



# METRO COLLEGE OF TECHNOLOGY

**Data Analytics Project With Tableau**

---

**Submitted by:**

**Mohammad Monjur-E-Elahi**

**Course: Tableau for Data Analytics [DSA11]**

**Program: Data Science and Application - Advanced Diploma [6060]**

**Metro College of Technology**

**Date: 15 July, 2021**

---



## The Project for Tableau Prep

### THE SITUATION

I have just been hired by a fictitious Schools , an up and coming private education institution. They have a wealth of public and private school data, but need help cleaning and transforming it in order to expose meaningful patterns and insights.

### THE BRIEF

The Schools would like me to examine , clean , shape , combine and share competitive education data from the Massachusetts education market. All I have been given is a folder of excel/csv files containing information about teacher pay and performance , student SAT scores , pupil expenditures , and graduation rates by school and district.



# The Project for Tableau Prep

We've been given is a **folder of excel/csv files** containing information about

- Teacher pay and performance
- Student SAT scores
- Pupil expenditures
- Graduation rates by school and district

We are asked to

- Examine
- Clean
- Shape
- Combine and
- Share competitive education data





# The Project for Tableau Prep

We are asked to focus only on:

- 4 Year Public College
- 4 Year Private Colleges
- Number of teachers should be more than 50
- Hull – High School needs to be excluded as outlier
- District Springfield will be excluded due to inaccuracy in the data

Use Tableau Prep to:

- Connect to multiple data sources
- Examine and filter your data
- Clean and shape fields
- Combine and aggregate data
- Share and update curated data sources





## Content of the Folder

Name	Date modified	Type	Size
AdvancedCourseCompletion_district_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	29 KB
AdvancedCourseCompletion_district_2019.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	29 KB
EducatorEvalPerf_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	104 KB
EducatorEvalPerf_school_2015_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	104 KB
EducatorEvalPerf_school_2016_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	104 KB
EducatorEvalPerf_school_2017_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	104 KB
PerPupilExpenditures_district_2014.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	33 KB
PerPupilExpenditures_district_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	32 KB
PerPupilExpenditures_district_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	33 KB
PerPupilExpenditures_district_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	39 KB
PerPupilExpenditures_district_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	39 KB
plansforhsgrad_district_2014_2015.xlsx	11/8/2020 2:22 PM	Microsoft Excel Worksheet	26 KB
plansforhsgrad_district_2015_2016.xlsx	11/8/2020 2:22 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2016_2017.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2017_2018.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2018_2019.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	34 KB
plansforhsgrad_school_2015_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
plansforhsgrad_school_2016_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
plansforhsgrad_school_2017_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
plansforhsgrad_school_2018_2019.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
sat_performance_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2015_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2016_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2017_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2018_2019.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
teacherdata_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	102 KB
teacherdata_school_2015_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	100 KB
teacherdata_school_2016_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	101 KB
teacherdata_school_2017_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	101 KB
teacherdata_school_2018_2019.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	107 KB
teacherdata_school_2019_2020.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	98 KB
TeacherSalaries_District_2017_2018.csv	4/27/2021 9:58 PM	Microsoft Excel Comma Separated Values File	20 KB



Excel files as input

**Connect**

Connections +

Search for Data

Tableau Server

To a File

- Microsoft Access
- Microsoft Excel**
- PDF file
- Spatial file
- Statistical file
- Tableau extract
- Text file

To a Server

- Alibaba AnalyticDB for MySQL
- Alibaba Data Lake Analytics
- Alibaba MaxCompute
- Amazon Athena
- Amazon Aurora for MySQL
- Amazon EMR Hadoop Hive
- Amazon Redshift
- Apache Drill
- Aster Database
- Azure Data Lake Storage Gen2
- Azure Synapse Analytics
- Box
- Cloudera Hadoop
- Databricks
- Datorama
- Denodo
- Dremio
- Dropbox
- Exasol
- Google BigQuery
- Google Cloud SQL
- Google Drive
- Hortonworks Hadoop Hive
- IBM DB2
- Superstore
- WorldIndicators

Import Data

SecondAttempt Postgres\_Database\_Connect\_Flow FirstAttempt

WorldIndicators

Discover

Tour Tableau Prep Builder

Training

Get Started

Visual Dictionary

Video: Tableau Prep Builder Interface

Video: The Cleaning Step

Tableau Prep I

Resources

Blog - Read about what's new in this product version

Blog - Master Prep with this list of learning resources

Forums

Update to 2021.2.2 Now

Open a Flow Connect to Data

Connections +

### Recent Flows

FinalAttempt

Discover

Tour Tableau Prep Builder

Training

Get Started

Visual Dictionary

Video: Tableau Prep Builder Interface

Video: The Cleaning Step

Tableau Prep I

Resources

Blog - Read about what's new in this product version

Blog - Master Prep with this list of learning resources

Forums

Sample Flows

Superstore

WorldIndicators

Update to 2021.2.2 Now

Name	Date modified	Type	Size
plansforhsgrad_district_2014_2015.xlsx	11/8/2020 2:22 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2015_2016.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2016_2017.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2017_2018.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_district_2018_2019.xlsx	11/8/2020 2:21 PM	Microsoft Excel Worksheet	27 KB
plansforhsgrad_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	34 KB
plansforhsgrad_school_2015_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
plansforhsgrad_school_2016_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
plansforhsgrad_school_2017_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
plansforhsgrad_school_2018_2019.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	35 KB
sat_performance_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2015_2016.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2016_2017.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2017_2018.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
sat_performance_school_2018_2019.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	22 KB
teacherdata_school_2014_2015.xlsx	4/27/2021 9:58 PM	Microsoft Excel Worksheet	102 KB

File name: plansforhsgrad\_school\_2018\_2019.xlsx

Excel Files (\*.xls;\*.xlsx;\*.xlsm)

Open Cancel

Data Not Read Correctly. Fixed with Data Interpreter.

Tableau Prep Builder - Flow1\*

File Edit Flow Server Help

Connections +

plansforhsgrad\_scho... Microsoft Excel

Search

Tables

Use Data Interpreter  
Data Interpreter might be able to clean your Microsoft Excel workbook.

Plans of High School ...

Input

Settings Multiple Files Data Sample Changes (0)

Single table Wildcard union

Table Plans of High School Graduates

Plans of High School Graduates 13 fields Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. Add a clean step to view and clean data.

Fields selected: 13 of 13

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	2018-19 Plans o...	2018-19 Plans of High Sch...		School Name, Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public Sc...
<input checked="" type="checkbox"/>	Abc	F2	F2		School Code, 04450105, 00010505
<input checked="" type="checkbox"/>	Abc	F3	F3		4 Year Private College, 31.7, 36.5
<input checked="" type="checkbox"/>	Abc	F4	F4		4 Year Public College, 48.8, 31.7
<input checked="" type="checkbox"/>	Abc	F5	F5		2 Year Private College, 1.2, 0.0
<input checked="" type="checkbox"/>	Abc	F6	F6		2 Year Public College, 13.4, 19.2
<input checked="" type="checkbox"/>	Abc	F7	F7		Other Post Secondary, 0.0, 1.9
<input checked="" type="checkbox"/>	Abc	F8	F8		Apprenticeship, 0.0, 2.9
<input checked="" type="checkbox"/>	Abc	F9	F9		Work, 1.2, 0.0
<input checked="" type="checkbox"/>	Abc	F10	F10		Military, 2.4, 1.0
<input checked="" type="checkbox"/>	Abc	F11	F11		Other, 0.0, 5.8
<input checked="" type="checkbox"/>	Abc	F12	F12		Unknown, 1.2, 1.0
<input checked="" type="checkbox"/>	Abc	F13	F13		Total Count, 82, 104

Alerts (0) ▲

100%

Tableau Prep Builder - Flow1\*

File Edit Flow Server Help

Connections +

plansforhsgrad\_scho... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter

To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Plans of High School ...

Input

Settings Multiple Files Data Sample Changes (0)

Single table Wildcard union

Table  
Plans of High School Graduates

Plans of High School Graduates 13 fields Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 13 of 13

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public School, Abington...
<input checked="" type="checkbox"/>	#	School Code	School Code		4,450,105,10,505,4,120,530
<input checked="" type="checkbox"/>	#	4 Year Private C...	4 Year Private College		31.7,36.5,31.6
<input checked="" type="checkbox"/>	#	4 Year Public Col...	4 Year Public College		48.8,31.7,47.4
<input checked="" type="checkbox"/>	#	2 Year Private C...	2 Year Private College		1.2,0
<input checked="" type="checkbox"/>	#	2 Year Public Col...	2 Year Public College		13.4,19.2,10.5
<input checked="" type="checkbox"/>	#	Other Post Seco...	Other Post Secondary		0,1.9,10.5
<input checked="" type="checkbox"/>	#	Apprenticeship	Apprenticeship		0,2.9
<input checked="" type="checkbox"/>	#	Work	Work		1.2,0
<input checked="" type="checkbox"/>	#	Military	Military		2.4,1,0
<input checked="" type="checkbox"/>	#	Other	Other		0,5.8
<input checked="" type="checkbox"/>	#	Unknown	Unknown		1.2,1,0
<input checked="" type="checkbox"/>	#	Total Count	Total Count		82,104,38

Alerts (0) ▲

100%

One Excel File from Other Group of Files and .csv File inserted

Tableau Prep Builder - Flow1\*

File Edit Flow Server Help

Connections

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

- Planes of High S... View and clean data
- Educator Evalu... View and clean data
- SAT Performan... View and clean data
- Teacher Data View and clean data
- Per Pupil Expen... View and clean data
- Advanced Cour... View and clean data

Input

Settings Multiple Files Data Sample Changes (0)

Single table  Wildcard union

Table Advanced Course Completion Repo

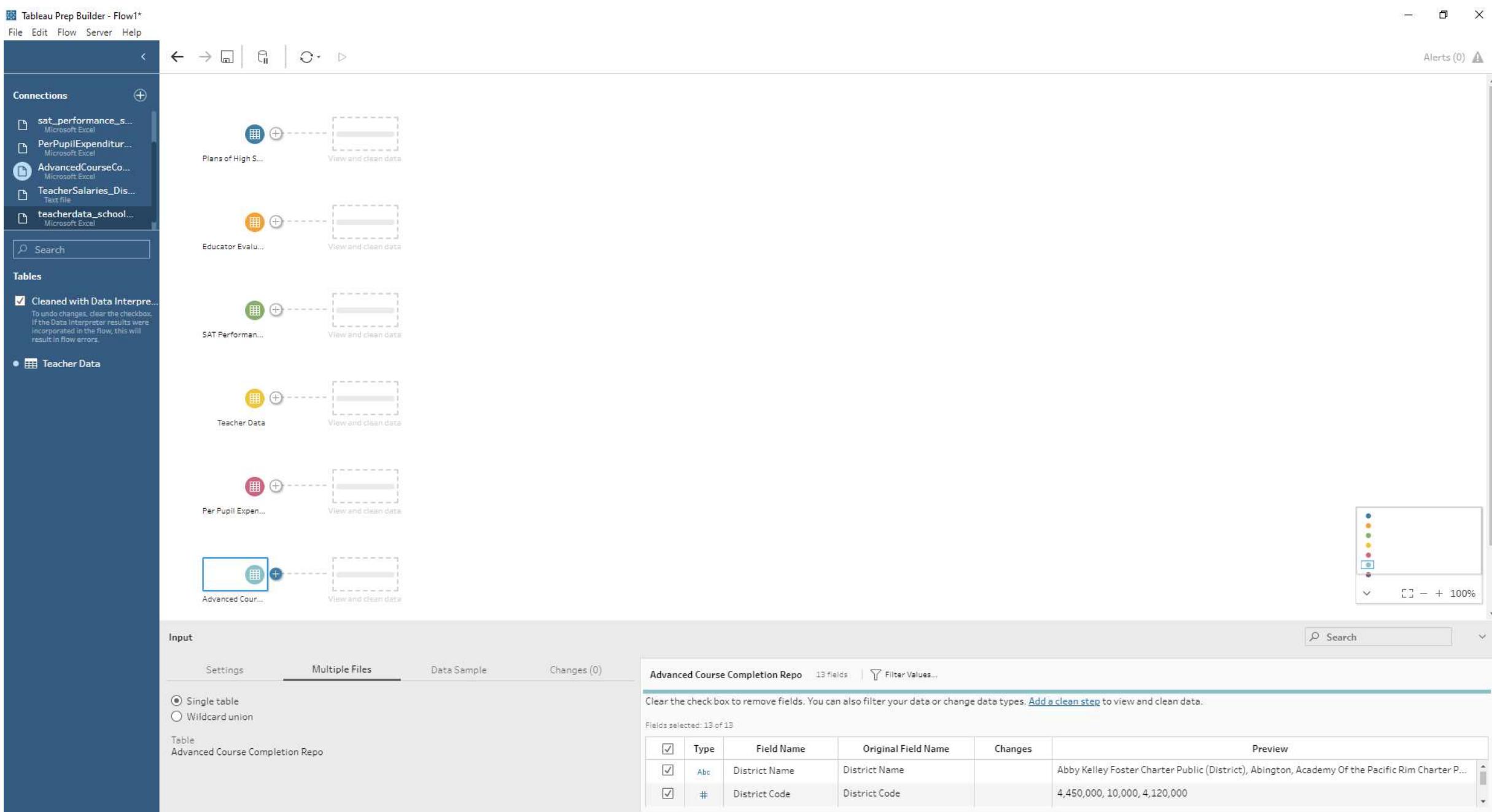
Advanced Course Completion Repo 13 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 13 of 13

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	District Name	District Name		Abby Kelley Foster Charter Public (District), Abington, Academy Of the Pacific Rim Charter P...
<input checked="" type="checkbox"/>	#	District Code	District Code		4,450,000, 10,000, 4,120,000

Alerts (0) 



Connect

-  plansforhsgrad\_sch...  
Microsoft Word
  -  EducatorEvalPerf\_s...  
Microsoft Word
  -  sat\_performance\_s...  
Microsoft Word
  -  PerPupilExpenditur...  
Microsoft Word
  -  AdvancedCourseCo...  
Microsoft Word

## Tables

Cleaned with Data Interpre..  
To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

-  Advanced Course Com...

## To a Server

- Alibaba AnalyticDB for MySQL
  - Alibaba Data Lake Analytics
  - Alibaba MaxCompute
  - Amazon Athena
  - Amazon Aurora for MySQL
  - Amazon EMR Hadoop Hive
  - Amazon Redshift
  - Apache Drill
  - Aster Database
  - Azure Data Lake Storage Gen2
  - Azure Synapse Analytics
  - Box
  - Cloudera Hadoop
  - Databricks
  - Datorama
  - Denodo
  - Dremio
  - Dropbox
  - Exasol
  - Google BigQuery
  - Google Cloud SQL
  - Google Drive
  - Hortonworks Hadoop Hive

ANSWER

old clean data

ind clean data

mid clean data

ed clean data

104

104

▼



Tableau Prep Builder - Flow1\*

File Edit Flow Server Help

Connections

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter...  
To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Advanced Course Com...

Plans of High S... View and clean data

Educator Evalu... View all

SAT Performan... View all

Per Pupil Expen... View all

Advanced Cour... View all

Open

This PC > This PC > Desktop > Tableau-Metroc > Project > TABLEAU\_PREP > Data

Organize New folder

Name	Date modified	Type	Size
TeacherSalaries_District_2017_2018.csv	4/27/2021 9:58 PM	Microsoft Excel Comma ...	20 KB

File name: TeacherSalaries\_District\_2017\_2018.csv

All Text Files (\*.txt;\*.csv;\*.tab;\*.t

Open Cancel

Could not clean using the Data Interpreter.

Tableau Prep Builder - Flow1\*

File Edit Flow Server Help

Connections

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter...  
To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Per Pupil Expen...

Advanced Cour...

TeacherSalarie...

Educator Evalu...

SAT Perform...

Teacher Data

View and clean data

Input

Settings Multiple Files Data Sample Changes (0)

TeacherSalaries\_District\_2017\_2018 6 fields

No data changes.  
Clean and transform your data and see a list of your changes here.

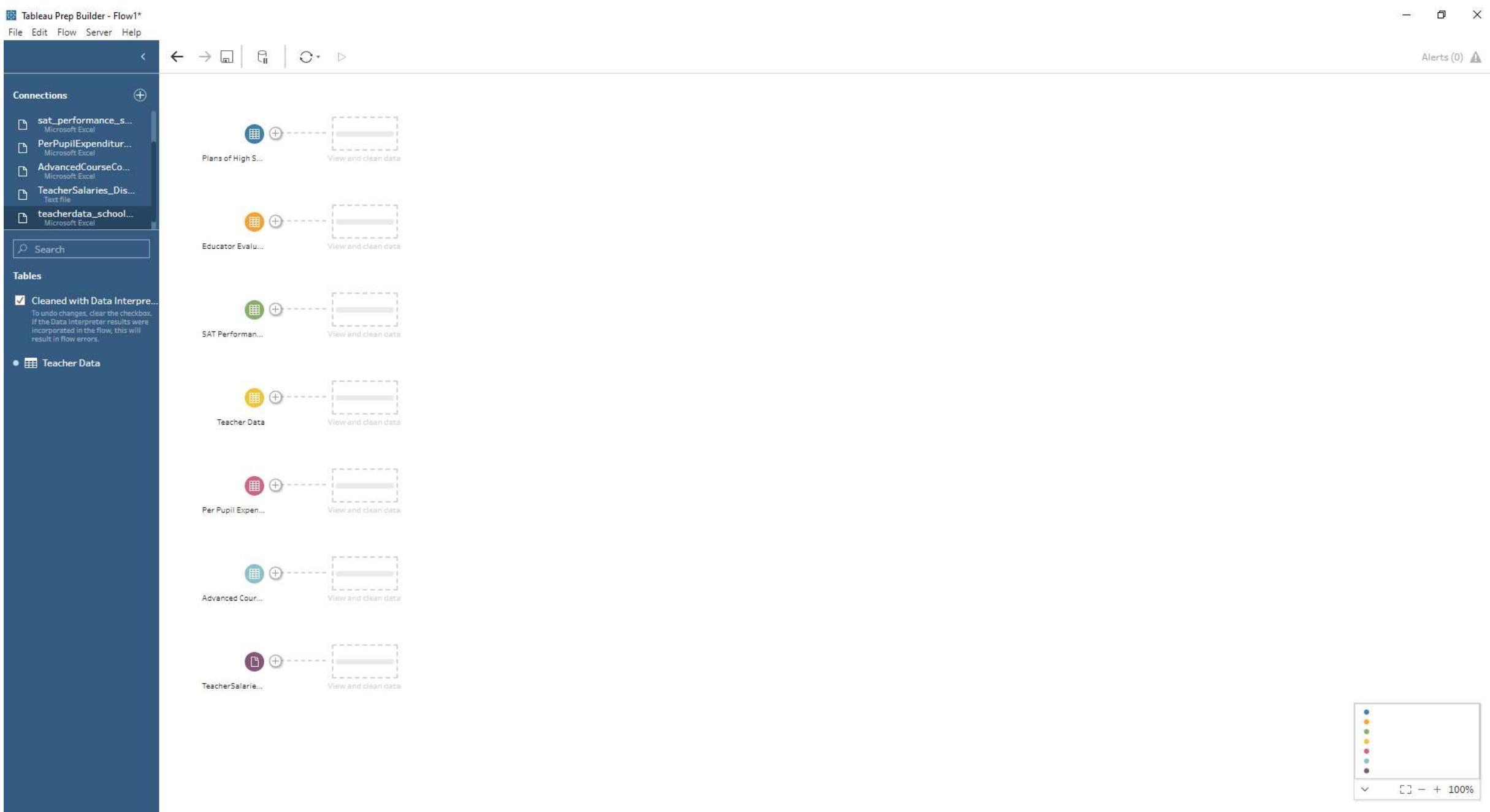
Filter Values...

Fields selected: 6 of 6

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	F1	F1		2017-18 Teacher Salaries Report, District Name, Abington
<input checked="" type="checkbox"/>	#	F2	F2		null, 10,000
<input checked="" type="checkbox"/>	#	F3	F3		null, 10,610,746
<input checked="" type="checkbox"/>	#	F4	F4		null, 85,917
<input checked="" type="checkbox"/>	#	F5	F5		null, 124
<input checked="" type="checkbox"/>	date	F6	F6		null, 06/18/2018

Search

One file for each group of files inserted.



Wildcard Union Done to get other relevant files inserted and unioned.

**Connections**

- plansforhsgrad\_school Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Input**

Settings    Multiple Files    Data Sample    Changes (0)

Single table  
 Wildcard union

Search in Data

Include subfolders

Files    Include

Matching Pattern (xxx\*)

Sheets    Include

Matching Pattern (xxx\*)  
Blank = Include all

Included files (5)    Include sheets (5)

- plansforhsgrad\_school\_2014\_2015.xlsx
- Plans of High School Graduates
- plansforhsgrad\_school\_2015\_2016.xlsx
- Plans of High School Graduates
- plansforhsgrad\_school\_2016\_2017.xlsx
- Plans of High School Graduates
- plansforhsgrad\_school\_2017\_2018.xlsx
- Plans of High School Graduates
- plansforhsgrad\_school\_2018\_2019.xlsx
- Plans of High School Graduates

**Plans of High School Graduates** 13 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 13 of 13

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public School, Abington...
<input checked="" type="checkbox"/>	#	School Code	School Code		4,450,105, 10,505, 4,120,530
<input checked="" type="checkbox"/>	#	4 Year Private C...	4 Year Private College		31.7, 36.5, 31.6
<input checked="" type="checkbox"/>	#	4 Year Public Col...	4 Year Public College		48.8, 31.7, 47.4
<input checked="" type="checkbox"/>	#	2 Year Private C...	2 Year Private College		1.2, 0
<input checked="" type="checkbox"/>	#	2 Year Public Col...	2 Year Public College		13.4, 19.2, 10.5
<input checked="" type="checkbox"/>	#	Other Post Seco...	Other Post Secondary		0, 1.9, 10.5
<input checked="" type="checkbox"/>	#	Apprenticeship	Apprenticeship		0, 2.9
<input checked="" type="checkbox"/>	#	Work	Work		1.2, 0
<input checked="" type="checkbox"/>	#	Military	Military		2.4, 1, 0
<input checked="" type="checkbox"/>	#	Other	Other		0, 5.8
<input checked="" type="checkbox"/>	#	Unknown	Unknown		1.2, 1, 0
<input checked="" type="checkbox"/>	#	Total Count	Total Count		82, 104, 38

**Apply**

**Connections**

- plansforhsgrad\_school Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Input**

Settings    Multiple Files    Data Sample    Changes (0)

Single table  
 Wildcard union

Search in Data

Include subfolders

Files    Include

Matching Pattern (xxx\*) plansforhsgrad\_school|\*

Sheets    Include

Matching Pattern (xxx\*) Blank = Include all

Included files (5) plansforhsgrad\_school\_2014\_2015.xlsx  
 plansforhsgrad\_school\_2015\_2016.xlsx  
 plansforhsgrad\_school\_2016\_2017.xlsx  
 plansforhsgrad\_school\_2017\_2018.xlsx  
 plansforhsgrad\_school\_2018\_2019.xlsx

Include sheets (5) Plans of High School Graduates  
 Plans of High School Graduates

**Plans of High School Graduates** 15 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 15 of 15

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public School, Abington...
<input checked="" type="checkbox"/>	#	School Code	School Code		4,450,105, 10,505, 4,120,530
<input checked="" type="checkbox"/>	#	4 Year Private C...	4 Year Private College		26.3, 21.8, 50
<input checked="" type="checkbox"/>	#	4 Year Public Col...	4 Year Public College		42.1, 37.1, 28.6
<input checked="" type="checkbox"/>	#	2 Year Private C...	2 Year Private College		1.3, 0, 7.1
<input checked="" type="checkbox"/>	#	2 Year Public Col...	2 Year Public College		22.4, 24.2, 11.9
<input checked="" type="checkbox"/>	#	Other Post Seco...	Other Post Secondary		1.3, 5.6, 0
<input checked="" type="checkbox"/>	#	Work	Work		1.3, 7.3, 0
<input checked="" type="checkbox"/>	#	Military	Military		1.3, 4, 0
<input checked="" type="checkbox"/>	#	Other	Other		2.6, 0
<input checked="" type="checkbox"/>	#	Unknown	Unknown		1.3, 0, 2.4
<input checked="" type="checkbox"/>	#	Total Count	Total Count		76,124, 42
<input checked="" type="checkbox"/>	#	Apprenticeship	Apprenticeship		null
<input checked="" type="checkbox"/>	Abc	Table Names	Table Names		Plans of High School Graduates
<input checked="" type="checkbox"/>	Abc	File Paths	File Paths		plansforhsgrad_school_2014_2015.xlsx

Removing unwanted fields. Because these are not required as per the requirement list of the client.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Input

Search

Tables

Cleaned with Data Interpreter

To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Connections

Plans of High S... View and clean data

100%

Alerts (0) ▲

Changes (1)

Remove Fields [2 Year Private College], [2 Year Public College], [Other Post Secondary], [Work], [Military], [Other], [Unknown]...

Plans of High School Graduates 15 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 6 of 15

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public School, Abington...
<input checked="" type="checkbox"/>	#	School Code	School Code		4,450,105, 10,505, 4,120,530
<input checked="" type="checkbox"/>	#	4 Year Private C...	4 Year Private College		26.3, 21.8, 50
<input checked="" type="checkbox"/>	#	4 Year Public Col...	4 Year Public College		42.1, 37.1, 28.6
<input type="checkbox"/>	#	2 Year Private C...	2 Year Private College	<a href="#">Edit</a>	1.3, 7.1
<input type="checkbox"/>	#	2 Year Public Col...	2 Year Public College	<a href="#">Edit</a>	22.4, 24.2, 11.9
<input type="checkbox"/>	#	Other Post Seco...	Other Post Secondary	<a href="#">Edit</a>	1.3, 5.6, 0
<input type="checkbox"/>	#	Work	Work	<a href="#">Edit</a>	1.3, 7.3, 0
<input type="checkbox"/>	#	Military	Military	<a href="#">Edit</a>	1.3, 4, 0
<input type="checkbox"/>	#	Other	Other	<a href="#">Edit</a>	2.6, 0
<input type="checkbox"/>	#	Unknown	Unknown	<a href="#">Edit</a>	1.3, 0, 2.4
<input checked="" type="checkbox"/>	#	Total Count	Total Count		76, 124, 42
<input type="checkbox"/>	#	Apprenticeship	Apprenticeship	<a href="#">Edit</a>	null
<input type="checkbox"/>	Abc	Table Names	Table Names	<a href="#">Edit</a>	Plans of High School Graduates
<input checked="" type="checkbox"/>	Abc	File Paths	File Paths		plansforhsgrad_school_2014_2015.xlsx

Renaming fields and changing data types.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Input

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

View and clean data

Alerts (0)

100%

**Educator Evaluation Performance** 11 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 11 of 11

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public School, Abington...
<input checked="" type="checkbox"/>	Abc	School Code	Org Code		04450105, 00010505, 00010003
<input checked="" type="checkbox"/>	#	# of Educators t...	# of Educators to be Evalu...		137, 51, 42
<input checked="" type="checkbox"/>	#	# Evaluated	# Evaluated		135, 50, 41
<input checked="" type="checkbox"/>	#	% Evaluated	% Evaluated		98.5, 98, 97.6
<input checked="" type="checkbox"/>	#	% Exemplary	% Exemplary		8.9, 30, 7.3
<input checked="" type="checkbox"/>	#	% Proficient	% Proficient		87.4, 64, 87.8
<input checked="" type="checkbox"/>	#	% Needs Improv...	% Needs Improvement		3, 6, 2.4
<input checked="" type="checkbox"/>	#	% Unsatisfactory	% Unsatisfactory		0.7, 0, 2.4
<input checked="" type="checkbox"/>	Abc	Table Names	Table Names		Educator Evaluation Performance
<input checked="" type="checkbox"/>	Abc	File Paths	File Paths		EducatorEvalPerf_school_2014_2015.xlsx

Filtering at the input stage.

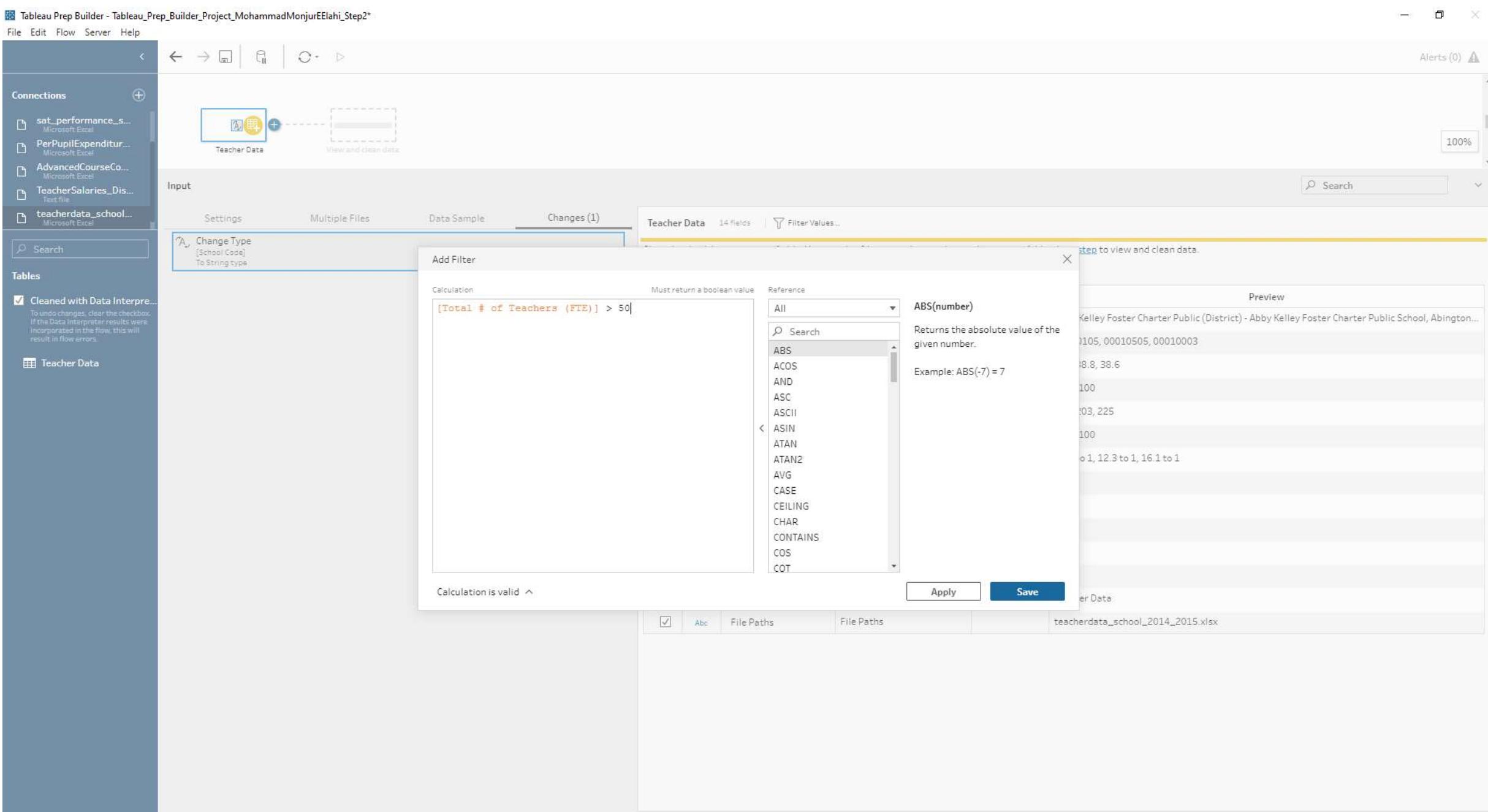


Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Input

Search

Tables

Cleaned with Data Interpreter...  
To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

View and clean data

Change Type [School Code] To String type

Filter  
[Total # of Teachers (FTE)]  
[Total # of Teachers (FTE)] > 50

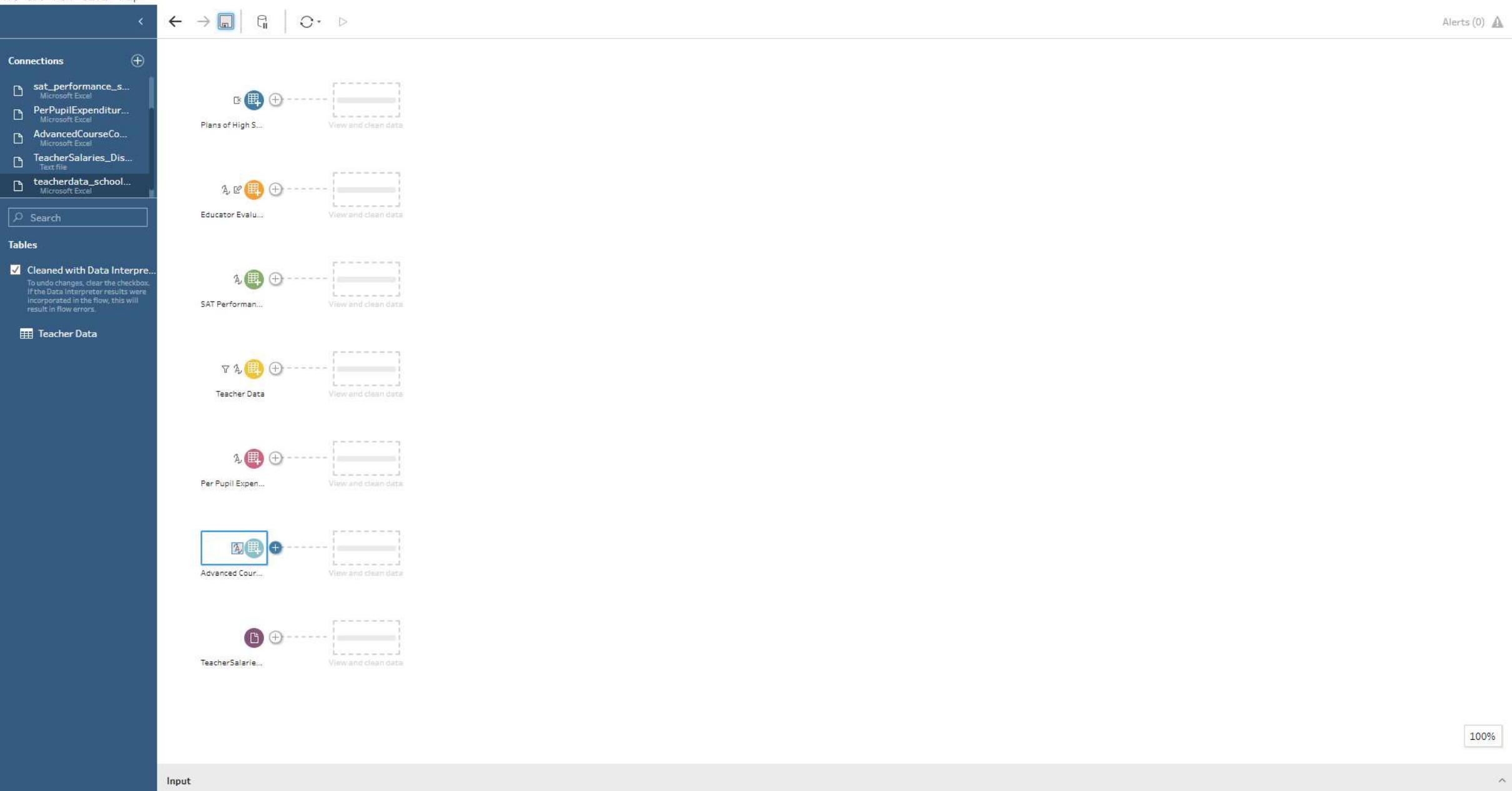
Teacher Data 14 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 14 of 14

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		
<input checked="" type="checkbox"/>	Abc	School Code	School Code	A	
<input checked="" type="checkbox"/>	#	Total # of Teach...	Total # of Teachers		
<input checked="" type="checkbox"/>	#	% of Teachers Li...	% of Teachers Licensed in T...		
<input checked="" type="checkbox"/>	#	Total # of Classe...	Total # of Classes in Core A...		
<input checked="" type="checkbox"/>	#	% of Core Academ...	% of Core Academic Classe...		
<input checked="" type="checkbox"/>	Abc	Student/Teach...	Student/Teacher Ratio		
<input checked="" type="checkbox"/>	#	Total # of Teach...	Total # of Teachers (FTE)	T	
<input checked="" type="checkbox"/>	#	% of Teachers Li...	% of Teachers Licensed		
<input checked="" type="checkbox"/>	#	Percent of Exper...	Percent of Experienced Tea...		
<input checked="" type="checkbox"/>	#	Percent of Teach...	Percent of Teachers witho...		
<input checked="" type="checkbox"/>	#	Percent Teachin...	Percent Teaching In-Field		
<input checked="" type="checkbox"/>	Abc	Table Names	Table Names		
<input checked="" type="checkbox"/>	Abc	File Paths	File Paths		

End of input stage activities.



100%

Data Sampling for the flow for optimized performance.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2\*

File Edit Flow Server Help

Connections +

plansforhsgrad\_sch... Microsoft Excel  
EducatorEvalPerf\_s... Microsoft Excel  
sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel

View and clean data

Input

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Settings Multiple Files Data Sample Changes (1)

For large data sets, you can improve performance by working with a subset of your data. Use these settings to select the data to include in the flow.

Select the amount of data to include in the flow:

Default sample amount ⓘ  
 Use all data  
 Fixed number of rows:

Sampling method:

Quick select ⓘ  
 Random sample (more thorough but may impact performance)

Plans of High School Graduates 15 fields | Filter Values...

Clear the check box to remove fields. You can also filter your data or change data types. [Add a clean step](#) to view and clean data.

Fields selected: 6 of 15

	Type	Field Name	Original Field Name	Changes	Preview
<input checked="" type="checkbox"/>	Abc	School Name	School Name		Abby Kelley Foster Charter Public (District) - Abby Kelley Foster Charter Public School, Abington...
<input checked="" type="checkbox"/>	#	School Code	School Code		4,450,105, 10,505, 4,120,530
<input checked="" type="checkbox"/>	#	4 Year Private C...	4 Year Private College		26.3, 21.8, 50
<input checked="" type="checkbox"/>	#	4 Year Public Col...	4 Year Public College		42.1, 37.1, 28.6
<input type="checkbox"/>	#	2 Year Private C...	2 Year Private College	<input type="checkbox"/>	1.3, 0, 7.1
<input type="checkbox"/>	#	2 Year Public Col...	2 Year Public College	<input type="checkbox"/>	22.4, 24.2, 11.9
<input type="checkbox"/>	#	Other Post Seco...	Other Post Secondary	<input type="checkbox"/>	1.3, 5.6, 0
<input type="checkbox"/>	#	Work	Work	<input type="checkbox"/>	1.3, 7.3, 0
<input type="checkbox"/>	#	Military	Military	<input type="checkbox"/>	1.3, 4, 0
<input type="checkbox"/>	#	Other	Other	<input type="checkbox"/>	2.6, 0
<input type="checkbox"/>	#	Unknown	Unknown	<input type="checkbox"/>	1.3, 0, 2.4
<input checked="" type="checkbox"/>	#	Total Count	Total Count		76,124, 42
<input type="checkbox"/>	#	Apprenticeship	Apprenticeship	<input type="checkbox"/>	null
<input type="checkbox"/>	Abc	Table Names	Table Names	<input type="checkbox"/>	Plans of High School Graduates
<input checked="" type="checkbox"/>	Abc	File Paths	File Paths		plansforhsgrad_school_2014_2015.xlsx

Filtering out irrelevant file(as per the requirements of the client) in the clean stage.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Plans of High S... Clean 1

100%

Clean 1 6 fields 2K rows ✓ Keep Only ✎ Exclude ⌂ Edit Value ⌂ Replace with Null Search

Changes (0)

School Name 471 School Code 421 4 Year Private College 568 4 Year Public College 505 Total Count 466 File Paths

School Name	School Code	4 Year Private College	4 Year Public College	Total Count	File Paths
Abby Kelley Foster Cha...	0	0	0	0	_2014_2015.xlsx
Abington - Abington Hi...	10,000,000	10,000,000	10,000,000	10,000,000	_2015_2016.xlsx
Academy Of the Pacific...	20,000,000	20,000,000	20,000,000	20,000,000	_2016_2017.xlsx
Academy Of the Pacific...	30,000,000	30,000,000	30,000,000	30,000,000	_2017_2018.xlsx
Acton-Boxborough - Ac...	40,000,000	40,000,000	40,000,000	40,000,000	_2018_2019.xlsx
Adams-Cheshire - Hoos...	0	0	0	0	
Adams-Cheshire - Hoos...	0	0	0	0	
Advanced Math and Sc...	0	0	0	0	
Agawam - Agawam High	0	0	0	0	
Amesbury - Amesbury ...	0	0	0	0	
Amesbury - Amesbury I...	0	0	0	0	
Amesbury Academy Ch...	0	0	0	0	
Abby Kelley Fos 4,450,105	26.3	42.1	76	plansforhsgrad_school_2014_2015.xlsx	
Abington - Abin 10,505	21.8	37.1	124	plansforhsgrad_school_2014_2015.xlsx	
Academy Of the 4,120,530	50	28.6	42	plansforhsgrad_school_2014_2015.xlsx	
Acton-Boxborol 6,000,505	55.7	37.5	472	plansforhsgrad_school_2014_2015.xlsx	
Adams-Cheshir 6,030,505	21.5	25.3	79	plansforhsgrad_school_2014_2015.xlsx	
Advanced Math 4,300,305	53.1	42.2	128	plansforhsgrad_school_2014_2015.xlsx	
Agawam - Agav 50,505	23.6	33.7	288	plansforhsgrad_school_2014_2015.xlsx	
Amesbury - Am 70,505	21	32.3	124	plansforhsgrad_school_2014_2015.xlsx	
Amesbury Acad 4,150,505	0	0	13	plansforhsgrad_school_2014_2015.xlsx	
Amherst-Pelhai 6,050,505	46.3	22.4	246	plansforhsgrad_school_2014_2015.xlsx	
Andover - Ando 90,505	78.9	11.9	413	plansforhsgrad_school_2014_2015.xlsx	
Arlington - Arli 100,505	70.9	15.7	306	plansforhsgrad_school_2014_2015.xlsx	
Ashburnham-W 6,100,505	26.8	48.8	164	plansforhsgrad_school_2014_2015.xlsx	
Ashland - Ashla 140,505	34.6	49.4	162	plansforhsgrad_school_2014_2015.xlsx	
Assabet Valley 8,010,505	17.7	14.2	227	plansforhsgrad_school_2014_2015.xlsx	

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Plans of High S... Clean 1

100%

Clean 1 6 fields 2Krows | Filter Values... | Rename Fields... | Create Calculated Field...

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Changes (1)

School Name	School Code	4 Year Private College	4 Year Public College	Total Count	File Paths
Abby Kelley Foster Cha...	0	0	0	0	plansforhsgrad_school_2015_2016.xlsx
Abington - Abington Hi...	10,000,000	0	0	0	plansforhsgrad_school_2016_2017.xlsx
Academy Of the Pacific...	20,000,000	0	0	0	plansforhsgrad_school_2017_2018.xlsx
Acton-Boxborough - Ac...	30,000,000	0	0	0	plansforhsgrad_school_2018_2019.xlsx
Adams-Cheshire - Hoos...	40,000,000	0	0	0	
Advanced Math and Sc...					
Agawam - Agawam High					
Amesbury - Amesbury ...					
Amesbury - Amesbury I...					
Amherst-Pelham - Amh...					
Andover - Andover High					

Excludeing one particular school as per the initail requirement.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Alerts (0) ▲

100%

Educator Evaluat... Clean 2

SAT Performan... Clean 3

Clean 3 9 fields 2Krows Filter Values... Automatic Split Custom Split... Rename Field Create Calculated Field... Duplicate Field ... 2 Recommendations Search

Changes (0)

Abc School Name 452 Abc School Code 409 # Tests Taken 479 # Reading / Writing 239 # Math 292 # Reading 239 # Writing 250

Abby Kelley Foster Cha... Abington - Abington Hi... Academy Of the Pacific... Academy Of the Pacific... Acton-Boxborough - Ac... Adams-Cheshire - Hoos... Adams-Cheshire - Hoos... Advanced Math and Sc... Agawam - Agawam High Amesbury - Amesbury ... Amesbury - Amesbury I... Amesbury Academy Ch...

Filter Selected Values Wildcard Match Null Values View State Detail Summary Rename Field Duplicate Field Keep Only Field Create Calculated Field Publish as Data Role...

No data changes. Clean and transform your data and see a list of your changes here.

School Name	Hide Field	col Code	Tests Taken	Reading / Writing	Math	Reading	Writing	Table Names	File Paths
Abby Kelley Foster Charter Pu...	Remove	0105	76	null	481	487	486	SAT Performance Report	sat_performance_school_2014_2015.xls
Abington - Abington High		00010505	93	null	498	489	476	SAT Performance Report	sat_performance_school_2014_2015.xls
Academy Of the Pacific Rim Charter Public - Academy O...		04120530	38	null	477	493	465	SAT Performance Report	sat_performance_school_2014_2015.xls
Acton-Boxborough - Acton-Boxborough Regional High		06000505	441	null	636	608	610	SAT Performance Report	sat_performance_school_2014_2015.xls
Adams-Cheshire - Hoosac Valley Middle & High School		06030505	58	null	479	471	467	SAT Performance Report	sat_performance_school_2014_2015.xls
Advanced Math and Science Academy Charter (District)		04300305	129	null	670	619	623	SAT Performance Report	sat_performance_school_2014_2015.xls
Agawam - Agawam High		00050505	219	null	515	493	484	SAT Performance Report	sat_performance_school_2014_2015.xls
Amesbury - Amesbury High		00070505	88	null	545	544	542	SAT Performance Report	sat_performance_school_2014_2015.xls
Amesbury Academy Charter Public (District) - Amesbu...		04150505	5	null	null	null	null	SAT Performance Report	sat_performance_school_2014_2015.xls
Amherst-Pelham - Amherst Regional High		06050505	192	null	587	582	567	SAT Performance Report	sat_performance_school_2014_2015.xls
Andover - Andover High		00090505	396	null	587	568	568	SAT Performance Report	sat_performance_school_2014_2015.xls
Arlington - Arlington High		00100505	274	null	583	578	571	SAT Performance Report	sat_performance_school_2014_2015.xls
Ashburnham-Westminster - Oakmont Regional High Sc...		06100505	143	null	517	515	507	SAT Performance Report	sat_performance_school_2014_2015.xls
Ashland - Ashland High		00140505	145	null	576	552	523	SAT Performance Report	sat_performance_school_2014_2015.xls
Assabet Valley Regional Vocational Technical - Arundel		00010605	120	null	457	456	427	SAT Performance Report	sat_performance_school_2014_2015.xls

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Alerts (0) ▲

100%

Educator Evalu... Clean 2

SAT Perform... Clean 3

Clean 3 9 fields 2Krows Filter Values... Automatic Split Custom Split... Rename Field Create Calculated Field... Duplicate Field ... 2 Recommendations Search

Changes (1)

Filter: Selected Values [School Name] Exclude: "Hull - Hull High"

Done

Keep Only Exclude 1

hull

Hull - Hull High

Abby Kelley Foster Charter Public (District) - Abby Kell Abington - Abington High Academy Of the Pacific Rim Charter School Acton-Boxborough - Acton-Boxbor... Adams-Cheshire - Hoosac Valley Hi... Adams-Cheshire - Hoosac Valley Mi... Advanced Math and Science Academ... Agawam - Agawam High Amesbury - Amesbury High Amesbury - Amesbury Innovation ... Amesbury Academy Charter Public ...

Select All Clear All

Abc School Code 408 # Tests Taken 479 # Reading / Writing 239 # Math 292

00010505 00050505 00070505 00070515 00090505 00100505 00140505 00160505 00160515 00170505 00180510 00200505 null 425 525 625 725 null 350 400 500 600 700 null 425 525 625 725 null 350 400 500 600 700

School Name School Code Tests Taken Reading / Writing Math Reading Writing Table Names File Paths

School Name	School Code	Tests Taken	Reading / Writing	Math	Reading	Writing	Table Names	File Paths
Abby Kelley Foster Charter Public (District) - Abby Kell	04450105	76	null	481	487	486	SAT Performance Report	sat_performance_school_2014_2015.xls
Abington - Abington High	00010505	93	null	498	489	476	SAT Performance Report	sat_performance_school_2014_2015.xls
Academy Of the Pacific Rim Charter School	04120530	38	null	477	493	465	SAT Performance Report	sat_performance_school_2014_2015.xls
Acton-Boxborough - Acton-Boxborough Regional High	06000505	441	null	636	608	610	SAT Performance Report	sat_performance_school_2014_2015.xls
Adams-Cheshire - Hoosac Valley Middle & High School	06030505	58	null	479	471	467	SAT Performance Report	sat_performance_school_2014_2015.xls
Advanced Math and Science Academy Charter (District)	04300305	129	null	670	619	623	SAT Performance Report	sat_performance_school_2014_2015.xls
Agawam - Agawam High	00050505	219	null	515	493	484	SAT Performance Report	sat_performance_school_2014_2015.xls
Amesbury - Amesbury High	00070505	88	null	545	544	542	SAT Performance Report	sat_performance_school_2014_2015.xls
Amesbury Academy Charter Public (District) - Amesbu	04150505	5	null	null	null	null	SAT Performance Report	sat_performance_school_2014_2015.xls
Amherst-Pelham - Amherst Regional High	06050505	192	null	587	582	567	SAT Performance Report	sat_performance_school_2014_2015.xls
Andover - Andover High	00090505	396	null	587	568	568	SAT Performance Report	sat_performance_school_2014_2015.xls
Arlington - Arlington High	00100505	274	null	583	578	571	SAT Performance Report	sat_performance_school_2014_2015.xls
Ashburnham-Westminster - Oakmont Regional High Sc	06100505	143	null	517	515	507	SAT Performance Report	sat_performance_school_2014_2015.xls
Ashland - Ashland High	00140505	145	null	576	552	523	SAT Performance Report	sat_performance_school_2014_2015.xls
Assabet Valley Regional Vocational Technical - Arroll	00010605	120	null	487	486	427	SAT Performance Report	sat_performance_school_2014_2015.xls

Readjust the range of teachers for our analysis as per the requirement of the client.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Teacher Data Clean 4

Clean 4 14 fields 877 rows Filter Values... Rename Field Create Calculated Field... Duplicate Field Keep Only Field Hide Field Remove Field 7 Recommendations Search

Changes (1)

Filter: Range of Values [Total # of Teachers (FTE)] Keep only: 60-270

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Filter: Range of Values Done

Total # of Teachers (FTE) 494

	Range	Minimum	Maximum
Include only values in this range:	60	270	
	50	270	
<input type="checkbox"/> Include null values			

# % of Teachers Licensed 156

# Student / Teacher Ratio 104

Total

School Name School Code Total # of Teachers (FTE) % of Teachers Licensed Student / Teacher Ratio Total # of Teachers % of Teachers Licensed in Teaching Assignment Total # of Classes in C

School Name	School Code	Total # of Teachers (FTE)	% of Teachers Licensed	Student / Teacher Ratio	Total # of Teachers	% of Teachers Licensed in Teaching Assignment	Total # of Classes in C
Waltham - John W. McDevitt Middle School	03080415	68.1	100	9.9 to 1	null	null	null
Minuteman Regional Vocational Technical - Minuteman	08300605	71.5	97.2	8.4 to 1	null	null	null
Lowell - Lowell High	01600505	208.5	95.7	15.2 to 1	null	null	null
Methuen - Marsh Grammar School	01810030	84	99	14.3 to 1	null	null	null
Hopkinton - Hopkinton High	01390505	81.4	100	14.2 to 1	null	null	null
Wilmington - Wilmington Middle School	03420330	72.8	100	11.2 to 1	null	null	null
Freetown-Lakeville - Apponequet Regional High	06650505	60.9	98.4	11.9 to 1	null	null	null
Weston - Weston High	03300505	70	97.4	9.5 to 1	null	null	null
Essex North Shore Agricultural and Technical School Di	08170505	121.2	94.6	11.7 to 1	null	null	null
Northboro-Southboro - Algonquin Regional High	07300505	114.8	99.3	12.8 to 1	null	null	null
Hopkinton - Hopkinton High	01390505	83.5	100	14.2 to 1	null	null	null
Shrewsbury - Oak Middle School	02710030	64	98.5	15.8 to 1	null	null	null
Southwick-Tolland-Granville Regional School District -	07660505	63	100	11.3 to 1	null	null	null
Somerset Berkley Regional School District - Somerset	07630505	80.6	100	12.7 to 1	null	null	null

Keeping Teacher Salary data for Non Null values only.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Advanced Cour... Clean 6

TeacherSalarie... Clean 7

Clean 7 6 fields 324 rows Filter Values... Rename Field Create Calculated Field... Duplicate Field Keep Only Field Hide Field Remove Field

Changes (1)

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Tables

Search

Filter: Null Values [F5] Keep only: non-null values

Abc

	F1	F2	F3	F4	F5	F6
Abington	10,000	10,610,746	85,917	124	06/18/2018	
Acton-Boxborough	6,000,00	31,536,769	84,822	372	06/19/2018	
Acushnet	30,000	5,098,533	76,860	66	06/20/2018	
Adams-Cheshire	6,030,00	6,775,396	82,426	82	06/21/2018	
Agawam	50,000	24,109,895	74,116	325	06/22/2018	
Amesbury	70,000	12,882,002	76,770	168	06/23/2018	
Amherst	80,000	9,406,729	76,477	123	06/24/2018	
Amherst-Pelham	6,050,00	9,670,870	84,610	114	06/25/2018	
Andover	90,000	41,150,023	85,092	484	06/26/2018	
Arlington	100,000	30,389,114	75,090	405	06/27/2018	
Ashburnham-Westminster	6,100,00	11,157,131	69,127	161	06/28/2018	
Ashland	140,000	15,997,243	79,628	201	06/29/2018	
Assabet Valley Regional Vocational	8,010,00	8,563,439	73,886	116	06/30/2018	
Athol-Royalston	6,150,00	7,074,113	64,604	110	07/01/2018	
Attleboro	150,000	21,824,210	92,792	300	07/02/2018	

Filter: Null Values

F5 230 Keep Only

Select values to keep.

Null values  Non-null values

F6 3 Done

Excluding all Springfield district school as the data for that district is known to be full of errors.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Per Pupil Expen... Clean 5

Advanced Cour... Clean 6

Clean 6 15 fields 599 rows Filter Values... Automatic Split Custom Split... Rename Field Create Calculated Field... Duplicate Field Keep Only Field Hide Field ...

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Changes (1)

Filter: Wildcard Match [District Name] Exclude: values containing "springfield"

Done

District Name 302

Keep Only Exclude

springfield

Matching Options

- Contains
- Starts with
- Ends with
- Exact match

District Code	# Grade 11 and 12 Stud...	# Students Completing ...	# Students Completing...	# ELU
00000000	0	0	0	0
00010000	50,000	20,000	30	30
00050000	100,000	40,000	60	60
00070000	150,000	60,000	90	90
00090000		80,000		
00100000				
00140000				
00160000				
00170000				
00180000				
00200000				
00230000				

District Name	District Code	# Grade 11 and 12 Students	# Students Completing Advanced	% Students Completing Advanced	% ELA	% Math	% Science and Technology	% Science and Technology 1	% History and Social Sci
Abby Kelley Fos	04450000	175	140	80	34.3	61.7	34.3	null	36.6
Abington	00010000	233	189	81.1	12.9	80.7	5.6	null	15
Academy Of the Pacific Rim Charte...	04120000	80	68	85	0	83.8	35	null	27.5
Acton-Boxborough	06000000	955	637	66.7	6.4	57.8	33.7	null	32.6
Adams-Cheshire	06030000	170	106	62.4	32.9	57.6	7.1	null	9.4
Advanced Math and Science Acade...	04300000	221	209	94.6	26.2	90	50.2	null	33
Agawam	00050000	562	352	62.6	30.8	42	44.3	null	20.6
Amesbury	00070000	310	310	100	59.4	93.9	74.8	null	79
Amherst-Pelham	06050000	456	359	78.7	0	71.1	29.2	null	6.6
Andover	00090000	865	743	85.9	27.3	84.7	36	null	8.4
Arlington	00100000	664	489	73.6	0	68.2	30	null	39.2
Ashburnham-W	06100000	343	201	58.6	22.7	48.4	9.9	null	4.7
Ashland	00140000	361	227	62.9	9.7	60.1	17.2	null	18
Assabet Valley	08010000	526	357	67.9	24	61.2	31.6	null	23.2

School Name changed to uppercase for all relevant data.

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Changes (1)**

**School Name** 432

**School Code** 418

**4 Year Private College** 533

**4 Year Public College** 480

**Total Count** 447

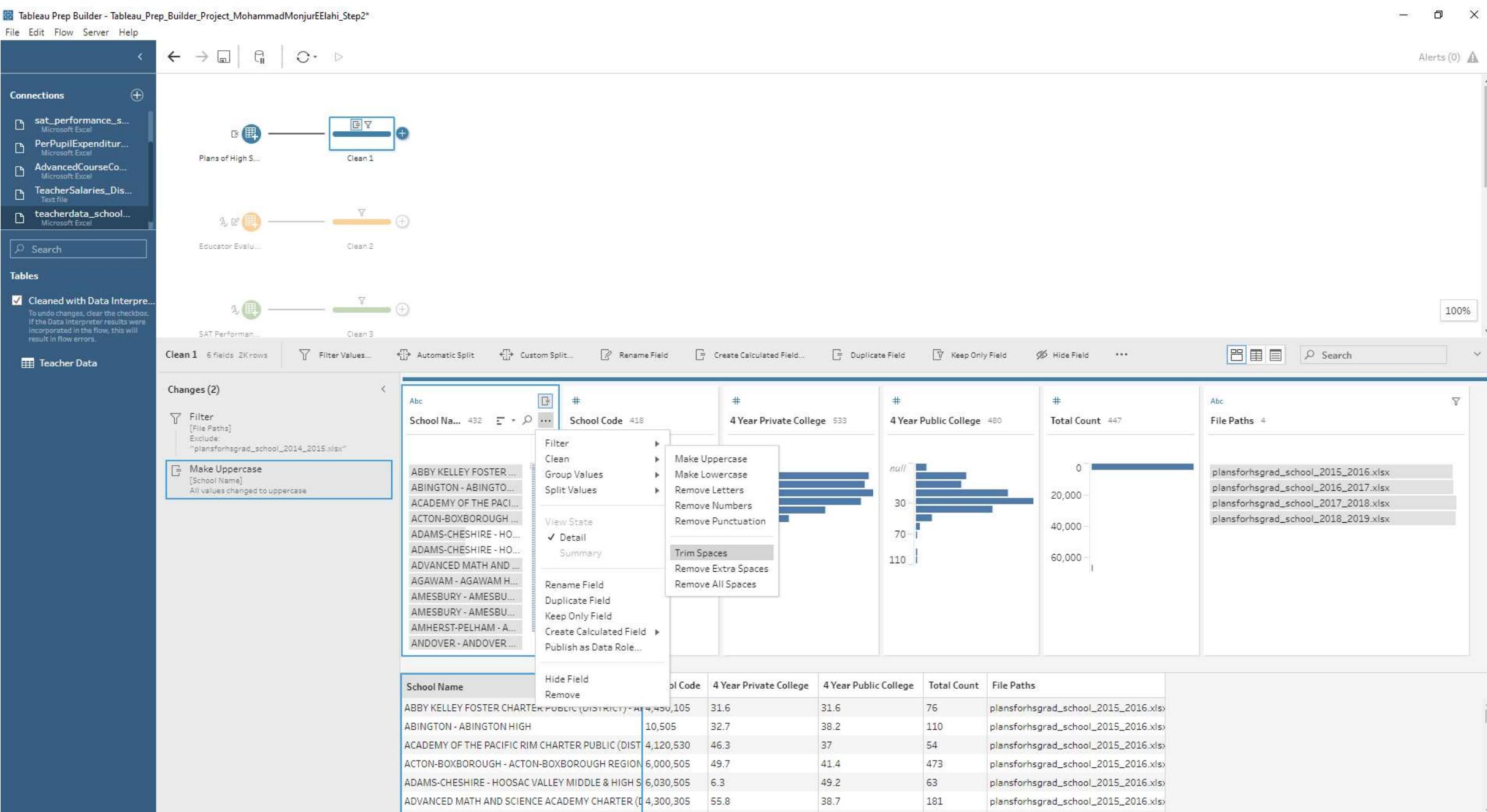
**File Paths** 4

**Actions**

- Filter
- Clean
- Group Values
- Split Values
- View State
- Detail
- Summary
- Make Uppercase
- Make Lowercase
- Remove Letters
- Remove Numbers
- Remove Punctuation
- Trim Spaces
- Remove Extra Spaces
- Remove All Spaces
- Rename Field
- Duplicate Field
- Keep Only Field
- Create Calculated Field
- Publish as Data Role...

School Name	School Code	4 Year Private College	4 Year Public College	Total Count	File Paths
Abby Kelley Foster Charter Public (District) - Abby Kell...	4,450,105	31.6	31.6	76	plansforhsgrad_school_2015_2016.xlsx
Abington - Abington High	10,505	32.7	38.2	110	plansforhsgrad_school_2015_2016.xlsx
Academy Of the Pacific Rim Charter Public (District) - A...	4,120,530	46.3	37	54	plansforhsgrad_school_2015_2016.xlsx
Acton-Boxborough - Acton-Boxborough Regional High	6,000,505	49.7	41.4	473	plansforhsgrad_school_2015_2016.xlsx
Adams-Cheshire - Hoosac Valley Middle & High School	6,030,505	6.3	49.2	63	plansforhsgrad_school_2015_2016.xlsx
Advanced Math and Science Academy Charter (District)	4,300,305	55.8	38.7	181	plansforhsgrad_school_2015_2016.xlsx

Trimming space in the school names.



### Manual grouping of school names.

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Search**

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Clean 1**

**Clean 2**

**Clean 3**

**SAT Performance**

**Teacher Data**

**Changes (3)**

- Filter [File Paths] Exclude: "plansforhsgrad\_school\_2014\_2015.xlsx"
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values

**Actions**

- Filter
- Clean
- Group Values
- Split Values
- View State
- ✓ Detail
- Summary
- Manual Selection
- Pronunciation
- Common Characters
- Spelling
- Ungroup All
- Rename Field
- Duplicate Field
- Keep Only Field
- Create Calculated Field
- Publish as Data Role...

**File Paths**

- plansforhsgrad\_school\_2015\_2016.xlsx
- plansforhsgrad\_school\_2016\_2017.xlsx
- plansforhsgrad\_school\_2017\_2018.xlsx
- plansforhsgrad\_school\_2018\_2019.xlsx

**Summary**

School Name	School Code	4 Year Private College	4 Year Public College	Total Count	File Paths
ABINGTON - ABINGTO...	432	31.6	31.6	76	plansforhsgrad_school_2015_2016.xlsx
ACADEMY OF THE PACI...	418	32.7	38.2	110	plansforhsgrad_school_2015_2016.xlsx
ACTON-BOXBOROUGH ...	533	46.3	37	54	plansforhsgrad_school_2015_2016.xlsx
ADAMS-CHESHIRE - HO...	6,000,505	49.7	41.4	473	plansforhsgrad_school_2015_2016.xlsx
ADAMS-CHESHIRE - HOOSAC VALLEY MIDDLE & HIGH S...	6,030,505	6.3	49.2	63	plansforhsgrad_school_2015_2016.xlsx
ADVANCED MATH AND SCIENCE ACADEMY CHARTER (DISTRICT)	4,300,305	55.8	38.7	181	plansforhsgrad_school_2015_2016.xlsx

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Clean 1** 6 fields 2 Rows Replace with Null Group Values

**Clean 2**

**Clean 3**

**Teacher Data**

**Changes (4)**

- Filter [File Paths] Exclude: "plansforhsgrad\_school\_2014\_2015.xlsx"
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] No values replaced

**Group Values by Manual Selection**

School Name Done

latin

BOSTON - BOSTON LATIN  
BOSTON - BOSTON LATIN ACADEMY  
CAMBRIDGE - CAMBRIDGE RINDGE A...

Multiple values selected

Or select a single value to edit group members.

School Name	School Code	4 Year Private College	4 Year Public College	Total Count	File Paths
BOSTON - BOSTON LATIN	350,560	45.5	47.4	407	plansforhsgrad_school_2017_2018.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,545	34.2	55.6	266	plansforhsgrad_school_2016_2017.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,545	35.3	55.7	255	plansforhsgrad_school_2015_2016.xlsx
BOSTON - BOSTON LATIN	350,560	46.2	46.9	409	plansforhsgrad_school_2015_2016.xlsx
BOSTON - BOSTON LATIN	350,560	39.7	53.1	375	plansforhsgrad_school_2016_2017.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,545	29.8	55	262	plansforhsgrad_school_2018_2019.xlsx

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

100%

Teacher Data

Clean 1 6 fields 2K rows |

Clean 2

Clean 3

Changes (4)

- Filter [File Paths] Exclude: "plansforhsgrad\_school\_2014\_2015.xlsx"
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"

Group Values by Manual Selection Done

School Name	#
BOSTON - BOSTON LATIN ACADEMY	3 members
CAMBRIDGE - CAMBRIDGE RINDGE A...	

Add new value

BOSTON - BOSTON LATIN

BOSTON - BOSTON LATIN ACADEMY

BOSTON LATIN \*

ABBY KELLEY FOSTER CHARTER PU...

ABINGTON - ABINGTON HIGH

ACADEMY OF THE PACIFIC RIM CHA...

ACTON-BOROUGH - ACTON-BO...

ADAMS-CHESHIRE - HOOSAC VALLE...

ADAMS-CHESHIRE - HOOSAC VALLE...

ADVANCED MATH AND SCIENCE AC...

AGAWAM - AGAWAM HIGH

BESCHUL - BESCHUL HIGH

# School Code 418 # 4 Year Private College 533 # 4 Year Public College 480 # Total Count 447

File Paths

School Name	School Code	4 Year Private College	4 Year Public College	Total Count	File Paths
BOSTON - BOSTON LATIN ACADEMY	350,560	46.2	46.9	409	plansforhsgrad_school_2015_2016.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,545	35.3	55.7	255	plansforhsgrad_school_2015_2016.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,560	39.7	53.1	375	plansforhsgrad_school_2016_2017.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,545	34.2	55.6	266	plansforhsgrad_school_2016_2017.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,560	45.5	47.4	407	plansforhsgrad_school_2017_2018.xlsx
BOSTON - BOSTON LATIN ACADEMY	350,545	32.5	52.5	280	plansforhsgrad_school_2017_2018.xlsx

Automatic grouping of the district name.

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Clean 5** 10 fields 2K rows

Filter Values... Automatic Split... Custom Split... Rename Field Create Calculated Field... Duplicate Field Keep Only Field Hide Field ...

Search

**Changes (2)**

- Make Uppercase [District Name] All values changed to uppercase
- Trim Spaces [District Name] Spaces trimmed from all values

**District Name** 412

ABC District Code 409

In-District Expenditures 2K Total In-district FTEs 2K In-District Expenditure... 2K Total Expenditures 2K Total Pupil FTEs 2K Total Expenditures per Pupil 2K Table Names

ABBY KELLEY FOSTER... ABINGTON ACADEMY OF THE PACI... ACTON ACTON-BOXBOROUGH ACUSHNET ADAMS-CHESHIRE ADVANCED MATH AND... AGAWAM ALMA DEL MAR CHART... AMESBURY AMHERST

Filter Clean Group Values Split Values View State Detail Summary Rename Field Duplicate Field Keep Only Field Create Calculated Field Publish as Data Role...

Group Values by Manual Selection Pronunciation Common Characters Spelling Ungroup All

District Name	District Code	In-District Expenditures	Total In-district FTEs	In-District Expenditures per Pupil	Total Expenditures	Total Pupil FTEs	Total Expenditures per Pupil	Table Names
ABINGTON	00010000	22,779,478.72	1,943.1	11,723.27	26,449,957.74	2,036.7	12,986.67	Per Pupil Expr...
ACTON	00020000	29,598,949	2,453.3	12,064.95	31,443,134	2,500.7	12,573.73	Per Pupil Expr...
ACTON-BOXBOROUGH	06000000	39,206,997	2,882.3	13,602.68	44,631,077	2,987.9	14,937.27	Per Pupil Expr...
ACUSHNET	00030000	10,519,233.82	980.1	10,732.82	14,898,617.95	1,285.6	11,588.84	Per Pupil Expr...
ADAMS-CHESHIRE	06030000	18,417,242.45	1,375	13,394.36	19,638,935.95	1,511.8	12,990.43	Per Pupil Expr...
AGAWAM	00050000	51,605,213.4	4,046.9	12,751.79	56,982,676	4,175.5	13,646.91	Per Pupil Expr...

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

100%

Clean 5 10 fields 2K rows Edit Value Replace with Null Ungroup Values

1 Recommendation

Search

Teacher Data

Changes (3)

- Make Uppercase [District Name] All values changed to uppercase
- Trim Spaces [District Name] Spaces trimmed from all values
- Group Values [District Name] 76 values replaced by 53 values

Group Values by Pronunciation Done

District Name	Grouping
ACTON-BOXBOROUGH	2 members
ABINGTON	
ACADEMY OF THE PACIFIC RIM C...	
ACUSHNET	
ADAMS-CHESHIRE	
ADVANCED MATH AND SCIENCE AC...	
AGAWAM	
ALMA DEL MAR CHARTER SCHO...	
AMESBURY	
AMHERST	
ANDOVER	

ABC District Code 409

District Code	In-District Expenditures	Total In-district FTEs	In-District Expenditures per Pupil	Total Expenditures	Total Pupil FTEs	Total Expenditures per Pupil	Table Names
00000000	0	0	0	0	0	0	Per Pupil Expend
00010000	4,000,000,000	500,000	8,000,000,000	1,000,000	12,000,000,000	15,000,000,000	Per Pupil Expend
00020000	50,000	0	0	0	0	0	Per Pupil Expend
00030000	6,000,000,000	1,000,000	12,000,000,000	15,000,000,000	18,000,000,000	18,000,000,000	Per Pupil Expend
00050000	8,000,000,000	1,000,000	16,000,000,000	15,000,000,000	18,000,000,000	18,000,000,000	Per Pupil Expend
00070000	12,000,000,000	0	0	0	0	0	Per Pupil Expend
00080000	15,000,000,000	0	0	0	0	0	Per Pupil Expend
00090000	18,000,000,000	0	0	0	0	0	Per Pupil Expend
00100000	0	0	0	0	0	0	Per Pupil Expend
00140000	0	0	0	0	0	0	Per Pupil Expend
00160000	0	0	0	0	0	0	Per Pupil Expend
00170000	0	0	0	0	0	0	Per Pupil Expend

District Name District Code In-District Expenditures Total In-district FTEs In-District Expenditures per Pupil Total Expenditures Total Pupil FTEs Total Expenditures per Pupil Table Names

ACTON-BOXBOROUGH	00020000	29,598,949	2,453.3	12,064.95	31,443,134	2,500.7	12,573.73	Per Pupil Expend
ACTON-BOXBOROUGH	06000000	39,206,997	2,882.3	13,602.68	44,631,077	2,987.9	14,937.27	Per Pupil Expend
ACTON-BOXBOROUGH	06000000	72,610,771	5,643.6	12,866.04	81,149,570	5,789.7	14,016.2	Per Pupil Expend
ACTON-BOXBOROUGH	06000000	75,091,091	5,605.5	13,395.97	84,730,365	5,746.3	14,745.2	Per Pupil Expend
ACTON-BOXBOROUGH	06000000	78,051,554	5,613.9	13,903.27	87,351,122	5,747.5	15,198.11	Per Pupil Expend
ACTON-BOXBOROUGH	06000000	81,006,085	5,632.3	14,382.42	90,445,894	5,761.7	15,697.78	Per Pupil Expend

Automatic splitting of school names.

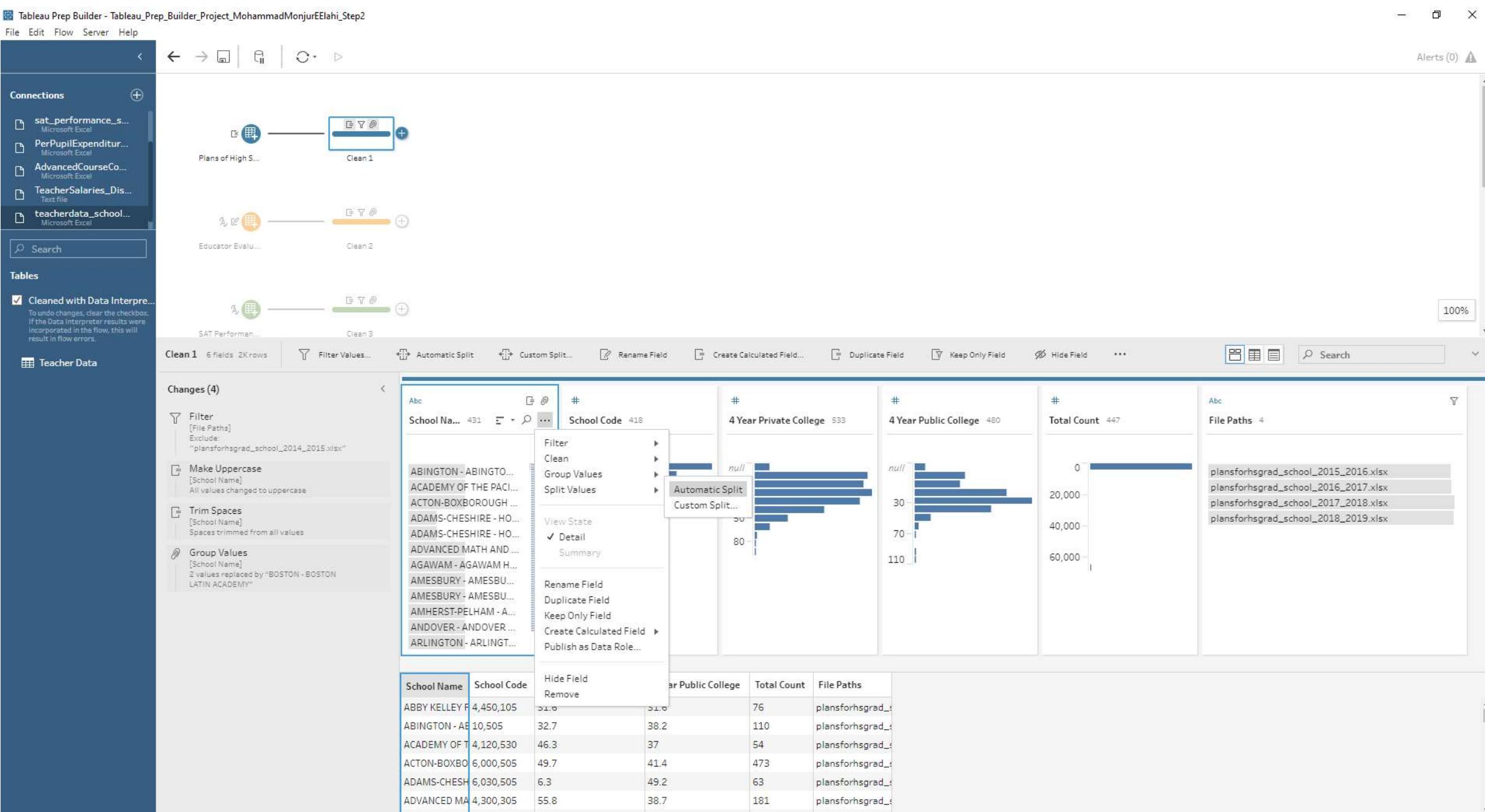


Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

100%

Clean 1

Plans of High S... → Clean 1

Educator Evalu... → Clean 2

SAT Performan... → Clean 3

Teacher Data

Clean 1 8 fields 2K rows Filter Values... Rename Fields... Create Calculated Field... 1 Recommendation Search

Changes (6)

- Filter [File Paths] Exclude: "plansforhsgrad\_school\_2014\_2015.xlsx"
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"
- Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))
- Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

Abc School Name - Split 1 306 Abc School Name - Split 2 429 Abc School Name 431 # School Code 418 # 4 Year Private College 533 # 4 Year Public College 480 # Total Count 447

School Name - Split 1	School Name - Split 2	School Name	School Code	4 Year Private College	4 Year Public College	Total Count
ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	4,450,105	31.6	31.6	76
ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	10,505	32.7	38.2	110
ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT) - AE	4,120,530	46.3	37	54
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION	6,000,505	49.7	41.4	473
ADAMS	CHESHIRE	ADAMS-CHESHIRE - HOOSAC VALLEY MIDDLE & HIGH SCHOOL	6,030,505	6.3	49.2	63
ADVANCED MATH AND SCIENCE ACADEMY CHARTER (D)	ADVANCED MATH AND SCIENCE ACADEMY CHARTER (D)	ADVANCED MATH AND SCIENCE ACADEMY CHARTER (D)	4,300,305	55.8	38.7	181

Changing File path to year.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

100%

Teacher Data

Clean 2 13 fields 6Krows ✓ Keep Only X Exclude A Edit Value O Replace with Null 1 Recommendation

Clean 3

Changes (6)

- Filter [File Paths] Keep-only; multiple
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"
- Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))
- Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

# % Exemplary 487 # % Proficient 517 # % Needs Improvement 259 # % Unsatisfactory 76

Table Names 1 Educator Evaluation Perform... 2015 EducatorEvalPerf\_school\_2... EducatorEvalPerf\_school\_2...

School Name - Split 1	School Name - Split 2	School Name	School Code	# of Educators to be Evaluated	# Evaluated	% Evaluated	% E
ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE 04450105	95	95	100	1	
ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505	51	51	100	2
ABINGTON	BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003	45	45	100	0
ABINGTON	CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002	12	12	100	0
ABINGTON	FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405	33	33	100	6
ABINGTON	WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015	20	20	100	2

Converting date to year.

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Clean 7** 6 fields 324 rows

Filter Values... Rename Field Create Calculated Field Duplicate Field Keep Only Field Hide Field Remove Field

**Changes (4)**

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values

**Visualizations**

F1 284 F2 324 F3 324 F4 323 F5 230 F6 324

**Data View**

F1	F2	F3	F4	F5	F6
ABINGTON	10,000	10,610	85,917	124	06/18/2018
ACTON-BOXBOROUGH	6,000,000	31,536	84,822	372	06/19/2018
ACUSHNET	30,000	5,098,5	76,860	66	06/20/2018
ADAMS-CHESHIRE	6,030,00	6,775,3	82,426	82	06/21/2018
AGAWAM	50,000	24,109,	74,116	325	06/22/2018
AMESBURY	70,000	12,882,	76,770	168	06/23/2018

**Contextual Menu (F6)**

- Filter
- Clean
- Examples: 2015, 2016, 2017
- Detail ✓ Summary
- Rename Field
- Duplicate Field
- Keep Only Field
- Create Calculated Field
- Publish as Data Role...
- Custom Fiscal Year
- Hide Field
- Remove

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Clean 7 6 fields 324 rows Filter Values... Rename Fields... Create Calculated Field... 1 Recommendation Search

Changes (5)

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers

Abc

	F1	F2	F3	F4	F5	F6
ABINGTON	284	324	324	323	230	2
ACTON-BOXBOROUGH						
ACUSHNET						
ADAMS-CHESHIRE						
AGAWAM						
AMESBURY						
AMHERST						
ANDOVER						
ASHBURNHAM-WEST...						
ASHLAND						
ASSABET VALLEY REGI...						
ATHOL-ROYALSTON						

F1 F2 F3 F4 F5 F6

	ABINGTON	ACTON-BOXBOROUGH	ACUSHNET	ADAMS-CHESHIRE	AGAWAM	AMESBURY
	10,000	6,000,000	30,000	6,030,000	50,000	70,000
	10,610,746	31,536,769	5,098,533	6,775,396	24,109,895	12,882,002
	85,917	84,822	76,860	82,426	74,116	76,770
	124	372	66	82	325	168
	2,018	2,018	2,018	2,018	2,018	2,018

100%

Converting year from numeric to string.

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Clean 7** 6 fields 324 rows

Filter Values... Rename Field Create Calculated Field Duplicate Field Keep Only Field Hide Field Remove Field 1 Recommendation

**Changes (5)**

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers

**Visualizations**

F1	F2	F3	F4	F5	F6
ABINGTON	10,000	10,610,746	85,917	124	2,018
ACTON-BOXBOROUGH	6,000,000	31,536,769	84,822	372	2,018
ACUSHNET	30,000	5,098,533	76,860	66	2,018
ADAMS-CHESHIRE	6,030,000	6,775,396	82,426	82	2,018
AGAWAM	50,000	24,109,895	74,116	325	2,018
AMESBURY	70,000	12,882,002	76,770	168	2,018

**Data Type**

- Number (decimal)
- Number (whole)
- Date & Time
- Date
- String

**Data Role**

- None
- URL
- Geographic
- Email

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Clean 7 6 fields 324 rows Filter Values... Rename Fields... Create Calculated Field... 1 Recommendation

Teacher Data

Changes (6)

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers
- Change Type [F6] To String type

Abc F1 284 F2 324 F3 324 F4 323 F5 230 F6 2

	F1	F2	F3	F4	F5	F6
ABINGTON	10,000	10,610,746	85,917	124	2018	
ACTON-BOXBOROUGH	6,000,000	31,536,769	84,822	372	2018	
ACUSHNET	30,000	5,098,533	76,860	66	2018	
ADAMS-CHESHIRE	6,030,000	6,775,396	82,426	82	2018	
AGAWAM	50,000	24,109,895	74,116	325	2018	
AMESBURY	70,000	12,882,002	76,770	168	2018	
ASSABET VALLEY REGI...						
ATHOL-ROYALSTON						

Chnaging Splitted Field Names appropriately.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

100%

Clean 1

EduEducator Evalu... Clean 2

SAT Perform... Clean 3

Teacher Data

Changes (10)

- Filter [File Paths] Exclude: "plansforhsgrad\_school\_2014\_2015.xlsx"
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"
- Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))
- Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))
- Group Values [File Paths] 4 values replaced
- Rename Field [District Name] From [School Name - Split 1] to [District Name]
- Rename Field [District-School Name] From [School Name] to [District+School Name]

1 Recommendation

Search

District N... 306 School Name 429 District+School Name 431 School Code 418 # 4 Year Private College 533 # 4 Year Public College 480 # Total Count 447

ABC DISTRICT NAME ABC SCHOOL NAME ABC DISTRICT+ SCHOOL NAME ABC SCHOOL CODE ABC # 4 YEAR PRIVATE COLLEGE ABC # 4 YEAR PUBLIC COLLEGE ABC # TOTAL COUNT

District Name	School Name	District+School Name	School Code	4 Year Private College	4 Year Public College	Total Count
ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	4,450,105	31.6	31.6	76
ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	10,505	32.7	38.2	110
ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT) - BOXBOROUGH	4,120,530	46.3	37	54
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION	6,000,505	49.7	41.4	473
ADAMS	CHESHIRE	ADAMS-CHESTER - HOOSAC VALLEY MIDDLE & HIGH SCHOOL	6,030,505	6.3	49.2	63
ADVANCED MATH AND SCIENCE ACADEMY CHARTER (D)	ADVANCED MATH AND SCIENCE ACADEMY CHARTER SCHOOL	ADVANCED MATH AND SCIENCE ACADEMY CHARTER (D)	4,300,305	55.8	38.7	181

Removing the field Table Name.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Clean 2 13 fields 6 Rows

Filter Values... Automatic Split... Custom Split... Rename Field Create Calculated Field... Duplicate Field ... 1 Recommendation

Changes (11)

- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"
- Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))
- Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))
- Group Values [File Paths] 3 values replaced
- Rename Field [District+School Name] From [School Name] to [District+School Name]
- Rename Field [School Name] From [School Name - Split 2] to [School Name]
- Rename Field [District Name] From [School Name - Split 1] to [District Name]
- Rename Field [Year] From [File Paths] to [Year]

Plots:

- # evaluated 411
- # % Exemplary 487
- # % Proficient 517
- # % Needs Improvement 259
- # % Unsatisfactory 76

Table:

District Name	School Name	District+School Name	School Code	# of Educators to be Eval
ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	04450105	95
ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505	51
ABINGTON	BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003	45
ABINGTON	CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002	12
ABINGTON	FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405	33
ABINGTON	WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015	20

Alerts (0) ▲

100%

Rename Path to Year.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Clean 7 6 fields 324 rows Filter Values... Rename Fields... Create Calculated Field... 1 Recommendation

Changes (12)

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers
- Change Type [F6] To String type
- Rename Field [District Name] From [F1] to [District Name]
- Rename Field [District Code] From [F2] to [District Code]
- Rename Field [Salary Totals] From [F3] to [Salary Totals]
- Rename Field [Average Salary] From [F4] to [Average Salary]

100%

ABC District Name 284 District Code 324 Salary Totals 324 Average Salary 323 FTE Count 230 Year 2

District Name	District Code	Salary Totals	Average Salary	FTE Count	Year
ABINGTON	10,000	10,610,746	85,917	124	2018
ACTON-BOXBOROUGH	6,000,000	31,536,769	84,822	372	2018
ACUSHNET	30,000	5,098,533	76,860	66	2018
ADAMS-CHESHIRE	6,030,000	6,775,396	82,426	82	2018
AGAWAM	50,000	24,109,895	74,116	325	2018
AMESBURY	70,000	12,882,002	76,770	168	2018

Creating Calculated Field FTE Count Bins.

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Clean 7** 6 fields 324 rows

Filter Values... Rename Field Create Calculated Field Duplicate Field Keep Only Field Hide Field Remove Field 1 Recommendation

**Changes (12)**

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers
- Change Type [F6] To String type
- Rename Field [District Name] From [F1] to [District Name]
- Rename Field [District Code] From [F2] to [District Code]
- Rename Field [Salary Totals] From [F3] to [Salary Totals]
- Rename Field [Average Salary] From [F4] to [Average Salary]

**District Name** 284

ABINGTON ACTON-BOXBOROUGH ACUSHNET ADAMS-CHESHIRE AGAWAM AMESBURY AMHERST ANDOVER ASHBURNHAM-WEST... ASHLAND ASSABET VALLEY REGI... ATHOL-ROYALSTON

**District Code** 324

0 2,000,000 4,000,000 6,000,000 8,000,000

**Salary Totals** 324

0 3,000,000,000 6,000,000,000

**Average Salary** 323

40,000 110,000

**FTE Count** 230

0 25,000 50,000 75,000

**Year** 2

Filter Clean Group Values Split Values View State Detail ✓ Summary Rename Field Duplicate Field Keep Only Field Create Calculated Field Publish as Data Role... Custom Calculation Fixed LOD Rank Hide Field Remove

District Name	District Code	Salary Totals	Average Salary	FTE Count	Year
ABINGTON	10,000	10,610,746	85,917	124	2018
ACTON-BOXBOROUGH	6,000,000	31,536,769	84,822	372	2018
ACUSHNET	30,000	5,098,533	76,860	66	2018
ADAMS-CHESHIRE	6,030,000	6,775,396	82,426	82	2018
AGAWAM	50,000	24,109,895	74,116	325	2018
AMESBURY	70,000	12,882,002	76,770	168	2018

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Changes (12)**

- Filter: Null Values [F5] Keep only non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers
- Change Type [F6] To String type
- Rename Field [District Name] From [F1] to [District Name]
- Rename Field [District Code] From [F2] to [District Code]
- Rename Field [Salary Totals] From [F3] to [Salary Totals]
- Rename Field [Average Salary] From [F4] to [Average Salary]

**PerPupilExpenditur... Clean 5**

**AdvancedCourseCo... Clean 6**

**TeacherSalaries\_Dis... Clean 7**

**Add Field**

Field Name: FTE Count Bins

```
IF [FTE Count]<50 THEN "<50"
ELSEIF [FTE Count]<100 THEN "50-99"
ELSEIF [FTE Count]>=100 THEN "100+"
END
```

Reference: All

ABS(number)

Returns the absolute value of the given number.

Example: ABS(-7) = 7

Calculation is valid ^

ASSABET VALLEY REGI... ATHOL-ROYALSTON

District Name	District Code	Salary Totals	Average Salary	FTE Count	Year
ABINGTON	10,000	10,610,746	85,917	124	2018
ACTON-BOXBOROUGH	6,000,000	31,536,769	84,822	372	2018
ACUSHNET	30,000	5,098,533	76,860	66	2018
ADAMS-CHESHIRE	6,030,000	6,775,396	82,426	82	2018
AGAWAM	50,000	24,109,895	74,116	325	2018
AMESBURY	70,000	12,882,002	76,770	168	2018

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

100%

Clean 5

Clean 6

Clean 7

Teacher Data

Clean 7 7 fields 324 rows Filter Values... Rename Fields... Create Calculated Field... 1 Recommendation

Changes (13)

- Filter: Null Values [F5] Keep only: non-null values
- Make Uppercase [F1] All values changed to uppercase
- Trim Spaces [F1] Spaces trimmed from all values
- Group Values [F1] 40 values replaced by 30 values
- Year Number [F6] Convert dates to year numbers
- Change Type [F6] To String type
- Rename Field [District Name] From [F1] to [District Name]
- Rename Field [District Code] From [F2] to [District Code]
- Rename Field [Salary Totals] From [F3] to [Salary Totals]
- Rename Field [Average Salary] From [F4] to [Average Salary]

ABC FTE Count... District Name # District Code # Salary Totals # Average Salary # FTE Count ABC Year

FTE Count Bins	District Name	District Code	Salary Totals	Average Salary	FTE Count	Year
100+	ABINGTON	10,000	10,610,746	85,917	124	2018
100+	ACTON-BOXBOROUGH	6,000,000	31,536,769	84,822	372	2018
50-99	ACUSHNET	30,000	5,098,533	76,860	66	2018
50-99	ADAMS-CHESTERFIELD	6,030,000	6,775,396	82,426	82	2018
100+	AGAWAM	50,000	24,109,895	74,116	325	2018
100+	AMESBURY	70,000	12,882,002	76,770	168	2018

Creating Level of Detail(LOD).

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Educator Evalu...** Clean 2

**Clean 2** 12 fields, 6K rows | Filter Values... | Rename Field | Create Calculated Field... | Duplicate Field | Keep Only Field | Hide Field | Remove Field | 1 Recommendation | Search

**Changes (12)**

- Filter [File Paths] Keep-only: multiple
- Make Uppercase [School Name] All values changed to uppercase
- Trim Spaces [School Name] Spaces trimmed from all values
- Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"
- Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))
- Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))
- Group Values [File Paths] 3 values replaced
- Rename Field [District+School Name] From [School Name] to [District+School Name]
- Rename Field [School Name] From [School Name - Split 2] to [School Name]
- Rename Field [District Name] From [School Name - Split 1] to [District Name]
- Rename Field [Year] From [File Paths] to [Year]
- Remove Field [Table Names]

**Cleaned with Data Interpreter** To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Summary**

#	# Evaluated	#	# Exemplary	#	# Proficient	#	# Needs Improvement	#	# Unsatisfactory
213	201	411	487	517	259	76			
rs to be Ev...	# Evaluated	% Evaluated	% Exemplary	% Proficient	% Needs Improvement	% Unsatisfactory			
null	75	30	20	40	40	3			
	175	70	50	80	90	7			
	275	110	80	90	90	11			

**Custom Calculation**

**Fixed LOD**

**Rank**

**Data View**

District Name	School Name	School Name	School Code	# of Educators to be Evaluated	# Evaluated	% Evaluated
ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	04450105	95	95	100
ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505	51	51	100
ABINGTON	BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003	45	45	100
ABINGTON	CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002	12	12	100
ABINGTON	FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405	33	33	100
ABINGTON	WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015	20	20	100
ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT) - AE	04120530	59	59	100
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION	06000505	160	154	96.3
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - BLANCHARD MEMORIAL SCHOOL	06000005	37	35	94.6
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - C.T. DOUGLAS ELEMENTARY SCHOOL	06000020	40	35	87.5
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - LUTHER CONANT SCHOOL	06000030	35	35	100
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MCCARTHY-TOWNE SCHOOL	06000015	37	35	94.6
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MERRIAM SCHOOL	06000010	45	43	95.6
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - PAUL P GATES ELEMENTARY SCHOOL	06000025	36	34	94.4
ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - RAYMOND LOPEZ JUNIOR HIGH SCHOOL	06000405	70	75	100

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2

File Edit Flow Server Help

Connections +

sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel  
TeacherSalaries\_Dis... Textfile  
teacherdata\_school... Microsoft Excel

Educator Evalu... Clean 2

Clean 2 12 fields, 62 rows Filter Values... Rename Field Create Calculated Field Duplicate Field Keep Only Field Hide Field Remove Field 1 Recommendation Search

Changes (12)

Filter [File Paths] Keep-only: multiple

Make Uppercase [School Name] All values changed to uppercase

Trim Spaces [School Name] Spaces trimmed from all values

Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"

Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))

Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

Group Values [File Paths] 3 values replaced

Rename Field [District+School Name] From [School Name] to [District+School Name]

Rename Field [School Name] From [School Name - Split 2] to [School Name]

Rename Field [District Name] From [School Name - Split 1] to [District Name]

Rename Field [Year] From [File Paths] to [Year]

Remove Field [Table Names]

Add Field % Evaluated - Median by Year { FIXED [Year] :MEDIAN([% Evaluated]) }

Reference All

MEDIAN(expression)  
Returns the median of a single expression. MEDIAN can be used with numeric fields only. Null values are ignored.

Example: MEDIAN([Profit])

# % Needs Improvement 259 # % Unsatisfactory 76

Year 2015 2016 2017

School Code # of Educators to be Evaluated # Evaluated % Evaluated % E

STRICT - AE	04450105	95	95	100	1
	00010505	51	51	100	2
SCHOOL	00010003	45	45	100	0
	00010002	12	12	100	0
	00010405	33	33	100	6
	00010015	20	20	100	2
	04120530	59	59	100	1
	06000505	160	154	96.3	1
	06000005	37	35	94.6	2
	06000020	40	35	87.5	1
	06000030	35	35	100	8
	06000015	37	35	94.6	8
	06000010	45	43	95.6	9
	06000025	36	34	94.4	5
	06000005	70	77	81.6	0

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel  
TeacherSalaries\_Dis... Text file  
teacherdata\_school... Microsoft Excel

Educator Evalu... Clean 2

Clean 2 13 fields 6Krows Filter Values... Rename Fields... Create Calculated Field... 1 Recommendation Search

Changes (13)

Filter [File Paths] Keep-only: multiple

Make Uppercase [School Name] All values changed to uppercase

Trim Spaces [School Name] Spaces trimmed from all values

Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"

Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))

Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

Group Values [File Paths] 3 values replaced

Rename Field [District+School Name] From [School Name] to [District+School Name]

Rename Field [School Name] From [School Name - Split 2] to [School Name]

Rename Field [District Name] From [School Name - Split 1] to [District Name]

Rename Field [Year] From [File Paths] to [Year]

Remove Field [Table Names]

Calculated Field [% Evaluated - Median by Year] { FIXED [Year]:MEDIAN[% Evaluated]}

# % Evaluated - Median by Year District Name 406 School Name 2K District+School Name 2K School Code 2K # of Educators to be Evaluated # Evaluated 201

#	% Evaluated - Median by Year	District Name	School Name	District+School Name	School Code	# of Educators to be Evaluated	# Evaluated
97.6		ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	04450105	95	95
97.6		ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505	51	51
97.6		ABINGTON	BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003	45	45
97.6		ABINGTON	CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002	12	12
97.6		ABINGTON	FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405	33	33
97.6		ABINGTON	WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015	20	20
97.6		ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT) - AE	04120530	59	59
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION	06000505	160	160
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - BLANCHARD MEMORIAL SCHOOL	06000005	37	37
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - C.T. DOUGLAS ELEMENTARY SCHOOL	06000020	40	40
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - LUTHER CONANT SCHOOL	06000030	35	35
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MCCARTHY-TOWNE SCHOOL	06000015	37	37
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MERRIAM SCHOOL	06000010	45	45
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - PAUL P GATES ELEMENTARY SCHOOL	06000025	36	36
97.6		ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - RAYMOND LOPEZ JUNIOR HIGH SCHOOL	06000040	70	70

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel  
TeacherSalaries\_Dis... Text file  
teacherdata\_school... Microsoft Excel

Educator Evalu... Clean 2

Clean 2 13 fields 6Krows Filter Values... Rename Field Create Calculated Field Duplicate Field Keep Only Field Hide Field Remove Field 1 Recommendation Search

Changes (13)

Filter [File Paths] Keep-only: multiple

Make Uppercase [School Name] All values changed to uppercase

Trim Spaces [School Name] Spaces trimmed from all values

Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"

Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))

Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

Group Values [File Paths] 3 values replaced

Rename Field [District+School Name] From [School Name] to [District+School Name]

Rename Field [School Name] From [School Name - Split 2] to [School Name]

Rename Field [District Name] From [School Name - Split 1] to [District Name]

Rename Field [Year] From [File Paths] to [Year]

Remove Field [Table Names]

Calculated Field [% Evaluated - Median by Year] { FIXED [Year]:MEDIAN[% Evaluated]}

# % Evaluated 201 # % Exemplary 487 # % Proficient 517 # % Needs Improvement 259 # % Unsatisfactory 76

ABC Year 3 2015 2016 2017

% Evaluated - Median by Year District Name School Name

97.6	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE 04450105	95
97.6	ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505 51
97.6	ABINGTON	BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003 45
97.6	ABINGTON	CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002 12
97.6	ABINGTON	FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405 33
97.6	ABINGTON	WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015 20
97.6	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT) - AE 04120530	59
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION	06000050 160
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - BLANCHARD MEMORIAL SCHOOL	06000005 37
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - C.T. DOUGLAS ELEMENTARY SCHOOL	06000020 40
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - LUTHER CONANT SCHOOL	06000030 35
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MCCARTHY-TOWNE SCHOOL	06000015 37
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MERRIAM SCHOOL	06000010 45
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - PAUL P GATES ELEMENTARY SCHOOL	06000025 36
97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - RAYMOND LOPEZ JUNIOR HIGH SCHOOL	06000040 70

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel  
TeacherSalaries\_Dis... Text file  
teacherdata\_school... Microsoft Excel

Educator Evalu... Clean 2

Clean 2 14 fields 6Krows Filter Values... Rename Field Create Calculated Field Duplicate Field Keep Only Field Hide Field Remove Field 1 Recommendation Search

Changes (14)

Fixed LOD

% Proficient ... 346 Fixed LOD % Proficient - District Median 346 unique values Compute using AVG % Proficient

District Name

# % Evaluated - Median by Year District Name School Name District+School Name School Code

#	% Evaluated - Median by Year	District Name	School Name	District+School Name	School Code
	97.6	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	04450105
	97.7	ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505
	98.9		BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003
			CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002
			FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405
			WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015
			ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	04120530
			ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION
				BOXBOROUGH	06000050
				BOXBOROUGH	ACTON-BOXBOROUGH - BLANDISH MEMORIAL SCHOOL
				BOXBOROUGH	06000005
				BOXBOROUGH	ACTON-BOXBOROUGH - C.T. DOUGLAS ELEMENTARY SCHOOL
				BOXBOROUGH	06000020
				BOXBOROUGH	ACTON-BOXBOROUGH - LUTHER CONANT SCHOOL
				BOXBOROUGH	06000030
				BOXBOROUGH	ACTON-BOXBOROUGH - MCCARTHY-TOWNE SCHOOL
				BOXBOROUGH	06000015
				BOXBOROUGH	ACTON-BOXBOROUGH - MERRIAM SCHOOL
				BOXBOROUGH	06000010
				BOXBOROUGH	ACTON-BOXBOROUGH - PAUL P GATES ELEMENTARY SCHOOL
				BOXBOROUGH	06000025
				BOXBOROUGH	ACTON-BOXBOROUGH - RAYMOND J. CORY UNION SCHOOL
				BOXBOROUGH	06000100

Filter [File Paths] Keep-only: multiple

Make Uppercase [School Name] All values changed to uppercase

Trim Spaces [School Name] Spaces trimmed from all values

Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"

Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))

Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

Group Values [File Paths] 3 values replaced

Rename Field [District+School Name] From [School Name] to [District+School Name]

Rename Field [School Name] From [School Name - Split 2] to [School Name]

Rename Field [District Name] From [School Name - Split 1] to [District Name]

Rename Field [Year] From [File Paths] to [Year]

Remove Field [Table Names]

Calculated Field [% Evaluated - Median by Year] {FIXED [Year]:MEDIAN[% Evaluated]}

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel  
TeacherSalaries\_Dis... Text file  
teacherdata\_school... Microsoft Excel

Educator Evalu... Clean 2

Clean 2 14 fields 6Krows Rename Fields... Pivot Columns to Rows Merge Fields Keep Only Fields Hide Fields Remove Fields 1 Recommendation Search

Changes (14)

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

# % Proficient - District ... 346

# % Evaluated - ... 3

District Name 406

School Name 2K

District+School Name 2K

School Code 2K

# # of Educators to be Ev...

Filter [File Paths] Keep-only: multiple

Make Uppercase [School Name] All values changed to uppercase

Trim Spaces [School Name] Spaces trimmed from all values

Group Values [School Name] 2 values replaced by "BOSTON - BOSTON LATIN ACADEMY"

Calculated Field [School Name - Split 1] TRIM(SPLIT([School Name], "-", 1))

Calculated Field [School Name - Split 2] TRIM(SPLIT([School Name], "-", 2))

Group Values [File Paths] 3 values replaced

Rename Field [District+School Name] From [School Name] to [District+School Name]

Rename Field [School Name] From [School Name - Split 2] to [School Name]

Rename Field [District Name] From [School Name - Split 1] to [District Name]

Rename Field [Year] From [File Paths] to [Year]

Remove Field [Table Names]

Calculated Field [% Evaluated - Median by Year] { FIXED [Year]:MEDIAN[% Evaluated]}

ABC DISTRICT NAME SCHOOL NAME DISTRICT+ SCHOOL CODE # OF EDUCATORS TO BE EVALUATED

% Proficient - District Median	% Evaluated - Median by Year	District Name	School Name	District+School Name	School Code	#
86.6	97.6	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT)	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE 04450105		
55.3933333333334	97.6	ABINGTON	ABINGTON HIGH	ABINGTON - ABINGTON HIGH	00010505	
55.3933333333334	97.6	ABINGTON	BEAVER BROOK ELEMENTARY SCHOOL	ABINGTON - BEAVER BROOK ELEMENTARY SCHOOL	00010003	
55.3933333333334	97.6	ABINGTON	CENTER ELEMENTARY SCHOOL	ABINGTON - CENTER ELEMENTARY SCHOOL	00010002	
55.3933333333334	97.6	ABINGTON	FROLIO MIDDLE SCHOOL	ABINGTON - FROLIO MIDDLE SCHOOL	00010405	
66.6333333333334	97.6	ABINGTON	WOODSDALE ELEMENTARY SCHOOL	ABINGTON - WOODSDALE ELEMENTARY SCHOOL	00010015	
85.37307692307692	97.6	ACTON	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	04120530	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH	06000050	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - BLANDARD MEMORIAL SCHOOL	06000005	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - C.T. DOUGLAS ELEMENTARY SCHOOL	06000020	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - LUTHER CONANT SCHOOL	06000030	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MCCARTHY-TOWNE SCHOOL	06000015	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - MERRIAM SCHOOL	06000010	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - PAUL P GATES ELEMENTARY SCHOOL	06000025	
85.37307692307692	97.6	ACTON	BOXBOROUGH	ACTON-BOXBOROUGH - RAYMOND J. O'BRYAN UNION HIGH SCHOOL	06000100	

Creating rank on Total Expenditure.

Connections

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Per Pupil Expen... Clean 5

Clean 5 9 fields 2 Rows Filter Values... Rename Field Create Calculated Field... Duplicate Field Keep Only Field Hide Field Remove Field 1 Recommendation Search

Changes (6)

- Make Uppercase [District Name] All values changed to uppercase
- Trim Spaces [District Name] Spaces trimmed from all values
- Group Values [District Name] 76 values replaced by 53 values
- Group Values [File Paths] 5 values replaced
- Remove Field [Table Names]
- Rename Field [Year] From [File Paths] to [Year]

District Expenditures Total In-district FTEs In-District Expenditure... Total Expenditures Total Pupil FTEs Total Expenditure... Year

District Name	District Code	In-District Expenditures	Total In-district FTEs	In-District Expenditures per Pupil	Total Expenditures	Total Pupil FTEs	Total	Hide Field	Remove
ABINGTON	00010000	22,779,478.72	1,943.1	11,723.27	26,449,957.74	2,036.7	12,986.07	2014	
ACTON-BOXBOROUGH	00020000	29,598,949	2,453.3	12,064.95	31,443,134	2,500.7	12,573.73	2014	
ACTON-BOXBOROUGH	06000000	39,206,997	2,882.3	13,602.68	44,631,077	2,987.9	14,937.27	2014	
ACUSHNET	00030000	10,519,233.82	980.1	10,732.82	14,898,617.95	1,285.6	11,588.84	2014	
ADAMS-CHESHIRE	06030000	18,417,242.45	1,375	13,394.36	19,638,935.95	1,511.8	12,990.43	2014	
AGAWAM	00050000	51,605,213.4	4,046.9	12,751.79	56,982,676	4,175.5	13,646.91	2014	
AMESBURY	00070000	29,444,378.36	2,342.1	12,571.79	33,262,564.52	2,511.6	13,243.58	2014	
AMHERST	00080000	23,718,709	1,196.7	19,820.1	25,190,862	1,287.1	19,571.8	2014	
AMHERST	06050000	28,550,305.11	1,470.3	19,418.01	31,689,928.11	1,619	19,573.77	2014	
ANDOVER	00090000	88,382,810	6,169.9	14,324.84	95,109,234	6,263.2	15,185.41	2014	
ARLINGTON	00100000	60,561,631.7	5,080.1	11,921.35	68,448,291.54	5,231.1	13,084.88	2014	
ASHBURNHAM-WESTMINSTER	06100000	27,764,093.98	2,282.1	12,166.03	29,819,883.62	2,364.5	12,611.5	2014	
ASHLAND	00140000	32,524,969.99	2,569	12,660.56	35,918,502.45	2,706.6	13,270.71	2014	
ASSABET VALLEY REGIONAL VOCATIONAL TECHNICAL	08010000	19,245,936	1,046.5	18,390.77	19,264,364	1,048.1	18,380.27	2014	
ATHOL-ROYALSTON	06150000	19,653,583.41	1,407.1	13,967.44	23,706,983.66	1,772.1	13,377.9	2014	

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

**Clean 5** 9 fields, 2 knowns | Filter Values... | Rename Field | Create Calculated Field... | Duplicate Field | Keep Only Field | Hide Field | Remove Field | 1 Recommendation | Search

**Changes (6)**

- Make Uppercase [District Name] All values changed to uppercase
- Trim Spaces [District Name] Spaces trimmed from all values
- Group Values [District Name] 76 values replaced by 53 values
- Group Values [File Paths] 5 values replaced
- Remove Field [Table Names]
- Rename Field [Year] From [File Paths] to [Year]

**Add Field**

Field Name: **Total Expenditure Rank | All Time**

Reference: All

Function: { ORDERBY [Total Expenditures] : RANK() }

Description: Returns the standard competition rank for the current row in the partition. Identical values are assigned an identical rank.

With this function, the set of values (6, 9, 9, 14) would be ranked (1, 2, 2, 4) in ascending order.

Example: {PARTITION [Customer]: {ORDERBY [Sales] ASC: RANK() }}

See also: PARTITION, ORDERBY, ASC, DESC

Calculation is valid ^

Apply Save

#	Total Expenditures	Total Pupil FTEs	Total Expenditures per Pupil	Year
0	40,000	0	40,000	2014
1	44,631,077	2,987.9	14,937.27	2014
2	31,443,134	2,500.7	12,573.73	2014
3	26,449,957.74	2,036.7	12,986.67	2014
4	14,898,617.95	1,285.6	11,588.84	2014
5	19,638,935.95	1,511.8	12,990.43	2014
6	56,982,676	4,175.5	13,646.91	2014
7	33,262,564.52	2,511.6	13,243.58	2014
8	25,190,862	1,287.1	19,571.8	2014
9	31,689,928.11	1,619	19,573.77	2014
10	95,109,234	6,263.2	15,185.41	2014
11	68,448,291.54	5,231.1	13,084.88	2014
12	29,819,883.62	2,364.5	12,611.5	2014
13	35,918,502.45	2,706.6	13,270.71	2014
14	19,264,364	1,048.1	18,380.27	2014
15	23,706,983.66	1,772.1	13,377.9	2014

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

sat\_performance\_s... Microsoft Excel  
PerPupilExpenditur... Microsoft Excel  
AdvancedCourseCo... Microsoft Excel  
TeacherSalaries\_Dis... Text file  
teacherdata\_school... Microsoft Excel

Per Pupil Expen... Clean 5

Clean 5 10 fields 2K rows ✓ Keep Only ✎ Exclude ⌂ Edit Value ⌂ Replace with Null 1 Recommendation Search

Changes (7)

- Make Uppercase [District Name] All values changed to uppercase
- Trim Spaces [District Name] Spaces trimmed from all values
- Group Values [District Name] 76 values replaced by 53 values
- Group Values [File Paths] 5 values replaced
- Remove Field [Table Names]
- Rename Field [Year] From [File Paths] to [Year]
- Calculated Field [Total Expenditure Rank | All Time] {ORDERBY [Total Expenditures].RANK()}

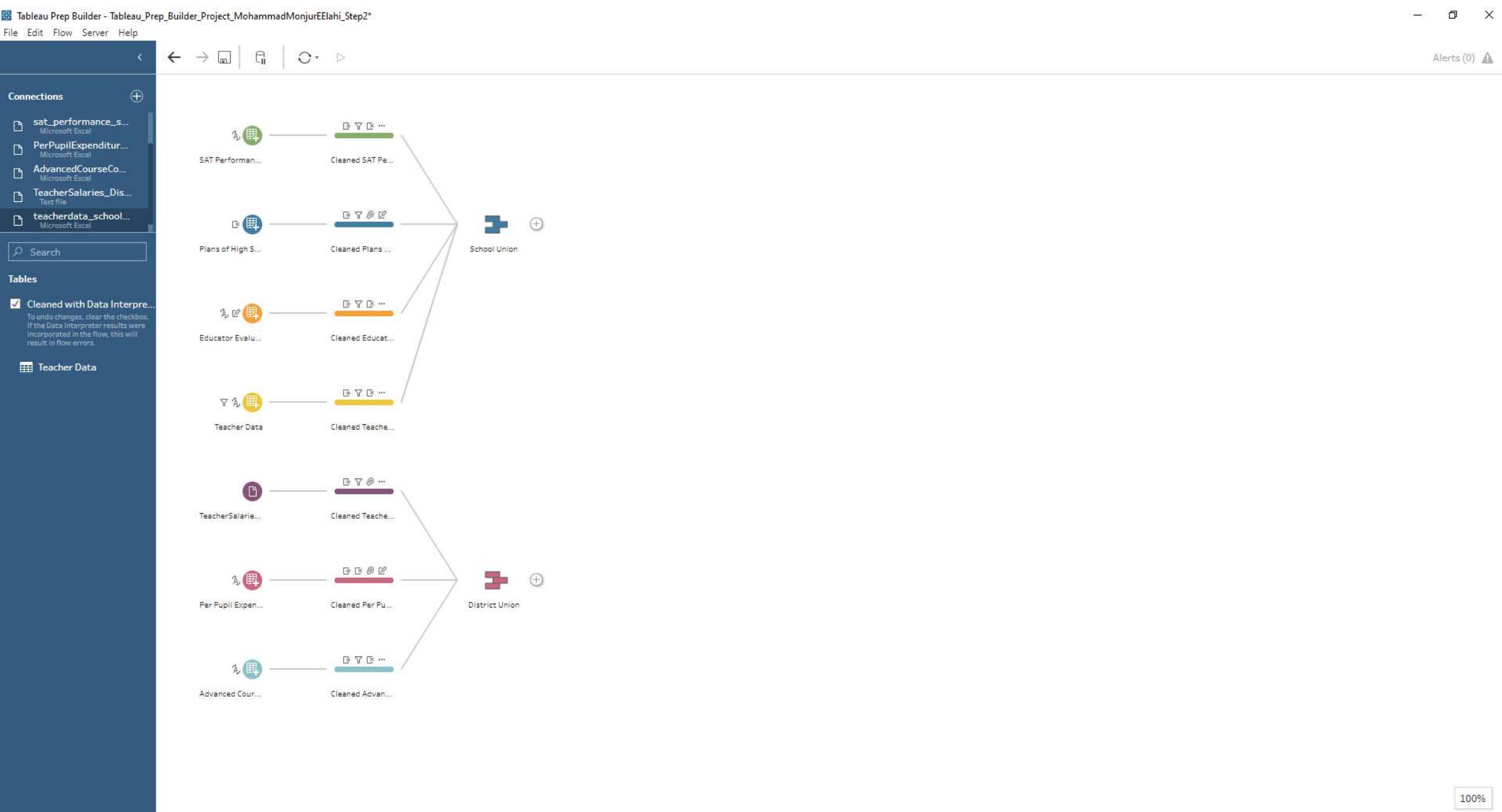
Total Expenditure Rank ... 2K District Name 336 District Code 409 In-District Expenditures 2K Total In-district FTEs 2K In-District Expenditure... 2K Total Expenditures 2K

#	Total Expenditure Rank ... 2K	District Name 336	District Code 409	In-District Expenditures 2K	Total In-district FTEs 2K	In-District Expenditure... 2K	Total Expenditures 2K
1		ABBY KELLEY FOSTER ...	00000000	0	0	0	0
2		ABINGTON	00010000	4,000,000,000	500,000	50,000	3,000,000,000
3		ACADEMY OF THE PACI...	00020000	8,000,000,000	1,000,000	100,000	6,000,000,000
4		ACTON-BOXBOROUGH	00030000	12,000,000,000	1,000,000	100,000	9,000,000,000
5		ACUSHNET	00050000	16,000,000,000	1,000,000	100,000	12,000,000,000
6		ADAMS-CHESHIRE	00070000				15,000,000,000
7		ADVANCED MATH AND ...	00080000				18,000,000,000
8		AGAWAM	00090000				
9		ALMA DEL MAR CHART...	00100000				
10		AMESBURY	00140000				
11		AMHERST	00160000				
12		ANDOVER	00170000				

Total Expenditure Rank | All Time District Name District Code In-District Expenditures Total In-district FTEs In-District Expenditures per Pupil Total Expenditures Total Pupil FTEs Total Expenditures per Pupil Year

Total Expenditure Rank   All Time	District Name	District Code	In-District Expenditures	Total In-district FTEs	In-District Expenditures per Pupil	Total Expenditures	Total Pupil FTEs	Total Expenditures per Pupil	Year
1	STATE TOTALS	00000000	15,242,477,034.29	955,237.3	15,956.74	17,046,942,198.29	1,033,460.7	16,495.01	2018
2	STATE TOTALS	00000000	14,658,903,651.28	953,702.9	15,370.51	16,381,070,947.28	1,028,732.1	15,923.55	2017
3	STATE TOTALS	00000000	13,607,724,142	908,996.2	14,970.06	15,213,412,780	982,246.8	15,488.38	2016
4	STATE TOTALS	00000000	13,184,437,710	913,267.8	14,436.55	14,688,202,324	983,004.1	14,942.16	2015
5	STATE TOTALS	00000000	12,839,362,957.6	917,203.5	13,998.38	14,266,318,220.82	982,469.6	14,520.87	2014

Unioning School Level and District Level data separately.



Checked the mismatch of fields after union and found that those are logically alright.

**Connections**

- sat\_performance\_school (Microsoft Excel)
- PerPupilExpenditure (Microsoft Excel)
- AdvancedCourseCompletion (Microsoft Excel)
- TeacherSalaries\_Discontinued (Text file)
- teacherdata\_school (Microsoft Excel)

**Search**

**Tables**

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**School Union** 33 fields 10K rows | Filter Values... | Create Calculated Field...

**Union Results**  Show only mismatched fields

**Settings** **Changes (0)**

% Evaluated - Median by Year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
% Proficient - District Median	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
# of Educators to be Evaluated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
# Evaluated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
% Evaluated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
% Exemplary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
% Proficient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
% Needs Improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
% Unsatisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tests Taken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Math	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading / Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Year Private College	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Year Public College	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Count	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total # of Teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
% of Teachers Licensed in Teaching...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total # of Classes in Core Academic...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
% of Core Academic Classes Taught...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Student / Teacher Ratio	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total # of Teachers (FTE)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
% of Teachers Licensed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percent of Experienced Teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percent of Teachers without Waive...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percent Teaching In-Field	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**School Union**

**Union Results**  Show only mismatched fields

**District+School Name** 2K

ABC

- ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE
- ABINGTON - ABINGTON HIGH
- ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC - ACAD
- ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION
- ADAMS-CHESHIRE - HOOSAC VALLEY MIDDLE & HIGH SCHOOL
- ADVANCED MATH AND SCIENCE ACADEMY CHARTER (DAMSC) - D
- AGAWAM - AGAWAM HIGH
- AMESBURY - AMESBURY HIGH
- AMESBURY ACADEMY CHARTER PUBLIC (DISTRICT) - AT
- AMHERST-PELHAM - AMHERST REGIONAL HIGH
- ANDOVER - ANDOVER HIGH
- ARLINGTON - ARLINGTON HIGH
- ASHBURNHAM-WESTMINSTER - OAKMONT REGIONAL HIGH
- ASHLAND - ASHLAND HIGH

**District Name** 438

ABC

- ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE
- ABINGTON
- ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC - ACAD
- ACTON
- ACUSHNET
- ADAMS
- ADVANCED MATH AND SCIENCE ACADEMY CHARTER (DAMSC) - D
- AGAWAM
- ALMA DEL MAR CHARTER HIGH SCHOOL
- AMESBURY
- AMESBURY ACADEMY CHARTER PUBLIC (DISTRICT) - AT
- AMHERST
- ANDOVER
- ARLINGTON
- ASHBURNHAM
- ASHLAND

**School Name** 2K

ABC

- 1 LT CHARLES W. WHITING ELEMENTARY
- 21ST CENTURY SKILLS LEARNING CENTER
- A DREWICZ ELEMENTARY
- A E ANGIER
- A. C. WHELAN ELEMENTARY
- A. IRVIN STUDLEY ELEMENTARY
- ABBOT ELEMENTARY
- ABBOTT MEMORIAL
- ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE
- ABIGAIL ADAMS MIDDLE SCHOOL
- ABINGTON EARLY EDUCATION CENTER
- ABINGTON HIGH

**Table Names** 4

ABC

- EducatorEvalPerf\_school\_2014...
- plansforhsgrad\_school\_2014...
- sat\_performance\_school\_2014...
- teacherdata\_school\_2014...

**#** % Proficient - District Median by Year

ABC

- null
- 20
- 50
- 80

**#** % Evaluated - Median by Year

ABC

- null
- 97.6
- 97.7
- 98.9

**#** 4 Year Private College

ABC

- null
- 20
- 50
- 80

**District+School Name** **District Name** **School Name** **Table Names** **% Proficient - District Median by Year**

District+School Name	District Name	School Name	Table Names	% Proficient - District Median by Year
ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	ABBY KELLEY FOSTER CHARTER PUBLIC (DISTRICT) - AE	ABBY KELLEY FOSTER CHARTER PUBLIC SCHOOL	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ABINGTON - ABINGTON HIGH	ABINGTON	ABINGTON HIGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC - ACAD	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC	ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC SCHOOL	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ACTON-BOXBOROUGH - ACTON-BOXBOROUGH REGION	ACTON	BOXBOROUGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ADAMS-CHESHIRE - HOOSAC VALLEY MIDDLE & HIGH SCHOOL	ADAMS	CHESHIRE	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ADVANCED MATH AND SCIENCE ACADEMY CHARTER (DAMSC) - D	ADVANCED MATH AND SCIENCE ACADEMY CHARTER (DAMSC) - D	ADVANCED MATH AND SCIENCE ACADEMY CHARTER SCHOOL	sat_performance_school_2014_2015.xlsx/SAT Performance	null
AGAWAM - AGAWAM HIGH	AGAWAM	AGAWAM HIGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null
AMESBURY - AMESBURY HIGH	AMESBURY	AMESBURY HIGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null
AMESBURY ACADEMY CHARTER PUBLIC (DISTRICT) - AT	AMESBURY ACADEMY CHARTER PUBLIC (DISTRICT) - AT	AMESBURY ACADEMY CHARTER PUBLIC SCHOOL	sat_performance_school_2014_2015.xlsx/SAT Performance	null
AMHERST-PELHAM - AMHERST REGIONAL HIGH	AMHERST	PELHAM	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ANDOVER - ANDOVER HIGH	ANDOVER	ANDOVER HIGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ARLINGTON - ARLINGTON HIGH	ARLINGTON	ARLINGTON HIGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ASHBURNHAM-WESTMINSTER - OAKMONT REGIONAL HIGH	ASHBURNHAM	WESTMINSTER	sat_performance_school_2014_2015.xlsx/SAT Performance	null
ASHLAND - ASHLAND HIGH	ASHLAND	ASHLAND HIGH	sat_performance_school_2014_2015.xlsx/SAT Performance	null

**Connections**

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis...** Text file
- teacherdata\_school... Microsoft Excel

**Teacher Data** **Cleaned Teacher...**

**District Union** 26 fields 3K rows **Filter Values...** **Create Calculated Field...**

**Union Results**  Show only mismatched fields

**Resulting Fields**  
22 Mismatching fields from 26 resulting fields.

**Mismatched Fields**

Total Expenditure Rank   All Time	
FTE Count Bins	
Salary Totals	
Average Salary	
FTE Count	
# Grade 11 and 12 Students	
# Students Completing Advanced	
% Students Completing Advanced	
% ELA	
% Math	
% Science and Technology	
% History and Social Sciences	
% Arts	
% All Other Subjects	
Ch 74 Secondary Cooperative Program	
% Science and Technology 1	
In-District Expenditures	
Total In-district FTEs	
In-District Expenditures per Pupil	
Total Expenditures	
Total Pupil FTEs	
Total Expenditures per Pupil	

**District Name** 359 **Table Names** 3 **Total Expenditure Rank ...** 2K **FTE Count Bins** 4 **In-District Expenditures** 2K **Total In-district FTEs** 2K **In-District Expenditu...**

District Name	Table Names	Total Expenditure Rank   All Time	FTE Count Bins	In-District Expenditures	Total In-district FTEs	In-District Expenditures per Pupil	Total Expenditures
ABBY KELLEY FOSTER ...	AdvancedCourseCompletion... PerPupilExpenditures_distr...	null	<50	3,000,000,000	200,000	20,000	100,000,000
ABINGTON		1	100+	500,000	500,000	1,000	1,000,000
ACADEMY OF THE PACI...		2	50-99	7,000,000,000	800,000	8,750	8,750,000
ACTON-BOXBOROUGH		3		11,000,000,000	11,000,000	1,000	1,000,000
ACUSHNET		4		15,000,000,000	15,000,000	1,000	1,000,000
ADAMS-CHESHIRE		5					
ADVANCED MATH AND ...		6					
AGAWAM		7					
ALMA DEL MAR CHART...		8					
AMESBURY		9					
AMHERST		10					
AMHERST-PELHAM		11					
STATE TOTALS	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 1	null	15,242,477,034.29	955,237.3	15,956.74	17,046,942,198.29	1,000,000,000
STATE TOTALS	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 2	null	14,658,903,651.28	953,702.9	15,370.51	16,381,070,947.28	1,000,000,000
STATE TOTALS	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 3	null	13,607,724,142	908,996.2	14,970.06	15,213,412,780	1,000,000,000
STATE TOTALS	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 4	null	13,184,437,710	913,267.8	14,436.55	14,688,202,324	1,000,000,000
STATE TOTALS	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 5	null	12,839,362,957.6	917,203.5	13,998.38	14,266,318,220.82	1,000,000,000
BOSTON	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 6	null	1,215,099,782	53,414.7	22,748.42	1,473,857,400	1,000,000,000
BOSTON	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 7	null	1,131,250,380	54,447.7	20,776.83	1,365,321,554	1,000,000,000
BOSTON	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 8	null	1,134,732,656	55,864.4	20,312.27	1,332,439,836	1,000,000,000
BOSTON	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 9	null	1,093,104,368	56,858.8	19,224.89	1,269,579,527	1,000,000,000
BOSTON	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 10	null	1,083,170,975.05	56,476.6	19,179.11	1,241,123,771.51	1,000,000,000
SPRINGFIELD	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 11	null	408,939,871	25,776	15,865.14	483,216,706	1,000,000,000
SPRINGFIELD	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 12	null	393,194,102	25,628.7	15,341.94	461,244,476	1,000,000,000
SPRINGFIELD	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 13	null	390,882,551	25,009.3	15,629.49	454,046,693	1,000,000,000
CONCORD	PerPupilExpenditures_district_2014.xlsx/Per Pupil Excl 14	null	302,600,620	25,280.6	15,211.75	420,025,255.00	1,000,000,000

School Aggregate: Based on Grouped values District Name, District+School Name, School Name, School Code, Year

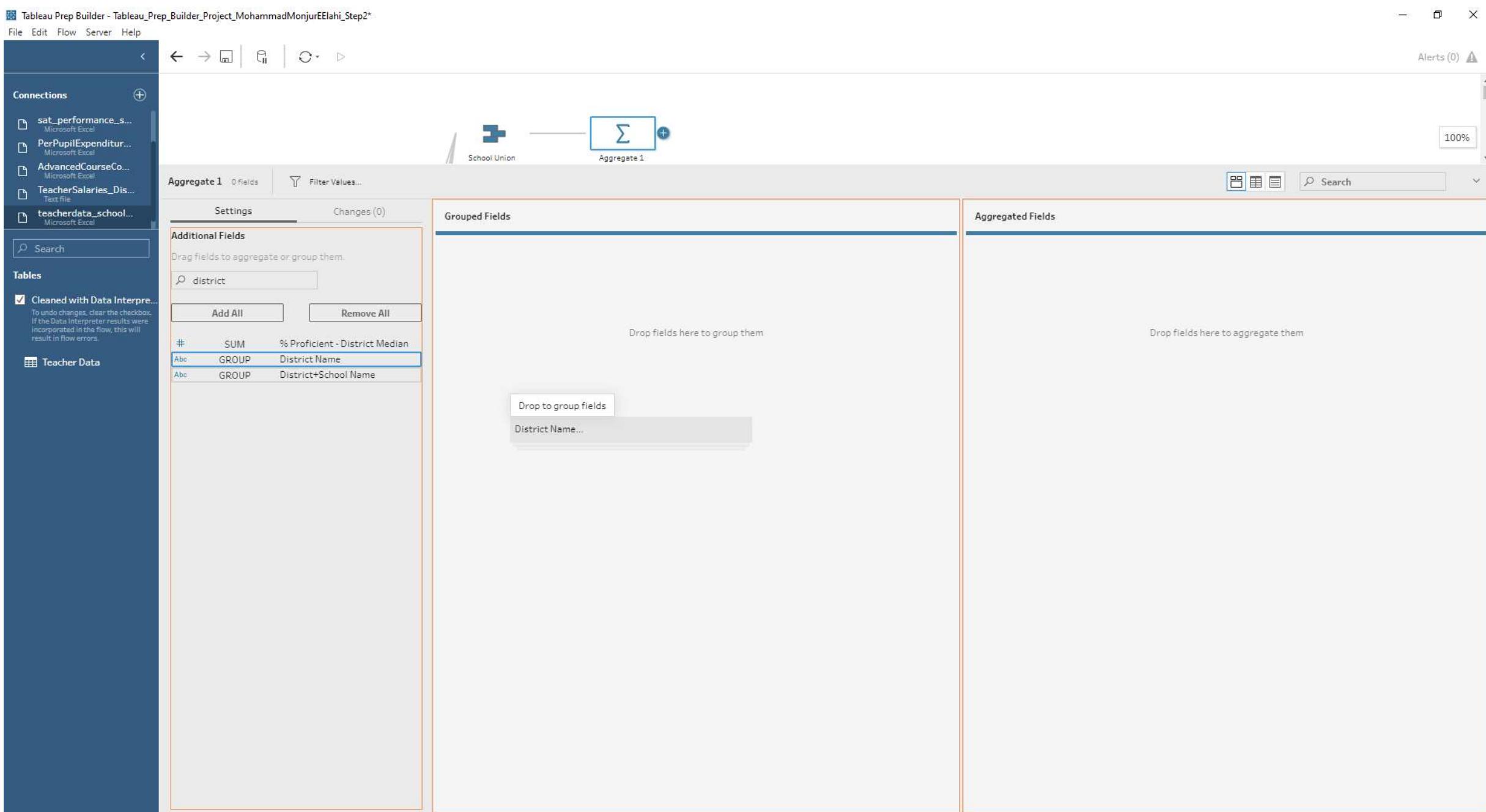


Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Aggregate 1 2 fields 2K rows Filter Values...

School Union → Aggregate 1

Aggregate 1

1 Recommendation

Search

Additional Fields

Drag fields to aggregate or group them.

district

Add All Remove All

Grouped Fields

Abc	GROUP
District+School Name	2K
ABBY KELLEY FOSTER...	
ABINGTON - ABINGTO...	
ABINGTON - ABINGTO...	
ABINGTON - ABINGTO...	
ABINGTON - BEAVER B...	
ABINGTON - BEAVER B...	
ABINGTON - CENTER E...	
ABINGTON - FROLIO MI...	
ABINGTON - WOODSD...	
ACADEMY OF THE PACI...	
ACADEMY OF THE PACI...	
ACTON	
ACUSHNET	
ADAMS	
ADVANCED MATH AND ...	
AGAWAM	
ALMA DEL MAR CHART...	
AMESBURY	
ACTON-BOXBOROUGH ...	
AMESBURY ACADEMY ...	

Aggregated Fields

Drop fields here to aggregate them

District+School Name	District Name
LAWRENCE - UP ACADEMY OLIVER MIDDLE SCHOOL	LAWRENCE
WEST SPRINGFIELD - JOHN ASHLEY	WEST SPRINGFIELD
TRURO - TRURO CENTRAL	TRURO
NAUSET - NAUSET REGIONAL HIGH	NAUSET
WESTHAMPTON - WESTHAMPTON ELEMENTARY SCHO	WESTHAMPTON
WAYLAND - WAYLAND MIDDLE SCHOOL	WAYLAND
BROCKTON - DR W ARNONE COMMUNITY SCHOOL	BROCKTON
GARDNER - GARDNER MIDDLE SCHOOL	GARDNER
BOSTON - THOMAS J KENNY	BOSTON
REVERE - REVERE HIGH	REVERE
OXFORD - PROJECT C.O.F.F.E.E.	OXFORD
BOSTON - O'BRYANT SCHOOL MATH/SCIENCE	BOSTON
ROWE - ROWE ELEMENTARY	ROWE
WESTFIELD - ABNER GIBBS	WESTFIELD

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis...** Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Aggregate 1 5 fields 8K rows Filter Values...

School Union → Aggregate 1

1 Recommendation Search

100%

Additional Fields

Drag fields to aggregate or group them.

Search

Add All Remove All

#	SUM	# Evaluated
#	SUM	# of Educators to be Evaluated
#	SUM	% Evaluated
#	SUM	% Evaluated - Median by Year
#	SUM	% Exemplary
#	SUM	% Needs Improvement
#	SUM	% of Core Academic Classes Taught by...
#	SUM	% of Teachers Licensed
#	SUM	% of Teachers Licensed in Teachin...
#	SUM	% Proficient
#	SUM	% Proficient - District Median
#	SUM	% Unsatisfactory
#	SUM	4 Year Private College
#	SUM	4 Year Public College
#	SUM	Math
#	SUM	Percent of Experienced Teache...
#	SUM	Percent of Teachers without Waiver ...
#	SUM	Percent Teaching In-Field
#	SUM	Reading
#	SUM	Reading/Writing
Abc	GROUP	Student/Teacher Ratio
Abc	GROUP	Table Names
#	SUM	Tests Taken
#	SUM	Total # of Classes in Core Acade...
#	SUM	Total # of Teachers
#	SUM	Total # of Teachers (FTE)
#	SUM	Total Count
#	SUM	Writing
#	SUM	Number of Rows (Aggregated)

Grouped Fields

District Name	GROUP
BOSTON	BBY KELLEY FOSTER ...
BOSTON	BINGTON
CACTUS	CADEMY OF THE PACI...
CACTUS	CADEMY OF THE PACI...
CACTUS	CTON
CUSHNET	CUSHNET
DAMS	DAMS
DVANCED MATH AND ...	DVANCED MATH AND ...
GAWAM	GAWAM
LMA DEL MAR CHART...	LMA DEL MAR CHART...
MESBURY	MESBURY
MESBURY ACADEMY ...	MESBURY ACADEMY ...

School Name	GROUP
1 LT CHARLES W. WHIT...	1 LT CHARLES W. WHIT...
21ST CENTURY SKILLS ...	21ST CENTURY SKILLS ...
A DREWICZ ELEMENTA...	A DREWICZ ELEMENTA...
A E ANGIER	A E ANGIER
A. C. WHELAN ELEMEN...	A. C. WHELAN ELEMEN...
A. IRVIN STUDLEY ELE...	A. IRVIN STUDLEY ELE...
ABBOTT ELEMENTARY	ABBOTT ELEMENTARY
ABBOTT MEMORIAL	ABBOTT MEMORIAL
ABBY KELLEY FOSTER...	ABBY KELLEY FOSTER...
ABIGAIL ADAMS MIDD...	ABIGAIL ADAMS MIDD...
ABINGTON EARLY EDU...	ABINGTON EARLY EDU...
ABINGTON HIGH	ABINGTON HIGH

School Code	GROUP
0	0
00010001	00010001
00010002	00010002
00010003	00010003
00010015	00010015
00010020	00010020
00010405	00010405
00010505	00010505
00030025	00030025
00030305	00030305
00050003	00050003
00050010	00050010

Year	GROUP
2014	2014
2015	2015
2016	2016
2017	2017
2018	2018
2019	2019

Aggregated Fields

Drop fields here to aggregate them

District+School Name	District Name	School N
HOLYOKE - HOLYOKE HIGH	HOLYOKE	HOLYC
BOSTON - DEARBORN	BOSTON	DEARE
TRITON - TRITON REGIONAL HIGH SCHOOL	TRITON	TRITO
WALPOLE - DANIEL FEENEY PRESCHOOL CENTER	WALPOLE	DANIE
ANDOVER - HENRY C SANBORN ELEMENTARY	ANDOVER	HENR
TEWKSBURY - JOHN F. RYAN	TEWKSBURY	JOHN
BRIDGEWATER-RAYNHAM - RAYNHAM MIDDLE SCHOOL	BRIDGEWATER	RAYNH
SOUTHBRIDGE - SOUTHBRIDGE MIDDLE/HIGH SCHOOL	SOUTHBRIDGE	SOUTH
SAVOY - EMMA L MILLER ELEMENTARY SCHOOL	SAVOY	EMMA
BRAINTREE - MONATIQUOT KINDERGARTEN CENTER	BRAINTREE	MONA
WACHUSSETT - THOMAS PRINCE	WACHUSSETT	THOM
BERKLEY - BERKLEY MIDDLE SCHOOL	BERKLEY	BERKL
WINCHENDON - WINCHENDON PRESCHOOL PROGRAM	WINCHENDON	WINCH
DUBLINCTION - DUBLINCTION LUCU	DUBLINCTION	DUBLIN

District Aggregate: Based on grouped values District Name, District Code and Year.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Teacher Data → Cleaned Teacher Data → District Union → Aggregate 3

Aggregate 3 0 fields Filter Values...

Settings Changes (0)

Additional Fields Drag fields to aggregate or group them.

district

Add All Remove All

Abc	GROUP	District Code
Abc	GROUP	District Name
#	SUM	In-District Expenditures
#	SUM	In-District Expenditures per P...
#	SUM	Total In-district FTEs

Grouped Fields Drop fields here to group them.

Drop to group fields District Code...

Aggregated Fields Drop fields here to aggregate them

Alerts (0) 100%

Search

```
graph LR; TeacherData[Teacher Data] --> CleanedTeacherData[Cleaned Teacher Data]; CleanedTeacherData --> DistrictUnion[District Union]; DistrictUnion --> Aggregate3[Aggregate 3];
```

The screenshot shows the Tableau Prep Builder interface with a data flow. The flow starts with 'Teacher Data', followed by 'Cleaned Teacher Data', then 'District Union', and finally 'Aggregate 3'. The 'Aggregate 3' step is currently being configured, displaying three aggregated fields: 'District Code', 'District Name', and 'In-District Expenditures'. On the left, the 'Tables' pane lists several connections, including 'Teacher Salaries\_Dis...' which is checked as having been cleaned by the Data Interpreter. The 'Additional Fields' section under 'Settings' shows the fields being aggregated or grouped, with 'district' selected. A tooltip 'Drop to group fields' is visible over the 'District Code...' field in the 'Grouped Fields' area.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Connections

Teacher Data → Cleaned Teacher Data

District Union → Aggregate 3

100%

Aggregate 3 3 fields 2K rows Filter Values...

Settings Changes (0)

Additional Fields Drag fields to aggregate or group them.

year

Add All Remove All

None

Grouped Fields

Abc	GROUP	Q
District Name	359	
ABBY KELLEY FOSTER ...		
ABINGTON		
ACADEMY OF THE PACI...		
ACTON-BOXBOROUGH		
ACUSHNET		
ADAMS-CHESHIRE		
ADVANCED MATH AND ...		
AGAWAM		
ALMA DEL MAR CHART...		
AMESBURY		
AMHERST		
AMHERST-PELHAM		

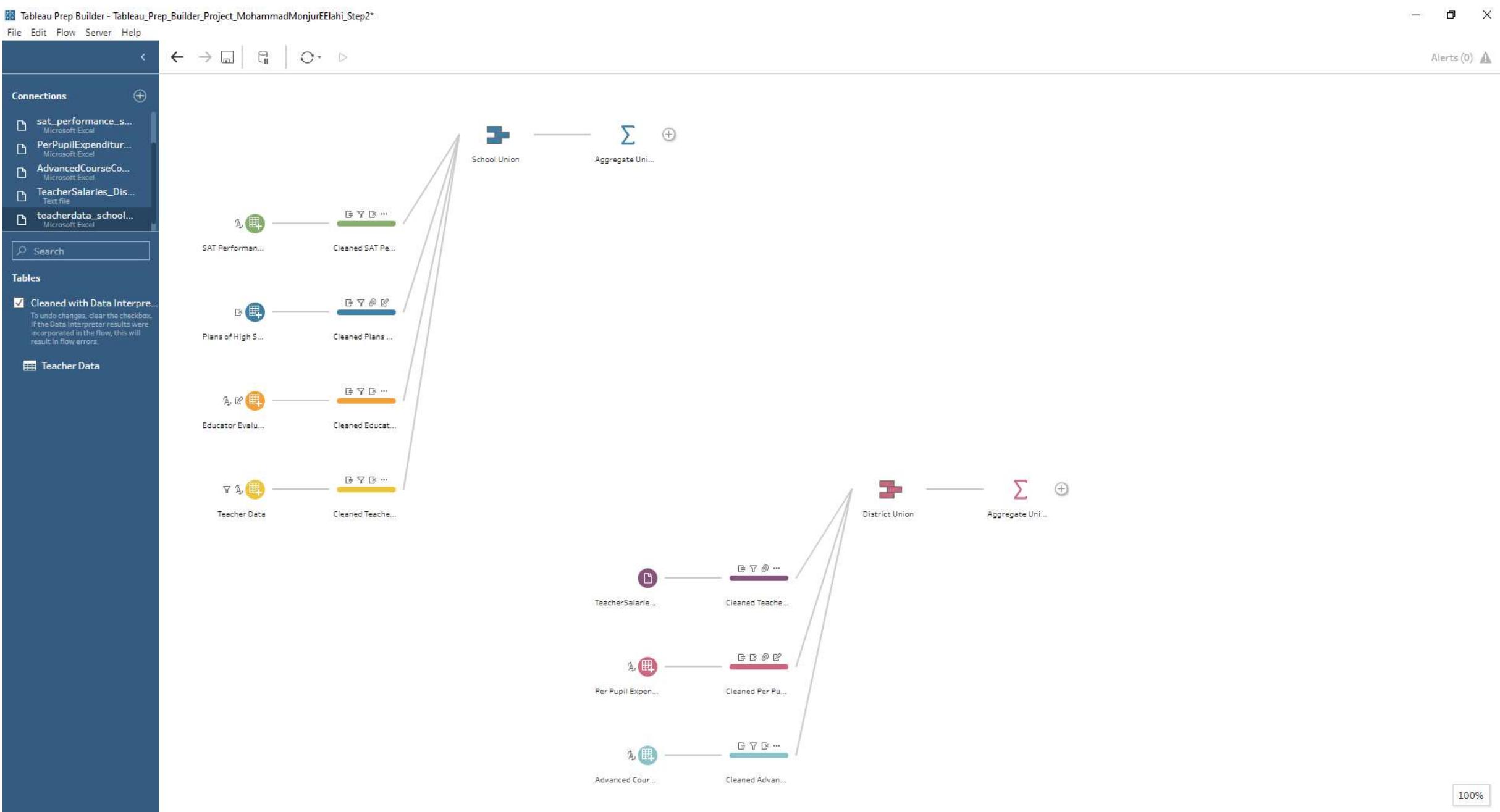
Abc	GROUP	Q
District Code	736	
0		
00000000		
00010000		
00020000		
00030000		
00050000		
00070000		
00080000		
00090000		
00100000		
00140000		
00160000		

Abc	GROUP	Q
Year	5	
2014		
2015		
2016		
2017		
2018		
2019		

Aggregated Fields Drop fields here to aggregate them

District Name	District Code	Year
BELMONT	00260000	2018
LEXINGTON	01550000	2014
RANDOLPH	02440000	2018
UP-ISLAND REGIONAL	07740000	2017
BERKLEY	00270000	2016
EXCEL ACADEMY CHARTER (DISTRICT)	04100000	2018
GLOBAL LEARNING CHARTER PUBLIC (DISTRICT)	04960000	2019
WACHUSSETT	07750000	2015
ACADEMY OF THE PACIFIC RIM CHARTER PUBLIC (DISTRICT)	04120000	2019
FOXBOROUGH	04460000	2017
ROXBURY PREPARATORY CHARTER (DISTRICT)	04840000	2017
SALEM	02580000	2019
SOMERSET BERKLEY REGIONAL SCHOOL DISTRICT	7630000	2019
GARDNER	06730000	2018

After School level and district level aggregation.



Left Joining of the clean stage school data to the aggregated unique school.

**Connections**

- plansforhsgrad\_schools Microsoft Excel
- EducatorEvalPerf\_schools Microsoft Excel
- sat\_performance\_schools Microsoft Excel
- PerPupilExpenditure Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Search**

**Tables**

**Cleaned with Data Interpreter**  
To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Join 1** 15 fields 8K rows Filter Values... Create Calculated Field...

**Settings** **Changes (0)**

**Applied Join Clauses**

Unique Schools	School Code	=	Cleaned SAT Performance	School Code
Year		=	Year	

**Join Type : left**  
Click the graphic to change the join type.

Unique Schools Cleaned SAT Performance

**Summary of Join Results**  
Click the bar segments to view the included and excluded values:

- Mismatched values:
- Included: Unique Schools 8,232, Cleaned Schools 1,845, Join Result 8,232

**Join Clauses**  Show only mismatched values

Unique Schools	Cleaned SAT Performance
↑ School Co...	↑ Year
0	2015
0	2016
0	2017
0	2018
00010001	2017
00010002	2015
00010002	2016
00010003	2015
00010003	2016
00010015	2015
00010015	2016
00010015	2017
00010020	2017
00010405	2015
00010405	2016
00010405	2017
00010505	2014
00010505	2015
00010505	2016
00010505	2017
00010505	2018

**Join Results**

District+School Name	District Name	School Name	District Name (School Name)	School Name (District Name)
Abc	Abc	Abc	Abc	Abc
District+School Name 2K	District Name 438	School Name 2K	District Name (District Name) 334	School Name (School Name) 1
ABBY KELLEY FOSTER ...	ABBY KELLEY FOSTER ...	LT CHARLES W. WHIT...	ABBY KELLEY FOSTER ...	ABBY KELLEY FOSTER ...
ABINGTON - ABINGTO...	ABINGTON	21ST CENTURY SKILLS ...	ABINGTON	ABINGTON HIGH
ABINGTON - ABINGTO...	ACADEMY OF THE PACI...	A DREWICZ ELEMENTA...	ACADEMY OF THE PACI...	ACADEMY OF THE PACI...
ABINGTON - ABINGTO...	ACTON	AE ANGIER	ACADEMY OF THE PACI...	ADVANCED MATH AT A...
ABINGTON - BEAVER B...	ACUSHNET	A. C. WHELAN ELEMEN...	ACADEMY OF THE PACI...	AGAWAM HIGH
ABINGTON - BEAVER B...	ADAMS	A. IRVIN STUDLEY ELE...	ACADEMY OF THE PACI...	AMESBURY ACADEMY
ABINGTON - CENTER E...	ADVANCED MATH AND ...	ABBOT ELEMENTARY	ACADEMY OF THE PACI...	AMESBURY HIGH
ABINGTON - FROLIO MI...	AGAWAM	ABBOTT MEMORIAL	ACADEMY OF THE PACI...	AMESBURY INNOVA...
ABINGTON - WOODSD...	ALMA DEL MAR CHART...	ABBY KELLEY FOSTER ...	ACADEMY OF THE PACI...	ANDOVER HIGH
ABINGTON - WOODSD...	AMESBURY	ABIGAIL ADAMS MIDD...	ACADEMY OF THE PACI...	ANOTHER COURSE T...
ACTON-BOXBOROUGH ...	AMESBURY ACADEMY ...	ABINGTON EARLY EDU...	ACADEMY OF THE PACI...	ARLINGTON HIGH
		ABINGTON HIGH		
HOLYOKE - HOLYOKE HIGH	HOLYOKE	HOLYOKE HIGH		
BOSTON - DEARBORN	BOSTON	DEARBORN		
TRITON - TRITON REGIONAL HIGH SCHOOL	TRITON	TRITON REGIONAL HIGH SCHOOL		
WALPOLE - DANIEL FEENEY PRESCHOOL CENTER	WALPOLE	DANIEL FEENEY PRESCHOOL CENTER		

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Alerts (1)

**Connections**

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Join 3** 23 fields, 0 rows Filter Values... Create Calculated Field...

**Settings** **Changes (0)**

**Applied Join Clauses**

Join 1	Cleaned Plans of Hig...
School Code	= School Code
Year	= Year

**Join Type : left**  
Click the graphic to change the join type.

**Summary of Join Results**  
Click the bar segments to view the included and excluded values.

	Included
Join 1	0
Cleaned P...	0
Join Result	0

**Join Clause Recommendations**

**Join Clauses**  Show only mismatched values

Join 1	Cleaned Plans of High Sch...
↑ School Code...	↑ Year-1
↑ School Co...	↑ Year

**Join Results**

Abc	Abc	Abc	Abc
District+School Name	District Name	School Name	District Name-1
0	0	0	0

**Join 3** 23 fields, 0 rows Filter Values... Create Calculated Field...

**Settings** **Changes (0)**

**Applied Join Clauses**

Join 1	Cleaned Plans of Hig...
School Code	= School Code
Year	= Year

**Join Type : left**  
Click the graphic to change the join type.

**Summary of Join Results**  
Click the bar segments to view the included and excluded values.

	Included
Join 1	0
Cleaned P...	0
Join Result	0

**Join Clause Recommendations**

**Join Clauses**  Show only mismatched values

Join 1	Cleaned Plans of High Sch...
↑ School Code...	↑ Year-1
↑ School Co...	↑ Year

**Join Results**

Abc	Abc	Abc	Abc
District+School Name	District Name	School Name	District Name-1
0	0	0	0

100%

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Alerts (1)

**Connections**

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Search**

**Tables**

Cleaned with Data Interpreter...  
To undo changes, clear the checkbox.  
If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

Join 5 37 fields 0 rows

**Settings** **Changes (0)**

**Applied Join Clauses**

Join 3	Cleaned Educator Ev...
School Code	= School Code
Year	= Year

**Join Type : left**  
Click the graphic to change the join type.

**Summary of Join Results**  
Click the bar segments to view the included and excluded values.

	Included
Join 3	0
Cleaned E...	0
Join Result	0

**Join Clause Recommendations**

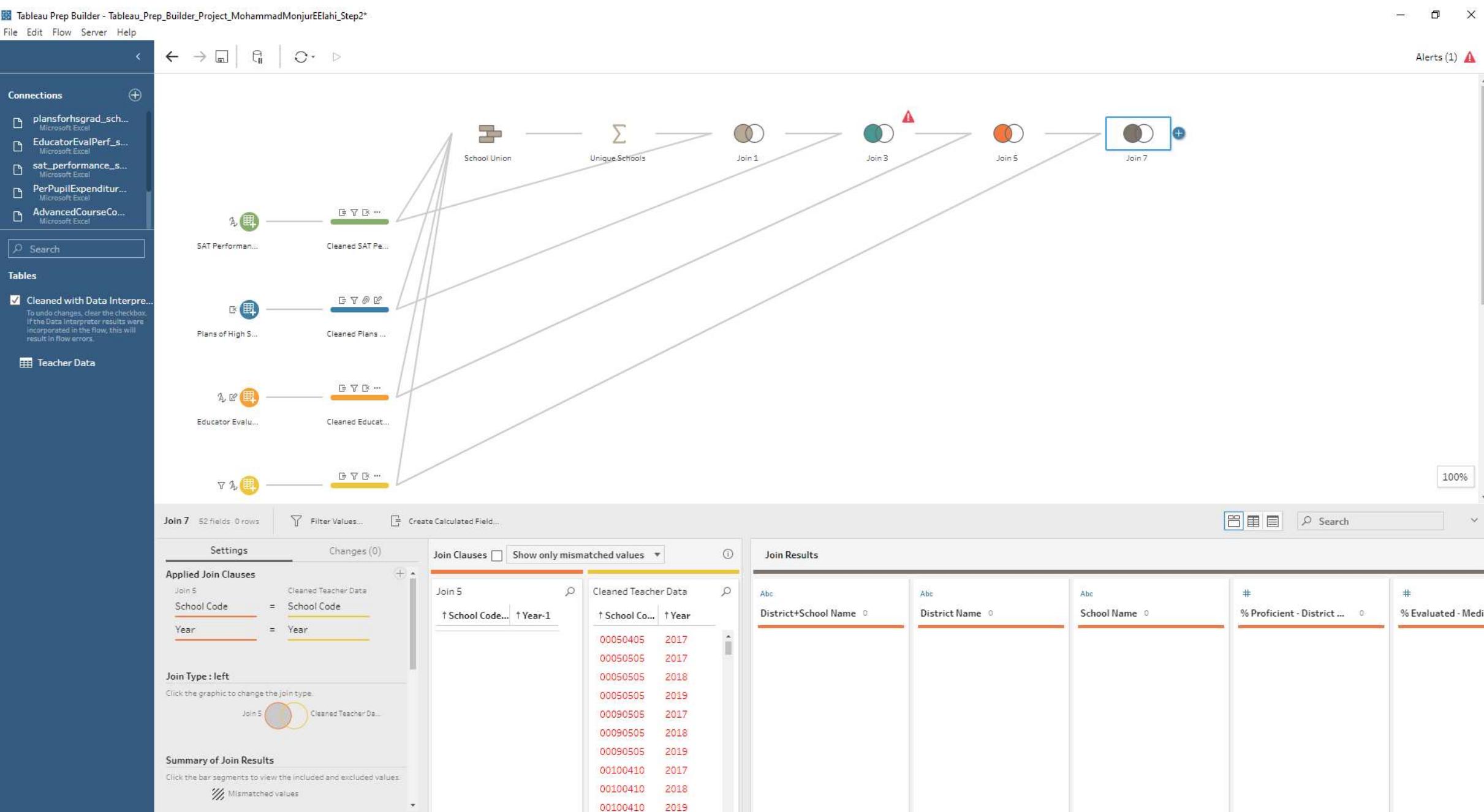
**Join Clauses**  Show only mismatched values

Join 3	Cleaned Educator Evaluat...
↑ School Code...	↑ Year-1
↑ School Co...	↑ Year

**Join Results**

District+School Name	District Name	School Name	% Proficient - District Median	% Evaluated - Median by Year	District Name-1	School Name-1	District
Abc	Abc	Abc	# % Proficient - District ... 0	# % Evaluated - Median ... 0			

100%



Creating calculated fields to the joined school level data for further use later.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Alerts (1)

**Connections**

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

SAT Perform... Cleaned SAT Pe... School Union Unique Schools Join 1 Join 3 Join 5 Join 7

Plans of High S... Cleaned Plans ... Educator Evalu... Cleaned Educat... Join 7 52 fields 0 rows Filter Values... Settings Changes (0)

**Add Field**

Field Name: Total SAT Reference: All

ZN([Math])+ZN([Reading])+ZN([Reading / Writing])

ZN(expression)  
Returns <expression> if it is not null, otherwise returns zero.  
Example: ZN([Profit])

ABS  
ACOS  
AND  
ASC  
ASCII  
ASIN  
ATAN  
ATAN2  
AVG  
CASE  
CEILING  
CHAR  
CONTAINS  
COS  
COT  
COUNT

Calculation is valid **Apply** **Save**

Abc	School Name	#	% Proficient - District ...	#	% Evaluated - Media...
00050405	2017				
00050505	2017				
00050505	2018				
00050505	2019				
00090505	2017				
00090505	2018				
00090505	2019				
00100410	2017				
00100410	2018				
00100410	2019				

Join Type : left Click the graphic to change the join type. Join 5 Cleaned Teacher Data

Summary of Join Results Click the bar segments to view the included and excluded values.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Alerts (1)

**Connections**

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

**Search**

**Tables**

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

SAT Perform... Cleaned SAT Pe...

Plans of High S... Cleaned Plans ...

Educator Evalu... Cleaned Educat...

**Join 7** 53 fields, 0 rows **Filter Values...** **Changes (1)**

**Applied Join Clauses**

Join 5	School Code	=	Cleaned Teacher Data
	Year	=	Year

**Join Type : left**  
Click the graphic to change the join type.  
**Join 5** Cleaned Teacher Data

**Summary of Join Results**  
Click the bar segments to view the included and excluded values.

**Add Field**

**Field Name**: % 4 Year College  

$$\frac{(\text{ZN}([\text{4 Year Public College}]) + \text{ZN}([\text{4 Year Private College}]))}{\text{ZN}([\text{Total Count}])}$$

**Reference**: All

**ZN(expression)**  
Returns <expression> if it is not null, otherwise returns zero.  
Example: ZN([Profit])

**Calculation is valid**

**Apply** **Save**

District Name 0

Abc

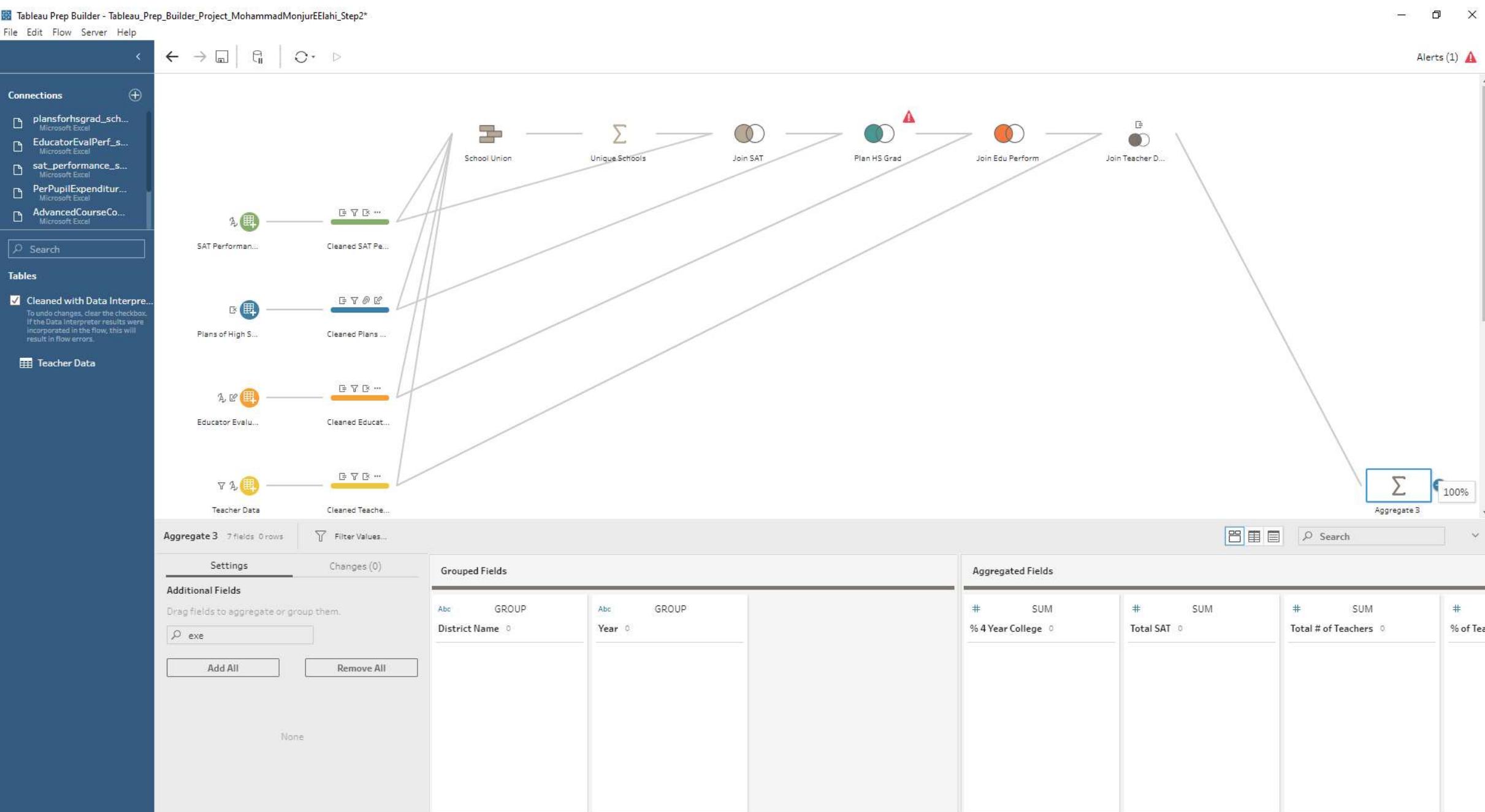
School Name 0

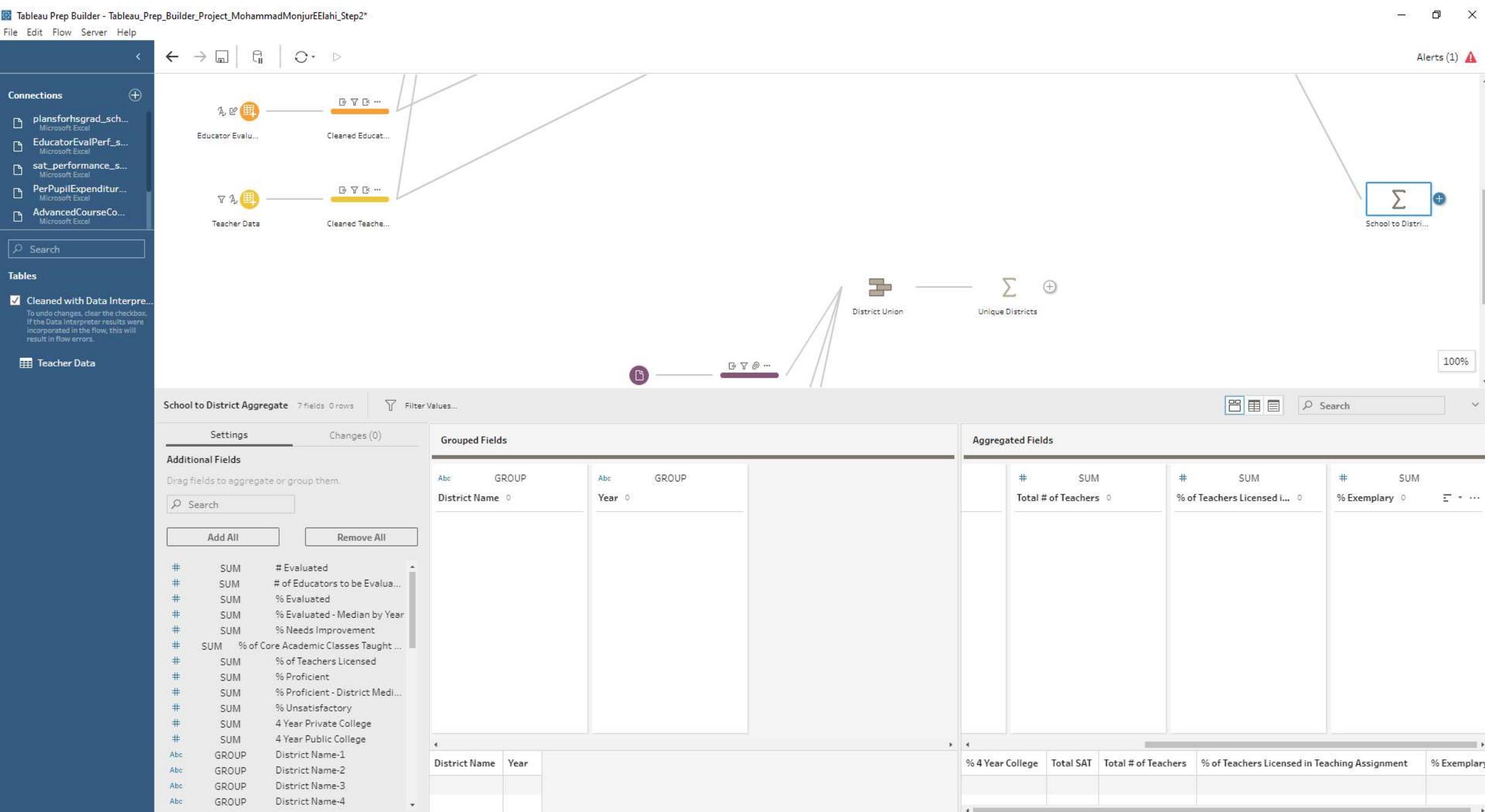
#

% Proficient - Distr

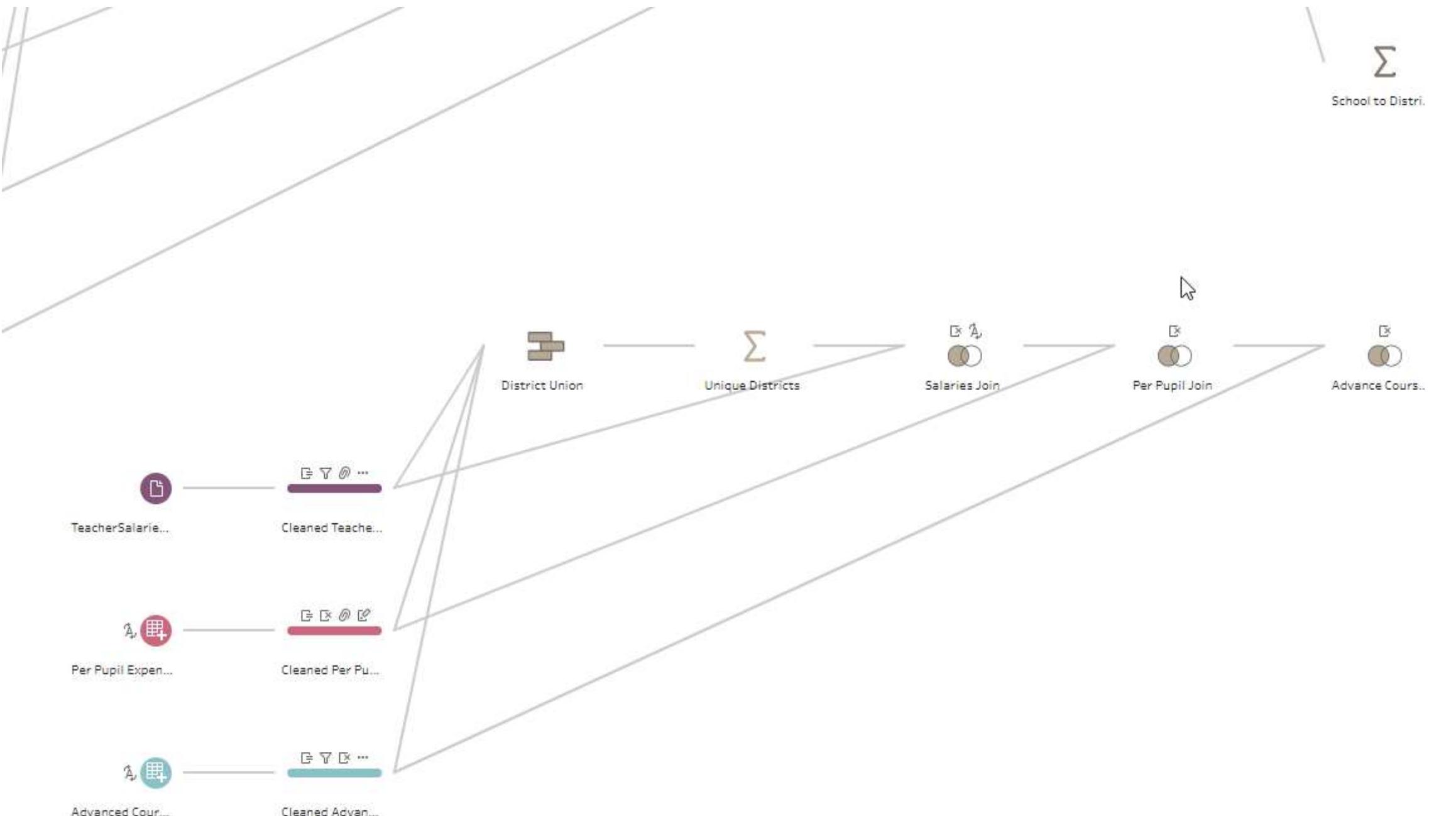
100%

Aggregating branching off the school level joins based on grouped fields District Name and Year.

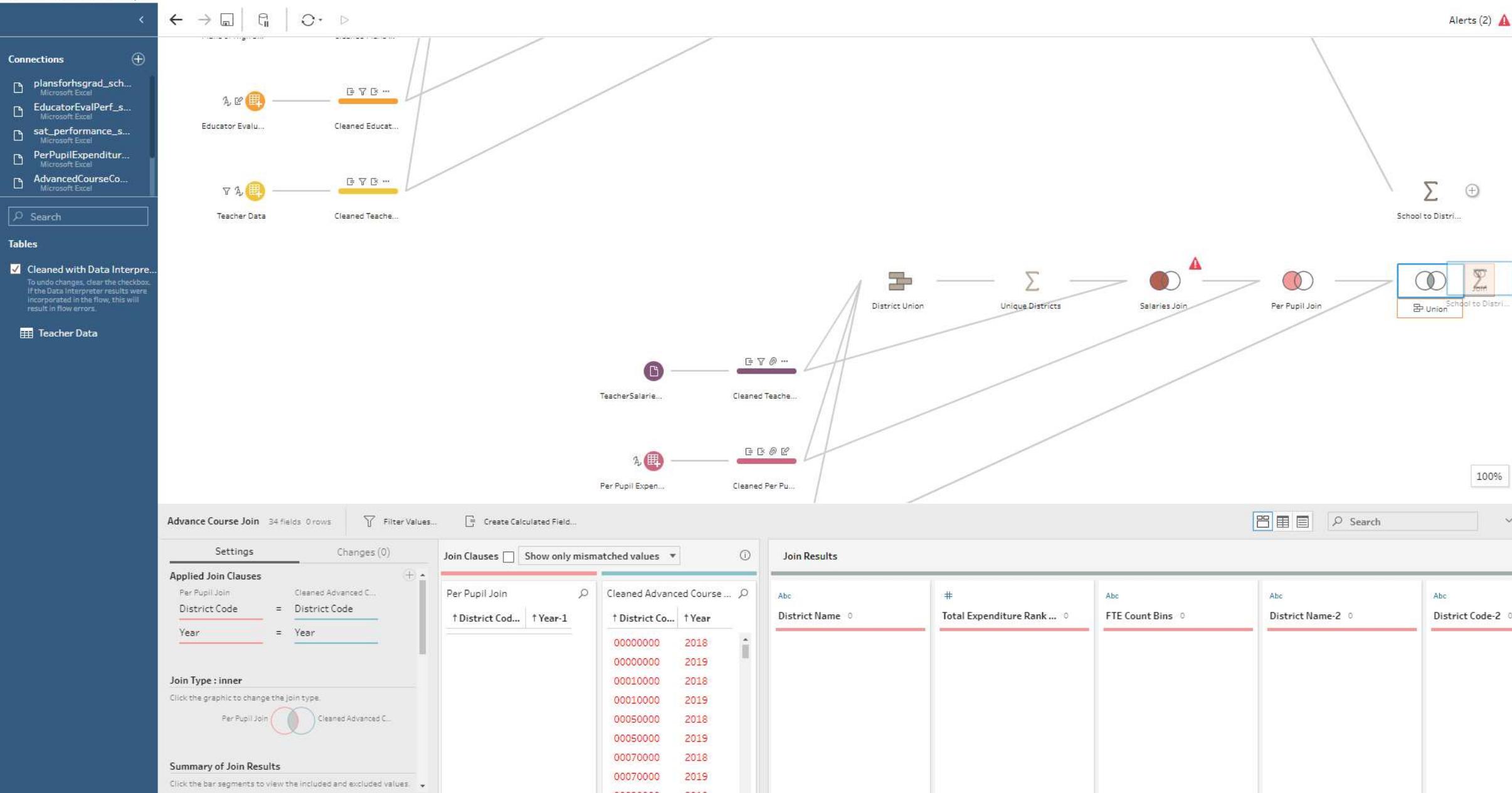


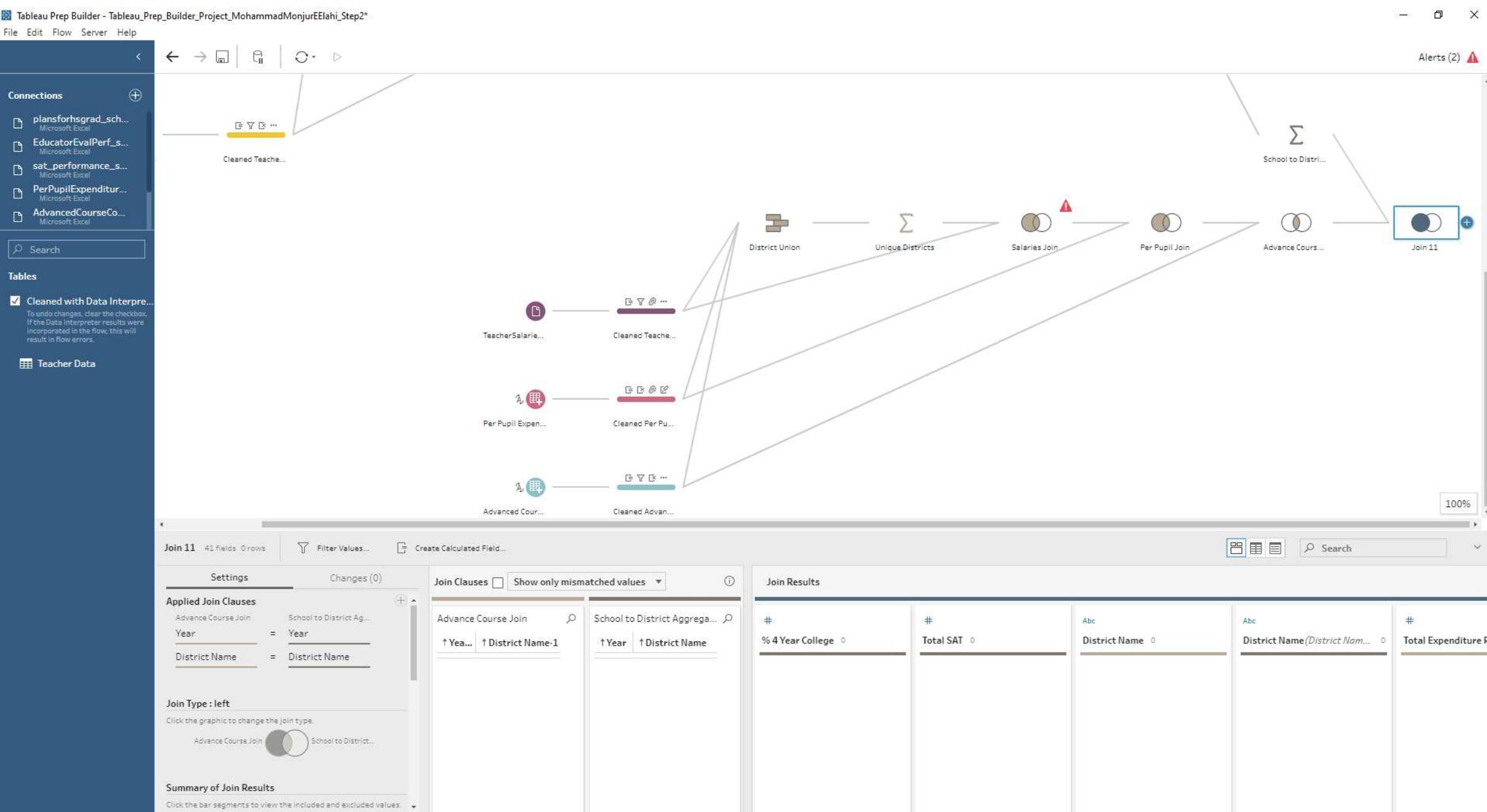


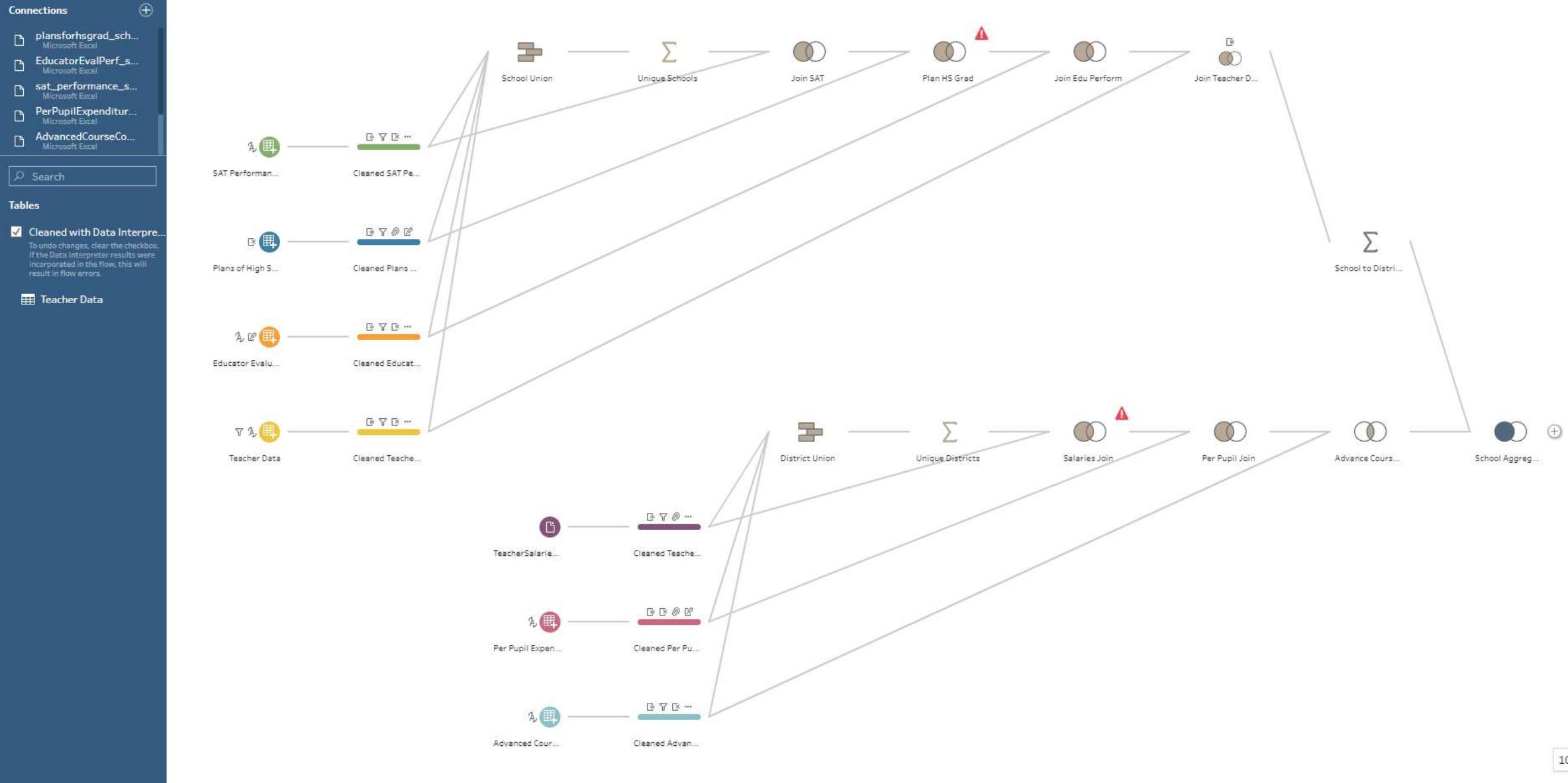
Left join of district level cleaned data to the aggregated unique district data.



Left join between District Level left join final product and School to district to district aggregate from the School level stream.  
The District level join namely Advance Course Join was later rectified to left join although it is showing inner join here.







100%

Removing duplicate fields from different levels of joins.

**Connections**

- plansforhsgrad\_schools Microsoft Excel
- EducatorEvalPerf\_schools Microsoft Excel
- sat\_performance\_schools Microsoft Excel
- PerPupilExpenditure Microsoft Excel
- AdvancedCourseCompletion Microsoft Excel

**Search**

**Tables**

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

**Teacher Data**

**Join SAT** 15 fields Pivot Columns to Rows Keep Only Fields Remove Fields

**Join Clauses**  Show only mismatched values

Unique Schools		Cleaned SAT Performance	
School Code	=	School Code	=
Year	=	Year	=

**Join Type : left**  
Click the graphic to change the join type.  
 Unique Schools Cleaned SAT Performance

**Summary of Join Results**  
Click the bar segments to view the included and excluded values.

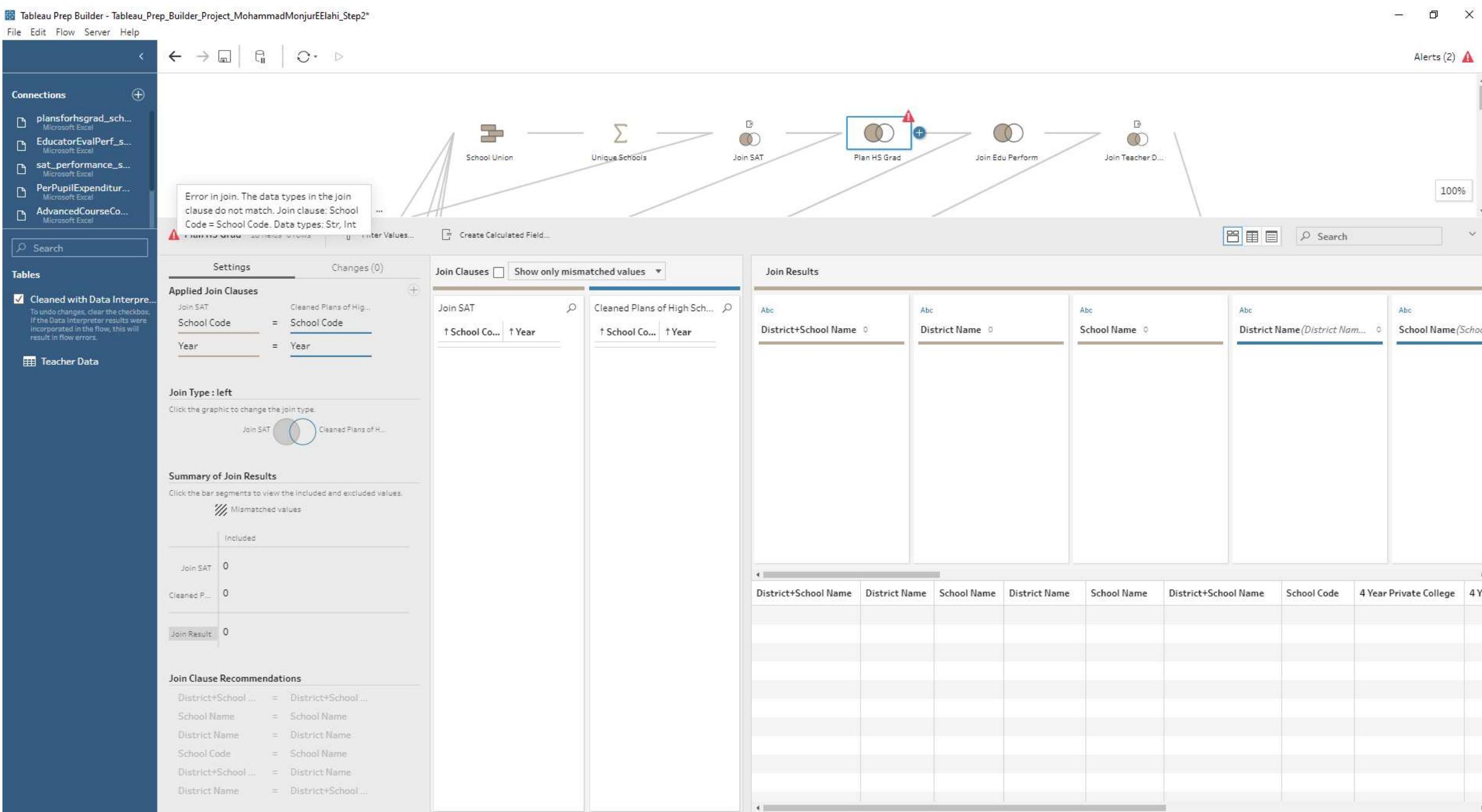
Mismatched values	Included	Excluded
Unique Schools	8,232	0
Cleaned SAT Performance	1,845	0
Join Result	8,232	0

**Join Clause Recommendations**

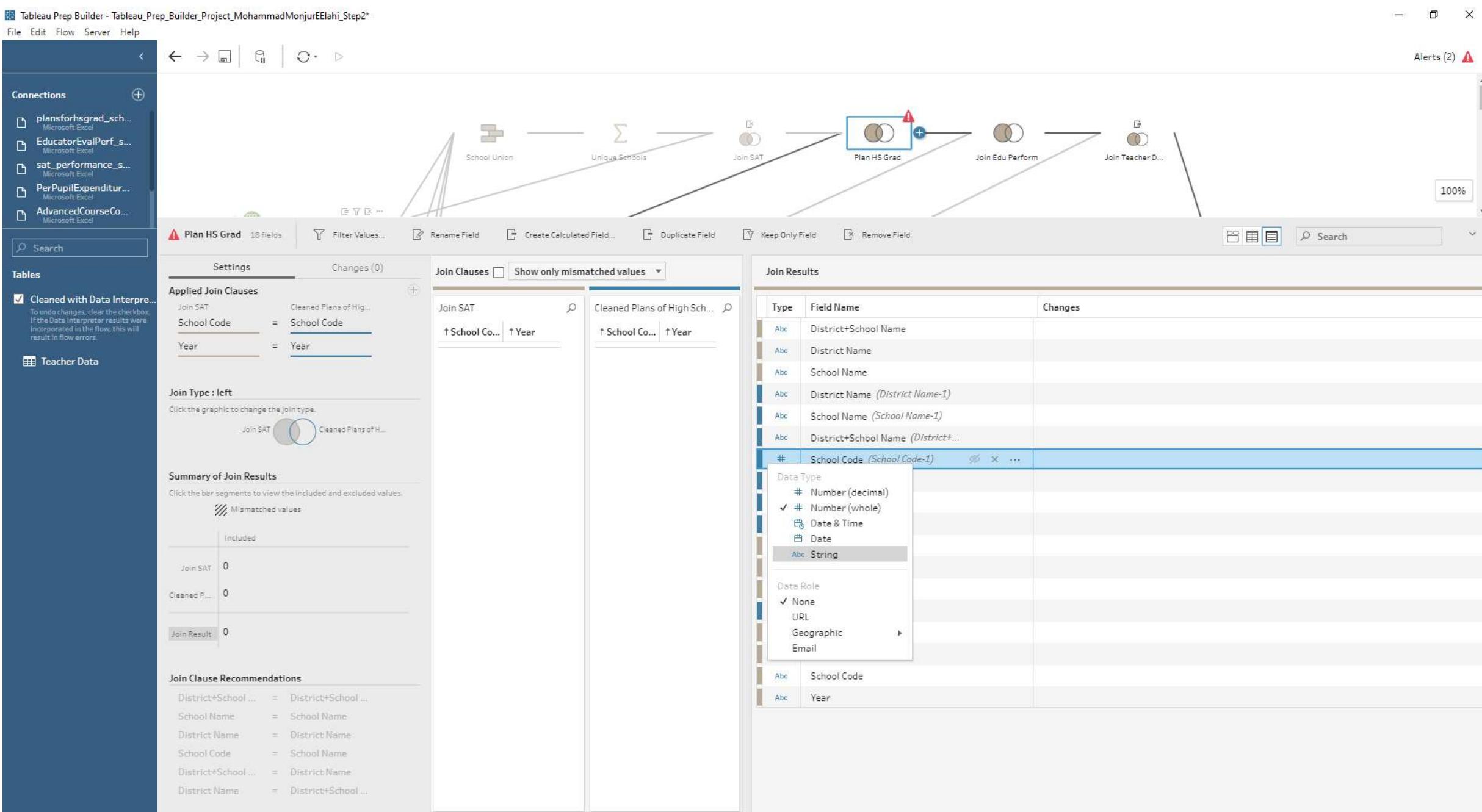
School Name	=	School Name	00010505	2016	00070515	2018
District Name	=	District Name	00010505	2017	00090505	2014
District+School ...	=	District+School ...	00010505	2018	00090505	2015
School Name	=	School Code	00030025	2015	00090505	2016
School Code	=	School Name	00030025	2016	00090505	2017
District Name	=	District+School ...	00030025	2017	00090505	2018
District+School ...	=	District Name	00030305	2015	00100505	2014

**Join Results**

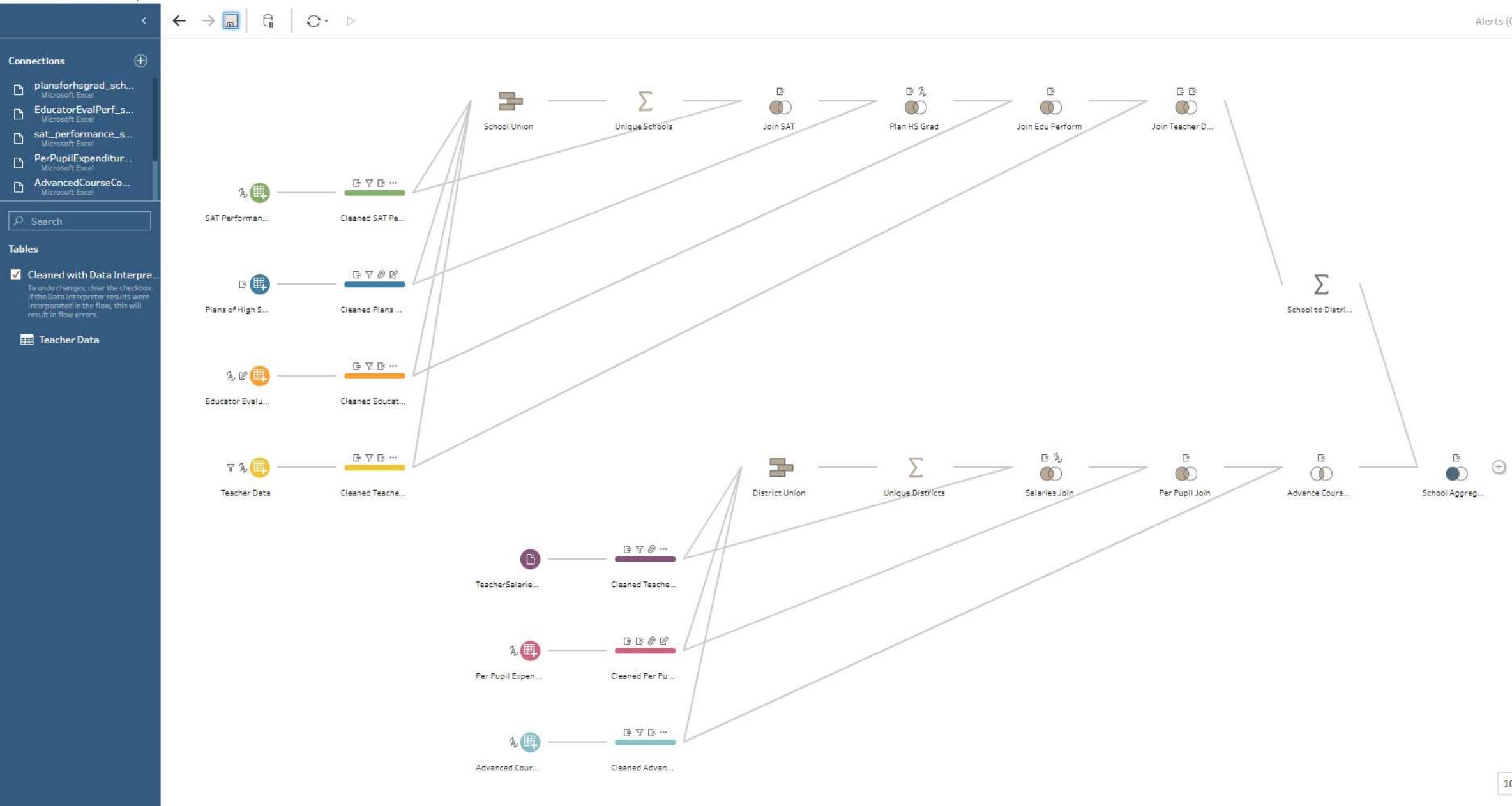
Type	Field Name	Changes
Abc	District+School Name	
Abc	District Name	
Abc	School Name	
Abc	District Name (District Name-1)	
Abc	School Name (School Name-1)	
Abc	District+School Name (District+School ...)	
Abc	School Code (School Code-1)	
#	Tests Taken	
#	Reading/Writing	
#	Math	
#	Reading	
#	Writing	
Abc	Year (Year-1)	Pivot Columns to Rows
Abc	School Code	Merge
Abc	Year	Keep Only
		Hide Fields
		Remove



Handling of errors arising due to data type mismatch in join step.

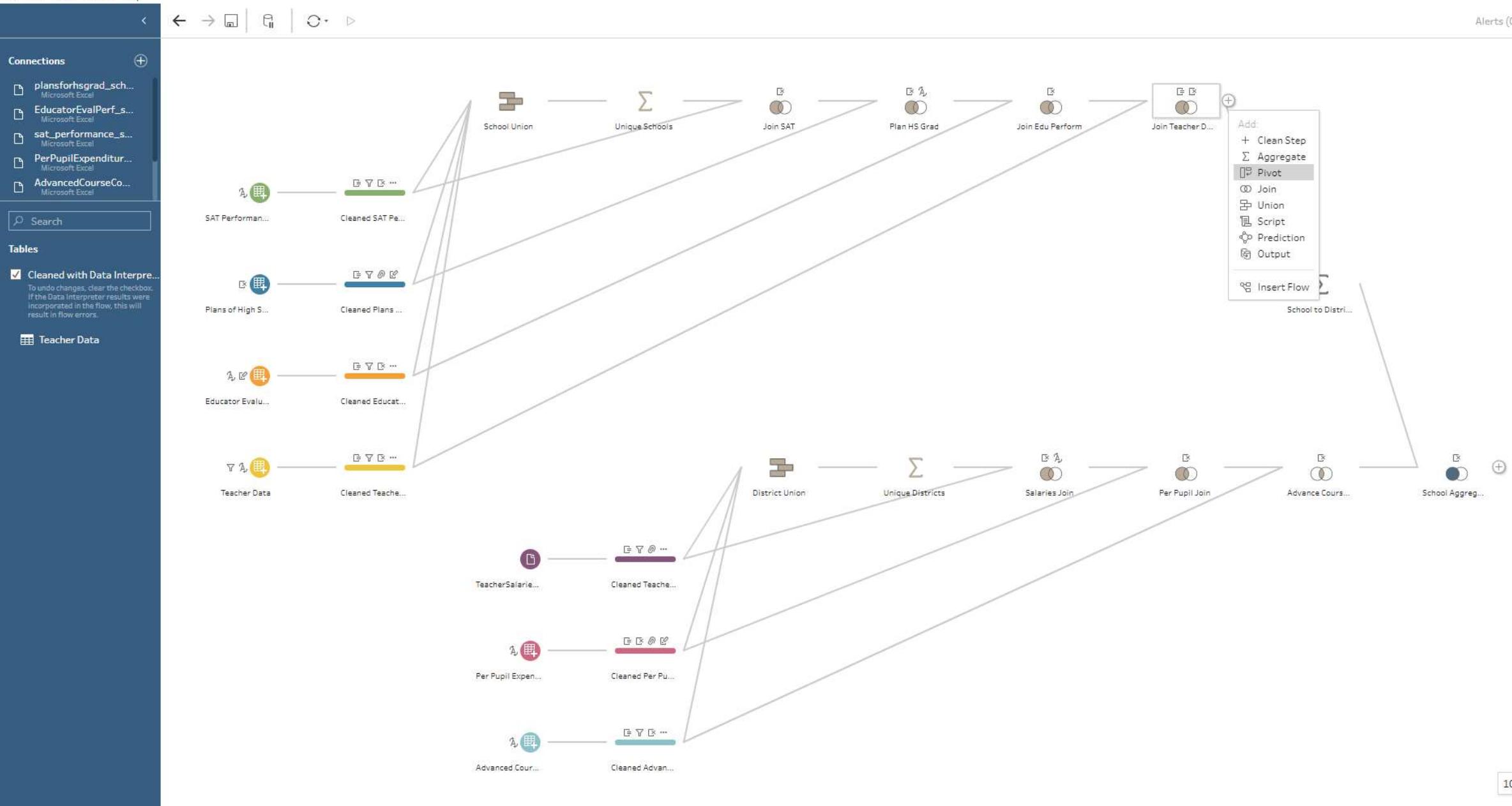


Flow after fixing of the error.



100%

Performing pivoting of the School level final joined data.



Selecting pivoting fields.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Vertical Pivot 34 fields, 8K rows Filter Values... Create Calculated Field...

Alerts (0)

Vertical Pivot 100%

Settings Changes (0)

Pivoted Fields Columns to Rows

Pivot Results

Fields

Search

Automatically rename pivoted fields and values

# # Evaluated  
# # of Educators to be Evaluated  
# % 4 Year College  
# % Evaluated  
# % Evaluated - Median by Year  
# % Exemplary  
# % Needs Improvement  
# % of Core Academic Classes Taught by Teacher...  
# % of Teachers Licensed  
# % of Teachers Licensed in Teaching Assignment  
# % Proficient  
# % Proficient - District Median  
# % Unsatisfactory  
# 4 Year Private College  
# 4 Year Public College  
Abc District Name  
Abc District+School Name  
# Math  
# Percent of Experienced Teachers  
# Percent of Teachers without Waiver or Provisi...  
# Percent Teaching In-Field  
# Reading  
# Reading / Writing  
Abc School Code  
Abc School Name  
Abc Student / Teacher Ratio  
# Tests Taken  
# Total # of Classes in Core Academic Areas  
# Total # of Teachers  
# Total # of Teachers (FTE)  
# Total Count  
# Total SAT  
# Writing  
Abc Year

Drop fields here to pivot them  
Or  
Use wildcard search to pivot

# # % 4 Year College 1K Total SAT 503

#	% 4 Year College	Total SAT
null	0	500
3	500	1,000
7	1,000	1,500
11		
15		

Abc District+School Name 2K

#	District+School Name
Abc	ABBY KELLEY FOSTER ...
Abc	ABINGTON - ABINGTO...
Abc	ABINGTON - ABINGTO...
Abc	ABINGTON - ABINGTO...
Abc	ABINGTON - BEAVER B...
Abc	ABINGTON - BEAVER B...
Abc	ABINGTON - CENTER E...
Abc	ABINGTON - FROLIO MI...
Abc	ABINGTON - WOODSD...
Abc	ACADEMY OF THE PACI...
Abc	ACADEMY OF THE PACI...
Abc	ADAMS
Abc	ADVANCED MATH AND ...
Abc	AGAWAM
Abc	ALMA DEL MAR CHART...
Abc	ACADEMY OF THE PACI...
Abc	AMESBURY
Abc	ACTON-BOXBOROUGH ...

Abc District Name 438

#	District Name
Abc	ABBY KELLEY FOSTER ...
Abc	ABINGTON
Abc	ACADEMY OF THE PACI...
Abc	A DREWICZ ELEME...
Abc	A E ANGIER
Abc	A. C. WHELAN ELE...
Abc	A. IRVIN STUDLEY
Abc	ABBOT ELEMENTA...
Abc	ABBOTT MEMORIA...
Abc	ABBY KELLEY FOST...
Abc	ABIGAIL ADAMS M...
Abc	ABINGTON EARLY I...
Abc	ABINGTON HIGH

Abc School Name 2K

#	School Name
Abc	1 LT CHARLES W. V...
Abc	21ST CENTURY SKI...
Abc	A DREWICZ ELEMEN...
Abc	A E ANGIER
Abc	A. C. WHELAN ELEM...
Abc	A. IRVIN STUDLEY...
Abc	ABBOT ELEMENTAR...
Abc	ABBOTT MEMORIAL...
Abc	ABBY KELLEY FOSTER...
Abc	ABIGAIL ADAMS M...
Abc	ABINGTON EARLY...
Abc	ABINGTON HIGH

# Evaluated...

#	% 4 Year College	Total SAT	District+School Name	District Name	School Name
null	962	962	HOLYOKE - HOLYOKE HIGH	HOLYOKE	HOLYOKE HIGH
null	797	797	BOSTON - DEARBORN	BOSTON	DEARBORN
null	1,109	1,109	TRITON - TRITON REGIONAL HIGH SCHOOL	TRITON	TRITON REGIONAL H...
null	0	0	WALPOLE - DANIEL FEENEY PRESCHOOL CENTER	WALPOLE	DANIEL FEENEY PRE...
null	0	0	ANDOVER - HENRY C SANBORN ELEMENTARY	ANDOVER	HENRY C SANBORN E...
null	0	0	TEWKSBURY - JOHN F. RYAN	TEWKSBURY	JOHN F. RYAN
null	0	0	BRIDGEWATER-RAYNHAM - RAYNHAM MIDDLE SCHOOL	BRIDGEWATER	RAYNHAM
null	874	874	SOUTHBRIDGE - SOUTHBRIDGE MIDDLE/HIGH SCHOOL	SOUTHBRIDGE	SOUTHBRIDGE MIDD...
null	0	0	SAVOY - EMMA L MILLER ELEMENTARY SCHOOL	SAVOY	EMMA L MILLER ELEM...
null	0	0	BRAINTREE - MONATIQUOT KINDERGARTEN CENTER	BRAINTREE	MONATIQUOT KINDE...
null	0	0	WACHUSSETT - THOMAS PRINCE	WACHUSSETT	THOMAS PRINCE
null	0	0	BERKLEY - BERKLEY MIDDLE SCHOOL	BERKLEY	BERKLEY MIDDLE SC...
null	0	0	WINCHENDON - WINCHENDON PRESCHOOL PROGRAM	WINCHENDON	WINCHENDON PRES...
0.30927419354839	0	0	BURLINGTON - BURLINGTON HIGH	BURLINGTON	BURLINGTON HIGH
null	878	878	BOSTON - GREATER EGLESTON COMMUNITY HIGH SCH	BOSTON	GREATER EGLESTON

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Vertical Pivot 7 fields 239K rows

Pivoted Fields

Pivot1 Names	Pivot1 Values
# Evaluated	# Evaluated
# of Educators to be Eval...	# of Educators to be Evalua
% 4 Year College	% 4 Year College
% Evaluated	% Evaluated
% Evaluated - Median by Ye...	% Evaluated - Median by Ye
% Exemplary	% Exemplary
% Needs Improvement	% Needs Improvement
% of Core Academic Class...	% of Core Academic Classes
% of Teachers Licensed	% of Teachers Licensed
% of Teachers Licensed in T...	% of Teachers Licensed in T
% Proficient	% Proficient
% Proficient - District Me...	% Proficient - District Medi
% Unsatisfactory	% Unsatisfactory
4 Year Private College	# 4 Year Private College
4 Year Public College	# 4 Year Public College
Math	# Math
Percent of Experienced Te...	# Percent of Experienced Tea
Percent of Teachers with...	# Percent of Teachers withou
Percent Teaching In-Field	# Percent Teaching In-Field
Reading	# Reading
Reading / Writing	# Reading / Writing
Student / Teacher Ratio	# Student / Teacher Ratio
Tests Taken	# Tests Taken
Total # of Classes in Core ...	# Total # of Classes in Core A
Total # of Teachers	# Total # of Teachers
Total # of Teachers (FTE)	# Total # of Teachers (FTE)
Total Count	# Total Count
Total SAT	# Total SAT

Columns to Rows

Pivot Results

Metric Names	Metric Values	District+School Name	District Name	School Name	School Code	Year
null	5.1 to 1	ABBY KELLEY FOSTER...	ABBY KELLEY FOSTER...	ABINGTON	1LT CHARLES W. V...	2015
	7.3 to 1	ABINGTON - ABINGTO...	ABINGTON	21ST CENTURY SKI...	A DREWICZ ELEME...	2015
	7.4 to 1	ABINGTON - ABINGTO...	ACADEMY OF THE PACI...	A E ANGIER	A C. WHELAN ELEI...	2015
	7.8 to 1	ABINGTON - BEAVER B...	ACTON	ACUSHNET	A. IRVIN STUDLEY	2015
	8.3 to 1	ABINGTON - BEAVER B...	ADAMS	ABBOT ELEMENTA...	ABBOTT MEMORIA...	2015
	8.4 to 1	ABINGTON - CENTER E...	ADVANCED MATH AND ...	ABBY KELLEY FOST...	ABIGAIL ADAMS M...	2015
	8.6 to 1	ABINGTON - FROLIO MI...	AGAWAM	ALMA DEL MAR CHART...	ABINGTON EARLY I...	2015
	8.7 to 1	ABINGTON - WOODSD...		ABINGTON HIGH	ABINGTON HIGH	2015
	8.8 to 1	ACADEMY OF THE PACI...				
	8.9 to 1	ACADEMY OF THE PACI...				
	9.0 to 1	ACTON-BOXBOROUGH ...				
Total # of Teachers (FTE)	null	LOWELL COMMUNITY CHART...	LOWELL COMMU...	LOWELL COMMU...	04560050	2015
Total Count	null	LOWELL COMMUNITY CHART...	LOWELL COMMU...	LOWELL COMMU...	04560050	2015
Total SAT	0	LOWELL COMMUNITY CHART...	LOWELL COMMU...	LOWELL COMMU...	04560050	2015
Writing	null	LOWELL COMMUNITY CHART...	LOWELL COMMU...	LOWELL COMMU...	04560050	2015
# Evaluated	null	LOWELL MIDDLESEX ACADE...	LOWELL MIDDLE...	LOWELL MIDDLE...	04580505	2015
# of Educators to be Eval...	null	LOWELL MIDDLESEX ACADE...	LOWELL MIDDLE...	LOWELL MIDDLE...	04580505	2015
% 4 Year College	null	LOWELL MIDDLESEX ACADE...	LOWELL MIDDLE...	LOWELL MIDDLE...	04580505	2015
% Evaluated	null	LOWELL MIDDLESEX ACADE...	LOWELL MIDDLE...	LOWELL MIDDLE...	04580505	2015
% Evaluated - Median by Ye...	97.50000000000001	LOWELL MIDDLESEX ACADE...	LOWELL MIDDLE...	LOWELL MIDDLE...	04580505	2015

Exporting Package Flow File.

# Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2

File Edit Flow Server Help

New

Ctrl+N

Open...

Ctrl+O

Close

Save

Ctrl+S

Save As...

Alt+Ctrl+S

Export Packaged Flow...

Save Steps as Flow

Repository Location...

C:\Users\ruzdomain\Desktop\Tableau-Metrc\Project\TABLEAU\_PREP\Data\Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2

C:\Users\ruzdomain\Desktop\Tableau-Metrc\Project\TABLEAU\_PREP\Data\Tableau\_Prep\_Builder\_Project\_MohammadMonjurEElahi\_Step2

C:\Users\ruzdomain\Desktop\Tableau-Metrc\DAY05\FinalAttempt.tfl

C:\Users\ruzdomain\Desktop\Tableau-Metrc\DAY04\SecondAttempt.tfl

C:\Users\ruzdomain\Desktop\Tableau-Metrc\Project\POSTGRE\_DATABASE\_JOIN\Postgres\_Database\_Connect\_Flow.tfl

C:\Users\ruzdomain\Desktop\Tableau-Metrc\DAY03\FirstAttempt.tfl

Quit

Ctrl+Q

Teacher Data



Educator Evalu...



Cleaned Educat...



Teacher Data



Cleaned Teache...

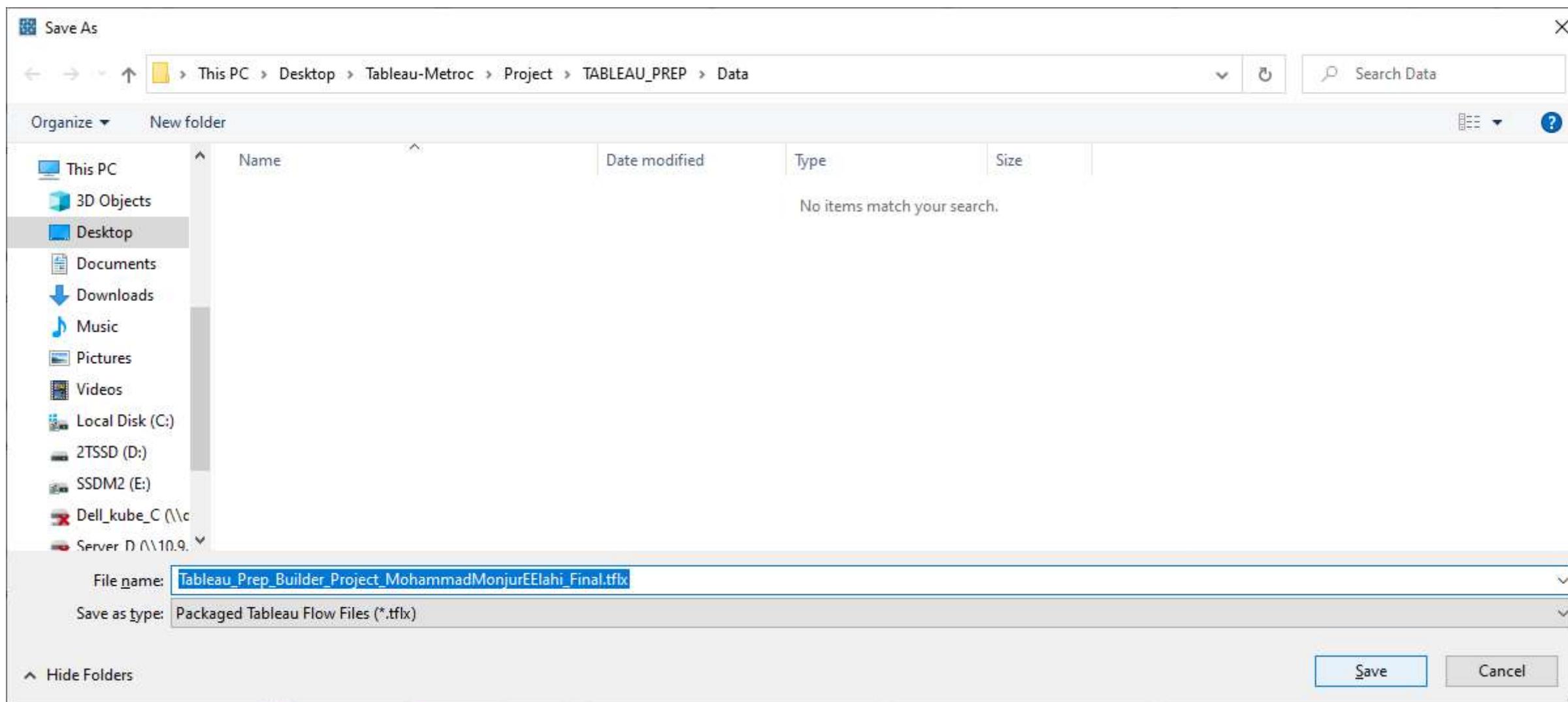


TeacherSalarie...

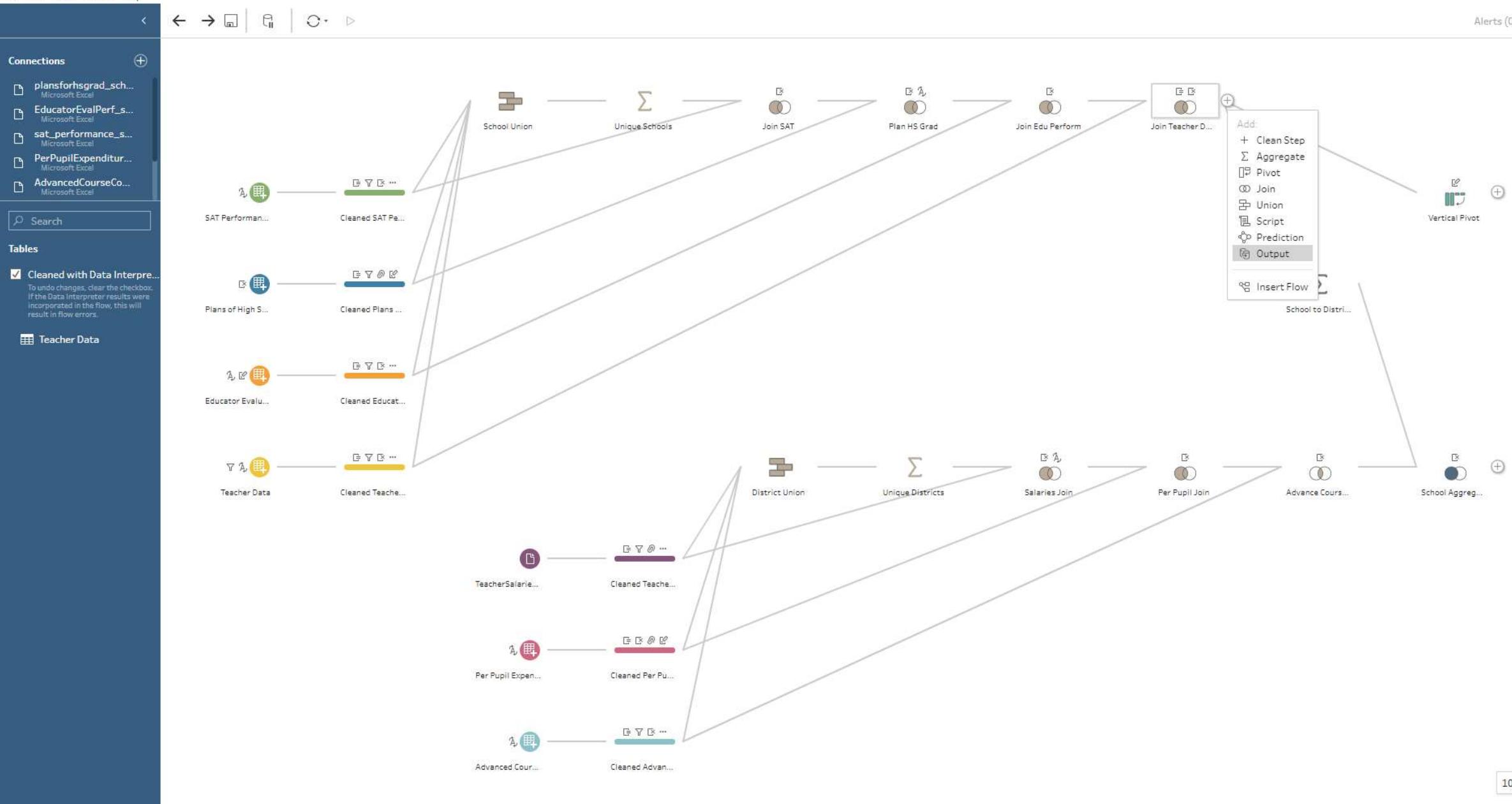


Cleaned Teache...





Creating Local Extract.



## Save Extract As

X

This PC > Documents > My Tableau Prep Repository > Datasources

Organize ▾ New folder

	Name	Date modified	Type	Size
No items match your search.				

File name:

Save as type:

Hide Folders ▾

Accept Cancel

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Search

SAT Performanc... Cleaned SAT Pa...

Output 34 fields

Output to File

Save to WideOutput.hyper

% 4 Year College Total SAT District+School Name District Name School Name % Proficient - District Median % Evaluated - M

% 4 Year College	Total SAT	District+School Name	District Name	School Name	% Proficient - District Median	% Evaluated - M
null	962	HOLYOKE - HOLYOKE HIGH	HOLYOKE	HOLYOKE HIGH	71.47272727272727	97.6
Name	797	BOSTON - DEARBORN	BOSTON	DEARBORN	68.55028248587567	97.7
WideOutput	1,109	TRITON - TRITON REGIONAL HIGH SCHOOL	TRITON	TRITON REGIONAL HIGH SCHOOL	null	null
Location	0	WALPOLE - DANIEL FEENEY PRESCHOOL CENTER	WALPOLE	DANIEL FEENEY PRESCHOOL CENTER	49.77500000000001	97.6
C:\...\Datasources	0	ANDOVER - HENRY C SANBORN ELEMENTARY	ANDOVER	HENRY C SANBORN ELEMENTARY	78.05	97.6
Output type	0	TEWKSBURY - JOHN F. RYAN	TEWKSBURY	JOHN F. RYAN	69.93333333333332	97.7
Tableau Data Extract (.hyper)	0	BRIDGEWATER-RAYNHAM - RAYNHAM MIDDLE SCHOOL	BRIDGEWATER	RAYNHAM	65.88695652173914	97.7
Write Options	874	SOUTHBRIDGE - SOUTHBRIDGE MIDDLE/HIGH SCHOOL	SOUTHBRIDGE	SOUTHBRIDGE MIDDLE/HIGH SCHOOL	77.04285714285713	97.6
Select an option to create or update your output table.	0	SAVOY - EMMA L MILLER ELEMENTARY SCHOOL	SAVOY	EMMA L MILLER ELEMENTARY SCHOOL	0	97.7
Full refresh	0	BRAINTREE - MONATIQUOT KINDERGARTEN CENTER	BRAINTREE	MONATIQUOT KINDERGARTEN CENTER	76.87999999999998	98.9
Create table	0	WACHUSSETT - THOMAS PRINCE	WACHUSSETT	THOMAS PRINCE	60.37692307692307	97.7
0.30927419354839	0	BERKLEY - BERKLEY MIDDLE SCHOOL	BERKLEY	BERKLEY MIDDLE SCHOOL	77.03333333333335	98.9
0.45242718446602	0	WINCHENDON - WINCHENDON PRESCHOOL PROGRAM	WINCHENDON	WINCHENDON PRESCHOOL PROGRAM	43.28333333333333	98.9
0.30927419354839	0	BURLINGTON - BURLINGTON HIGH	BURLINGTON	BURLINGTON HIGH	null	null
null	878	BOSTON - GREATER EGLESTON COMMUNITY HIGH SCH	BOSTON	GREATER EGLESTON COMMUNITY HIGH SCHOOL	68.55028248587567	97.7
null	1,124	MARSHFIELD - MARSHFIELD HIGH	MARSHFIELD	MARSHFIELD HIGH	null	null
null	0	SPRINGFIELD - WASHINGTON	SPRINGFIELD	WASHINGTON	70.96742857142858	97.6
0.45242718446602	0	BOSTON - WEST ROXBURY ACADEMY	BOSTON	WEST ROXBURY ACADEMY	null	null
null	0	NORTH MIDDLESEX - SQUANNACOOK EARLY CHILDHOOD	NORTH MIDDLESEX	SQUANNACOOK EARLY CHILDHOOD CENTER	60.72083333333334	97.6
null	0	OXFORD - CLARA BARTON	OXFORD	CLARA BARTON	67.72	97.7
null	772	BOSTON - SNOWDEN INTERNATIONAL SCHOOL AT COPEL	BOSTON	SNOWDEN INTERNATIONAL SCHOOL AT COPELY	68.55028248587567	97.6
null	0	WEYMOUTH - ABIGAIL ADAMS MIDDLE SCHOOL	WEYMOUTH	ABIGAIL ADAMS MIDDLE SCHOOL	null	null
null	0	BROCKTON - EDGAR B DAVIS	BROCKTON	EDGAR B DAVIS	84.6338028169014	98.9

Run Flow

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections +

- plansforhsgrad\_schools Microsoft Excel
- EducatorEvalPerf\_scores Microsoft Excel
- sat\_performance\_scores Microsoft Excel
- PerPupilExpenditure Microsoft Excel
- AdvancedCourseCompletion Microsoft Excel

Search

Tables

Cleaned with Data Interpreter... To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Output 34 fields

Save output to File

Browse

Name WideOutput

Location C:\...\Datasources

Output type Tableau Data Extract (.hyper)

Write Options Select an option to create or update your output table.

Full refresh Create table

Run Flow

School Union Unique Schools Join SAT Plan HS Grad Join Edu Perform Join Teacher D... Output

SAT Performance Cleaned SAT Pe...

Vertical Pivot 100%

Save to WideOutput.hyper

Finished Running Flow

WideOutput.hyper Total time 00:10 Done

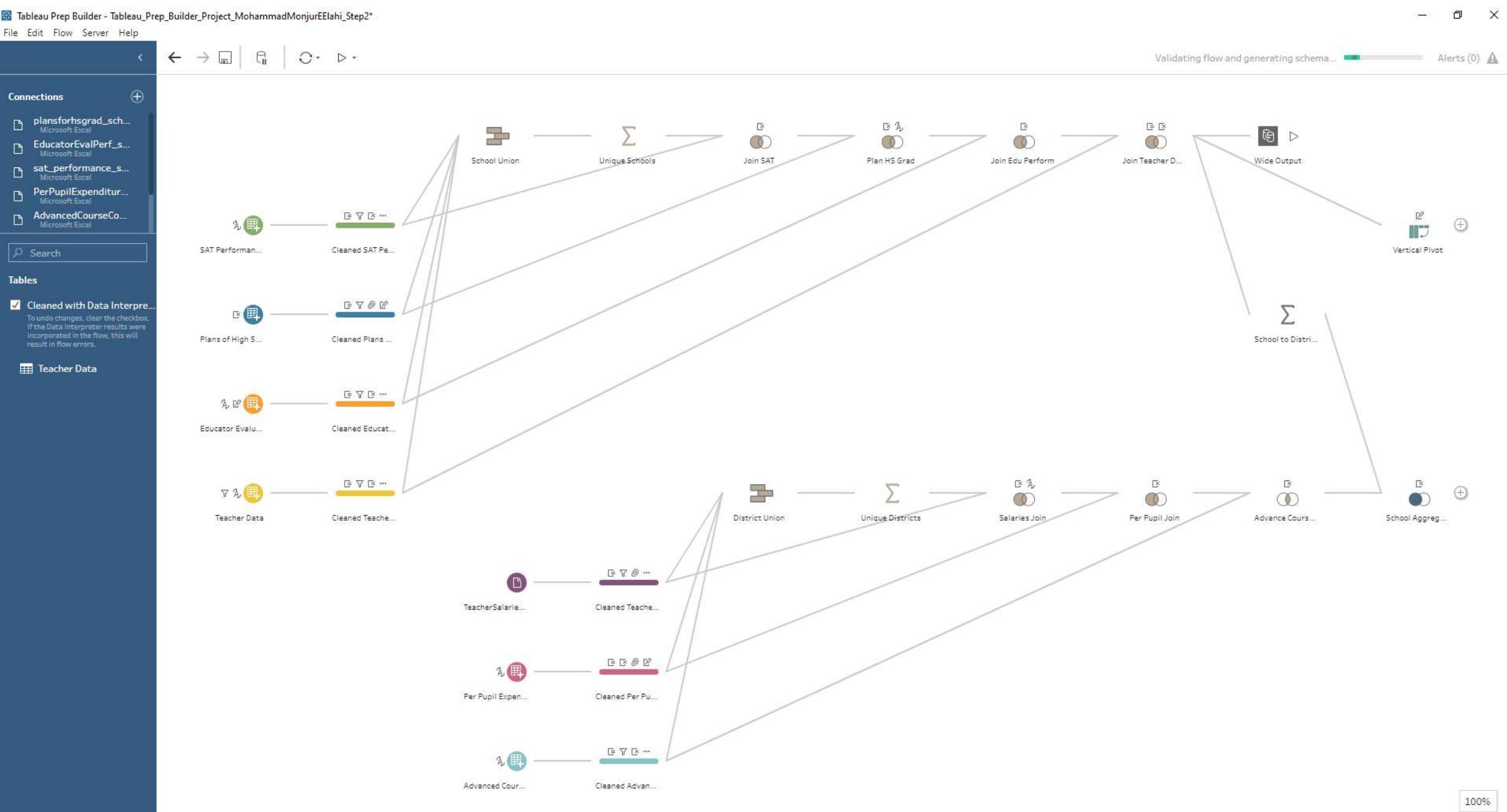
	School Name	% Proficient - District Median	% Evaluated - M
null	HOLYOKE HIGH	71.472727272727	97.6
null	DEARBORN	68.55028248587567	97.7
null	TRITON REGIONAL HIGH SCHOOL	null	null
null	DANIEL FEENEY PRESCHOOL CENTER	49.77500000000001	97.6
null	HENRY C SANBORN ELEMENTARY	78.05	97.6
null	JOHN F. RYAN	69.93333333333332	97.7
null	RAYNHAM	65.88695652173914	97.7
null	SOUTHBRIDGE MIDDLE/HIGH SCHOOL	77.04285714285713	97.6
null	EMMA L MILLER ELEMENTARY SCHOOL	0	97.7
null	MONATIQUOT KINDERGARTEN CENTER	76.87999999999998	98.9
null	THOMAS PRINCE	60.37692307692307	97.7
null	BERKLEY MIDDLE SCHOOL	77.03333333333335	98.9
null	WINCHENDON PRESCHOOL PROGRAM	43.28333333333333	98.9
0.30927419354839	BURLINGTON - BURLINGTON HIGH	BURLINGTON	null
null	BRAINTREE - MONATIQUOT KINDERGARTEN CENTER	BRAINTREE	
null	WACHUSSETT - THOMAS PRINCE	WACHUSSETT	
null	BERKLEY - BERKLEY MIDDLE SCHOOL	BERKLEY	
null	WINCHENDON - WINCHENDON PRESCHOOL PROGRAM	WINCHENDON	
0.45242718446602	BOSTON - GREATER EGLESTON COMMUNITY HIGH SCHOOL	BOSTON	
null	MARSHFIELD - MARSHFIELD HIGH	MARSHFIELD	
null	SPRINGFIELD - WASHINGTON	SPRINGFIELD	
0.772	BOSTON - WEST ROXBURY ACADEMY	BOSTON	
null	NORTH MIDDLESEX - SQUANNACOOK EARLY CHILDHOOD CENTER	NORTH MIDDLESEX	
null	OXFORD - CLARA BARTON	OXFORD	
null	BOSTON - SNOWDEN INTERNATIONAL SCHOOL AT COPELTON	BOSTON	
null	WEYMOUTH - ABIGAIL ADAMS MIDDLE SCHOOL	WEYMOUTH	
null	BROCKTON - EDGAR B DAVIS	BROCKTON	



Datasources				
	Name	Date modified	Type	Size
	WideOutput.hyper	7/11/2021 10:39 PM	Tableau Extract	448 KB
Quick access				
Desktop				
Documents				
Downloads				
Pictures				
Data				
INDIVIDUAL_PROJECT				
PICTURES				
Project				
OneDrive				
This PC				
3D Objects				
Desktop				
Documents				
Downloads				
Music				
Pictures				
Videos				
Local Disk (C:)				
2TSSD (D:)				
SSDM2 (E:)				
Dell_kube_C (\ dellpc ) (W:)				
Server_D (\ 10.9.108.45 ) (X:)				
2THybrid (\ 10.9.108.229 ) (Y:)				
Server_E (\ 10.9.108.45 ) (Z:)				
Network				

1 item





Saving to external Database.

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections

- plansforhsgrad\_sch... Microsoft Excel
- EducatorEvalPerf\_s... Microsoft Excel
- sat\_performance\_s... Microsoft Excel
- PerPupilExpenditur... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel

Search

Tables

Cleaned with Data Interpreter To undo changes, clear the checkbox. If the Data Interpreter results were incorporated in the flow, this will result in flow errors.

Teacher Data

Save output to Database table

Output

% 4 Year College	Total SAT	Dist
0.3156666666666667	1,236	BEL
0.40935251798561	1,026	RAN
0.87391304347826	1,028	EXCE
null	null	GLO
null	null	ACA
null	0	SALE
0.38095238095238	1,032	GAR
0.14456928838951	1,031	SOU
0.05028735632184	917	GRE
0.82162162162162	0	HUL
0.21456310679612	1,087	GLO
null	null	SAU
null	null	HUL
null	0	DAN
null	0	WES
0.3986538127497	2,033	PLYMOUTH
null	0	BARNSTABLE
0.07885117493473	962	NEW BEDFORD
null	null	PIONEER CHARTER SCHOOL OF SCIENCE II (PCSS-II) (D)
null	null	BLACKSTONE-MILLVILLE
null	0	NASHOBA VALLEY REGIONAL VOCATIONAL TECHNICAL
null	null	TRI-COUNTY REGIONAL VOCATIONAL TECHNICAL
null	null	QUABBIN

Run Flow

Alerts (1)

Output

PostgreSQL

General Initial SQL

Server localhost

Port 5432

Database powerbi

Authentication Username and Password

Username postgres

Password

Require SSL

Sign In

FTE Count Bins In-District Expenditures Total In-district FTEs In-District Expenditures per Pupil Total Expenditure

null	58,317,102	4,578.9	12,736.05	66,904,968
null	50,481,426	2,866.2	17,612.67	61,150,343
null	20,481,807	1,126.1	18,188.59	20,481,807
null	null	null	null	null
null	null	null	null	null
null	null	null	null	null
null	36,403,829	2,428.5	14,990.25	39,631,362
null	16,183,134	673.1	24,042.69	17,172,033
null	41,907,659	2,114.6	19,818.24	41,927,559
null	18,505,762	901.4	20,530.02	21,328,486
null	49,358,833	2,931.7	16,836.25	55,919,791
null	null	null	null	null
null	null	null	null	null
null	null	null	null	null
null	null	null	null	null
null	128,481,983	7,507.4	17,114.05	143,401,471
null	null	null	null	null
null	177,913,726	12,735.8	13,969.58	201,876,072
null	5,067,028.69	353	14,353.38	5,067,028.69
null	23,353,305	1,694.2	13,784.27	25,743,434
null	null	null	null	null
null	null	null	null	null
null	null	null	null	null

Tableau Prep Builder - Tableau\_Prep\_Builder\_Project\_MohammadMonjurElahi\_Step2\*

File Edit Flow Server Help

Connections

- PerPupilExpenditure... Microsoft Excel
- AdvancedCourseCo... Microsoft Excel
- TeacherSalaries\_Dis... Text file
- teacherdata\_school... Microsoft Excel
- localhost PostgreSQL

Database

powerbi

Output 30 fields

Search

Save output to Database table

Write 30 of 30 fields to the table "tableauprep" in localhost

Tables

- aw\_calendar
- aw\_customers
- aw\_product
- aw\_product\_category...
- aw\_product\_subcate...
- aw\_returns
- aw\_sales
- aw\_territory

Connection: localhost

Table

Connection: localhost

Table: tableauprep

Create table?

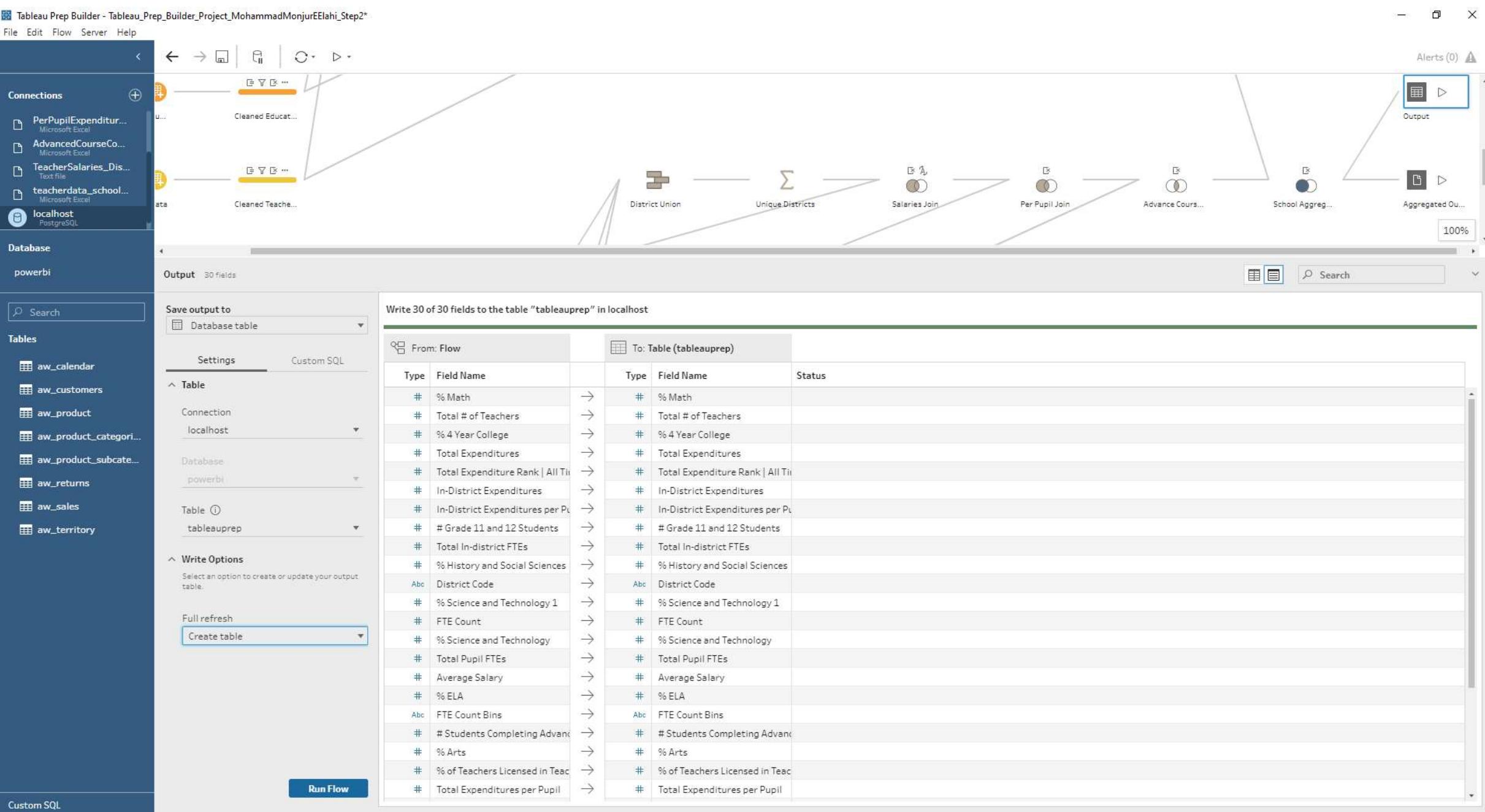
Running the flow with this option may result in data loss. If the table exists, it will be deleted and replaced with a new table using the fields in the flow. Any existing table structure will be discarded.

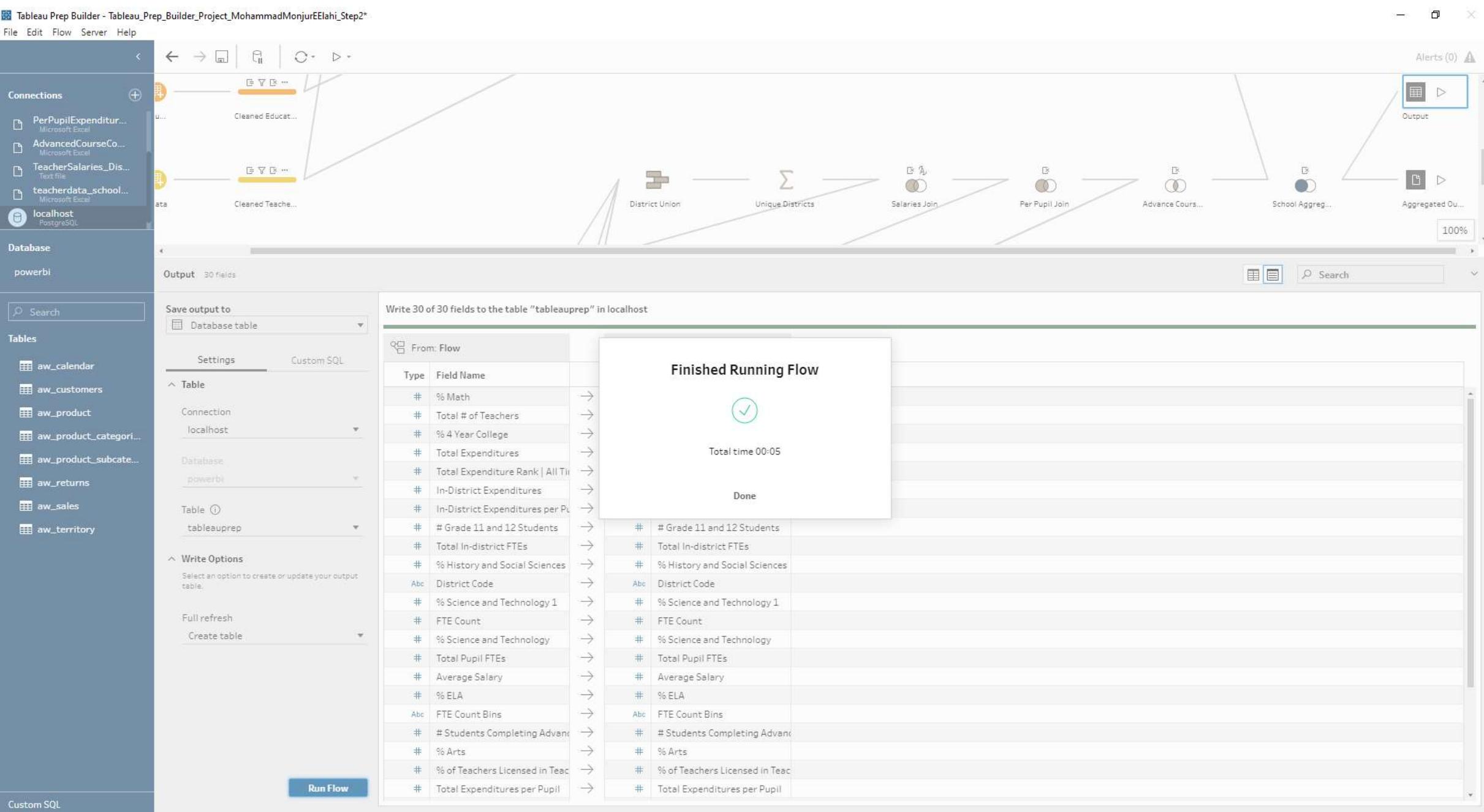
Cancel Create table

% 4 Year College	Total SAT	District Name	Total Expenditure Rank   All Time	FTE Count Bins	In-District Expenditures	Total In-district FTEs	In-District Expenditures per Pupil	Total Expenditu
0.3156666666666667	1,236	BELMON		null	58,317,102	4,578.9	12,736.05	66,904,968
0.40935251798561	1,026	RANDOL		null	50,481,426	2,866.2	17,612.67	61,150,343
0.87391304347826	1,028	EXCEL AC		null	20,481,807	1,126.1	18,188.59	20,481,807
null	null	GLOBAL I		null	null	null	null	null
null	null	ACADEM		null	null	null	null	null
null	0	SALEM		null	null	null	null	null
0.38095238095238	1,032	GARDNE		null	36,403,829	2,428.5	14,990.25	39,631,362
0.14456928838951	1,031	SOUTHE		null	16,183,134	673.1	24,042.69	17,172,033
0.05028735632184	917	GREATER LAWRENCE REGIONAL VOCATIONAL TECHNIC	558	null	41,907,659	2,114.6	19,818.24	41,927,559
0.82162162162162	0	HULL	1,047	null	18,505,762	901.4	20,530.02	21,328,486
0.21456310679612	1,087	GLoucester	367	null	49,358,833	2,931.7	16,836.25	55,919,791
null	null	SAUGUS		null	null	null	null	null
null	null	HULL		null	null	null	null	null
null	0	DANVERS		null	null	null	null	null
null	0	WESTON		null	null	null	null	null
0.3986538127497	2,033	PLYMOUTH	74	null	128,481,983	7,507.4	17,114.05	143,401,471
null	0	BARNSTABLE		null	null	null	null	null
0.07885117493473	962	NEW BEDFORD	48	null	177,913,726	12,735.8	13,969.58	201,876,072
null	null	PIONEER CHARTER SCHOOL OF SCIENCE II (PCSS-II) (DI	1,578	null	5,067,028.69	353	14,353.38	5,067,028.69
null	null	BLACKSTONE-MILLVILLE	917	null	23,353,305	1,694.2	13,784.27	25,743,434
null	0	NASHOBIA VALLEY REGIONAL VOCATIONAL TECHNICAL		null	null	null	null	null
null	null	TRI-COUNTY REGIONAL VOCATIONAL TECHNICAL		null	null	null	null	null
null	null	QUABBIN		null	null	null	null	null

Run Flow

Custom SQL





pgAdmin 4

File ▾ Object ▾ Tools ▾ Help ▾

Browser

- EXERCISES
- learning
- postgres
- powerbi
- Casts
- Catalogs
- Event Triggers
- Extensions
- Foreign Data Wrappers
- Languages
- Publications
- Schemas (1)
  - public
    - Collations
    - Domains
    - FTS Configurations
    - FTS Dictionaries
    - FTS Parsers
    - FTS Templates
    - Foreign Tables
    - Functions
    - Materialized Views
    - Procedures
    - Sequences
- Tables (9)
  - aw\_calendar
  - aw\_customers
  - aw\_product
  - aw\_product\_categories
  - aw\_product\_subcategories
  - aw\_returns
  - aw\_sales
  - aw\_territory
  - tableauprep
- Trigger Functions
- Types
- Views
- Subscriptions

- sasproject
- Casts
- Catalogs
- Event Triggers
- Extensions
- Foreign Data Wrappers

Dashboard Properties SQL Statistics Dependencies powerbi/postgres@PostgreSQL 13 \*

powerbi/postgres@PostgreSQL 13 \*

Query Editor Query History

```
1 SELECT COUNT(*)  
2 FROM tableauprep  
3 ;
```

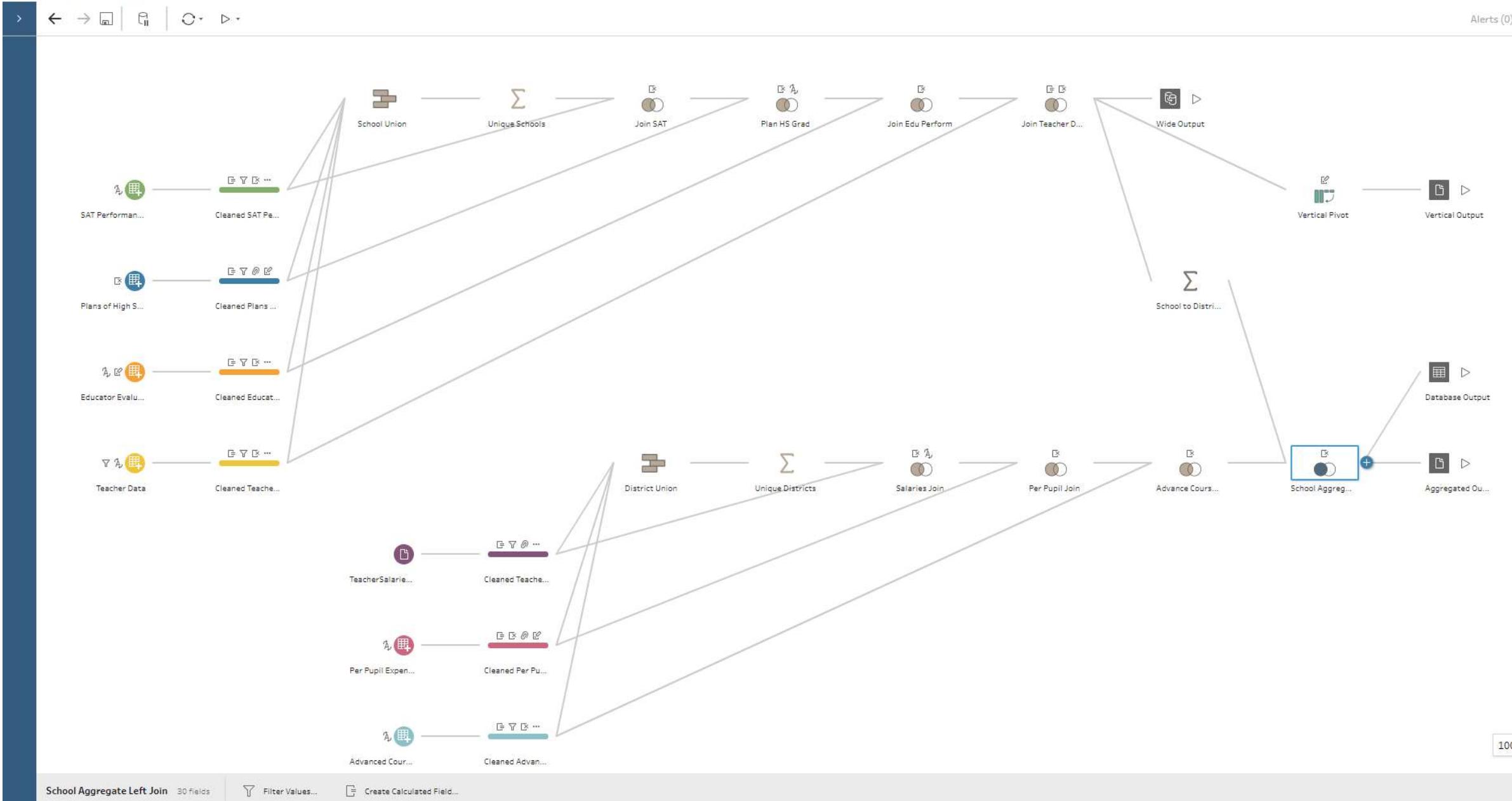
Data Output Explain Messages Notifications

	count	bigint
1	640	

Successfully run. Total query runtime: 70 msec. 1 rows affected.

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' panel displays a tree view of database objects, including schemas like 'public' and 'tableauprep', and tables such as 'aw\_calendar', 'aw\_customers', and 'tableauprep'. On the right, the 'Query Editor' tab is active, containing a simple SQL query: 'SELECT COUNT(\*) FROM tableauprep;'. The 'Data Output' tab shows a single row of results: a count of 640. A green success message at the bottom right indicates the query was run successfully with a runtime of 70 msec and 1 row affected.

Final Status of the Flow.



## Conclusion:



# Conclusion

- Cleaned the dataset as per client's requirements
- Joined the School Level and District Level Data for Ease of analysis of the client
- Shared outcome of the data preparation in several ways



**The Project for Tableau Desktop**

# THE SITUATION

I have just been hired by a fictitious Supplies Company, a cutting edge office supply.  
My role?  
Design and build an executive level BI solution, from scratch.

## THE BRIEF

My client needs a way to track KPIs (sales, profit, units, discounts), compare performance across markets , analyze category profitability , and identify high value customers  
All I have been given is a folder of excel files containing information about orders, returns, products, customers and territories.

Same Supplies Raw Dataset is taken twice as input to perform the blending activity based on the region and segment.

**Connections** Add

Maven Supplies Raw Microsoft Excel

**Sheets**

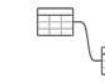
- Cleaned with Data Interpreter  
[Review the results.](#) (To undo changes, clear the check box.)
- Goals by Region\_Segment
- Orders
- Orders Add-On
- People
- Returns
- Orders**
- Orders Add-On Orders
- People
- Returns

**New Union**

## Orders++ (Maven Supplies Raw)

Connection  
 Live  Extract | [Edit](#) [Refresh](#)  
 Extract includes all data. 7/12/2021 2:40:24 PM

Filters 1 | [Edit](#)

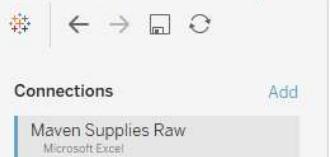


Need more data?

Drag tables here to relate them. [Learn more](#)

#	Abc Orders+	=Abc Calculation	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+	Abc Orders+
Row ID	Orders+ Order ID	Country Abbr	Orders+ Order Date (MDY)	Orders+ Ship Date (MDY)	Orders+ Order Date (DMY)	Ship Date (DMY)	Ship Mode	Customer ID	Customer Name	Segment	Country	City
1	CA-2017-152156	CA	11/8/2017	11/11/2017	8/11/2017	11/11/2017	Second Class	CG-12520	Claire Gute	Consumer	United States	Hender:
2	CA-2017-152156	CA	11/8/2017	11/11/2017	8/11/2017	11/11/2017	Second Class	CG-12520	Claire Gute	Consumer	United States	Hender:
3	CA-2017-138688	CA	6/12/2017	6/16/2017	12/6/2017	16/6/2017	Second Class	DV-13045	Darrin Van Huff	Corporate	United States	Los Ang
13	CA-2018-114412	CA	4/15/2018	4/20/2018	15/4/2018	20/4/2018	Standard Class	AA-10480	Andrew Allen	Consumer	United States	Concord
14	CA-2017-161389	CA	12/5/2017	12/10/2017	5/12/2017	10/12/2017	Standard Class	IM-15070	Irene Maddox	Consumer	United States	Seattle
22	CA-2017-137330	CA	12/9/2017	12/13/2017	9/12/2017	13/12/2017	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremon:
23	CA-2017-137330	CA	12/9/2017	12/13/2017	9/12/2017	13/12/2017	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremon:
24	US-2018-156909	US	7/16/2018	7/18/2018	16/7/2018	18/7/2018	Second Class	SF-20065	Sandra Flanagan	Consumer	United States	Philadel
26	CA-2017-121755	CA	1/16/2017	1/20/2017	16/1/2017	20/1/2017	Second Class	EH-13945	Eric Hoffmann	Consumer	United States	Los Ang
27	CA-2017-121755	CA	1/16/2017	1/20/2017	16/1/2017	20/1/2017	Second Class	EH-13945	Eric Hoffmann	Consumer	United States	Los Ang
35	CA-2018-107727	CA	10/19/2018	10/23/2018	19/10/2018	23/10/2018	Second Class	MA-17560	Matt Abelman	Home Office	United States	Houston
36	CA-2017-117590	CA	12/8/2017	12/10/2017	8/12/2017	10/12/2017	First Class	GH-14485	Gene Hale	Corporate	United States	Richard
37	CA-2017-117590	CA	12/8/2017	12/10/2017	8/12/2017	10/12/2017	First Class	GH-14485	Gene Hale	Corporate	United States	Richard
42	CA-2018-120999	CA	9/10/2018	9/15/2018	10/9/2018	15/9/2018	Standard Class	LC-16930	Linda Cazamias	Corporate	United States	Napervi
43	CA-2017-101343	CA	7/17/2017	7/22/2017	17/7/2017	22/7/2017	Standard Class	RA-19885	Ruben Ausman	Corporate	United States	Los Ang

<input type="checkbox"/> Data Source	<a href="#">Bars - Sales V Goals</a>	<a href="#">Treemap - Sales by Sub-Category</a>	<a href="#">Bar Line - Monthly Sales Trend</a>	<a href="#">Map - Sales &amp; Profit</a>	<a href="#">BAN - YTD Sales</a>	<a href="#">BAN - YTD Profit</a>	<a href="#">BAN - YTD Qty</a>	<a href="#">BAN - YTD Avg Discount</a>	<a href="#">Bars - Top Customer by Sales</a>	<a href="#">Executive Dashboard</a>	<a href="#">Nutshell Story</a>			
--------------------------------------	--------------------------------------	-------------------------------------------------	------------------------------------------------	------------------------------------------	---------------------------------	----------------------------------	-------------------------------	----------------------------------------	----------------------------------------------	-------------------------------------	--------------------------------	--	--	--



Orders++ (Maven Supplies Raw)

Connection  
○ Live    ⚡ Extract | Edit Refresh  
Extract includes all data. 7/12/2021 2:40:24 PM

#	Abc Orders+ Row ID	Abc Orders+ Order ID	=Abc Calculation Country Abbr	Orders+ Order Date (MDY)	Orders+ Ship Date (MDY)	Abc Orders+ Order Date (DMY)	Abc Orders+ Ship Date (DMY)	Abc Orders+ Ship Mode	Abc Orders+ Customer ID	Abc Orders+ Customer Name	Abc Orders+ Segment	Orders+ Country	Orders+ City
1	CA-2017-152156	CA		11/8/2017	11/11/2017	8/11/2017	11/11/2017	Second Class	CG-12520	Claire Gute	Consumer	United States	Hender:
2	CA-2017-152156	CA		11/8/2017	11/11/2017	8/11/2017	11/11/2017	Second Class	CG-12520	Claire Gute	Consumer	United States	Hender:
3	CA-2017-138688	CA		6/12/2017	6/16/2017	12/6/2017	16/6/2017	Second Class	DV-13045	Darrin Van Huff	Corporate	United States	Los Ang
13	CA-2018-114412	CA		4/15/2018	4/20/2018	15/4/2018	20/4/2018	Standard Class	AA-10480	Andrew Allen	Consumer	United States	Concord
14	CA-2017-161389	CA		12/5/2017	12/10/2017	5/12/2017	10/12/2017	Standard Class	IM-15070	Irene Maddox	Consumer	United States	Seattle
22	CA-2017-137330	CA		12/9/2017	12/13/2017	9/12/2017	13/12/2017	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremon
23	CA-2017-137330	CA		12/9/2017	12/13/2017	9/12/2017	13/12/2017	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremon
24	US-2018-156909	US		7/16/2018	7/18/2018	16/7/2018	18/7/2018	Second Class	SF-20065	Sandra Flanagan	Consumer	United States	Philadel
26	CA-2017-121755	CA		1/16/2017	1/20/2017	16/1/2017	20/1/2017	Second Class	EH-13945	Eric Hoffmann	Consumer	United States	Los Ang
27	CA-2017-121755	CA		1/16/2017	1/20/2017	16/1/2017	20/1/2017	Second Class	EH-13945	Eric Hoffmann	Consumer	United States	Los Ang
35	CA-2018-107727	CA		10/19/2018	10/23/2018	19/10/2018	23/10/2018	Second Class	MA-17560	Matt Abelman	Home Office	United States	Houston
36	CA-2017-117590	CA		12/8/2017	12/10/2017	8/12/2017	10/12/2017	First Class	GH-14485	Gene Hale	Corporate	United States	Richard
37	CA-2017-117590	CA		12/8/2017	12/10/2017	8/12/2017	10/12/2017	First Class	GH-14485	Gene Hale	Corporate	United States	Richard
42	CA-2018-120999	CA		9/10/2018	9/15/2018	10/9/2018	15/9/2018	Standard Class	LG-16930	Linda Cazamias	Corporate	United States	Napervi

<input checked="" type="checkbox"/> Data Source	Bars - Sales V Goals	Treemap - Sales by Sub-Category	Bar Line - Monthly Sales Trend	Map - Sales & Profit	BAN - YTD Sales	BAN - YTD Profit	BAN - YTD Qty	BAN - YTD Avg Discount	Bars - Top Customer by Sales	Executive Dashboard	Nutshell Story			
-------------------------------------------------	----------------------	---------------------------------	--------------------------------	----------------------	-----------------	------------------	---------------	------------------------	------------------------------	---------------------	----------------	---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------



Connections

Add

Maven Supplies Raw  
Microsoft Excel

Sheets

 Use Data Interpreter

Data Interpreter might be able to clean your Microsoft Excel workbook.

Goals by Region\_Segment

Orders

Orders Add-On

People

Returns

Orders

Orders Add-On Orders

People

Returns

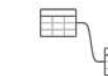
New Union

## Goals by Region\_Segment (Maven Supplies Raw)

Connection  
 Live    Extract   [Edit](#) [Refresh](#)  
 Extract includes all data. 7/12/2021 2:50:23 PM

Filters  
 0 [Add](#)

Goals by Region\_Segment



Need more data?

Drag tables here to relate them. [Learn more](#)Sort fields [Data source order](#)
 Show aliases  Show hidden fields 12 [rows](#)

Abc Goals by Region!Seg...	Abc Goals by Region!Se...	# Goals by Re...	# Calculation Sales vs Goals
Segment	Region	Goal	
Consumer	Central	75,000	null
Consumer	East	185,000	null
Consumer	South	60,000	null
Consumer	West	125,000	null
Corporate	Central	32,000	null
Corporate	East	80,000	null
Corporate	South	70,000	null
Corporate	West	145,000	null
Home Office	Central	35,000	null
Home Office	East	100,000	null
Home Office	South	23,000	null
Home Office	West	40,000	null

Tableau - Tableau/Desktop\_Project\_MohammadMonjurElahi\_Step1

File Data Server Window Help

Connections Add

Maven Supplies Raw Microsoft Excel

Sheets

Use Data Interpreter  
Data Interpreter might be able to clean your Microsoft Excel workbook.

Goals by Region\_Segment Orders Orders Add-On People Returns Orders Orders Add-On Orders People Returns

New Union

Goals by Region\_Segment (Maven Supplies Raw)

Logical Table: Goals by Region\_Segment  
Double-click this logical table to see its physical table.

Need more data?  
Drag tables here to relate them. [Learn more](#)

Sort fields Data source order ▾

Show aliases Show hidden fields 12 rows

Abc Goals by Region Seg...	Abc Goals by Region Se...	# Goals by Re...	=# Calculation Sales vs Goals
Segment	Region	Goal	
Consumer	Central	75,000	null
Consumer	East	185,000	null
Consumer	South	60,000	null
Consumer	West	125,000	null
Corporate	Central	32,000	null
Corporate	East	80,000	null
Corporate	South	70,000	null
Corporate	West	145,000	null
Home Office	Central	35,000	null
Home Office	East	100,000	null
Home Office	South	23,000	null
Home Office	West	40,000	null

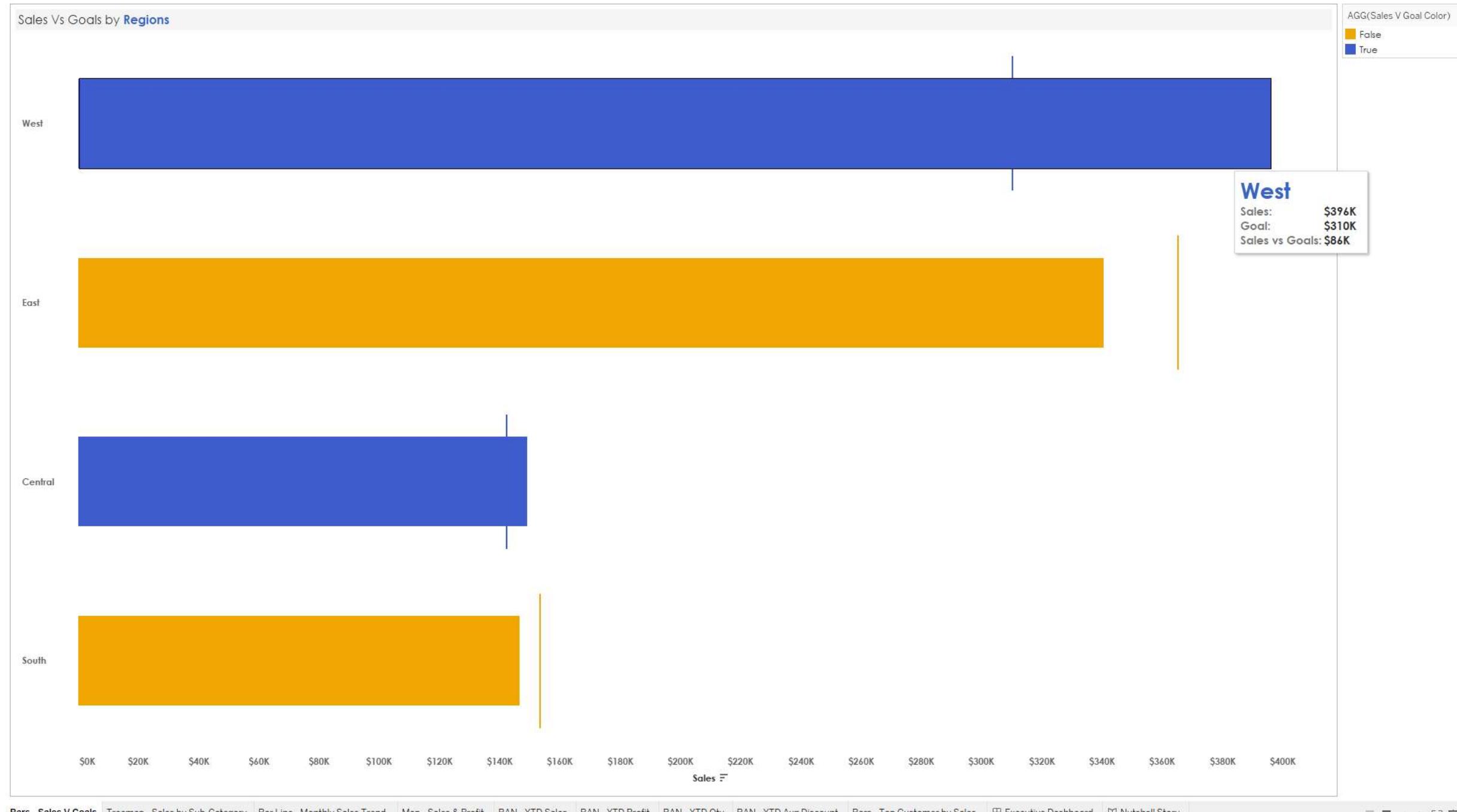
Data Source Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

Connection Live Extract Edit Refresh Extract includes all data. 7/12/2021 2:50:23 PM Filters 0 | Add

## Sales Vs Goals by Regions

Sum of Sales and sum of Goal (Goals by Region\_Segment (Maven Supplies Raw)) for each Region. Color shows details about Sales V Goal Color. The context is filtered on Category, which keeps Furniture, Office Supplies and

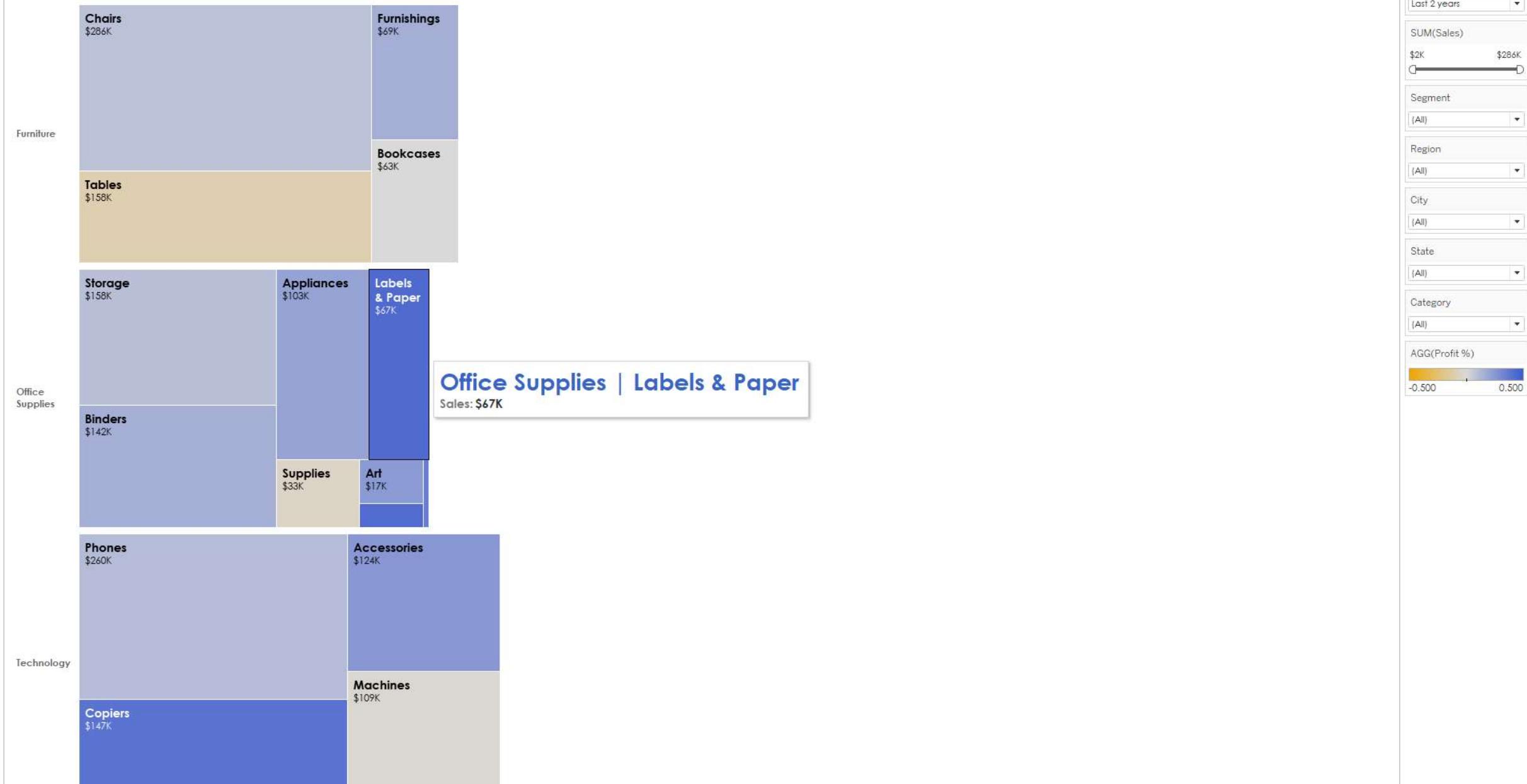
Technology. The data is filtered on Order Date (MDY) Year, City, State and Segment. The Order Date (MDY) Year filter keeps 2018. The City filter keeps 452 of 502 members. The State filter keeps 49 of 52 members. The Segment filter keeps Consumer, Corporate and Home Office. The view is filtered on Region, which keeps Central, East, South and West.



# Sales & Profit by Segment & Sub-category

Sub-Category (group) and sum of Sales broken down by Category. Color shows Profit %. Size shows sum of Sales. The marks are labeled by Sub-Category (group) and sum of Sales. The context is filtered on Category, which keeps Furniture, Office Supplies and Technology. The data is filtered on Region, Segment, State, City, Order Date (MDY), Action (Region) and Action (City,State). The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The City filter keeps 452 of 502 members. The Order Date (MDY) filter includes the last 2 years relative to 12/31/2018. The filter associated with this field ranges from 1/1/2017 to 12/31/2018. The Action (Region) filter keeps 4 members. The Action (City,State) filter keeps 520 members. The view is filtered on sum of Sales, which keeps all values.

## Sales & Profit by Segment & Sub-category



[Bars - Sales V Goals](#) [Treemap - Sales by Sub-Categ...](#) [Bar Line - Monthly Sales Trend](#) [Map - Sales & Profit](#) [BAN - YTD Sales](#) [BAN - YTD Profit](#) [BAN - YTD Qty](#) [BAN - YTD Avg Discount](#) [Bars - Top Customer by Sales](#) [Executive Dashboard](#) [Nutshell Story](#)



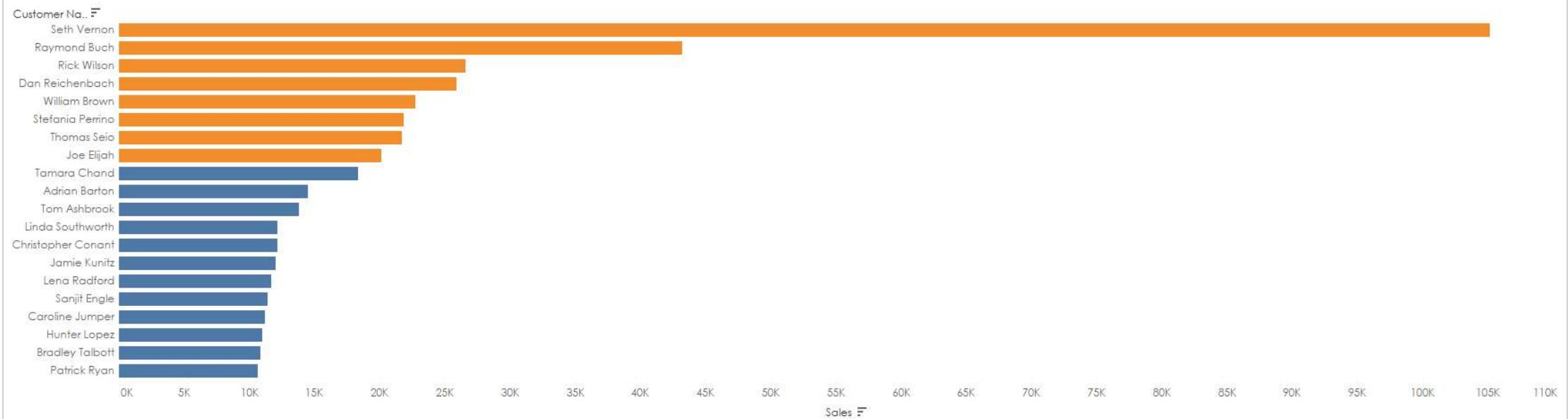
## Bars - Top Customer by Sale

Sum of Sales for each Customer Name. Color shows details about Top Tier Color. The context is filtered on Category, which keeps Furniture, Office Supplies and Technology. The data is filtered on City, Region, Segment and State. The

City filter keeps 452 of 502 members. The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The view is filtered on Customer Name, which keeps 30 of 1,161 members.

Filter for top 20 customer and threshold of \$20,000.

## Bars - Top Customer by Sales



Top N Customers

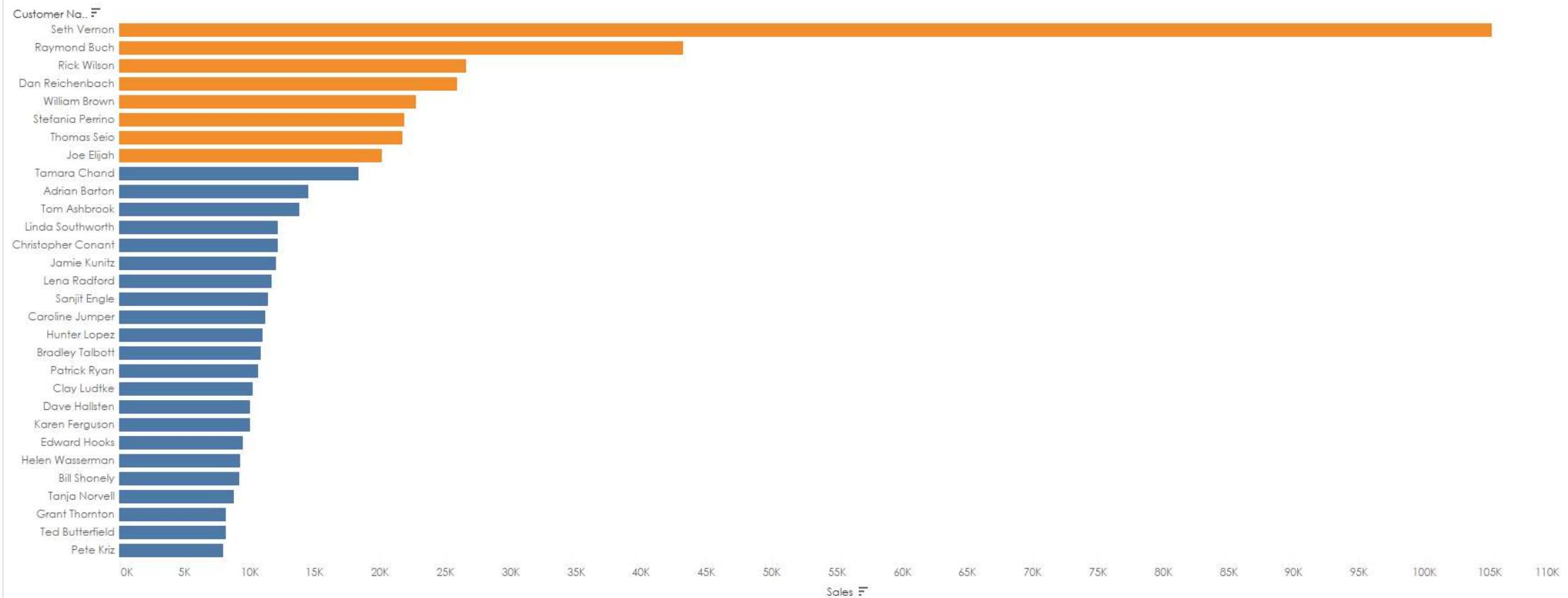
AGG(Top Tier Color)

 All Other Top Tier

Top Tier Customer Thr...

Filter for top 30 customer and threshold of \$20,000.

### Bars - Top Customer by Sales



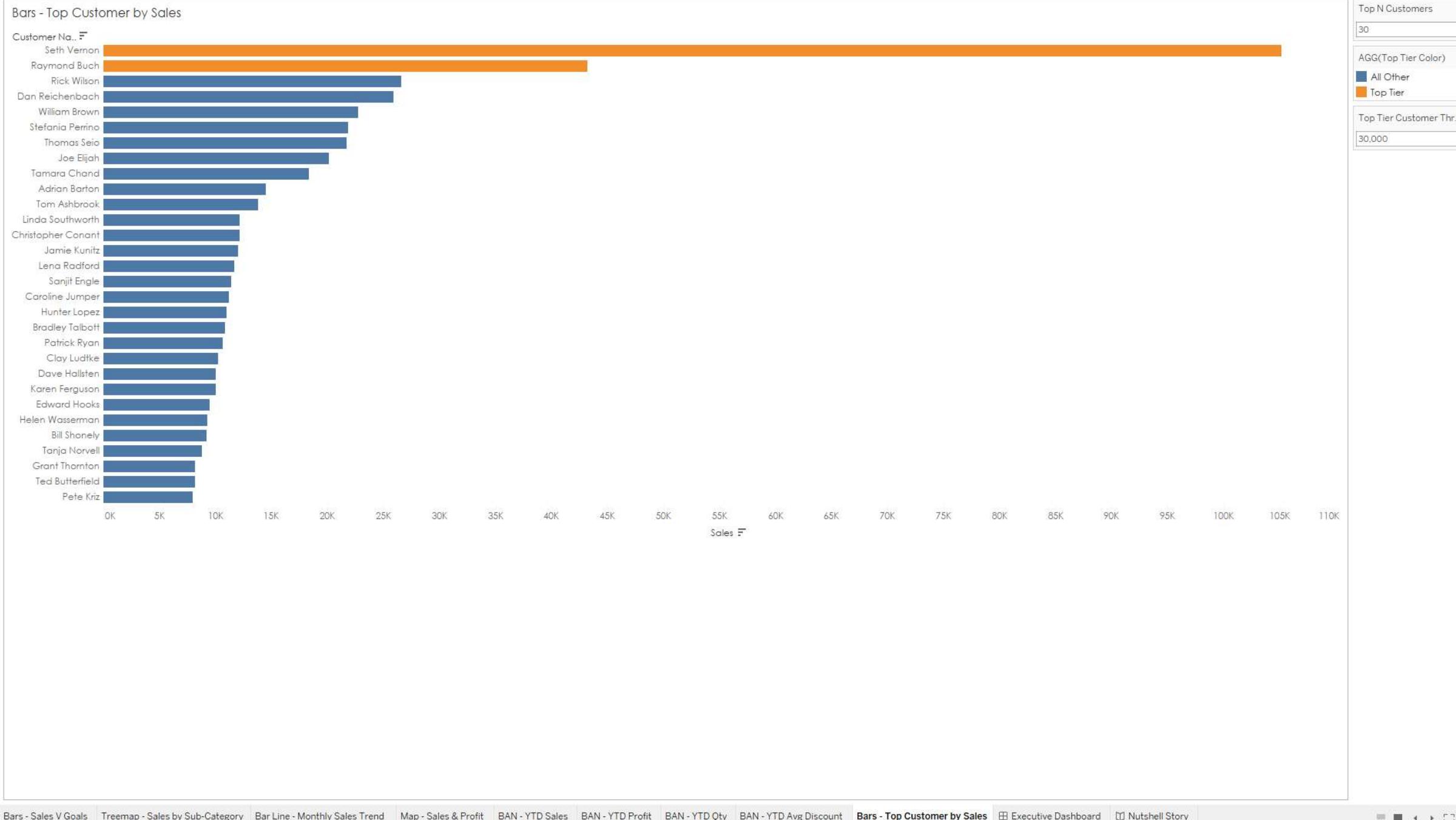
Top N Customers

AGG(Top Tier Color)

 All Other Top Tier

Top Tier Customer Thr...

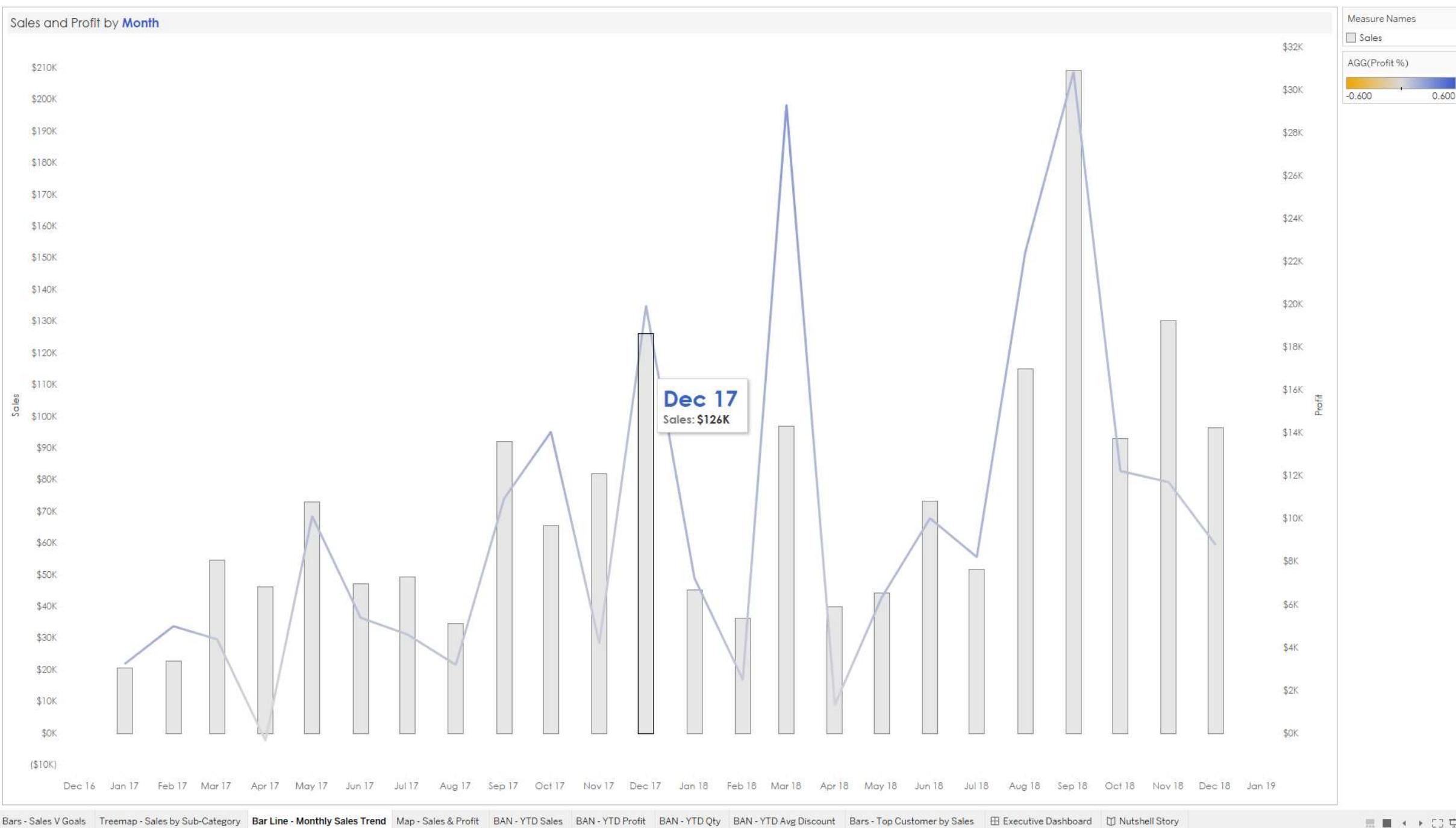
Filter for top 30 customer and threshold of \$30,000.

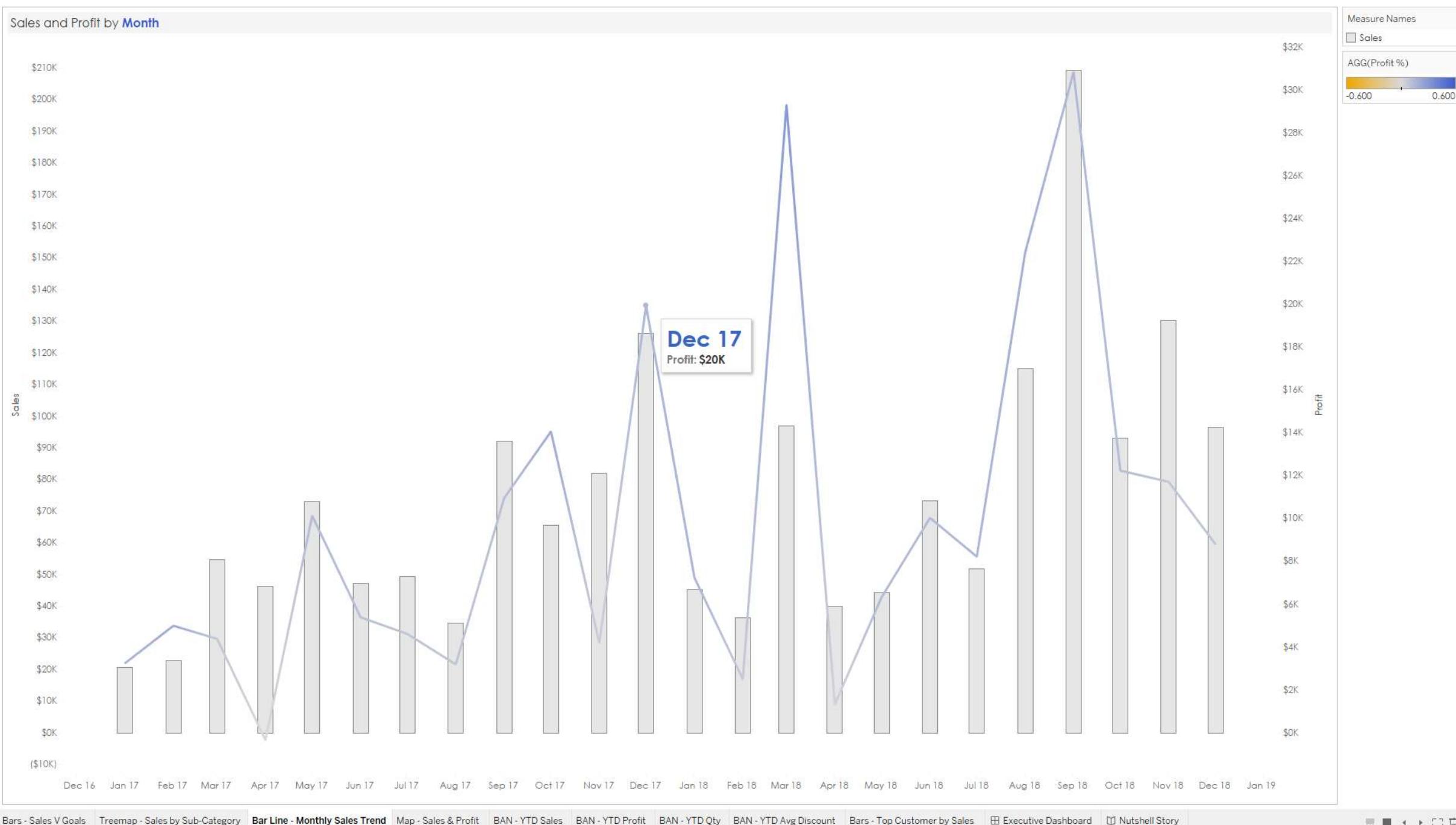


## Sales and Profit by Month

The trends of Sales and sum of Profit for Order Date (MDY) Month. For pane Sum of Profit: Color shows Profit %. For pane Sum of Sales: Color shows details about Sales. The context is filtered on Category, which keeps Furniture, Office

Supplies and Technology. The data is filtered on City, Region, Segment, State, Action (Region), Action (City,State) and Action (Category,Sub-Category (group)). The City filter keeps 452 of 502 members. The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The Action (Region) filter keeps 4 members. The Action (City,State) filter keeps 520 members. The Action (Category,Sub-Category (group)) filter keeps 16 members.

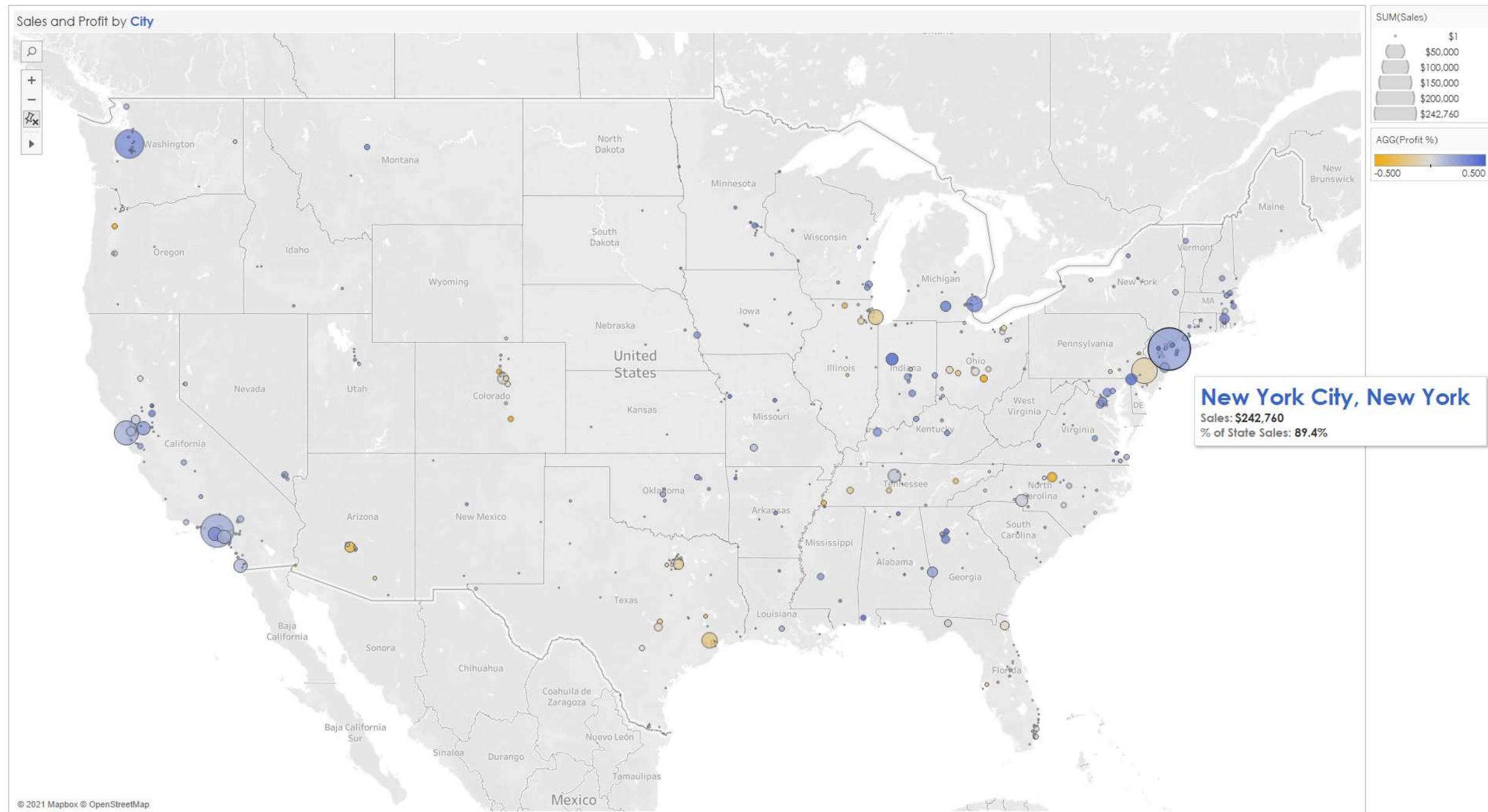




## Sales and Profit by City

Map based on Longitude (generated) and Latitude (generated). Color shows Profit %. Size shows sum of Sales. Details are shown for City, Country and State. The context is filtered on Category, which keeps Furniture, Office Supplies

and Technology. The data is filtered on Region, Segment and Action (Region). The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The Action (Region) filter keeps 4 members. The view is filtered on City and State. The City filter keeps 452 of 502 members. The State filter keeps 49 of 52 member



## BAN - YTD Sales

Sum of Sales. The context is filtered on Category, which keeps Furniture, Office Supplies and Technology. The data is filtered on City, Region, Segment, State, Order Date (MDY) Year, Action (Region), Action (City,State) and Action (Category,Sub-Category (group)). The City filter keeps 452 of 502 members. The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The Order Date (MDY) Year filter keeps 2018. The Action (Region) filter keeps 4 members. The Action (City,State) filter keeps 520 members. The Action (Category,Sub-Category (group)) filter keeps 16 members.

BAN - YTD Sales

\$1,032K

*YTD Sales*

[Bars - Sales V Goals](#) [Treemap - Sales by Sub-Category](#) [Bar Line - Monthly Sales Trend](#) [Map - Sales & Profit](#) [BAN - YTD Sales](#) [BAN - YTD Profit](#) [BAN - YTD Qty](#) [BAN - YTD Avg Discount](#) [Bars - Top Customer by Sales](#) [Executive Dashboard](#) [Nutshell Story](#)



## BAN - YTD Profit

Profit %. The context is filtered on Category, which keeps Furniture, Office Supplies and Technology. The data is filtered on City, Region, Segment, State, Order Date (MDY) Year, Action (Region), Action (City,State) and Action (Category,Sub-Category)

(group)). The City filter keeps 452 of 502 members. The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The Order Date (MDY) Year filter keeps 2018. The Action (Region) filter keeps 4 members. The Action (City,State) filter keeps 520 members. The Action (Category, Sub-Category (group)) filter keeps 16 members.

**14.6%**

YTD Profit

[Bars - Sales V Goals](#) [Treemap - Sales by Sub-Category](#) [Bar Line - Monthly Sales Trend](#) [Map - Sales & Profit](#) [BAN - YTD Sales](#) [BAN - YTD Profit](#) [BAN - YTD Qty](#) [BAN - YTD Avg Discount](#) [Bars - Top Customer by Sales](#) [Executive Dashboard](#) [Nutshell Story](#)

## BAN - YTD Qty

Sum of Quantity. The context is filtered on Category, which keeps Furniture, Office Supplies and Technology. The data is filtered on City, Region, Segment, State, Order Date (MDY) Year, Action (Region), Action (City,State) and Action (Category),

Sub-Category (group)). The City filter keeps 452 of 502 members. The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The Order Date (MDY) Year filter keeps 2018. The Action (Region) filter keeps 4 members. The Action (City,State) filter keeps 520 members. The Action (Category, Sub-Category (group)) filter keeps 16 members.

BAN - YTD Qty

16K

YTD Qty

[Bars - Sales V Goals](#) [Treemap - Sales by Sub-Category](#) [Bar Line - Monthly Sales Trend](#) [Map - Sales & Profit](#) [BAN - YTD Sales](#) [BAN - YTD Profit](#) [BAN - YTD Qty](#) [BAN - YTD Avg Discount](#) [Bars - Top Customer by Sales](#) [Executive Dashboard](#) [Nutshell Story](#)



## BAN - YTD Avg Discount

Average of Discount. The context is filtered on Category, which keeps Furniture, Office Supplies and Technology. The data is filtered on City, Region, Segment, State, Order Date (MDY) Year, Action (Region), Action (City,State) and Action (Category,Sub-Category (group)). The City filter keeps 452 of 502 members. The Region filter keeps Central, East, South and West. The Segment filter keeps Consumer, Corporate and Home Office. The State filter keeps 49 of 52 members. The Order Date (MDY) Year filter keeps 2018. The Action (Region) filter keeps 4 members. The Action (City,State) filter keeps 520 members. The Action (Category,Sub-Category (group)) filter keeps 16 members.

BAN - YTD Avg Discount

15.0%

YTD Avg. Discount

[Bars - Sales V Goals](#) [Treemap - Sales by Sub-Category](#) [Bar Line - Monthly Sales Trend](#) [Map - Sales & Profit](#) [BAN - YTD Sales](#) [BAN - YTD Profit](#) [BAN - YTD Qty](#) [BAN - YTD Avg Discount](#) [Bars - Top Customer by Sales](#) [Executive Dashboard](#) [Nutshell Story](#)



## Executive Retail Sales Analytic

Interactive data display on the four sheets included in the executive Dashboard.

# Executive Retail Sales Analytics

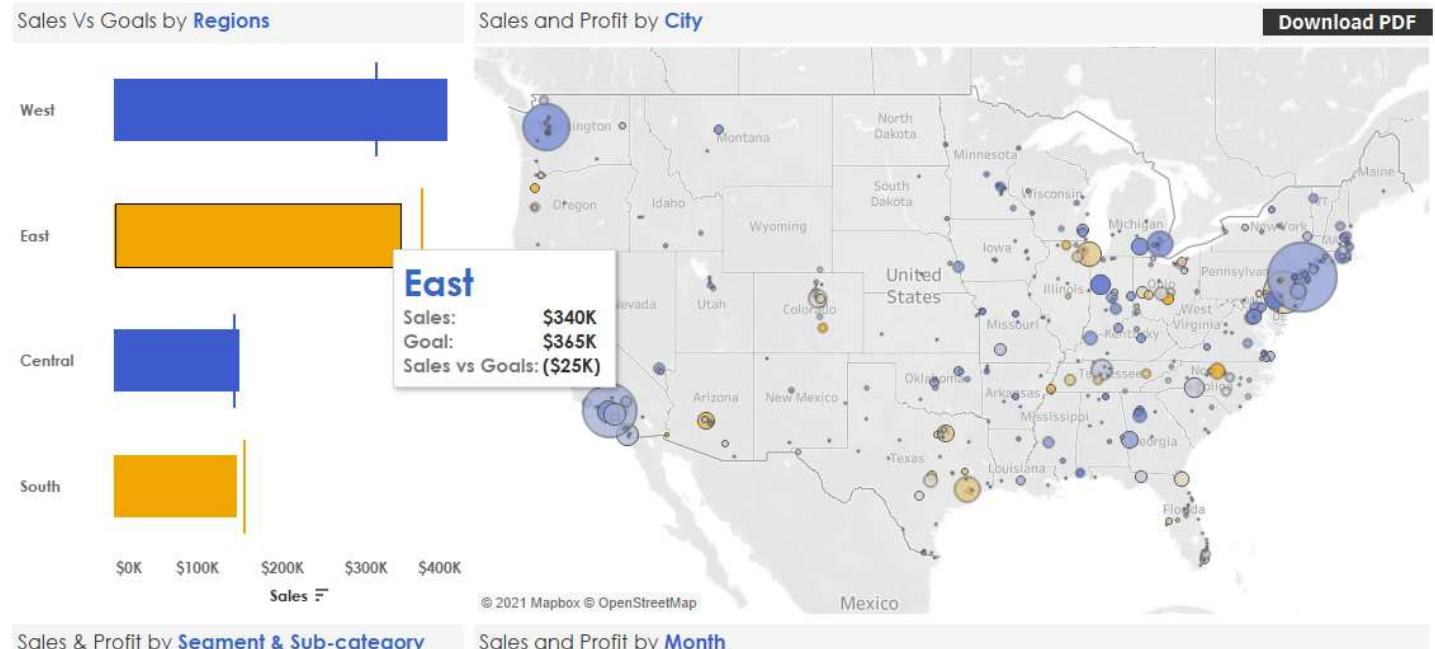
Date	Segment	Category	State	Region	City
Last 2 years	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Consumer	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Furniture	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Alabama	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Central	<input checked="" type="checkbox"/> (All)

**\$1,032K**  
YTD Sales

**14.6%**  
YTD Profit

**16K**  
YTD Qty

**15.0%**  
YTD Avg. Discount



# Executive Retail Sales Analytics

Date	Segment	Category	State	Region	City
Last 2 years	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Consumer	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Furniture	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Alabama	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Central	<input checked="" type="checkbox"/> (All)

**\$1,032K**

YTD Sales

**14.6%**

YTD Profit

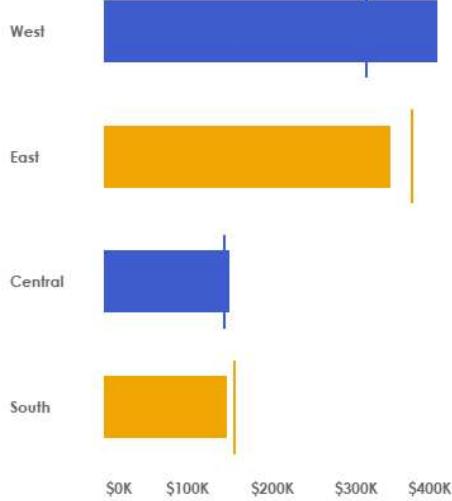
**16K**

YTD Qty

**15.0%**

YTD Avg. Discount

Sales Vs Goals by **Regions**



Sales and Profit by **City**

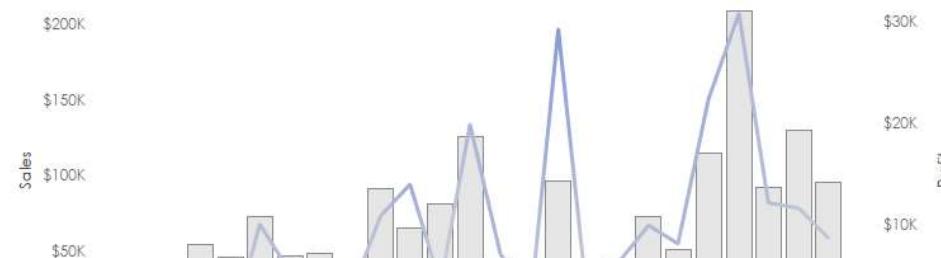


**Download PDF**

Sales & Profit by **Segment & Sub-category**



Sales and Profit by **Month**



**\$1,032K**

YTD Sales

**14.6%**

YTD Profit

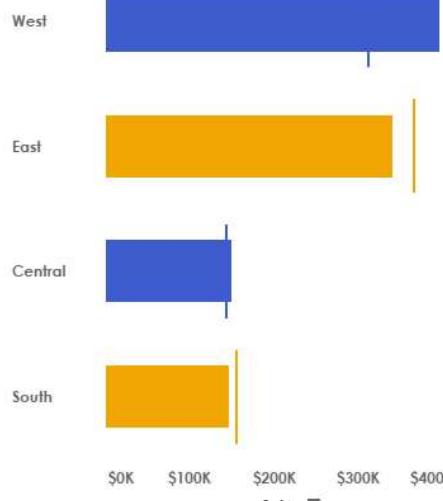
**16K**

YTD Qty

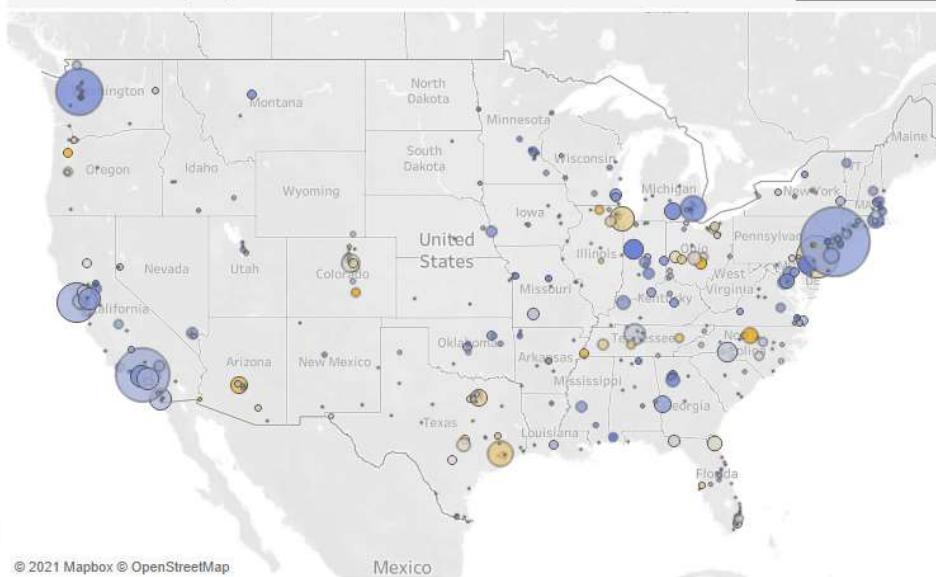
**15.0%**

YTD Avg. Discount

Sales Vs Goals by **Regions**



Sales and Profit by **City**



**Download PDF**

Sales & Profit by **Segment & Sub-category**



Sales and Profit by **Month**



**\$1,032K**

YTD Sales

**14.6%**

YTD Profit

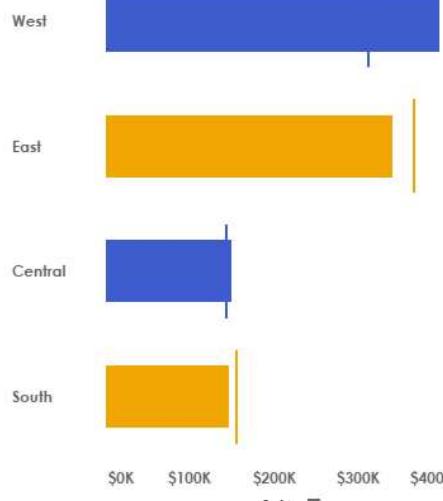
**16K**

YTD Qty

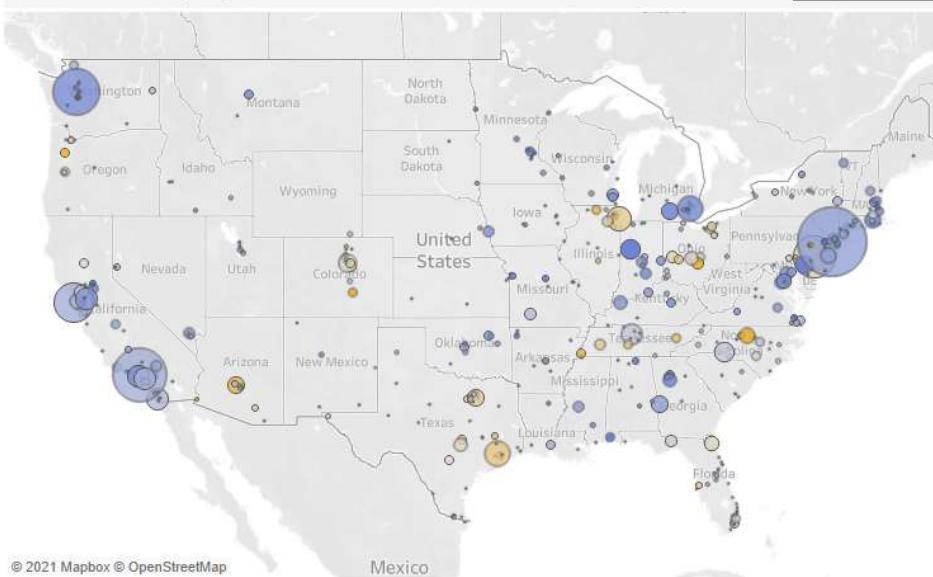
**15.0%**

YTD Avg. Discount

Sales Vs Goals by **Regions**

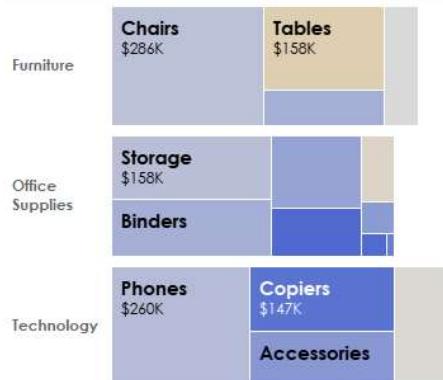


Sales and Profit by **City**



**Download PDF**

Sales & Profit by **Segment & Sub-category**



Sales and Profit by **Month**



Bars - Sales V Goals | Treemap - Sales by Sub-Category | Bar Line - Monthly Sales Trend | Map - Sales & Profit | BAN - YTD Sales | BAN - YTD Profit | BAN - YTD Qty | BAN - YTD Avg Discount | Bars - Top Customer by Sales | **Executive Dashboard** | Nutshell Story

Downloading option as PDF.

Tableau - Tableau/Desktop\_Project\_MohammadMonjurElahi\_Step1 [Recovered]

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

**Dashboard Layout**

**Executive Retail Sales Analytics**

**METRO COLLEGE OF TECHNOLOGY**

Date Segment Category State Region City

Last 2 years  (All)  (All)  (All)  (All)

Consumer  Furniture  Alabama  Central  (All)

**\$1,032K**  
YTD Sales

**14.6%**  
YTD Profit

**16K**  
YTD Qty

**15.0%**  
YTD Avg. Discount

**Sales Vs Goals by Regions**

West: 

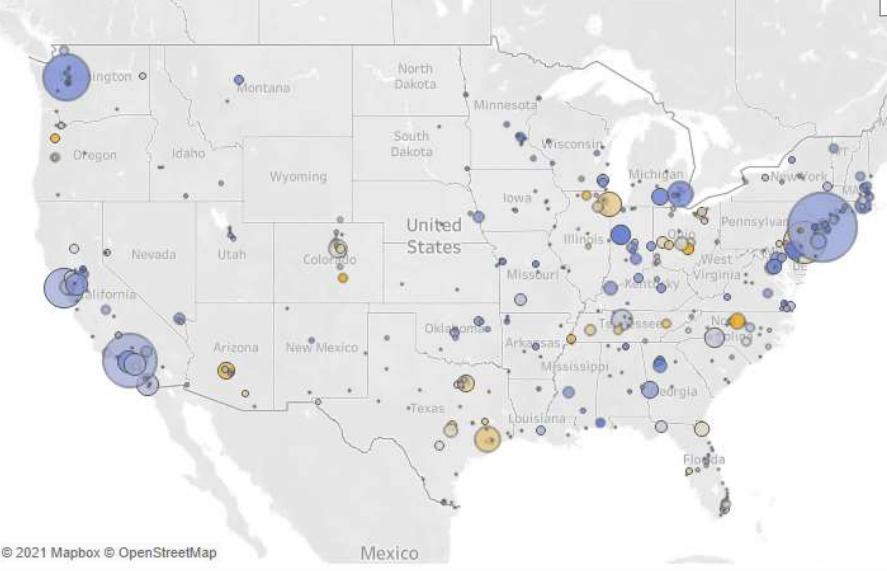
East: 

Central: 

South: 

**Sales and Profit by City**

Download PDF  
Click to export to PDF !! (Alt+click to download)



© 2021 Mapbox © OpenStreetMap

**Sales & Profit by Segment & Sub-category**

Furniture: **Chairs \$286K** **Tables \$158K**

**Sales and Profit by Month**

**Objects**

- Horizontal
- Vertical
- Text
- Image
- Web Page
- Blank
- Navigation
- Download
- Extension

Tiled Floating

Show dashboard title

Data Source Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

Tableau - Tableau\_Desktop\_Project\_MohammadMonjurElahi\_Step1 [Recovered]

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Dashboard Layout < Default Phone Device Preview

Size Custom size (1200 x 1200)

Sheets

- Bars - Sales V G...
- Treemap - Sale...
- Bar Line - Mont...
- Map - Sales & P...
- BAN - YTD Sales
- BAN - YTD Profit
- BAN - YTD Qty
- BAN - YTD Avg ...
- Bars - Top Cust...

Objects

- Horizontal
- Blank
- Vertical
- Navigation
- Text
- Download
- Image
- Extension
- Web Page

Tiled Floating

Show dashboard title

# Executive Retail Sales Analytics

METRO COLLEGE OF TECHNOLOGY

Date Segment Category State Region City

Last 2 years (All) (All) (All) (All) (All) (All)

Segment: Consumer Category: Furniture State: Alabama Region: Central City: (All)

**\$1,032K** YTD Sales

**14.6%** YTD Profit

**16K** YTD Qty

**15.0%** YTD Avg. Discount

Sales Vs Goals by Regions

Region	YTD Sales (\$K)
West	~350K
East	~250K
Central	~150K
South	~100K

Sales and Profit by City

Category	Value (\$K)
Chairs	\$286K
Tables	\$158K

Sales & Profit by Segment & Sub-category

Furniture

Sales and Profit by Month

Print to PDF

Range: Entire workbook Active sheet Selected sheets

Paper Size: Legal Portrait Landscape

Options: View PDF file after printing Show selections

OK Cancel

Download PDF

© 2021 Mapbox © OpenStreetMap

Data Source Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

**Dashboard Layout**

**Default Phone**

Device Preview

**Size**  
Custom size (1200 x 1200)

**Sheets**

- Bars - Sales V G...
- Treemap - Sale...
- Bar Line - Mont...
- Map - Sales & P...
- BAN - YTD Sales
- BAN - YTD Profit
- BAN - YTD Qty
- BAN - YTD Avg ...
- Bars - Top Cust...

**Objects**

- Horizontal
- Vertical
- Text
- Image
- Web Page
- Blank
- Navigation
- Download
- Extension

Tiled Floating

Show dashboard title

# Executive Retail Sales Analytics

METRO COLLEGE OF TECHNOLOGY

Date Segment Category State Region City

Last 2 years  (All)  Furniture  (All)  Alabama  (All)  Central  (All)

**\$1,032K** YTD Sales

**14.6%** YTD Profit

**16K** YTD Qty

**15.0%** YTD Avg. Discount

**Sales Vs Goals by Regions**

Region	Actual Sales	Goal
West	\$1032K	\$1200K
East	\$1000K	\$1100K
Central	\$900K	\$1000K
South	\$800K	\$900K

**Sales and Profit by City**

**Sales & Profit by Segment & Sub-category**

Furniture

Category	Sub-Category	Value
Furniture	Chairs	\$286K
	Tables	\$158K

**Sales and Profit by Month**

\$200K

**Print to PDF**

Range: Entire workbook

Paper Size: Legal

Save PDF

Organize New folder

File name: Tableau/Desktop\_Project\_MohammadMonjurElahi\_Step1.pdf

Save as type: Adobe Portable Document Format (\*.pdf)

Save Cancel

© 2021 Mapbox © OpenStreetMap

Dashboard Layout Default Phone Device Preview Size Custom size (1200 x 1200) Sheets Objects Tiled Floating Show dashboard title Data Source Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

Tableau - Tableau/Desktop Project\_MohammadMonjurElahi\_Step1 [Recovered]

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Dashboard Layout < Default Phone Device Preview

Size Custom size (1200 x 1200)

**Executive Retail Sales Analytics**

METRO COLLEGE OF TECHNOLOGY

Date Segment Category State Region City  
Last 2 years (All) (All) (All) (All) (All)  
Segment Consumer Furniture Alabama Central

**\$1,032K YTD Sales**

**14.6% YTD Profit**

**16K YTD Qty**

**15.0% YTD Avg. Discount**

**Sales Vs Goals by Regions**

West East Central South

**Sales and Profit by City**

Print to PDF Download PDF

Range: Entire workbook Active sheet Selected sheets Options View PDF file after printing

Paper Size: Legal

Save PDF

Project > TABLEAU DESKTOP

Search TABLEAU DESKTOP

Organize New folder

This PC 3D Objects Desktop Documents Downloads Music Pictures Videos Local Disk (C:) 2TSSD (D:)

No items match your search.

File name: Tableau/Desktop Project\_MohammadMonjurElahi\_Step1.pdf Save Cancel

Save as type: Adobe Portable Document Format (\*.pdf)

**Sales & Profit by Segment & Sub-category**

Furniture Chairs \$286K Tables \$158K

**Sales and Profit by Month**

\$200K

**Executive Dashboard Nutshell Story**

Tiled Floating Show dashboard title

Data Source Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

Sales and Profit by Segment and Sub-category is shown dynamically with the change of date filter at the top.

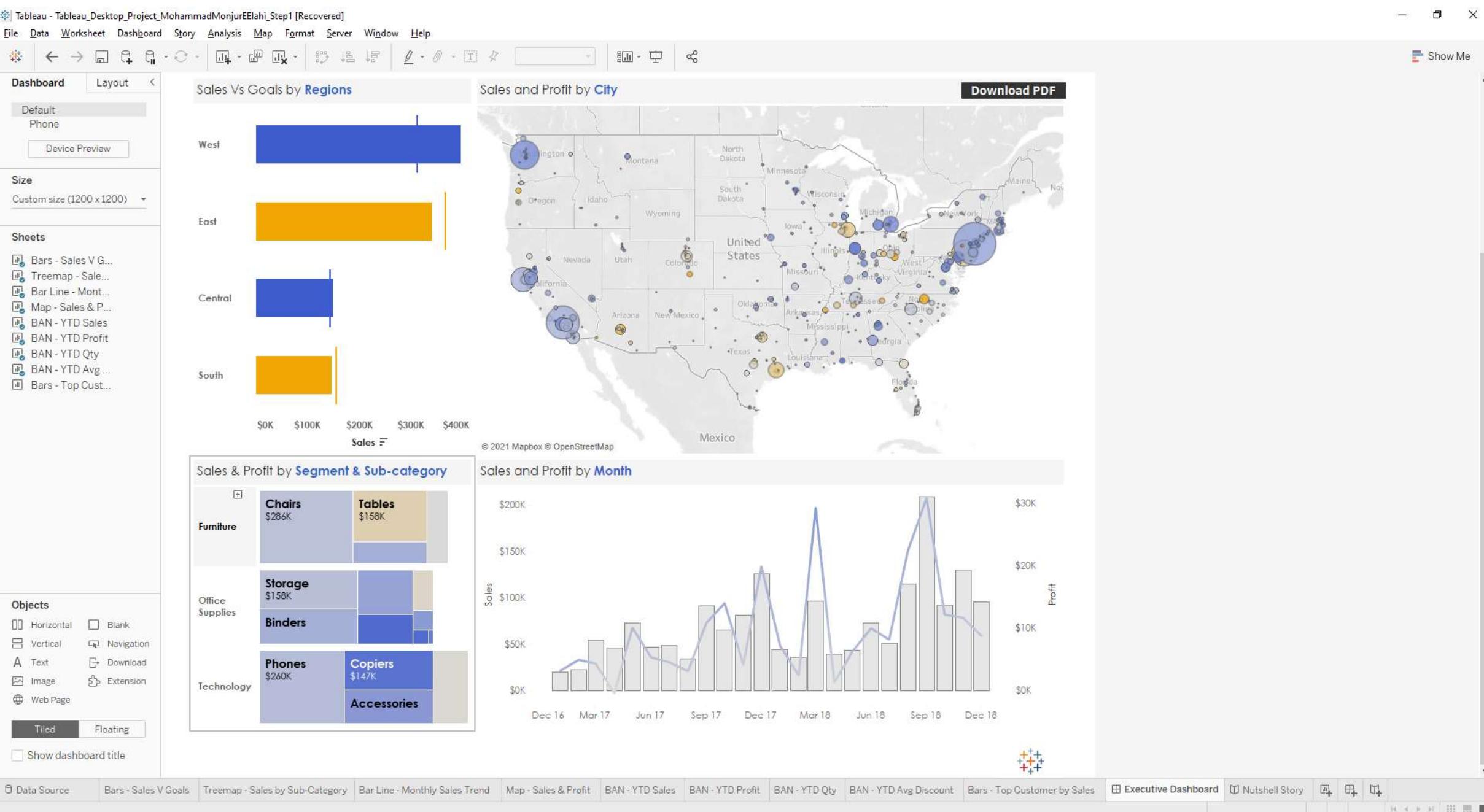


Tableau - Tableau/Desktop\_Project\_MohammadMonjurElahi\_Step1 [Recovered]

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

**Dashboard Layout**

**Executive Retail Sales Analytics**

**METRO COLLEGE OF TECHNOLOGY**

**Filters:**

- Date: 1/2/2017 to 3/10/2018
- Segment: Consumer, Corporate
- Category: Office Supplies, Technology
- State: Alabama, Arizona
- Region: Central
- City: (All)

**Key Metrics:**

- \$1,032K** YTD Sales
- 14.6%** YTD Profit
- 16K** YTD Qty
- 15.0%** YTD Avg. Discount

**Sales Vs Goals by Regions**

West: \$350K (Blue Bar)

East: \$250K (Yellow Bar)

Central: \$150K (Blue Bar)

South: \$100K (Yellow Bar)

**Sales and Profit by City**

Map of the United States showing sales and profit by city. Major cities like New York, Chicago, and Los Angeles are highlighted with large bubbles.

**Download PDF**

**Sales & Profit by Segment & Sub-category**

Furniture: Chairs (\$116K), Tables (\$92K)

**Sales and Profit by Month**

Estimated data for Sales and Profit by Month:

Month	Sales	Profit
January	\$200K	\$20K
February	\$150K	\$15K
March	\$100K	\$10K

**Bottom Navigation:**

- Data Source
- Bars - Sales V Goals
- Treemap - Sales by Sub-Category
- Bar Line - Monthly Sales Trend
- Map - Sales & Profit
- BAN - YTD Sales
- BAN - YTD Profit
- BAN - YTD Qty
- BAN - YTD Avg Discount
- Bars - Top Customer by Sales
- Executive Dashboard
- Nutshell Story

Tableau - Tableau/Desktop\_Project\_MohammadMonjurElahi\_Step1 [Recovered]

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Dashboard Layout < Default Phone Device Preview

Size Custom size (1200 x 1200)

Sheets

- Bars - Sales V Goals
- Treemap - Sales by Sub-Category
- Bar Line - Monthly Sales Trend
- Map - Sales & Profit
- BAN - YTD Sales
- BAN - YTD Profit
- BAN - YTD Qty
- BAN - YTD Avg ...
- Bars - Top Cust...

Objects

- Horizontal
- Vertical
- Text
- Image
- Web Page
- Blank
- Navigation
- Download
- Extension

Tiled Floating

Show dashboard title

**Sales Vs Goals by Regions**

Region	Sales (\$K)	Goals (\$K)
West	~350K	~400K
East	~280K	~350K
Central	~180K	~220K
South	~220K	~300K

**Sales and Profit by City**

© 2021 Mapbox © OpenStreetMap

**Download PDF**

**Sales & Profit by Segment & Sub-category**

Segment	Sub-category	Sales (\$K)	Profit (\$K)
Furniture	Chairs	\$116K	\$92K
	Tables	\$92K	\$78K
Office Supplies	Storage	\$79K	\$65K
	Binders	\$65K	\$52K
Technology	Phones	\$103K	\$80K
	Machines	\$66K	\$55K
	Accessories	\$55K	\$45K

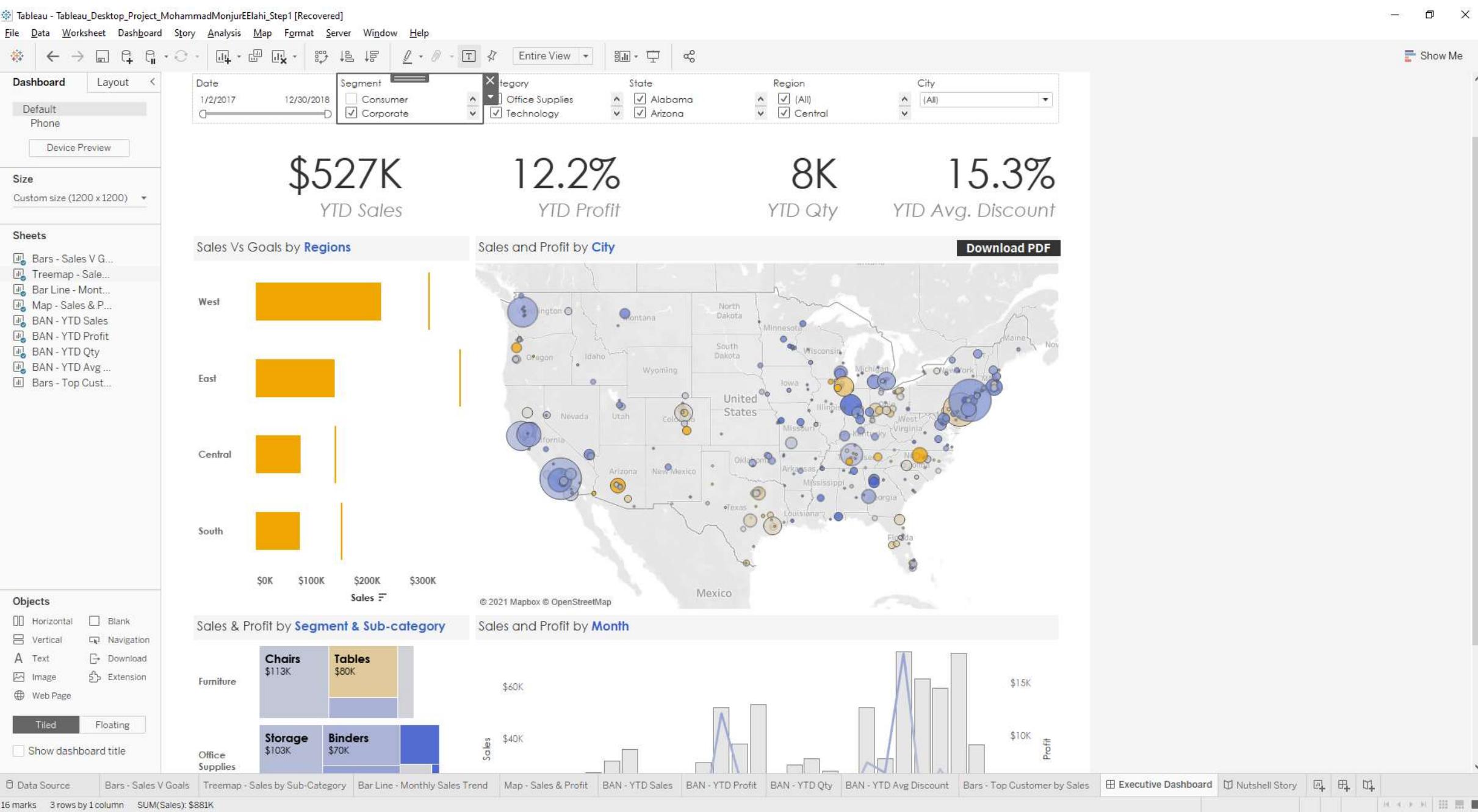
**Sales and Profit by Month**

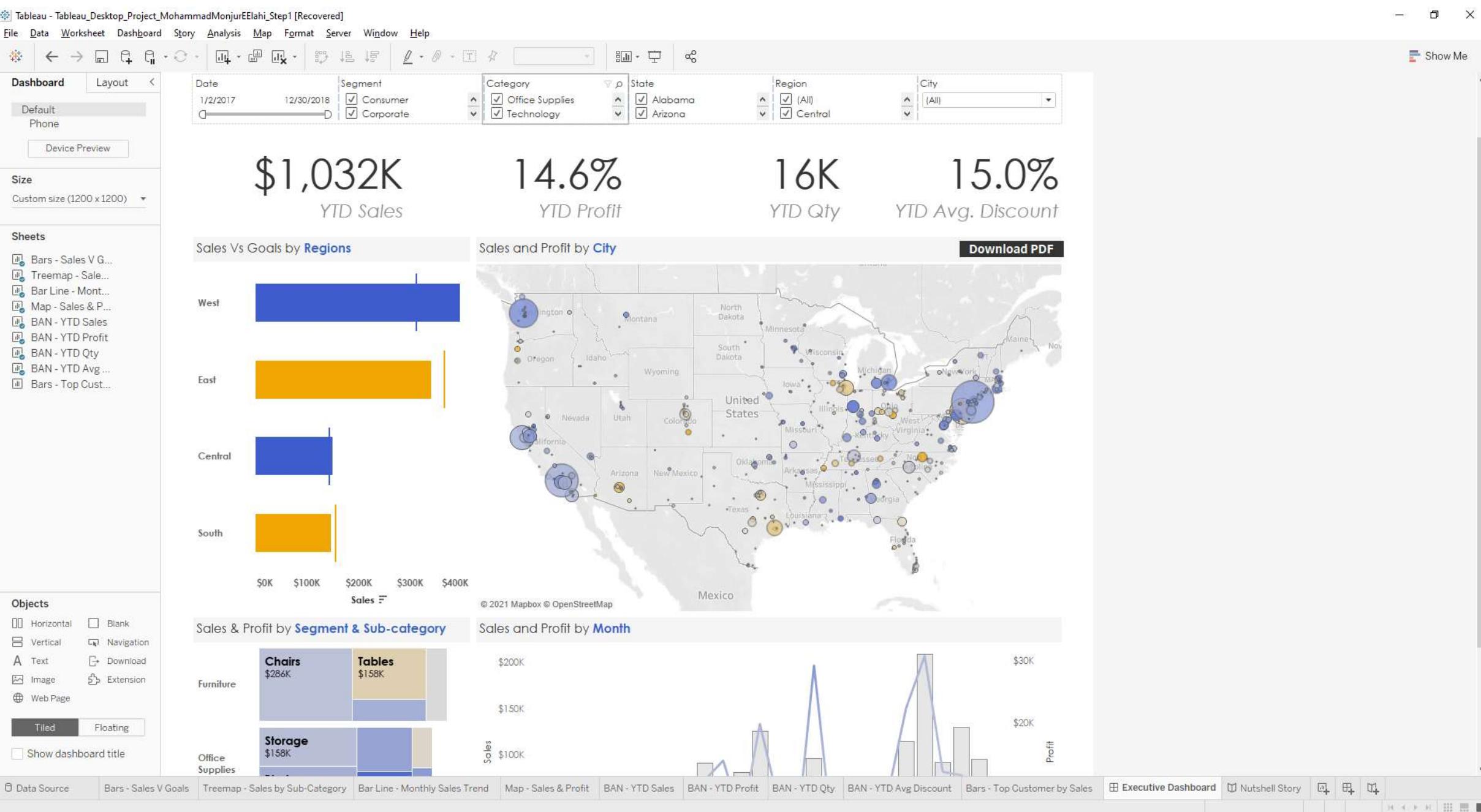
The chart displays monthly sales (left y-axis, bars) and profit (right y-axis, line) over a two-year period. Sales fluctuate between \$20K and \$180K, while profit shows more significant peaks, notably in March 2018 and September 2018.

Data Source Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

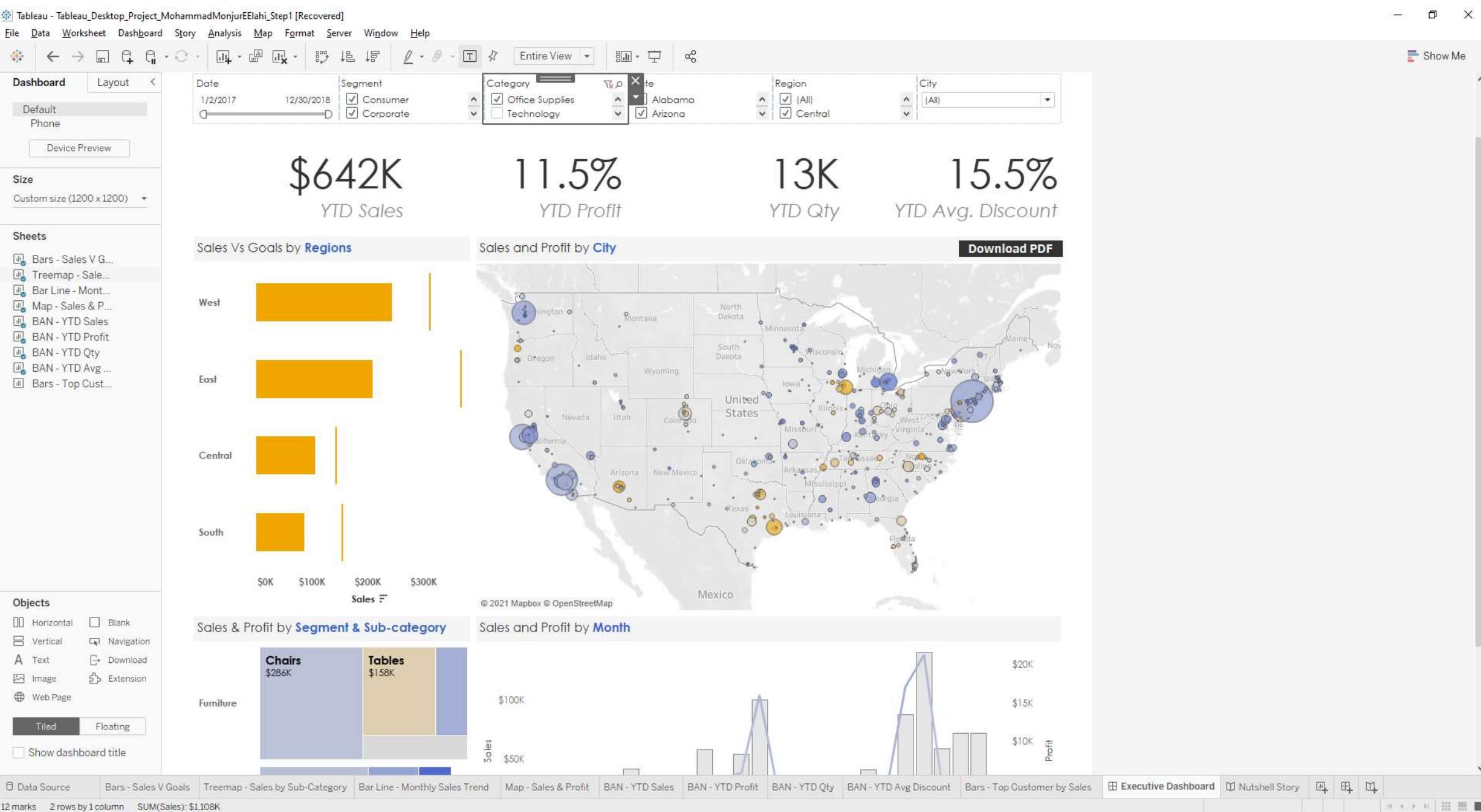
16 marks 3 rows by 1 column SUM(Sales): \$807K

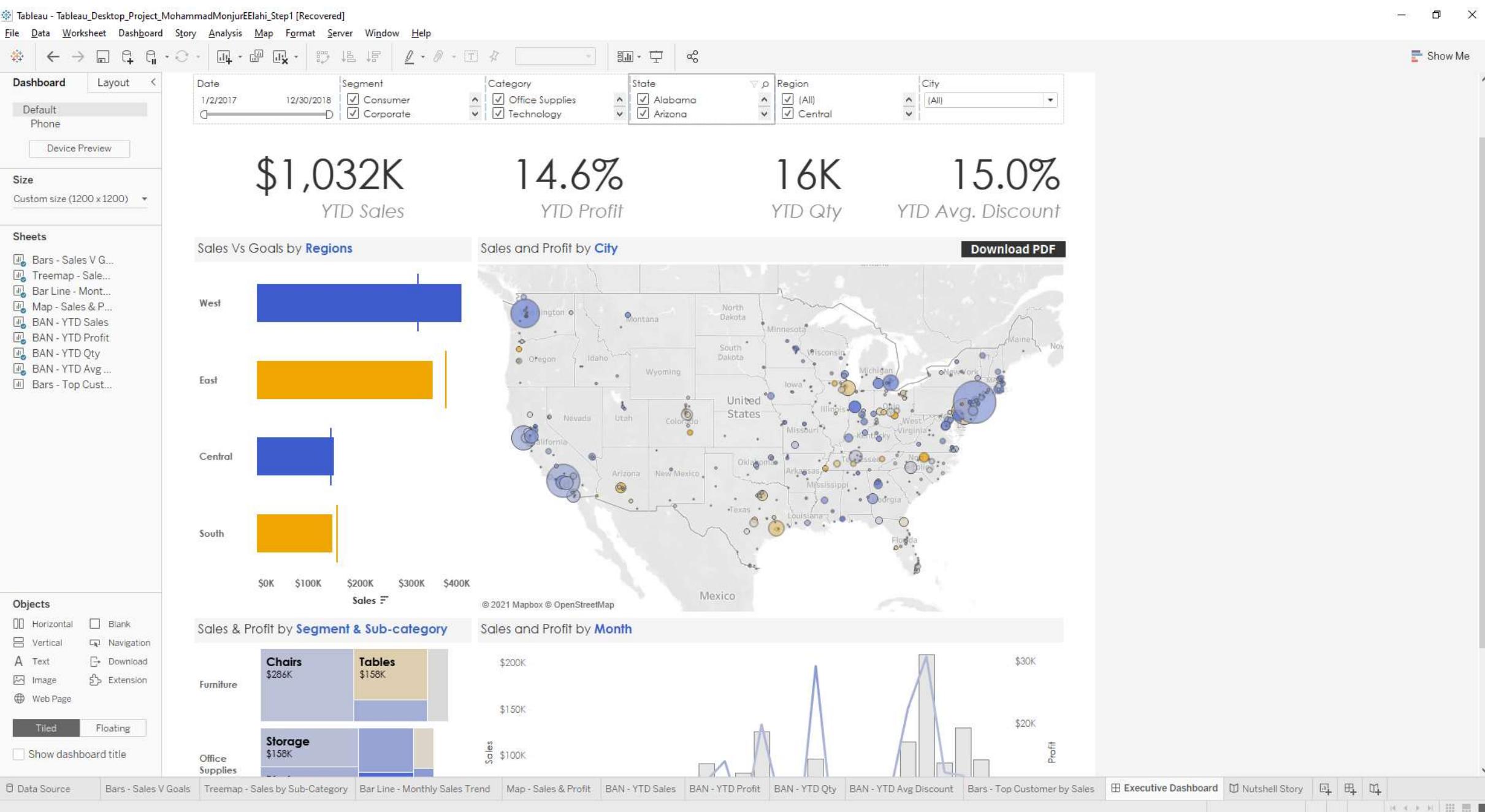
Changes is shown dynamically with the change of segment filter at the top.



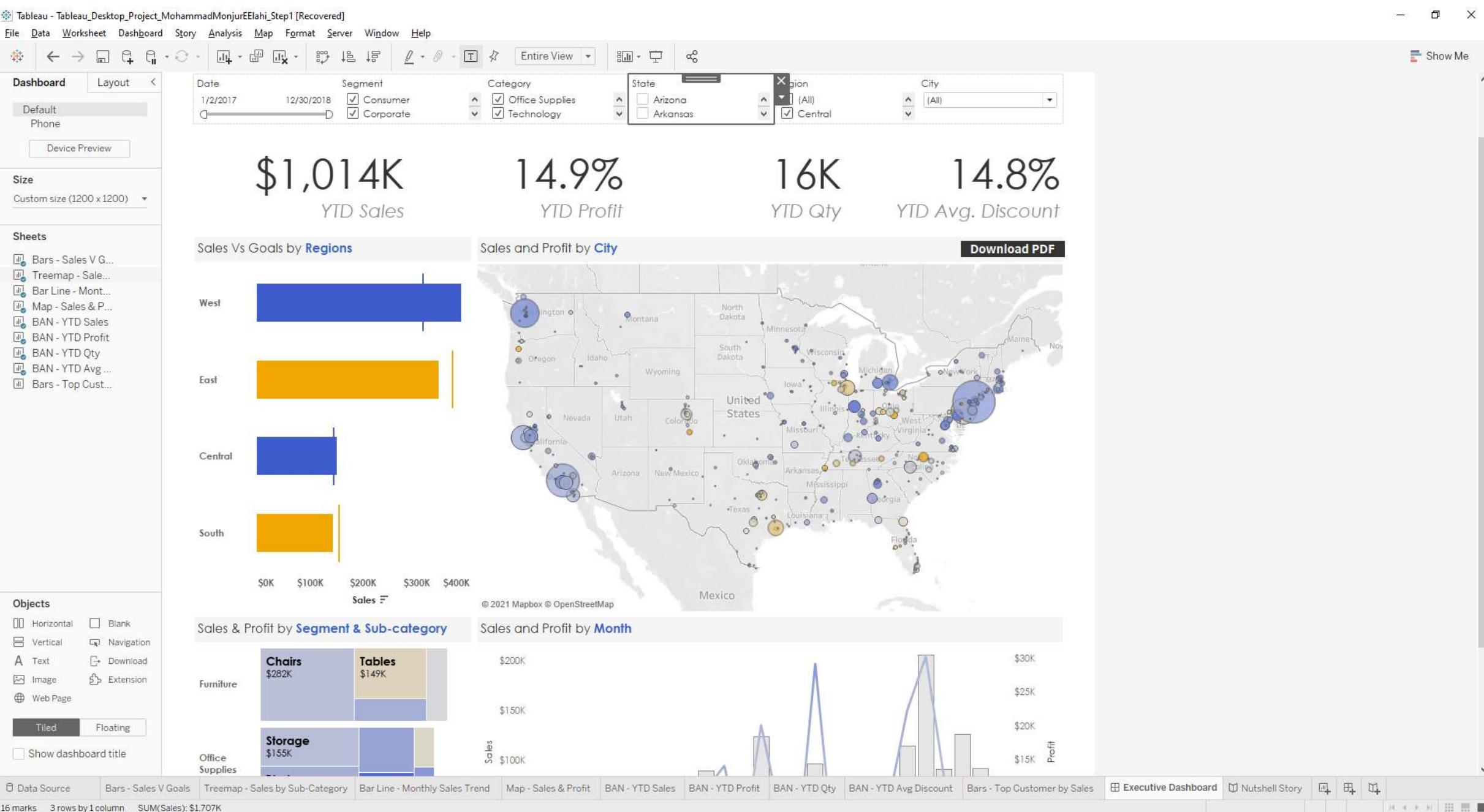


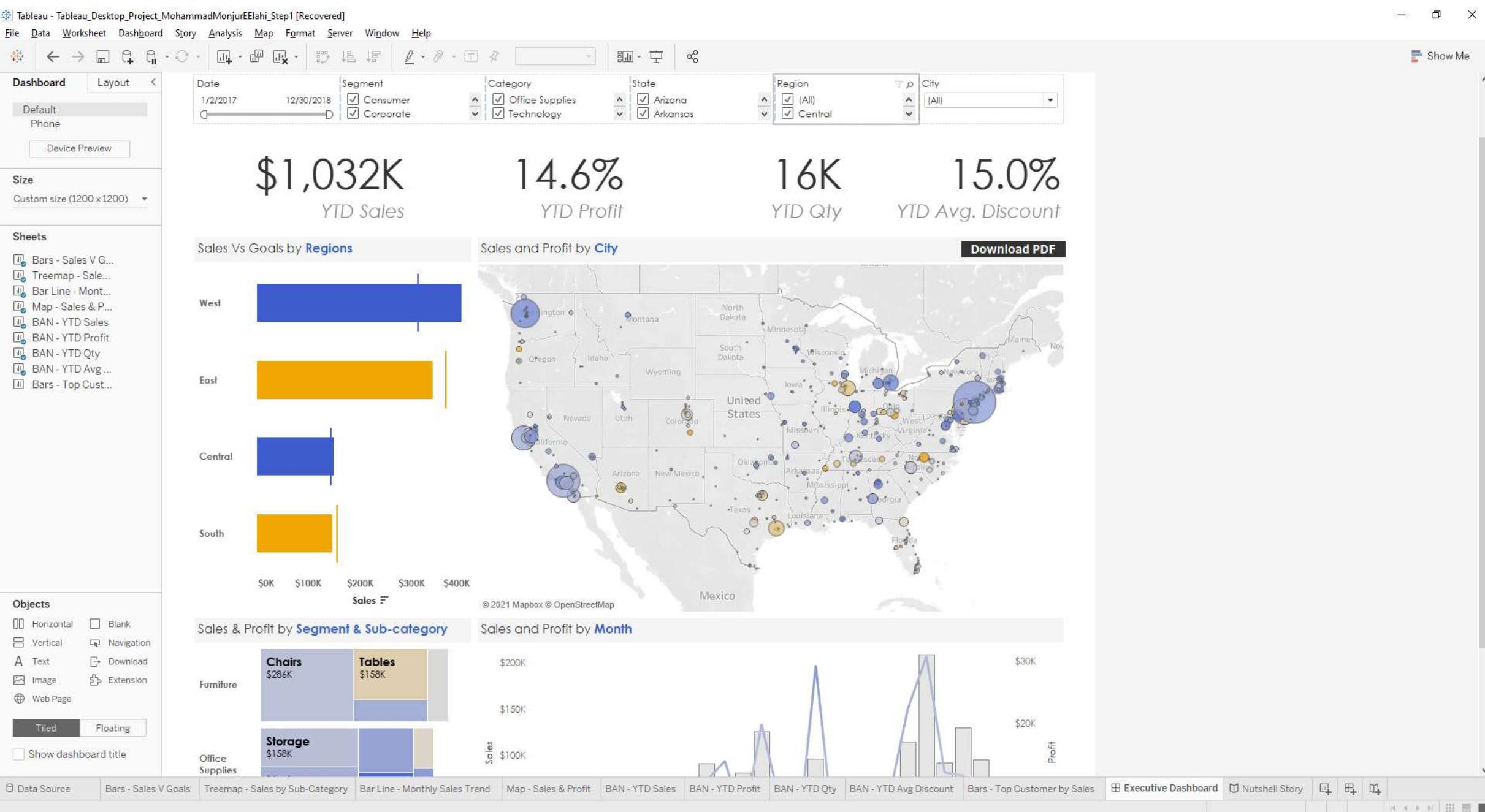
Changes is shown dynamically with the change of Category filter at the top.



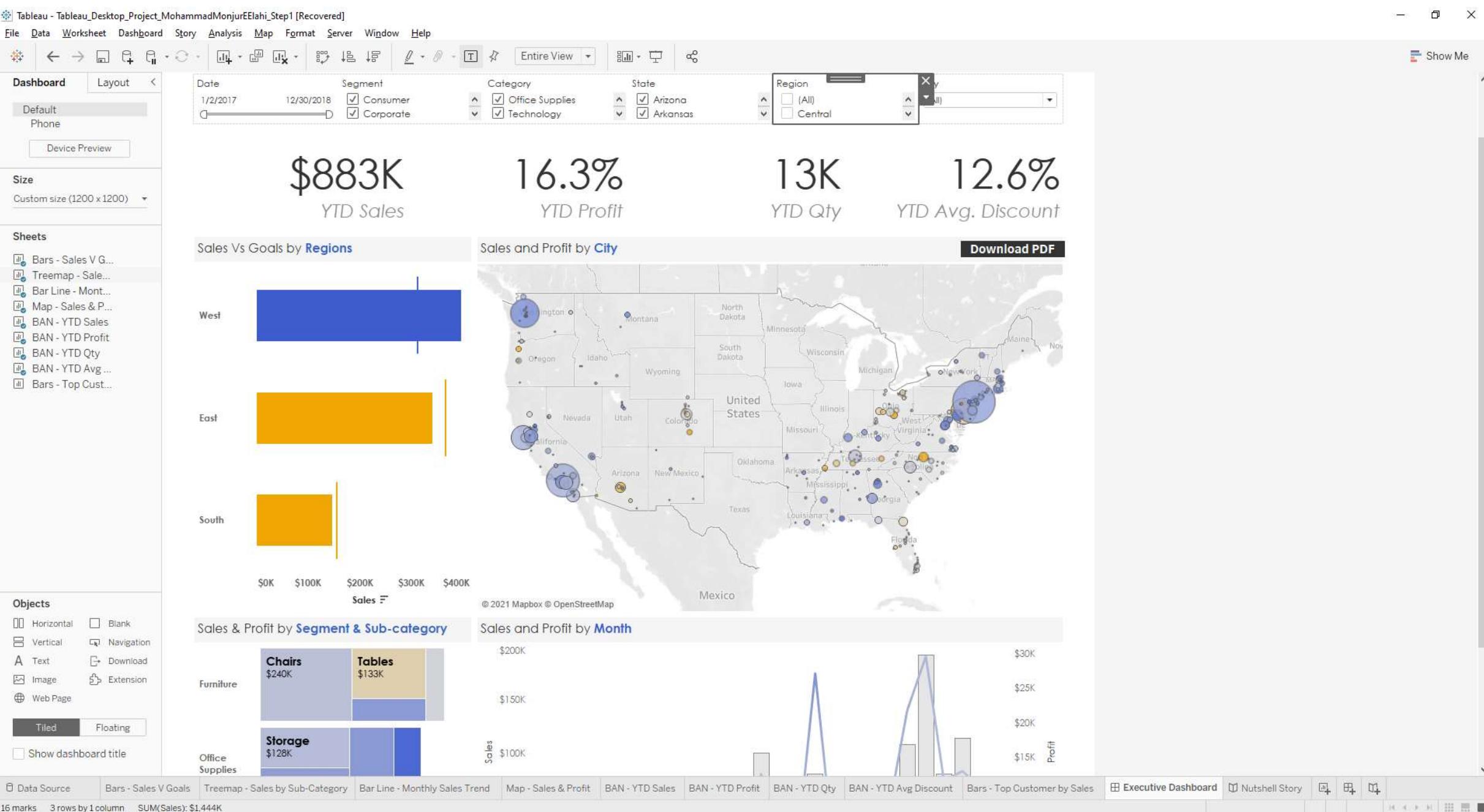


Changes is shown dynamically with the change of state filter at the top.

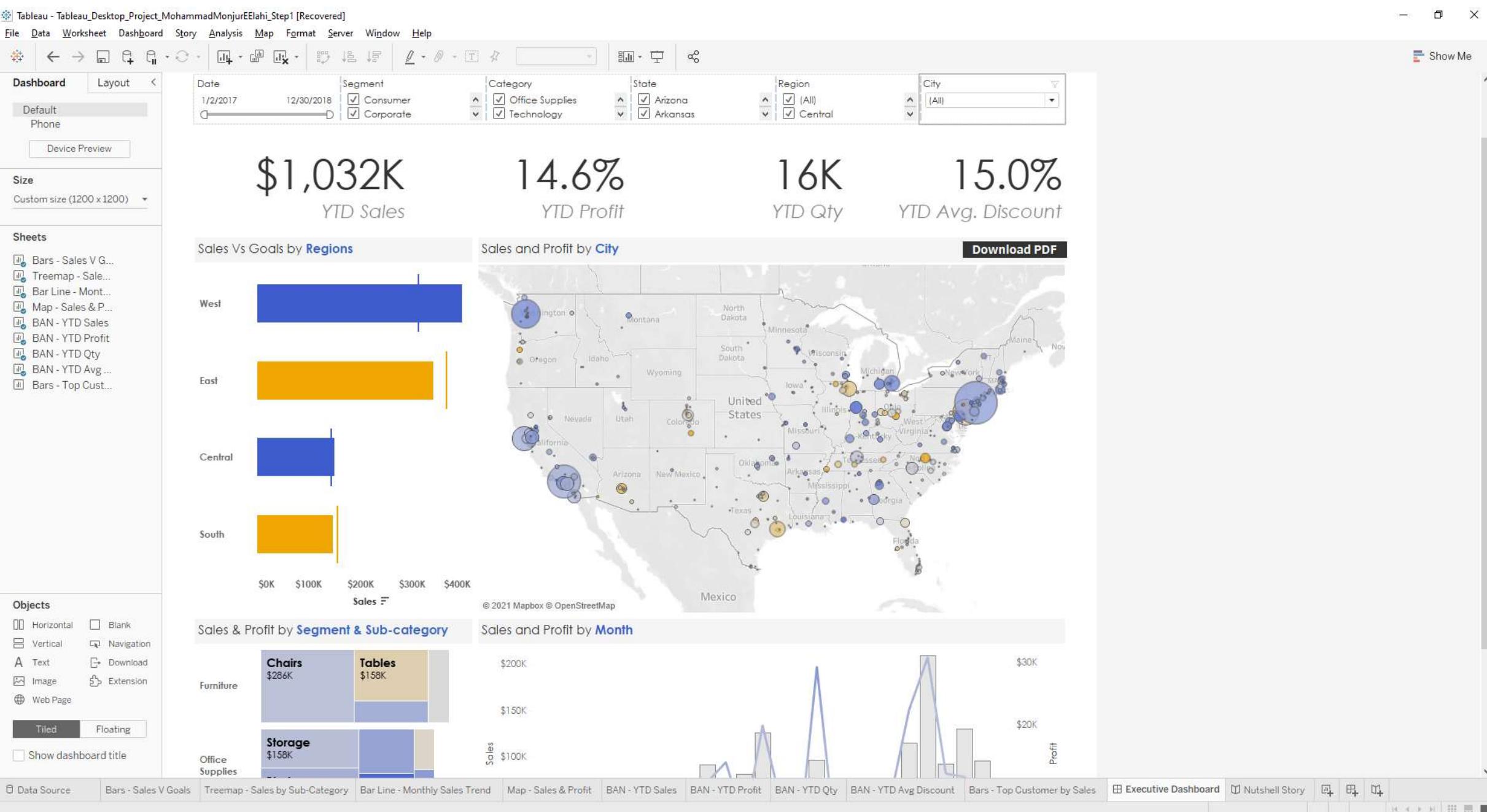


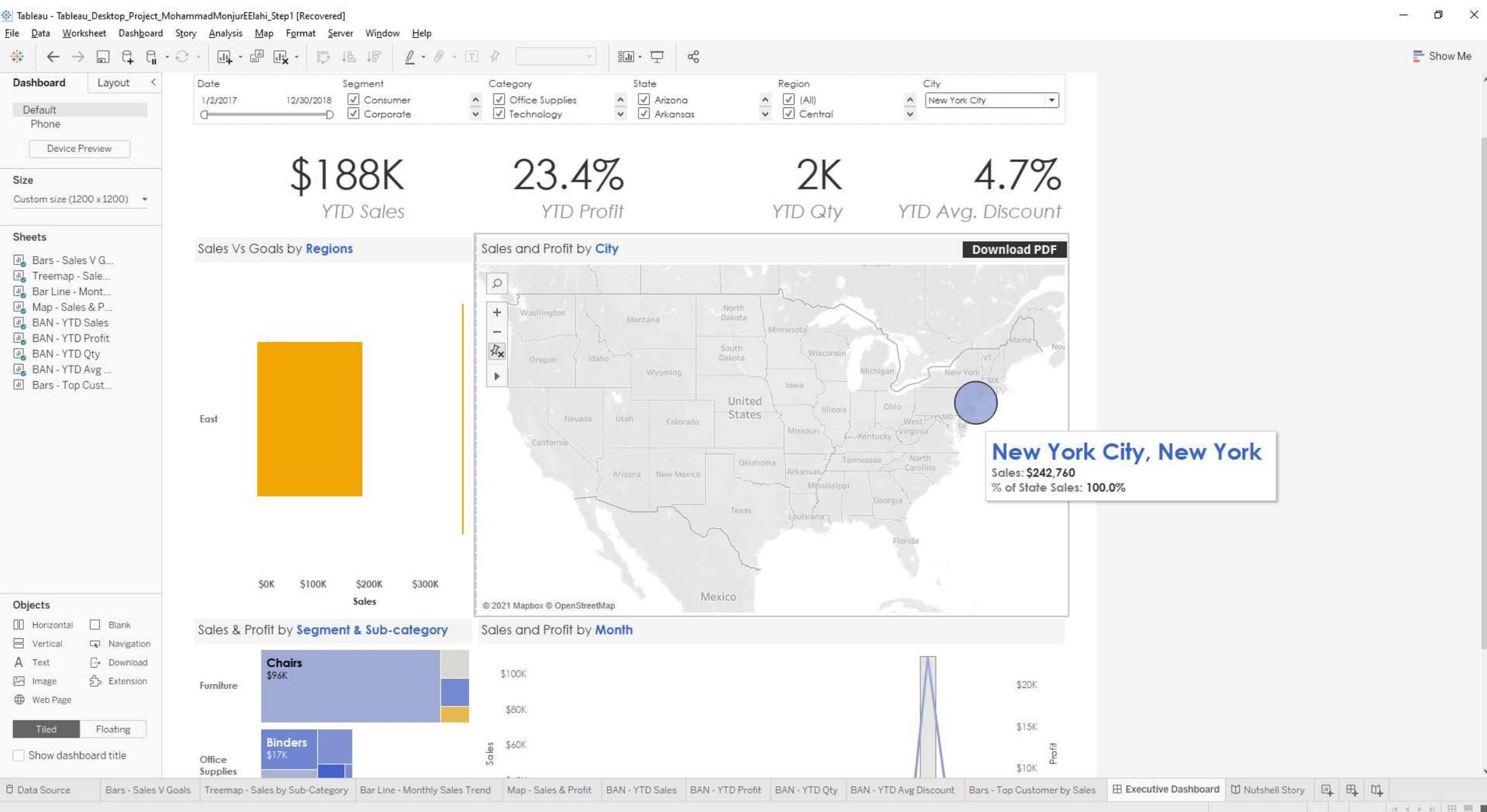


Changes is shown dynamically with the change of region filter at the top.



Changes is shown dynamically with the change of City filter at the top.





# Nutshell Story

## Nutshell Story

HYC has the highest sales in New York State. And top sales Furniture sales in Sept 2018 were huge !! West Region is the best region based on sales volume and

## Executive Retail Sales Analytics



Date	Segment	Category	State	Region	City
1/2/2017	12/30/2018	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Consumer	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Furniture	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Alabama	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Central
					<input type="checkbox"/> (All)

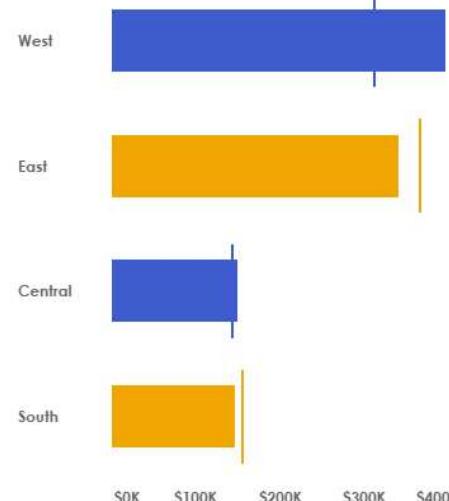
\$1,032K  
YTD Sales

14.6%  
YTD Profit

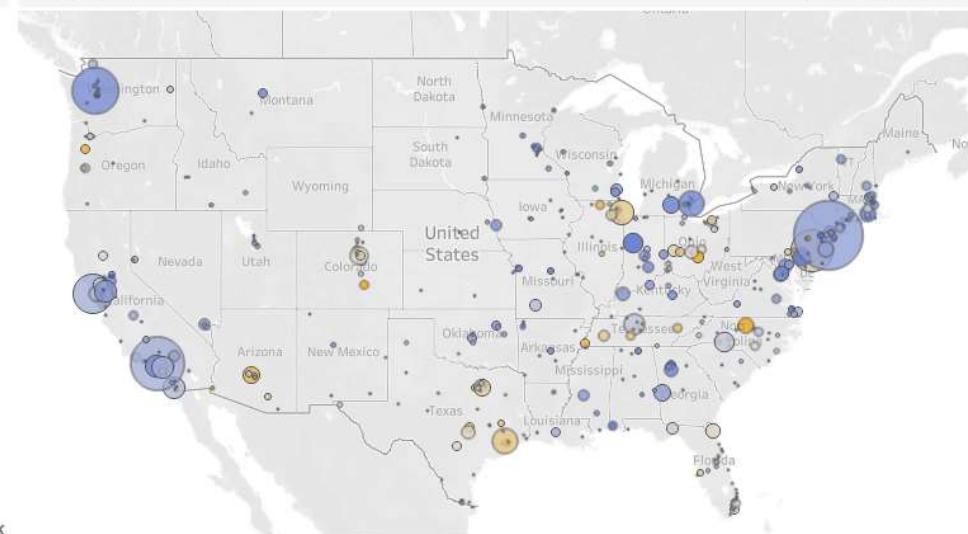
16K  
YTD Qty

15.0%  
YTD Avg. Discount

Sales Vs Goals by Regions



Sales and Profit by City



Download PDF

Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story



New York City has the Highest Sales in New York State!!

## Nutshell Story

HYC has the highest sales in New York State. And top sales  
Furniture sales in Sept 2018 were huge !!  
West Region is the best region based on sales volume and

## Executive Retail Sales Analytics

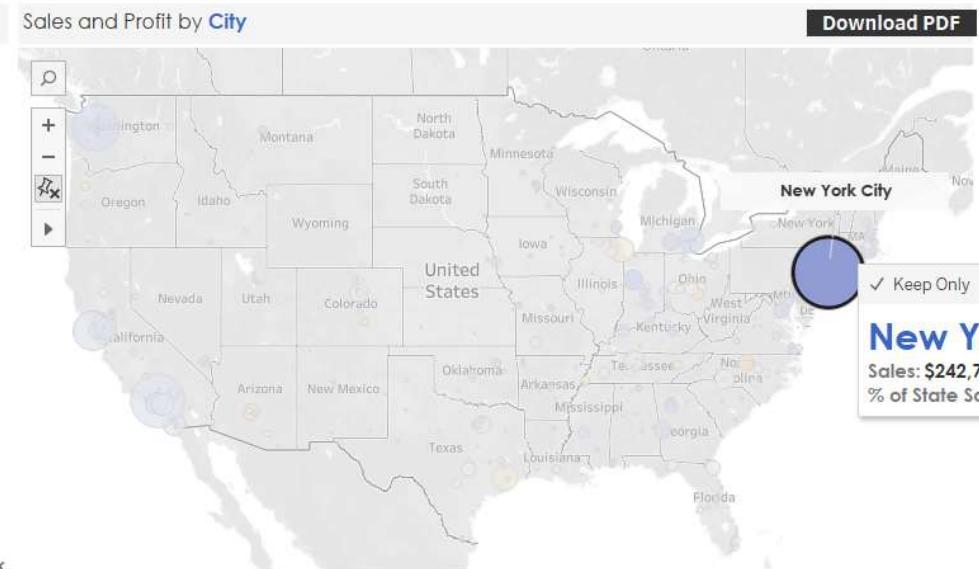
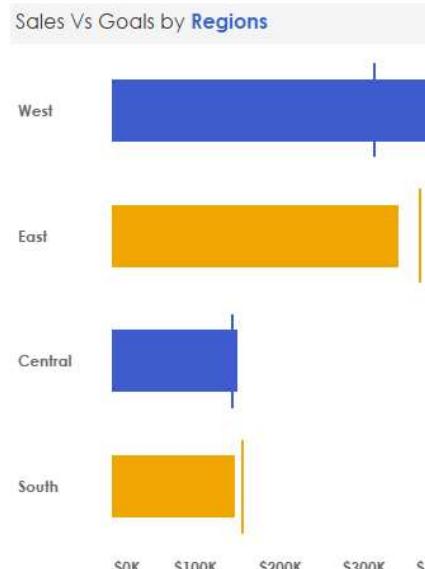


Date	Segment	Category	State	Region	City
1/2/2017	12/30/2018	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Consumer	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Furniture	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Alabama	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Central
					<input checked="" type="checkbox"/> (All)

\$188K  
YTD Sales

23.4%  
YTD Profit

2K  
YTD Qty  
4.7%  
YTD Avg. Discount

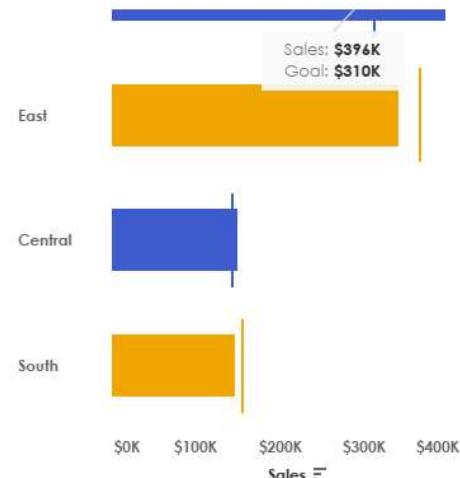


Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

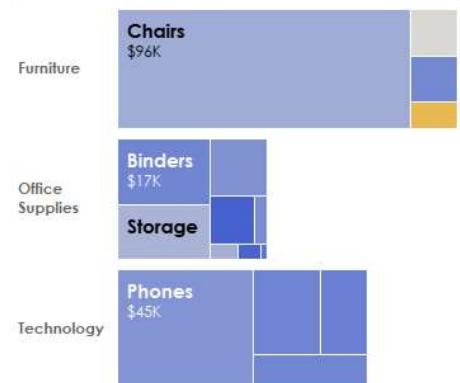
In Sept, 2018 there is a huge pick in sales and it needs to be analyzed thoroughly.

## Nutshell Story

NYC has the highest sales in New York State. And top sales  
Furniture sales in Sept 2018 were huge !!  
West Region is the best region based on sales volume and



Sales & Profit by Segment & Sub-category



Sales and Profit by Month



Bars - Sales V Goals Treemap - Sales by Sub-Category Bar Line - Monthly Sales Trend Map - Sales & Profit BAN - YTD Sales BAN - YTD Profit BAN - YTD Qty BAN - YTD Avg Discount Bars - Top Customer by Sales Executive Dashboard Nutshell Story

West Region is the best region based on the sales and achievement of target as well.

## Nutshell Story

< HYC has the highest sales in New York State. And top sales Furniture sales in Sept 2018 were huge !! West Region is the best region based on sales volume and >

## Executive Retail Sales Analytics



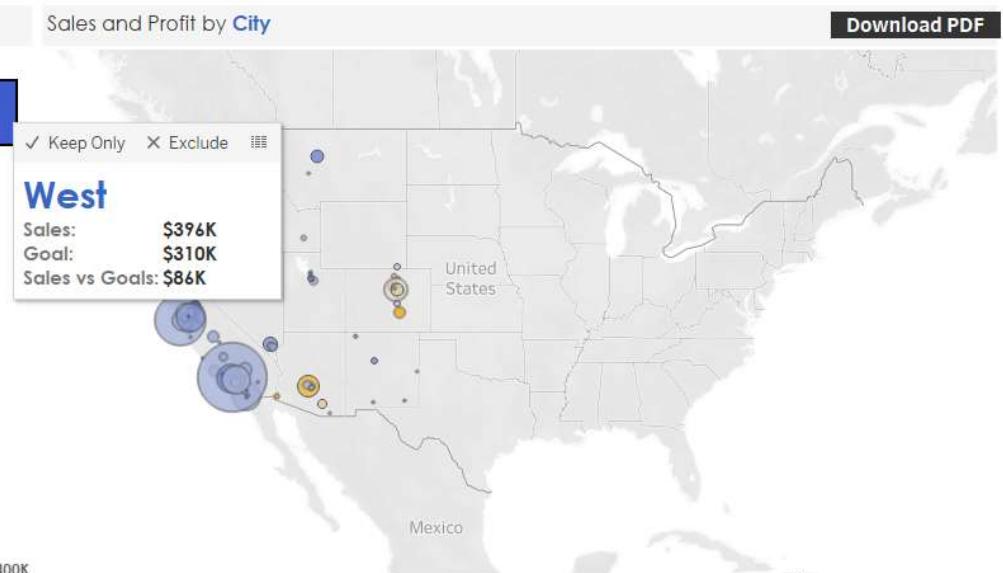
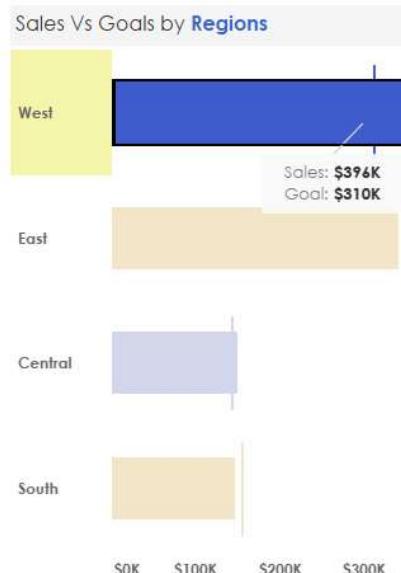
Date	Segment	Category	State	Region	City
1/2/2017	12/30/2018	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Consumer	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Furniture	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Alabama	<input checked="" type="checkbox"/> (All) <input checked="" type="checkbox"/> Central
					<input type="checkbox"/> (All)

\$396K  
YTD Sales

20.5%  
YTD Profit

6K  
YTD Qty

9.7%  
YTD Avg. Discount



## CONCLUSION



## Conclusion

- Created several sheets to get insight of the data
- Accumulated few of those sheets in to an interactive dashboard
- Highlighted few of the aspects in the story part to highlight



