

TABLEAU

CONFERENCE



Welcome



#TC18

How to Aggregate Friends and Influence Pivots

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Senior Software Engineer

Tableau Prep

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Software Engineer

Tableau Prep



Agenda

6 things this presentation will do for you

A little bit about us

Tableau prep prepper

Aggregating friends (aggregation overview)

Influencing pivots (pivot overview)

The <X> example

6 Things This Presentation Will Do For You

Get you out of a mental rut, give you new thoughts, new visions, new ambitions

Enable you to make aggregates quickly and easily

Make the principles of pivoting easy for you to apply in your daily flows

Help you coordinate pivots to your way of thinking

Increase your popularity

Help you to handle complicated data, avoid clutter, keep your flows smooth and pleasant

A Little Bit About Us



What is Tableau Prep?

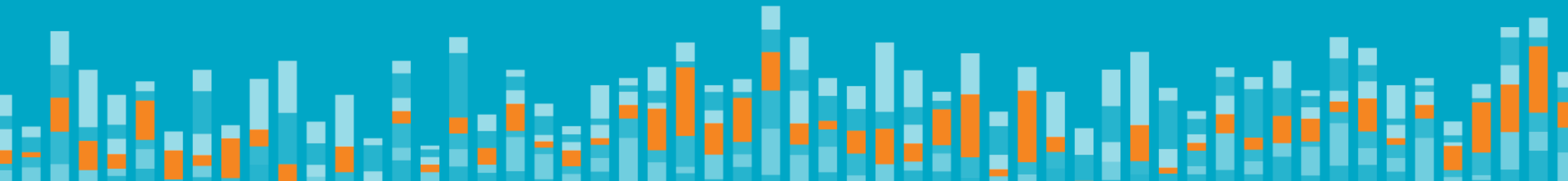
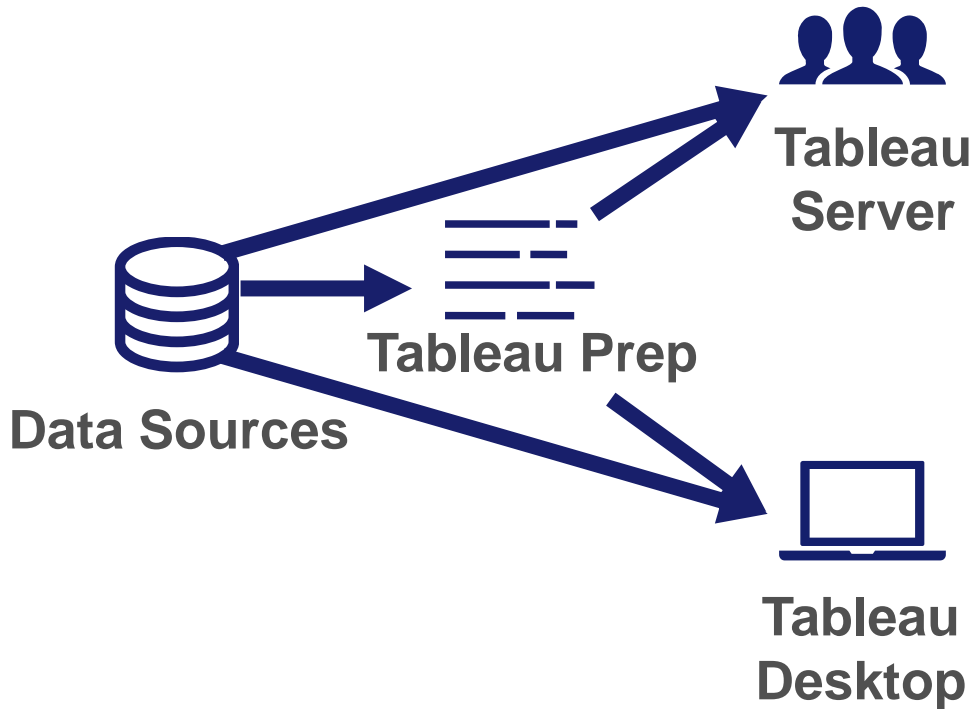


Tableau and Tableau Prep



Tableau

Helps people see and understand their data

Tableau Prep

Helps people clean, combine, and reshape their data

Aggregation Overview

What is an Aggregation

Reduces the number of rows

Changes the level of detail

**Using several different possible methods;
sum, avg, min, max, etc**

Tableau Aggregations



Pages

Filters

- Metric: Obese (B..)
- Year
- Set just Count..
- Set Child (2-1..)
- Exclusions (L..)

Marks

Circle

Color Size Label

Detail Tooltip

AVG(Mean) Δ

AVG(Mean) ∇

Location Name

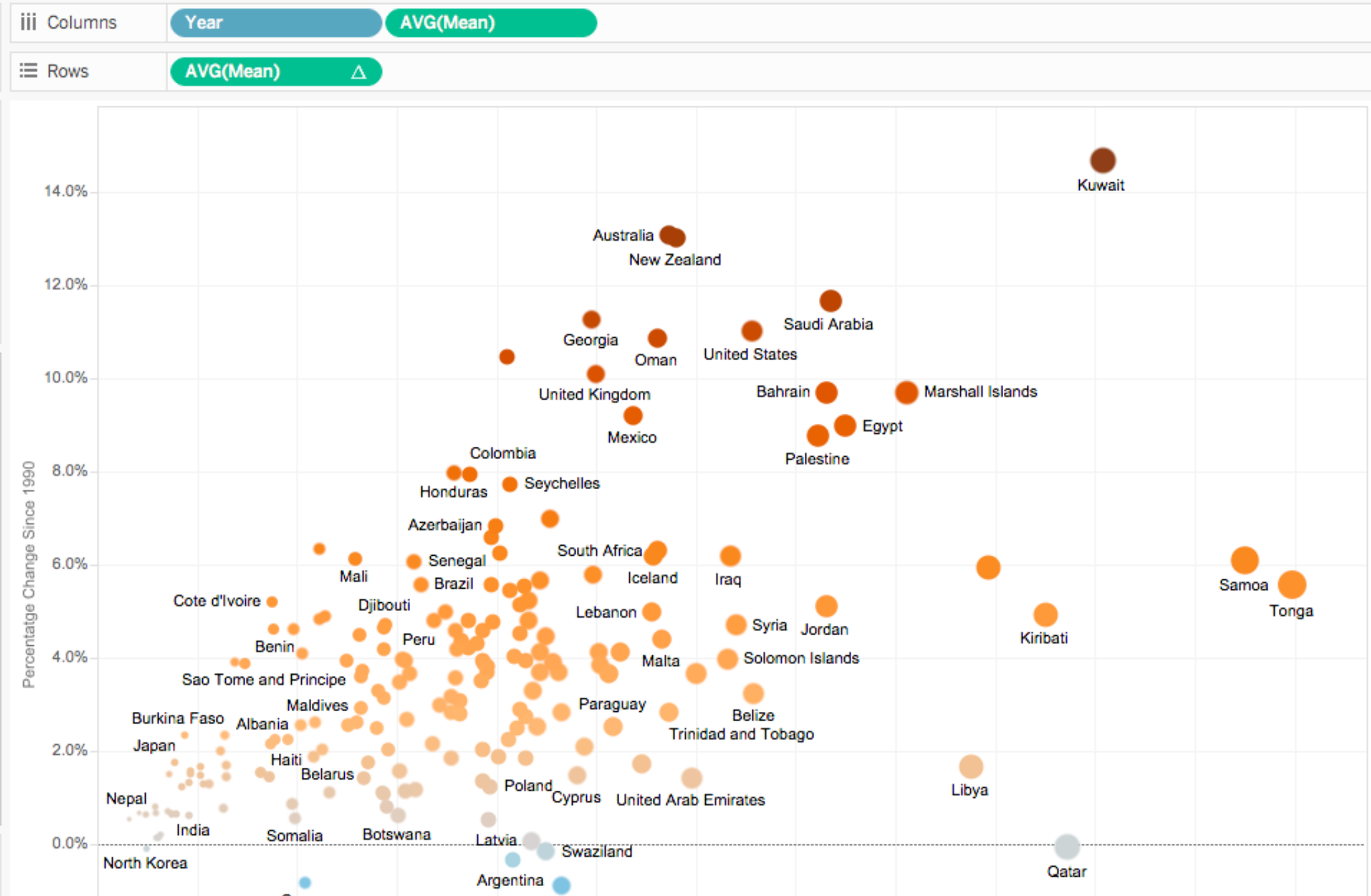
Location

Year

Region

AVG(Mean)

2%



Aggregate Everything

**Tableau Desktop aggregates every pill put on the [canvas].
You can change the aggregation method used for each pill.
LOD calcs allow for more aggregation control.**

Aggregations occur only after all joins and unions take place in the data pane.

Up until now, the only way to aggregate before joins/unions, custom scripts or complicated ETL processes.

Tableau Prep Aggregations



Aggregate at Your Own Speed

Aggregate node gives full control over what fields get aggregated, and when.

Allows you to aggregate each field to a different aggregation method.

Allows you to select the fields the aggregations are grouped to (LoD equivalent).

Aggregate anywhere in the flow (before joins & unions!!).

Familiar aggregation methods, including custom date parse functions (more to be added in the future).

All fields left out of the aggregation, are removed from the node.

Pages

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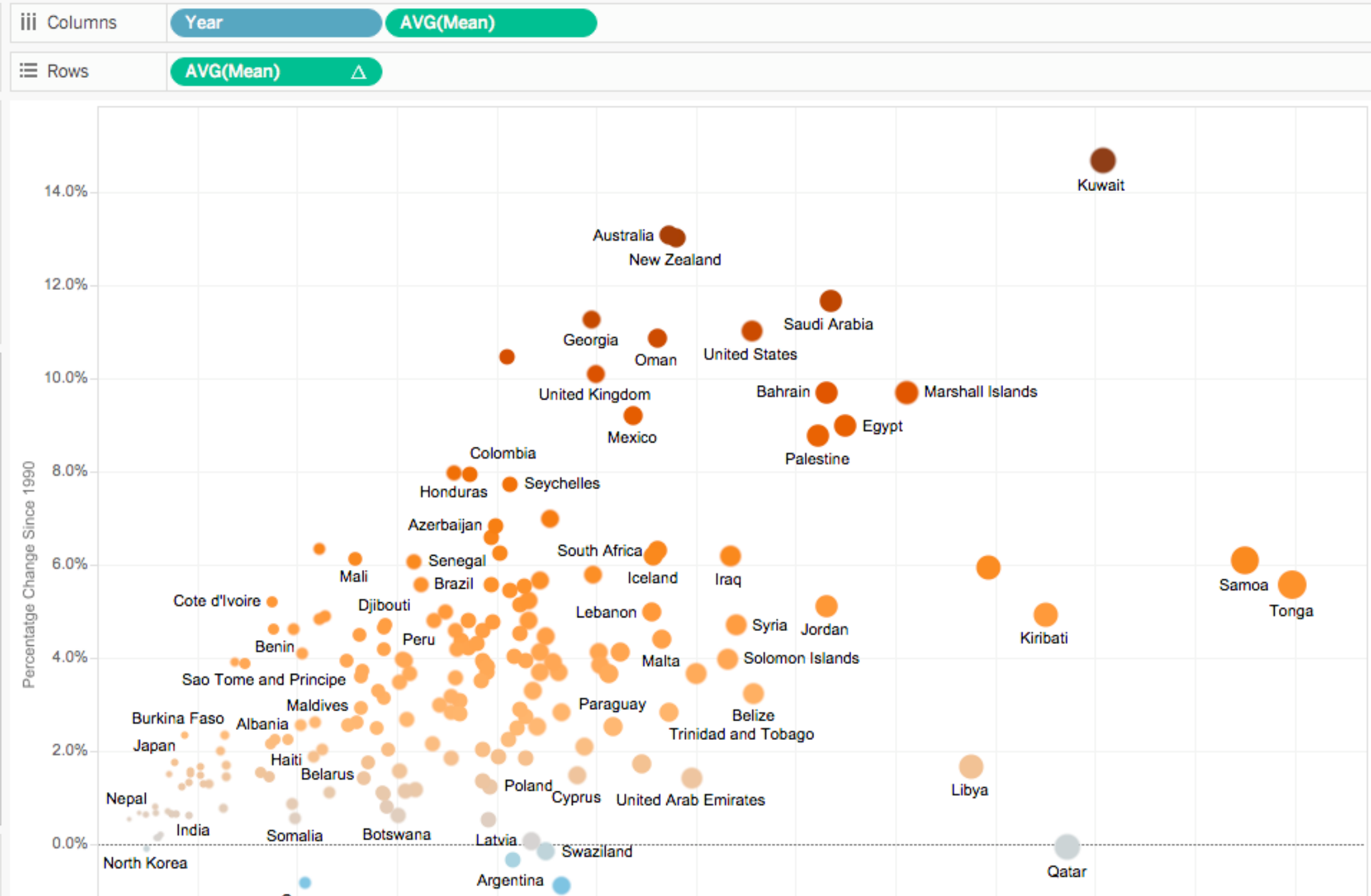
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Region

AVG(Mean)

2%



Advanced Aggregation

Cool, but why?

****Talk through simple aggregation case.**

(Arthur has good example)

****Talk through advanced aggregation case.**

(Arthur has good example)

Watch out!

Fields left out of aggregation node are removed from flow.

****Need more pitfalls**

Pivots Overview



“
A pivot by any other name would be
functionally equivalent

Issa Beekun
Software Engineer, Tableau Software

What is a Pivot\Melt\Fold\Gather\Unpivot

Whatever the name, it is the transformation of columnar data into row data

Steps for a successfully pivot:

Identify—Determine which column headers contain useful information

Select—Choose the columns by hand or with a dynamic rule

Rename—After the new ‘Pivot Names’ and ‘Pivot Values’ columns have been created, update these with more contextual info

Clean—Remove nulls and change pivot column data types as necessary

Tableau Pivots



Quarter	Samsung	Nokia	Apple
Q4 '11	93.8300	111.7000	35.4600
Q1 '12	89.2800	83.1600	33.1200
Q2 '12	90.4300	83.4200	28.9400
Q3 '12	97.9600	82.3000	24.6200
Q4 '12	106.9600	85.0500	43.4600
Q1 '13	100.6600	63.2200	38.3300
Q2 '13	107.5300	60.9500	31.9000
Q3 '13	117.0500	63.0500	30.3300
Q4 '13	119.2100	63.5800	50.2200

- Rename
- Reset Name
- Copy Values
- Hide
- Create Calculated Field...
- Pivot
- Merge Mismatched Fields



Quarter	Samsung	Nokia	Apple
Q1 '12	89.2800	83.1600	33.1200
Q2 '12	90.4300	83.4200	28.9400
Q3 '12	97.9600	82.3000	24.6200
Q4 '12	106.9600	85.0500	43.4600
Q1 '13	100.6600	63.2200	38.3300
Q2 '13	107.5300	60.9500	31.9000
Q3 '13	117.0500	63.0500	30.3300
Q4 '13	119.2100	63.5800	50.2200



Quarter	Pivot Field Names	Pivot Field Values
Q4 '12	Apple	43.460
Q1 '13	Apple	38.330
Q2 '13	Apple	31.900
Q3 '13	Apple	30.330
Q4 '13	Apple	50.220
Q1 '10	Nokia	110.110
Q2 '10	Nokia	111.470
Q3 '10	Nokia	117.460
Q4 '10	Nokia	122.280

Pivot in Tableau Desktop

Tableau Desktop allows pivoting using the built-in functionality or custom SQL statements.

The pivot calculation must be done before any other operations on your data

Pivots are limited to one per data source/no coordinated pivot cases

Tableau Prep Pivots

Pivot Perfected

Insert a pivot node wherever you need it.

Chain as many pivot nodes as you need.

Quickly search for related fields to pivot.

Coordinate your pivots across multiple related fields.

<Might not be in by TC> Wildcard pivoting allows even more flexibility.



Pivot 1 7 Fields 56K Rows

Fields

Search 🔍

- Abc descr
- # qty_sold 2015
- # set_family
- # set_family_member
- # year

Pivoted Fields Automatically rename pivoted fields and values

Pivot1 Names	qty sold
2010	# qty_sold 2010
2011	# qty_sold 2011
2012	# qty_sold 2012
2013	# qty_sold 2013
2014	# qty_sold 2014

qty_sold 2015

Pivot Results

Abc

Pivot1 Names 5

2010
2011
2012
2013
2014

Advanced Pivot



Cool, but why?

****Talk through simple pivot case.
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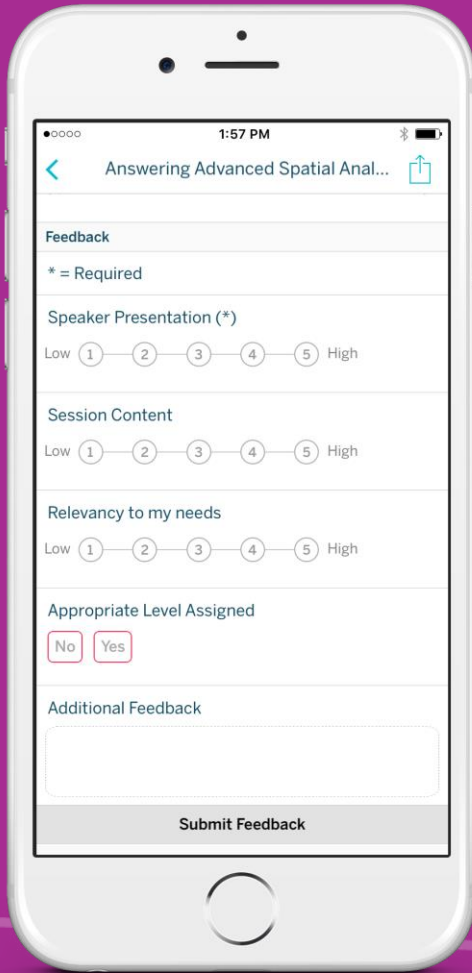
Watch out!

Pivots result in a lot data duplication after they are calculated.

****Need more pitfalls**

The <X> Example





Please complete the
session survey from the
Session Details screen
in your TC18 app

#TC18

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Thank you!

Contact or CTA info goes here



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