



## PACS User Conference 2026

April 14, 2026

## An Approach to Mass Appraisal in Power BI: Activity Example for Educational Purposes Only

1. Enable preview feature "DAX user-defined functions"

Options -> Preview Features, check the checkbox, restart Power BI

**Optional:** replace demo data with data from PACS

- i. Tailor SQL query      modify REPLACE\* placeholders
- ii. Delete Sales table    right-click, remove from model
- iii. Add data (SQL)        copy-paste query definition
- iv. Rename to "Sales"

2. Add New columns to Sales table

**Ratio** = Sales[Total Value]/Sales[Sale Price]

**Histogram Bin** = ROUND(FLOOR(Sales[Ratio]), 0.05), 2)

**Is Land Only** = IF(Sales[Improvement Value]=0, "Vacant", "Improved")

3. Visualizations

- Card: Sales[Sale ID] \*implicit count\*
- Matrix: rows=Sales[NH], Sales[Is Land Only]; values=Sales[Sale ID] \*implicit count\*
- Stacked Bar Plot: X=Sales[Histogram Bins], Y=Sales[Sale ID] \*implicit count\*

4. Ratio Statistics in a Measure Group

Use "Enter data", name the new table "Group Statistics"

Define new measure: **Sale Count** = COUNT(Sales[Sale ID])

Delete from model "Column1"

- Add measure [Sale Count] to the Matrix (compare with implicit count)

Update model with DAX measures: *Ratio Statistics – Original Values*

- Add measure(s) to the Matrix

5. Explore As-If Values for Mass Adjustments

View -> Selection: toggle visibility of Index Adjustments

Update model with DAX function: *Proposed Value Ratios*

Update model with DAX measures: *Ratio Statistics – Proposed Values*

6. Visualizations: Proposed value ratios

- Matrix: rows=Sales[NH], Sales[Is Land Only]; values=Group Statistics[\* Proposed]

Create "New table"

**Proposed Histogram** = GENERATESERIES(0.25, 1.8, 0.05)

Update model with DAX measure: *Histogram*

- Stacked Bar Plot: X=Proposed Histogram[Value],  
Y=Proposed Histogram[Bin Count Proposed]

7. Vertical Equity

Update model with DAX function, measure: Vertical Equity

Add measure VEI Proposed (copy DAX definition)

- Add [VEI] and [VEI Proposed] to respective matrices

Extras

- + Matrix color coding
- + Histogram trend lines
- + [Is Land Only] sort
- + Slicer for [Is Land Only]