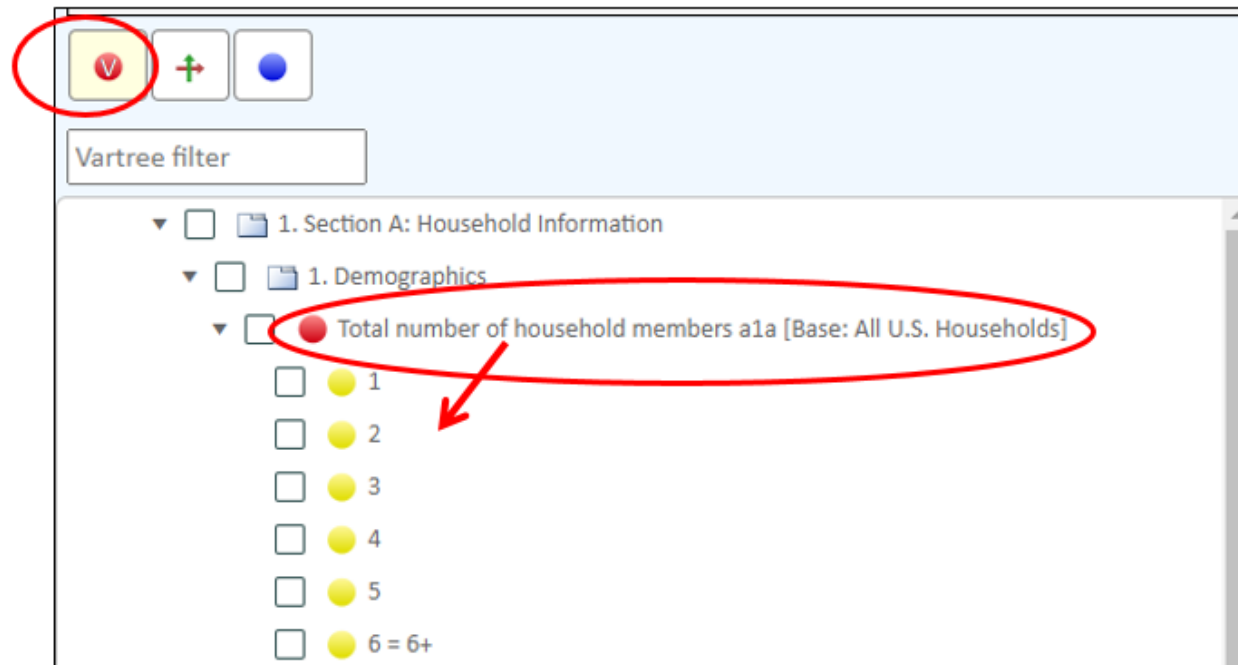


Content Folder Views: (2) Variable View

Variable View (Red Dot) – Use this view when you want to manipulate the table or banner such as combining stubs to make a net, showing only selected answers/codes in the table, adding a filter or nesting banner points.

You'll know when you're in Variable View when you see the Red Dot next to the variables. Click on the variable name to view the response categories.

NOTE: A banner or table run from Variable (Red Dot) View will exclude the Total US column/row (you'll need to add the Total). Additionally, means and medians will not display in a numeric table run in this view.



Content Folder Views: (3) Function Tree View

Function View (Blue Dot) – This area is for creating customized and more complex variables to use in a banner, in a table, or as a filter. Functions are automatically saved in the Function View for use whenever you need them. It can be useful to create even a simple function that you may use repeatedly for different projects.

The Function area will be blank until you start building functions. An example of how to build a function is shown later in this document.

The screenshot shows the 'New Specification' interface. At the top, there are 'Cancel' and 'Run' buttons. Below them is a 'Filter' section with a dropdown arrow and a text input field. Underneath is a 'Weight' section with a checked checkbox and a text input field containing 'wt1()'. A row of five icons is highlighted with a red oval: a red minus sign, a green plus sign, a blue dot, a blue pencil, and a red X. Three callout boxes with red arrows point to these icons: 'Click the + to create a function.' points to the blue dot, 'Click to edit an existing function.' points to the blue pencil, and 'Click to delete a function.' points to the red X. To the right, a separate window titled 'Functions filter' shows a list of three functions, each with an unchecked checkbox and a blue dot: 'HHI <\$25K', 'HHI \$25K<\$50K', and 'HHI \$50K<\$100K'. A red arrow points from the top of the main interface down to the 'Functions filter' window.

Creating and Saving a Report



Specification Page / Work Area

Report Page: The top navigation bar includes 'CFD Report' and 'Signed-In as JoanneT'. Below this, there are buttons for 'New', 'Edit Spec', 'Properties', and 'Save (as)'. A dropdown menu for 'Customer Select' is set to 'rcssbi', and a dropdown for 'Job Select' is set to 'premium20 (SBI)'. A status message says 'No report loaded'.

Specification Page: The top navigation bar includes 'CFD Specification', 'Report', and 'Sign-out'. Below this, there are buttons for 'Cancel' and 'Run', and the text 'New Specification'. There are input fields for 'Filter' and 'Weight' (set to 'wt1()'). There are radio buttons for 'Table' (selected) and 'Chart'. A list of content folders is shown on the left, including '1. Section A: Household Information', '2. Section B: Financial Attitudes', '3. Section C: Use of Financial Services', '4. Section D: Checking, Savings and Investments', '5. Section E: Investments', '6. Section F: Retirement Products', '7. Section G: Real Estate', '8. Section H: Vehicles', '9. Section I: General Attitudes', '10. Section J: Consumer Loans', '11. Section K: Credit, Charge Cards and Finance', '12. Section L: Life Insurance', '13. Section M: Other Insurance', '14. Section N: Information and Communications', '15. Section O: Background Information', '16. Calculated Financial Variables', and '18. Banners'. Two work areas are shown on the right, each with a right arrow, up/down arrows, and a trash icon.

On the Report Page, click “New” to open the Specification Page where you build or edit your table/report.

Content Folders open to display the MacroMonitor Questions/Tables. Folders 1 – 15 coincide with the sections of the MacroMonitor questionnaire. Folders 16 and 17 hold additional and calculated variables. Folder 18 has the MM Standard Banners. Folder 19 will hold your Custom Banners, as created.

The top work area is for the banner variable.

The bottom work area is for the side /table variable.



Finding A Question Or Variable

Using the Search box is the easiest way to find the question/variable you want to run.

The screenshot shows the 'Specification' interface with a search box containing 'specific banks'. A red arrow points from a blue callout box to the search box. Another red arrow points from the search box to a search result 'C5' which is circled in red. The search results list several variables under '4. Depositories'.

**Enter the question number, if you know it
OR
Type key words to narrow the search**

Search results for 'specific banks':

- 3. Section C: Use of Financial Institutions
 - 4. Depositories
 - Specific banks and credit unions household now uses c5A [All U.S. Households]
 - Specific banks and credit unions household has used at any time Questionnaire Page
 - Awareness of specific banks and credit unions c5C [All U.S. Households]

TIP: Download a copy of the Data Documentation from the CFD landing page, for reference. The Data Doc contains the full MacroMonitor questionnaire, with the additional and created variables available shown in the appendix. [NOTE: Cadmium contains a subset of the additional/calculated variables.]

Building A Table

- Select the variable you want to use as the banner. Click the top right arrow to send over the banner. (To delete all selections in the top, click the Trash icon.)
- Select the variable/question you want to run by the banner. Click the bottom right arrow to send over the variable. (To delete all selections in the bottom, click the Trash icon.)
- Hit “Run” in the top-left corner of the Specification Page (not pictured here).

18. Banners

1. Standard Banner

- Standard Banner (age cohorts, socioeconomic levels, life stages) bansri
- Age Cohort Banner age_co
- Socioeconomic Level Banner soc_eco
- Life Stage Banner
- Diversity Groups
- Primary VALS PVALS [Base: All U.S. Households]
- Total US HHs

Note: Any table/variable can be used as a banner.

household income

15. Section O: Background Information

5. Household Income

- Mean 2019 household income by source (including negative values) (means
- Total 2019 household income (minus inheritance)(Net) o17BNET [All U.S. ho
- Total 2019 household income before taxes o18a [All U.S. households]
- Percent contribution to 2019 household income (Summary of means, includ

Table

Chart

↻

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“Swap” Flips the top and side variables

- count = Count
- 1 = Weighted Base (000)
- age_co = Age Cohort Banner
 - 1 = Younger Millennials
 - 2 = Older Millennials
 - 3 = Generation X
 - 4 = Younger Boomers
 - 5 = Older Boomers
 - 6 = Silent + Greatest
- count = Count
- cuf = Unweighted Base
- count = Count
- 1 = Weighted Base (000)
- o18stat = Total 2019 household income before taxes o18a
 - 7.5 = Less than \$10,000
 - 15 = \$10,000 - \$19,999
 - 22.5 = \$20,000 - \$24,999
 - 27.5 = \$25,000 - \$29,999
 - 35 = \$30,000 - \$39,999
 - 45 = \$40,000 - \$49,999
 - 55 = \$50,000 - \$59,999

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Note: The Trash icon deletes all variables in the area. (Top icon clears the top.)



Table Output (After Hit "Run")

The default table displays with frequencies, column %s (blue), and row %s (pink). You can uncheck any of these to customize the view. ("DRILL" contains pre-set filters, there for convenience.)

New
Edit Spec
Properties
Save (as)

New Report No.1

Freq
 Col%
 Row%
 Sig

--- DRILL ---

		Count	Age Cohort Banner						Count
		Weighted Base (000)	Younger Millennial	Older Millennial	Generation X	Younger Boomers	Older Boomers	Silent + Greatest	Unweighted Base
Count	Weighted Base (000)	140750	24539	24581	33395	25240	16657	16338	4254
		100	100	100	100	100	100	100	
		100	17	17	24	18	12	12	
	Less than \$10,000	8338	2374	1870	1874	1136	830	255	151
		6	10	8	6	5	5	2	
		100	28	22	22	14	10	3	
	\$10,000 - \$19,999	11069	1627	1602	1978	2421	1778	1661	193
		8	7	7	6	10	11	10	
		100	15	14	18	22	16	15	

Freeze
Hide Headers
Expand Sheet

FYI: You can drag sheet columns/rows to expand the sheet in this view. You can also size the cells in Properties.

There is also the option to Freeze Row/Column, to facilitate scrolling in this view.



Two Ways to Save Your Work

1). Reports can be saved in Cadmium or 2). Exported in Excel to save on your computer. Folders and reports saved in Cadmium are accessible by *all users* within your company, they are not private.

1. Click “Save (as)” to save your report in Cadmium
 - Create a folder in **Path**
 - Name the report/table in **Name**
 - Hit Save

Save (as) HHI x Age Cohorts

--- DRILL ---

Save (as)

Path Demo Folder

Name HHI x Age Cohorts

Save Cancel

Older omers	Silent + Greatest	Unweight ed Base
16657	16338	4254
100	100	
12	12	
830	255	151
5	2	
10	3	
1778	1661	193
11	10	
16	15	

Saved folder/tables display on the main Report Page (as below):

Job Select

premium20 (SBI)

Demo Folder

HHI x Age Cohorts

FYI: The Yellow “X” button can be used to delete a saved table.

2. Click the Excel icon to export and save to your computer

Save (as) HHI x Age Cohorts

Note: We suggest creating folders that identify the team or user that “owns” the work.

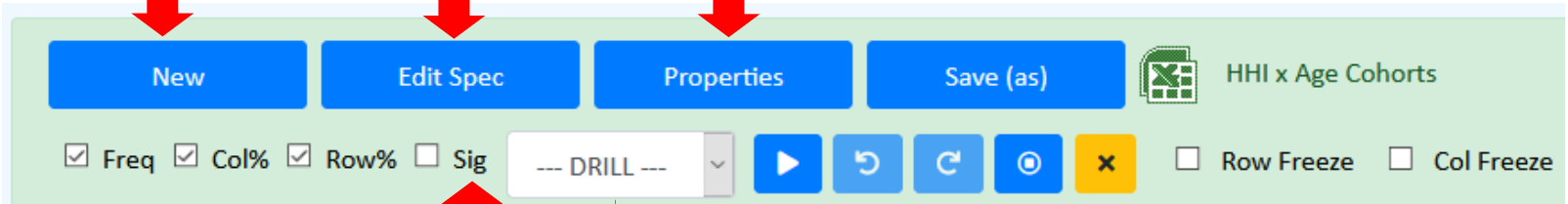



The Rest Of The Buttons On The Report Page

“New” clears the current table and specifications in the work area, to build a new table/report.
NOTE: To preserve the current table, save it first.

“Edit Spec” returns to the work area, showing the current specifications.

Choose “Properties” to make changes to the current table format. (See details on next page.)



Check to add Significance Testing. The default tests at both 99% and 95%. Confidence parameters can be reset in Properties.
Click  button to apply.

“Drill” lists frequently used filters to apply to your table, if you choose.

NOTE: Custom Filters are applied in the Specifications Page.

Functions

Operators for Creating Functions

Operators

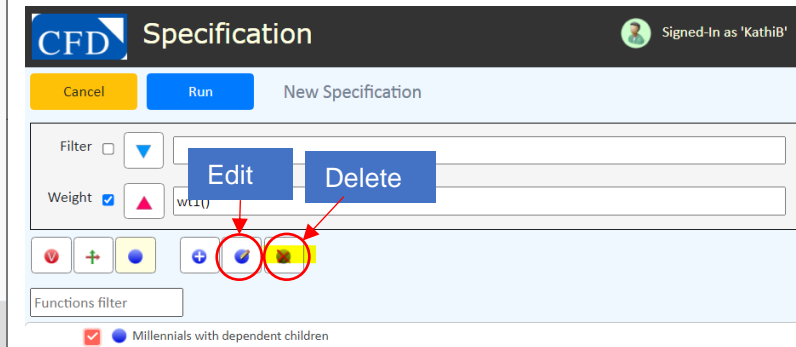
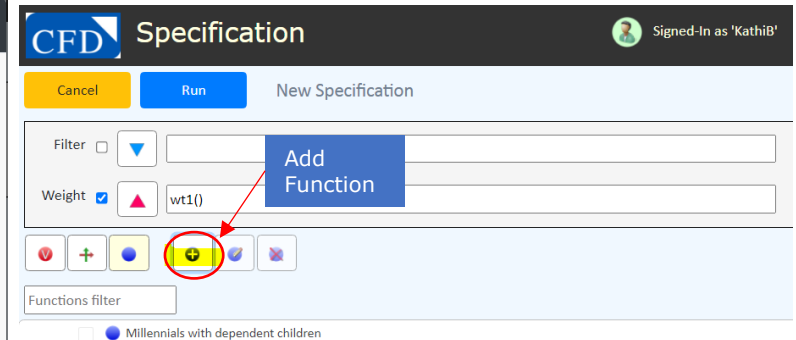
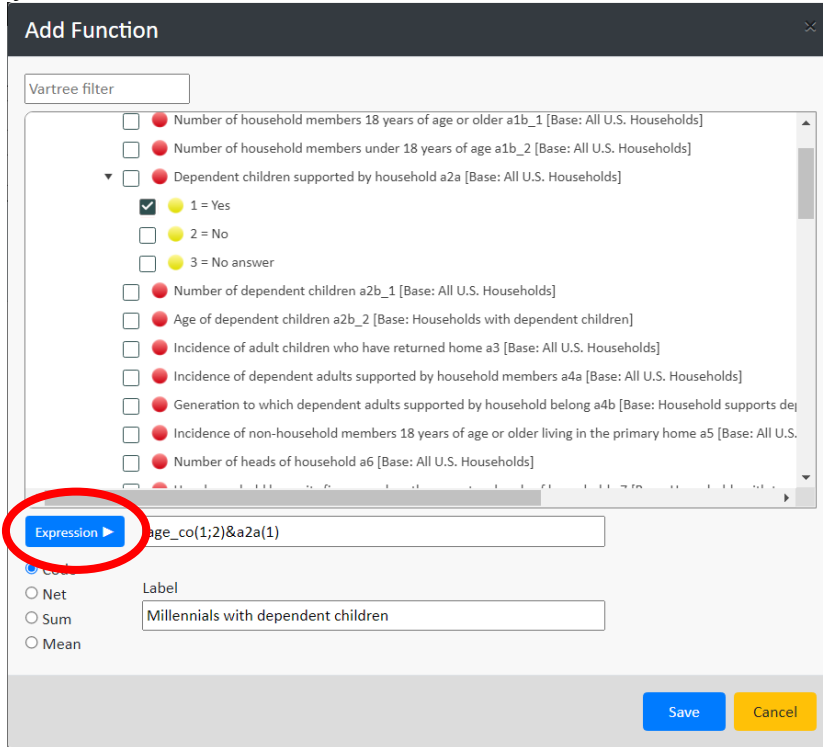
In order of priority (lowest to highest), the following operators can be used:

- = Equal to
- != Not equal to
- > Greater than
- < Less than
- >= Greater than or equal to
- <= Less than or equal to
- + Add
- Subtract
- * Multiply
- / Divide
- ? Modulus (remainder on division)
- % Percent ($c1\%c2$ means $c1*100/c2$, $c1$ as a percent of $c2$)
- ^ Power
- & Logical AND (evaluates to 0 or 1)
- | Logical OR (evaluates to 0 or 1)
- ! or ~ Logical NOT (evaluates to 0 or 1)



Building Functions

In Function (Blue Dot) view, select the '+' to create a new function. The **Add Function** dialogue box will open. Select the variable(s) to define the function and click 'Expression' to add the specification to your function. Name the function in the 'Label' box. In the example below, we first selected Millennial households and then selected the 'Yes' code in the Dependent Children variable, to create the new variable shown in the list of function filters (with blue dot). When you are finished specifying the function, click 'Save' and the functions screen will be populated with your new function.



To **edit** a function, click on the pencil icon.

To **delete** a function, check the box to the left of the function you want to remove and then click the 'x'.

Report Properties



Properties

In 'Properties' you can adjust the height and width of the cells in your report, specify how many decimal places you want in your frequency, percentage, statistics, and expressions, and set parameters for significance testing

CFD
Properties

Cancel
Save
Reports/User/KathiB/a2a-diversity nest

Labels

Top

Group Height

Label Height

Cell Width

Diagnostic Prefix

Side

Group Width

Label Width

Cell Height

Diagnostic Prefix

Diagnostic Prefix

Top/Side

Filter/Weight

Cells

Decimal Places

Frequencies

Percents

Statistics

Expression

Bands

Frequencies

Columns

Row

Significance

Significance Test

Show Significance

Single Cell

Reference Column

Column Groups

Reference Row

Row Groups

Script

Parameter

Significance Levels

High

Medium

Low



Significance Testing Parameters

Significance testing confidence levels and parameters are set in Properties/Significance. (The default tests across all banner points at both 99% and 95%.)

In this example the subgroups in columns B, C, D, E, F and G are tested for differences at 95% confidence only.

Freq
 Col%
 Row%
 Sig
 --- DRILL ---

	A	B	C	D	E	F	G	H	I	J	
2	Side: Dependent children supported by household a2a [Base: All U.S. Households]										
3	Filter:										
4	Weight: wt1 (All)										
5	95.00% A, 95.00% a Column groups test: Proportions T, Means T, Groups: BCDEFG										
6		Age Cohort Banner							Count		
7		Weighted Base (000)	Younger Millennials	Older Millennials	Generation X	Younger Boomers	Older Boomers	Silent + Greatest	Unweighted Base		
8		A	B	C	D	E	F	G	H		
9	Count	140750	24539	24581	33395	25240	16657	16338	4254		
10	Weighted Base (000)	100	100	100	100	100	100	100			
11											
12	Dependent children supported by household a2a [Base: All U.S. Households]	45038	9015	14792	14690	3586	1880	1075	1306		
13	Yes	32	37	60	44	14	11	7			
14		95711	15524	9788	18705	21654	14777	15263	2948		
15	No	68	63	40	56	86	89	93			
16			CD		C	BCD	BCD	BCDEF			
17	No answer	0	0	0	0	0	0	0	0		
18		0	0	0	0	0	0	0			
19	Count	4254	402	669	1114	897	611	561	4254		
20	Unweighted Base										
21											
22											

Significance

Significance Test

- Show Significance
- Single Cell
- Reference Column
- Column Groups
- Reference Row
- Row Groups
- Script

Parameter

BCDEFG

Significance Levels

- High
- Medium
- Low

If desired, you can set two levels of significance testing in the high and medium fields.

NOTE:: You can isolate comparison groups using a comma (for example, BC, DE, FG).

Questions?

Email: kbarringer@sbi-i.com

jtauber@sbi-i.com