

May 13, 2016: Tableau User Guide

In this Tableau User Guide, you will create a variety of charts, ranging from scatter grams to regressions.

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Administration:

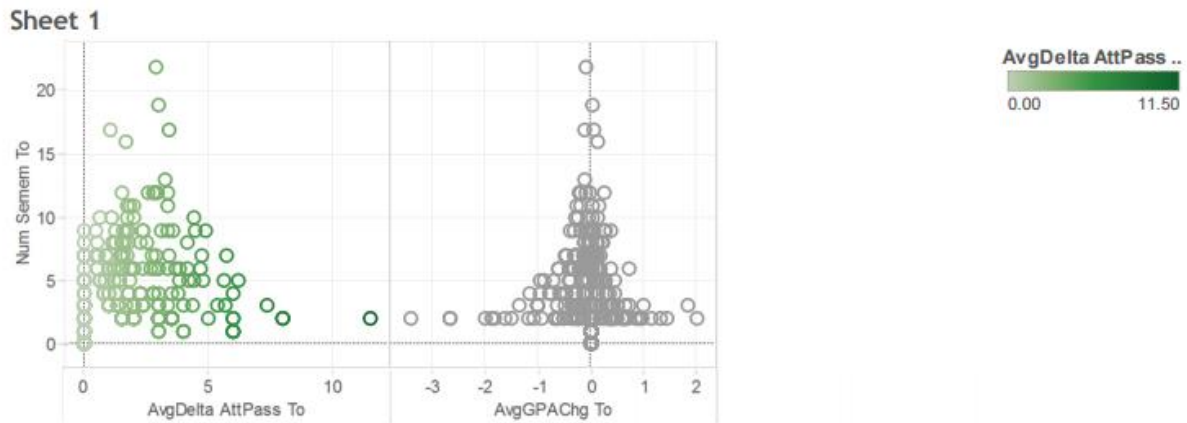
First, you will need to install the software and obtain the data file.

- a. Download Tableau 9.3
- b. Excel file: "Computations.xlsx" (Download link: <http://www.nvc.vt.edu/rmajor/bit5534/Docs/Computations.xlsx>)

Charts to Build:

Below will be a sequence of instructions on creating the exact Scatter Gram below (and as shown on the website <http://www.nvc.vt.edu/rmajor/bit5534/Dashboards.htm>):

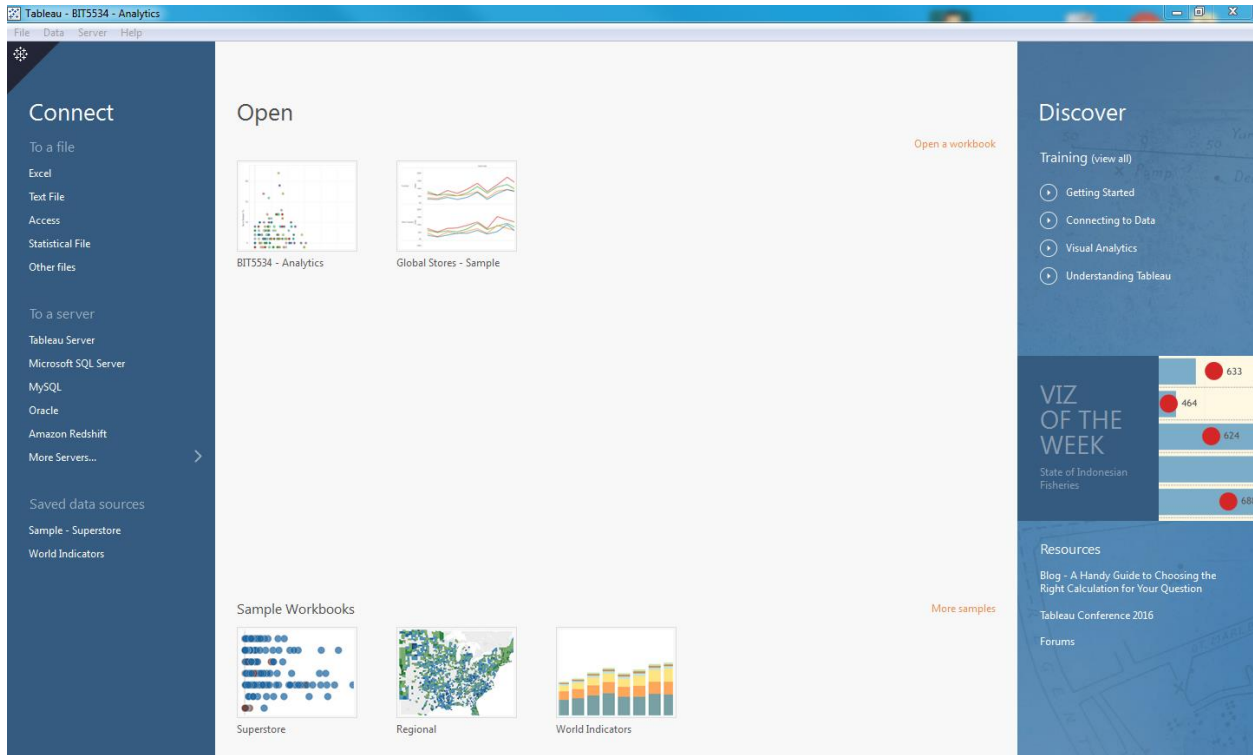
Tableau: Scatter Grams for Computed Metrics-I



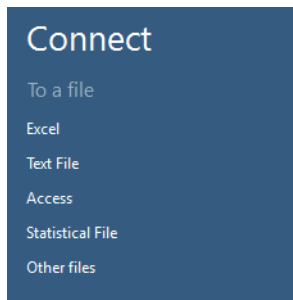
Above is the Scatter Gram as displayed on the course website:

http://www.nvc.vt.edu/rmajor/bit5534/Docs/Tableau_Scattergraphs.pdf

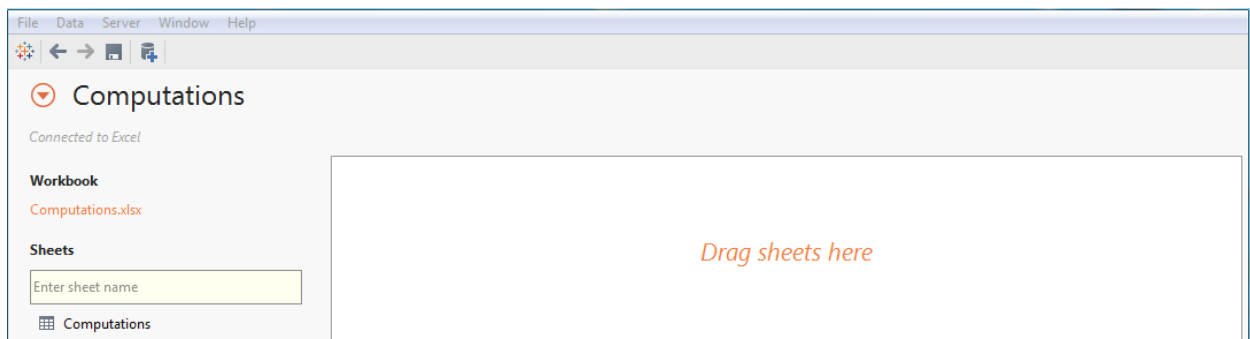
Step 1: Open up Tableau 9.3.



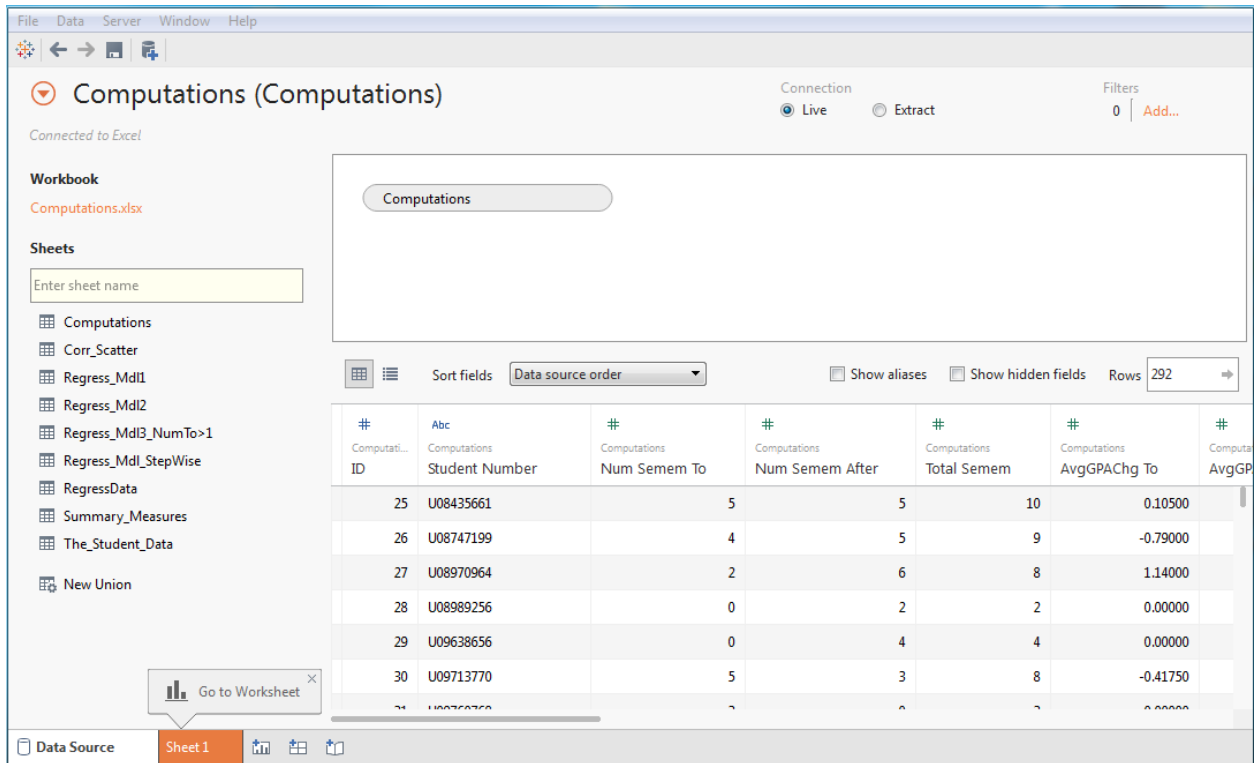
2: Click on the Excel button under “Connect” and choose the file, “Computations.xlsx.”



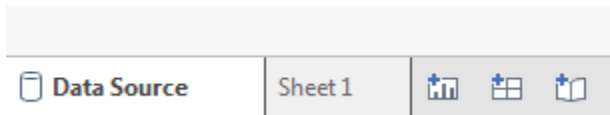
3: Under “Sheets” click and drag the tab, entitled, “Computations” into the “Drag Sheets here” field at the top of page.



4: Once the tab has been added to the field, your screen will look like this:

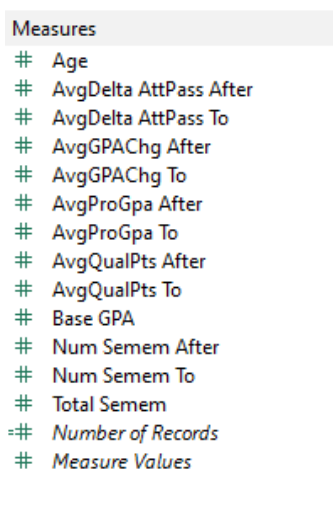


5: Click on “Sheet 1” at the bottom of the left-side of page:



6: MULTI-STEPS:

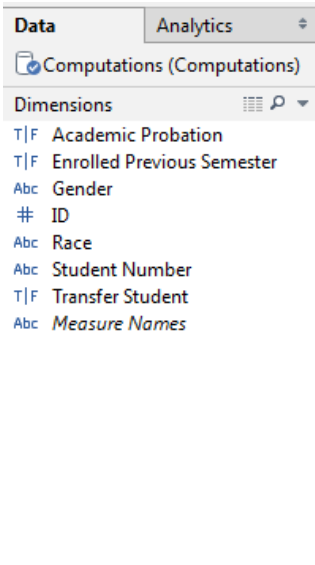
- a. Locate in the Measures columns: (1) “AvgDelta AttPass To” (2) “AvgGPACHg To” and (3) “Num Semem To”



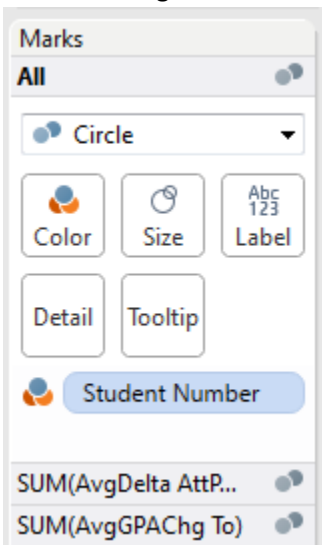
- b. Click and drag the “AvgDelta AttPass To” and “AvgGPACHg To” measures to the Columns field. Click and drag the “Num Semem To” measure to the Rows field



- c. Locate the “Student Number” Dimension in the Dimensions column



- d. Click and drag “Student Number” into the “Color” options under the Marks column



7: Your final product should look like this:

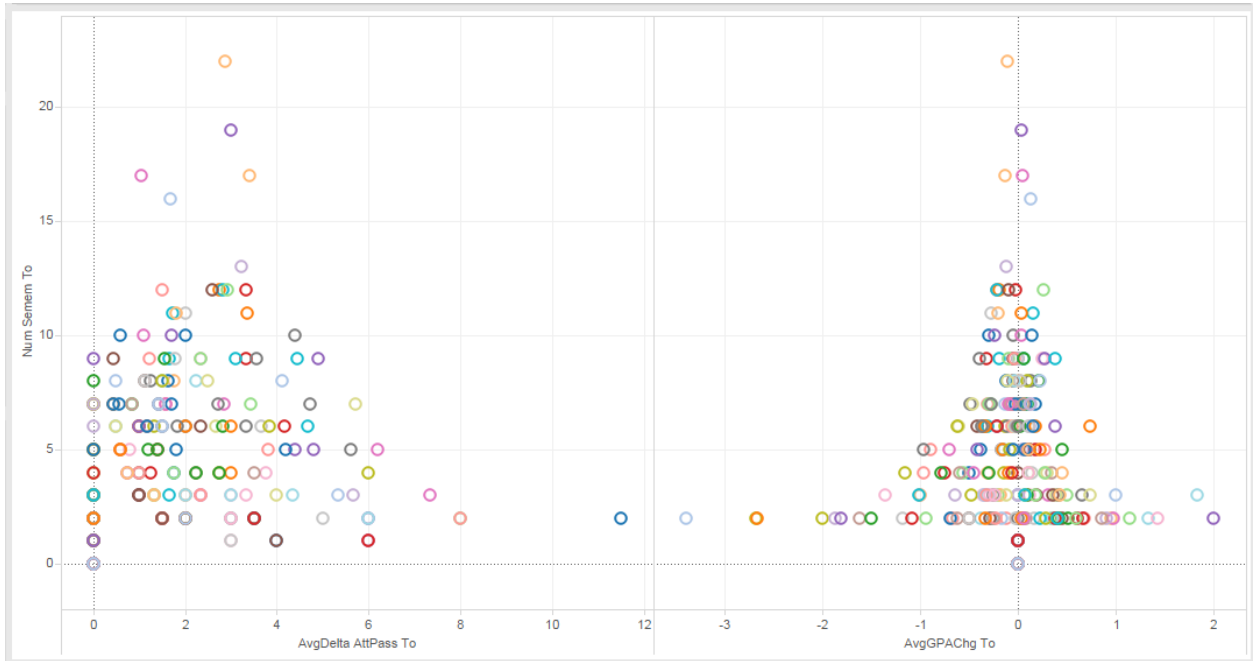
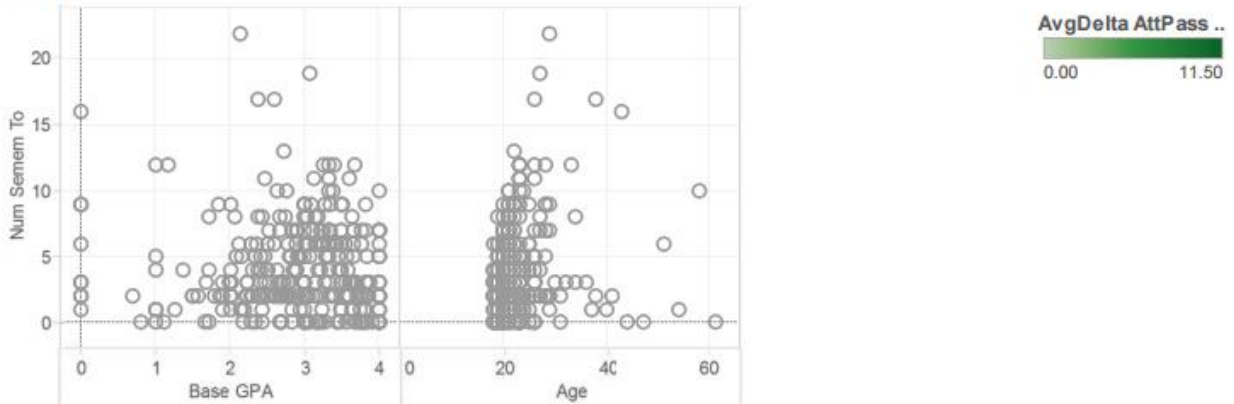


Tableau: Scatter Grams for Computed Metrics-II

Sheet 1

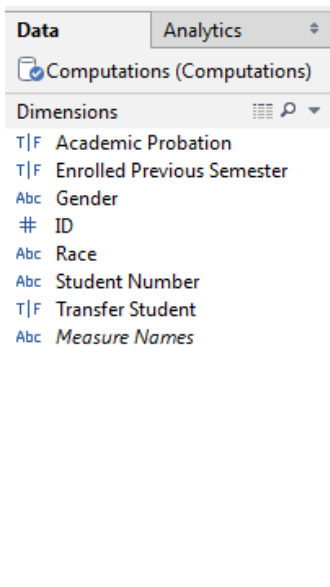


AvgDelta AttPass To, AvgGPACHg To, Base GPA, Age, AvgProGpa To and AvgQualPts To vs. Num Semem To. For pane AvgDelta AttPass To: Color shows AvgDelta AttPass To.

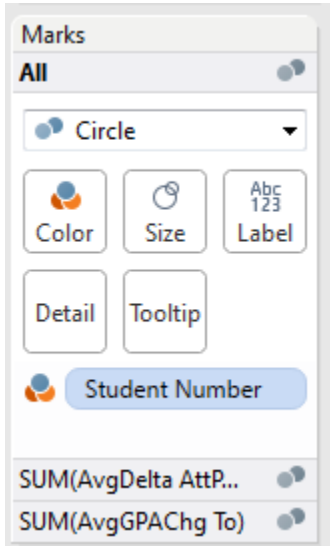
- Click and drag the “Base GPA” and “Age” measures to the Columns field. Click and drag the “Num Semem To” measure to the Rows field



- Locate the “Student Number” Dimension in the Dimensions column



- c. Click and drag "Student Number" into the "Color" options under the Marks column



2: Your final product should look like this:

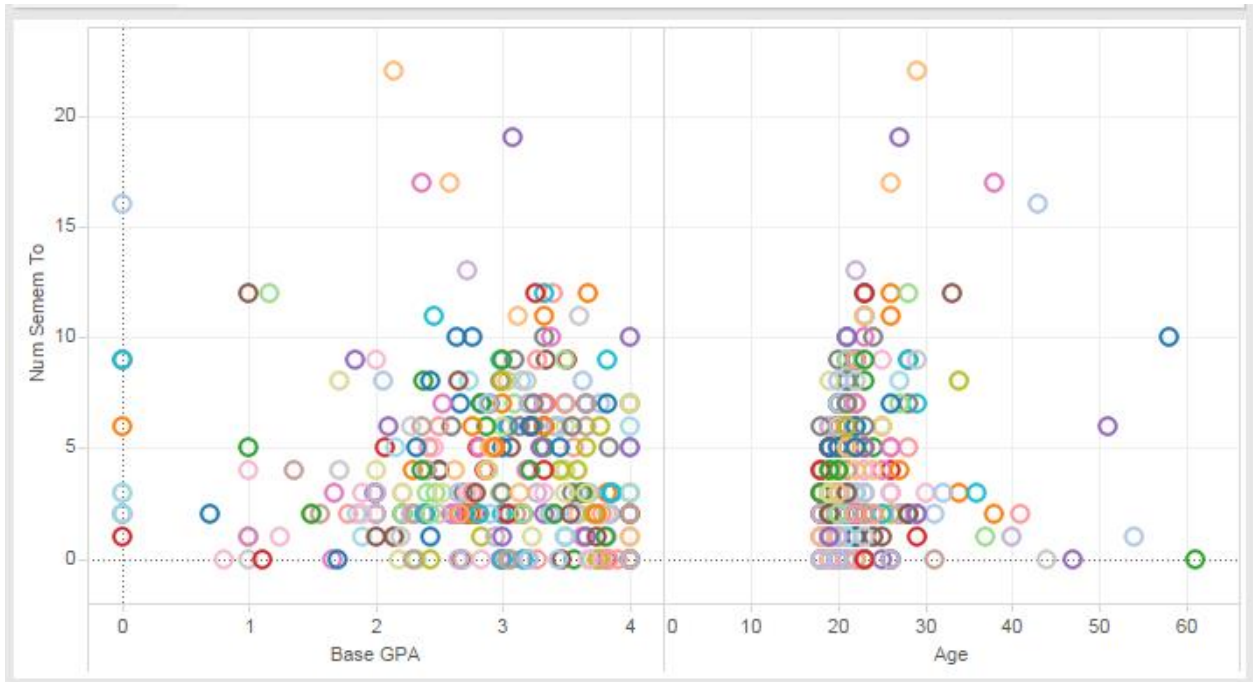
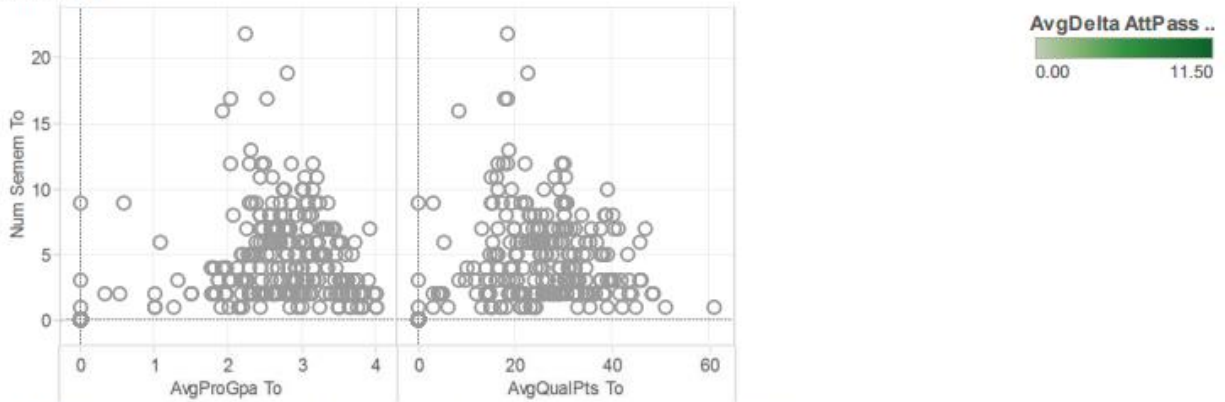


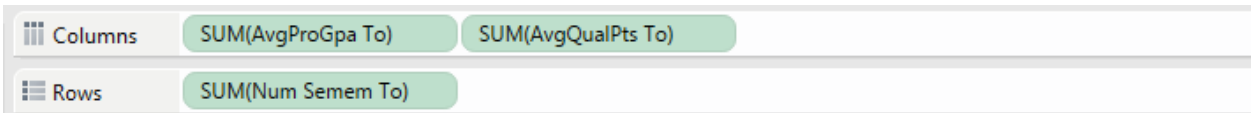
Tableau: Scatter Grams for Computed Metrics-III

Sheet 1

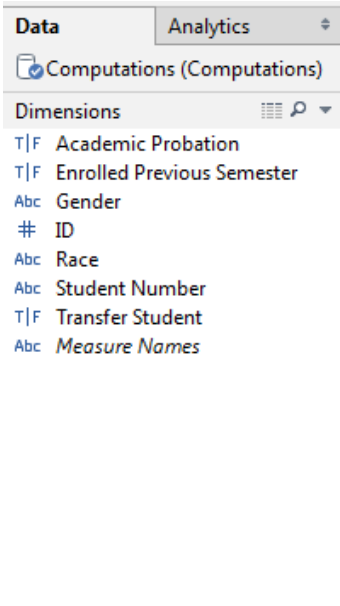


AvgDelta AttPass To, AvgGPACHg To, Base GPA, Age, AvgProGpa To and AvgQualPts To vs. Num Semem To. For pane AvgDelta AttPass To: Color shows AvgDelta AttPass To.

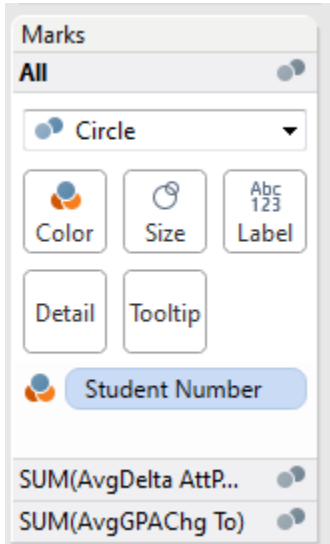
- a. Click and drag the “AvgProGpa To” and “AvgQualPts To” measures to the Columns field. Click and drag the “Num Semem To” measure to the Rows field



- b. Locate the “Student Number” Dimension in the Dimensions column



- c. Click and drag "Student Number" into the "Color" options under the Marks column



2: Your final product should look like this:

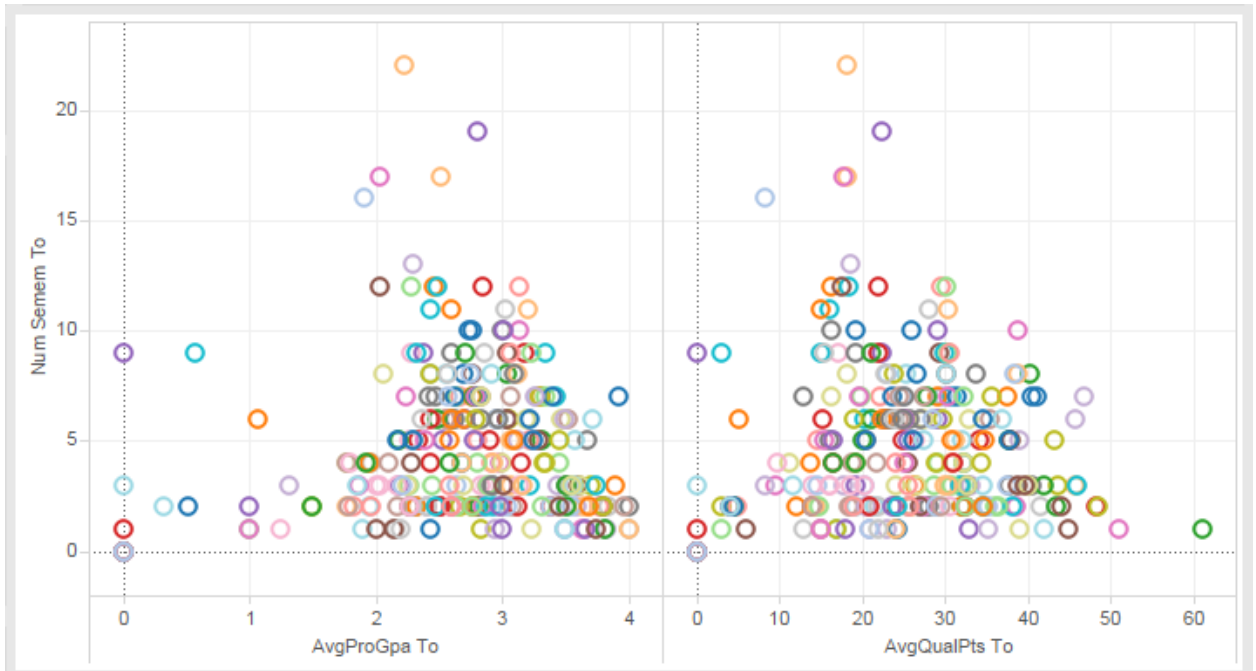
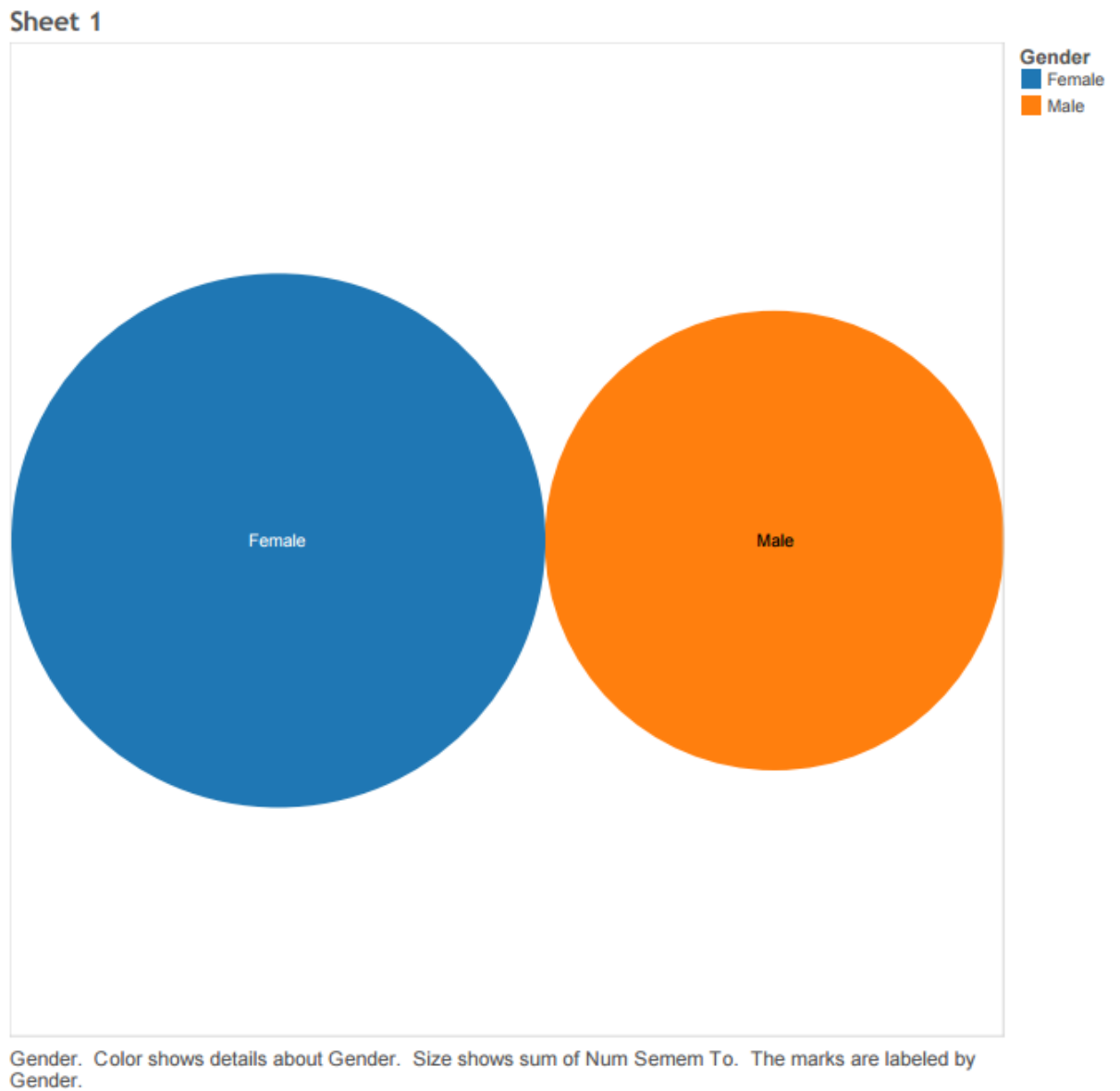


Tableau: Bubble Charts for Gender and Race

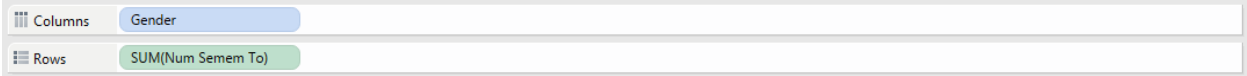
Gender Bubble Chart:



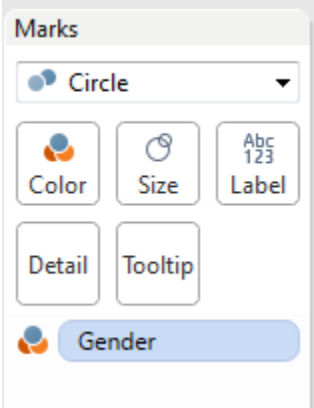
Above is the Bubble Chart as displayed on the course website:

http://www.nvc.vt.edu/rmajor/bit5534/Docs/Demographics_Tableau.pdf

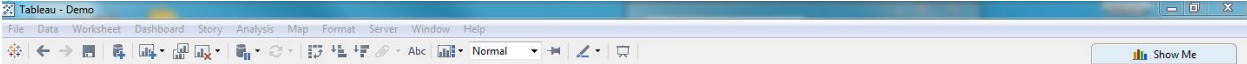
Step 1: Click and drag “Num Semem To” from Measures column to Rows. Click and drag “Gender” from Dimensions to Columns.



2: Click and drag “Gender” from Dimensions column to Color in the Marks Column



3: Click on the “Show Me” tab at the top right corner.



4: The “Show Me” menu will look like this:

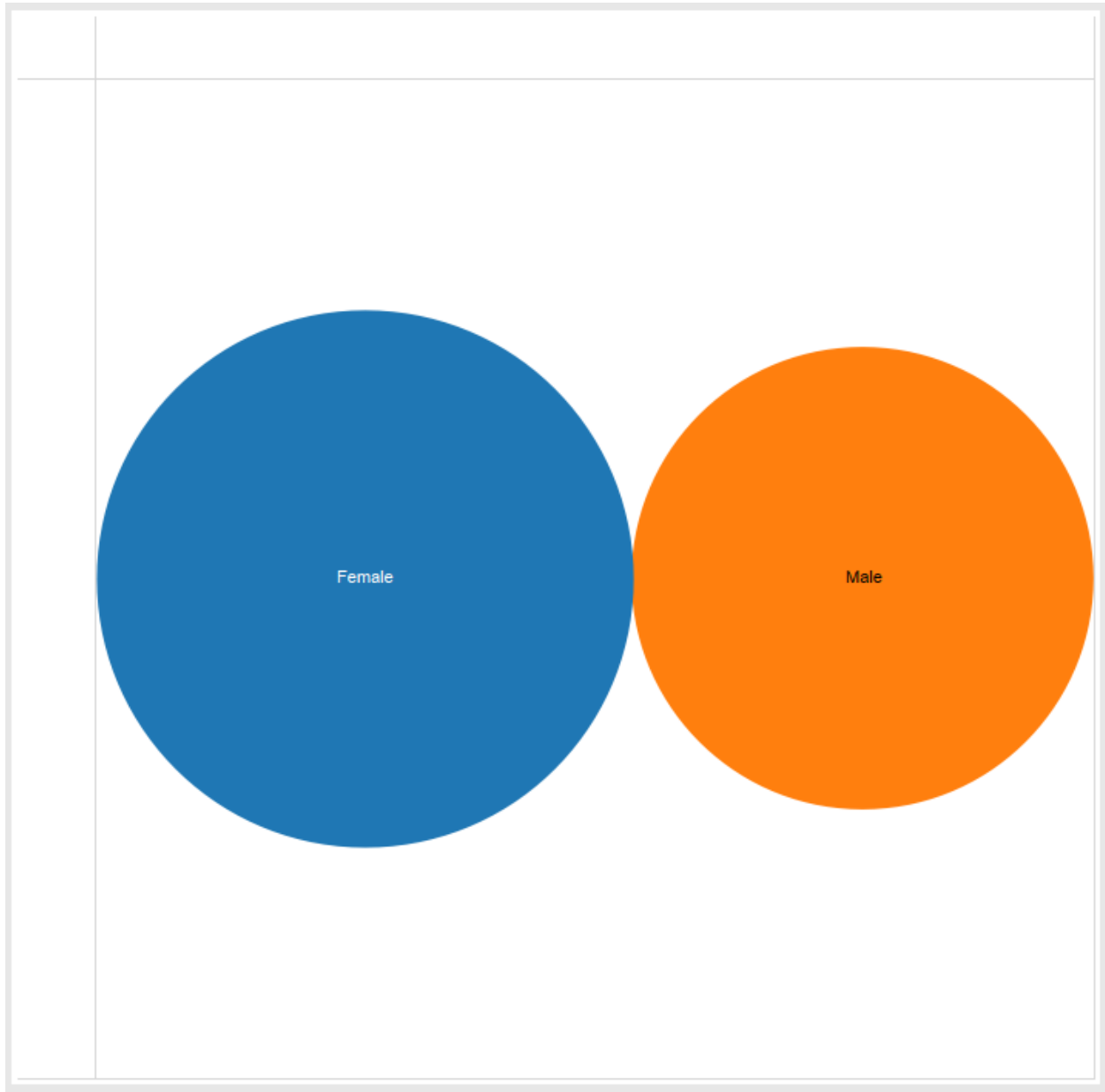


5: Within the “Show Me” menu, click on the bottom right bubble image:

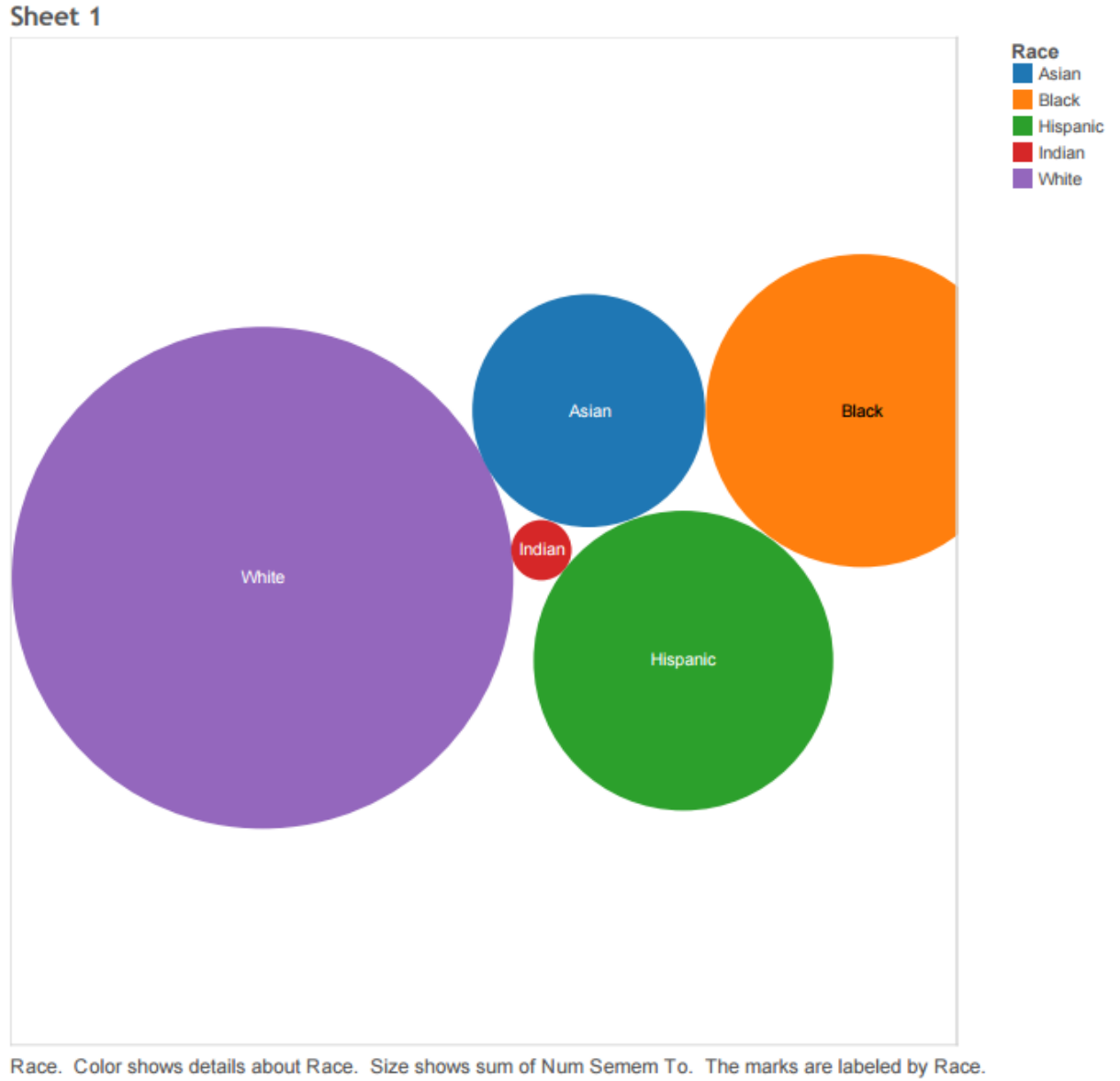


For **horizontal bars** try
0 or more dimensions
1 or more **measures**

6: The Final product will look like this:



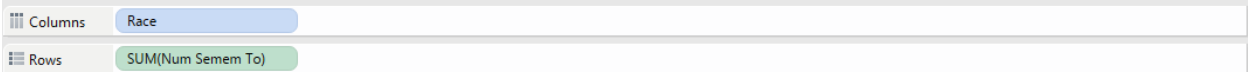
Race Bubble Chart:



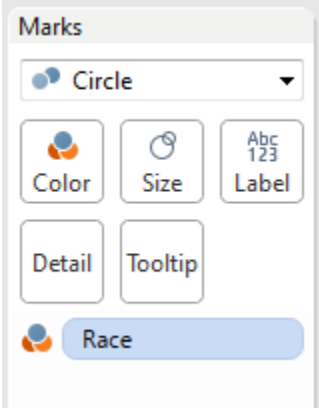
Above is the Bubble Chart as displayed on the course website:

http://www.nvc.vt.edu/rmajor/bit5534/Docs/Demographics_Tableau.pdf

Step 1: Click and drag “Num Semem To” from Measures column to Rows. Click and drag “Race” from Dimensions to Columns.



2: Click and drag “Race” from Dimensions column to Color in the Marks Column



3: Click on the “Show Me” tab at the top right corner.



4: The “Show Me” menu will look like this:

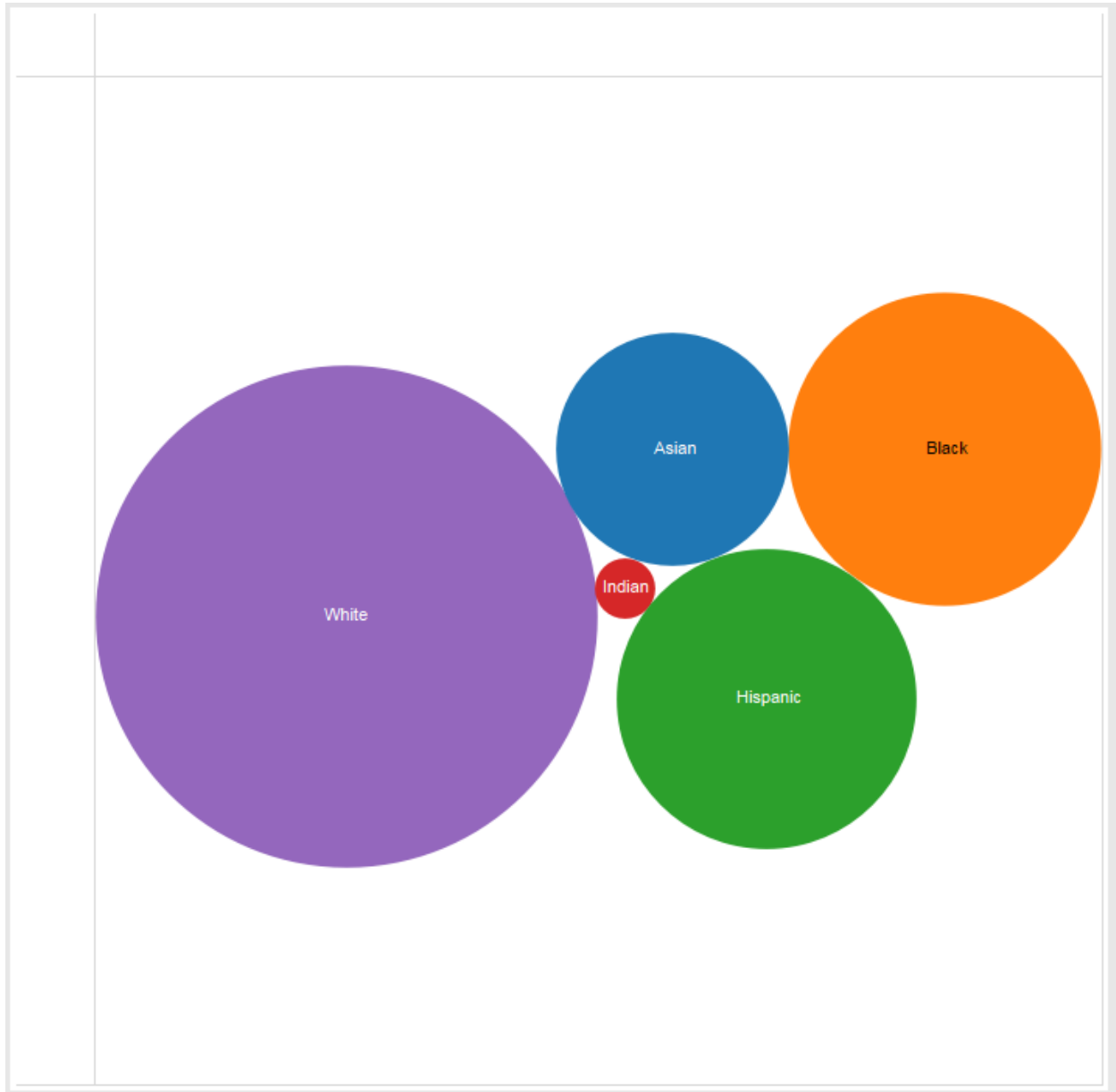


5: Within the “Show Me” menu, click on the bottom right bubble image:



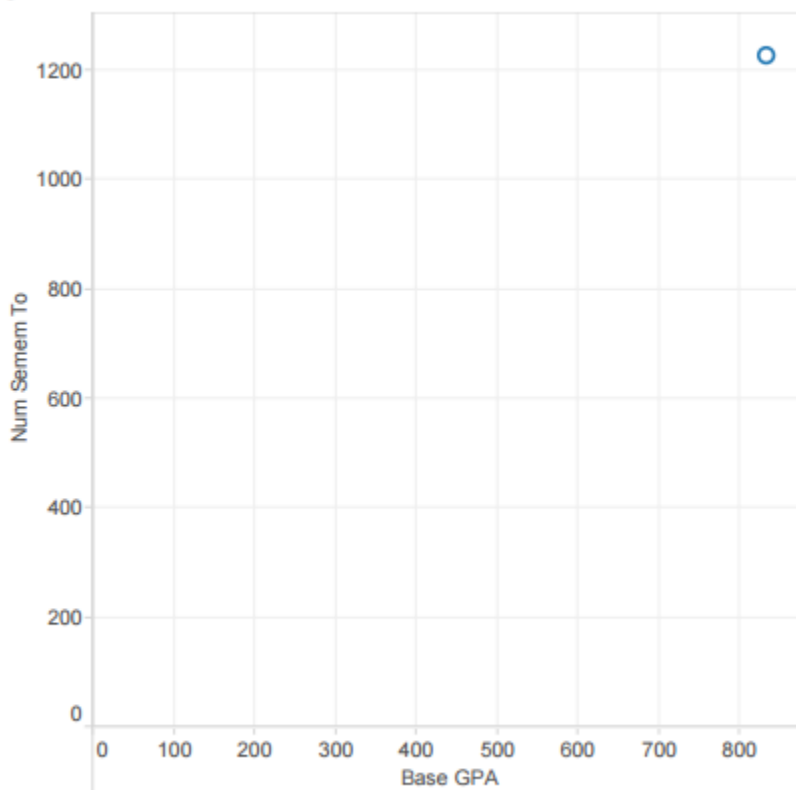
For **horizontal bars** try
0 or more dimensions
1 or more **measures**

6: The Final product will look like this:



Scatter graphs Using Aggregate Measures:

Sheet 1



Sum of Base GPA, sum of AvgProGpa To and sum of AvgGPACHg To vs. sum of Num Semem To.

Above is the Scatter graph as displayed on the course website:

http://www.nvc.vt.edu/rmajor/bit5534/Docs/Tableau_Scattergraphs_Agg.pdf

Step 1: Click and drag “Num Semem To” from Measures column to Rows. Click and drag “Base GPA” from Measures to Columns.



2: Your final product will look like this:

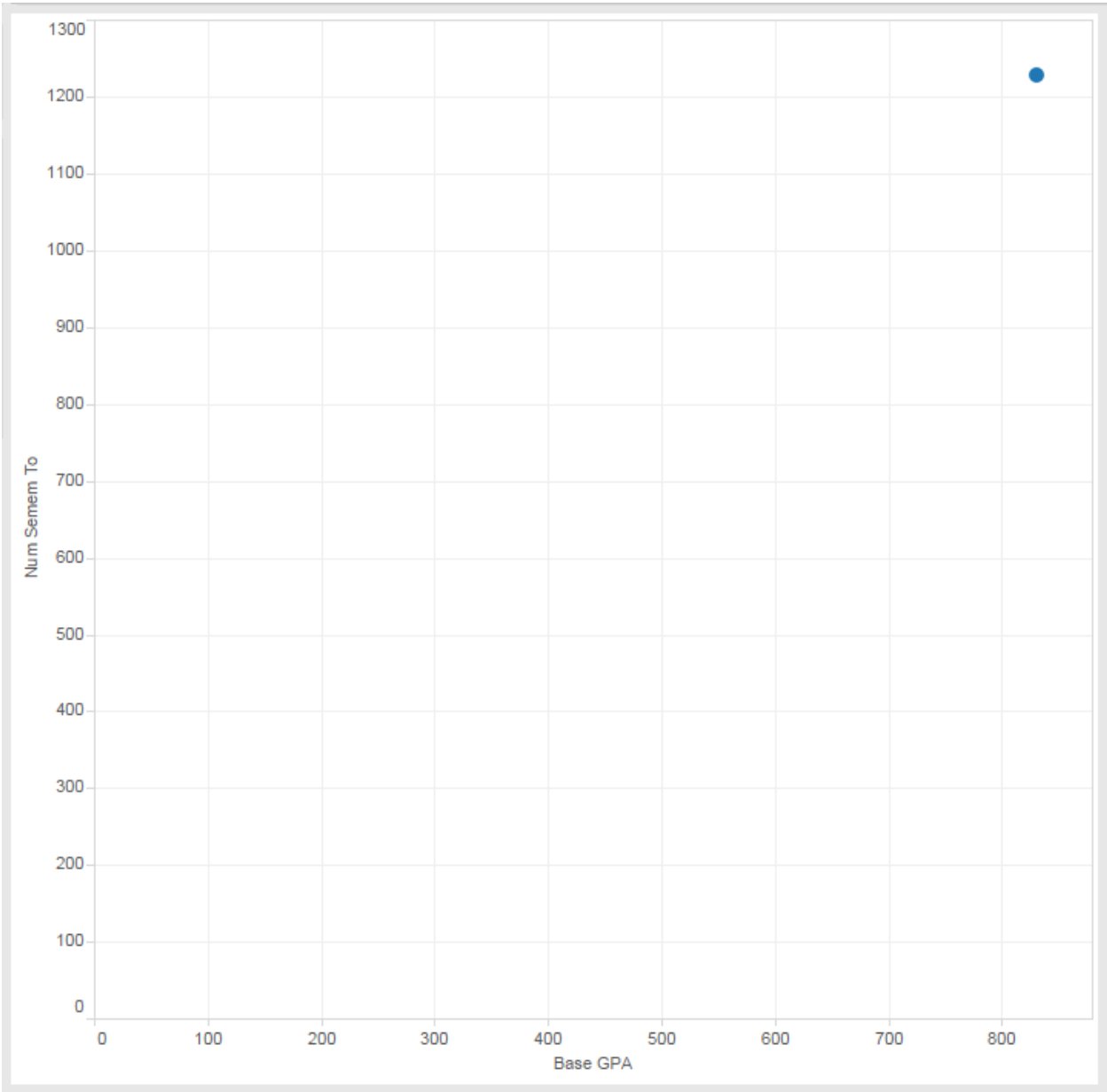
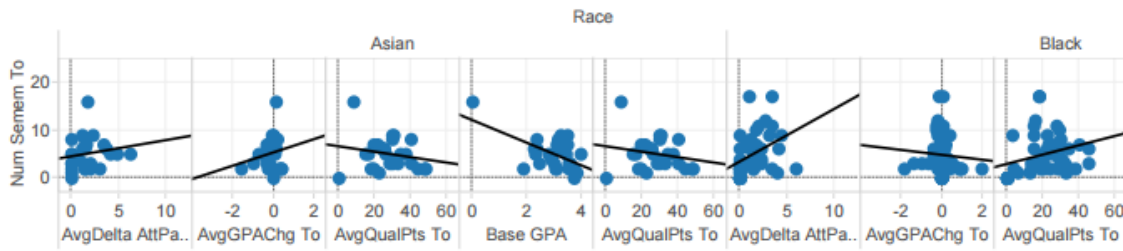


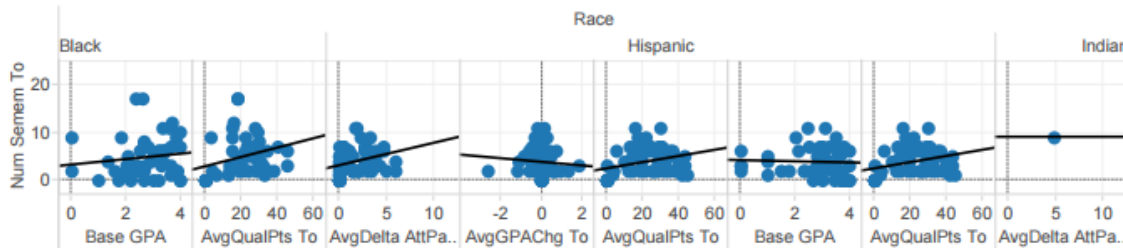
Tableau: Linear Fit By Race

Sheet 1



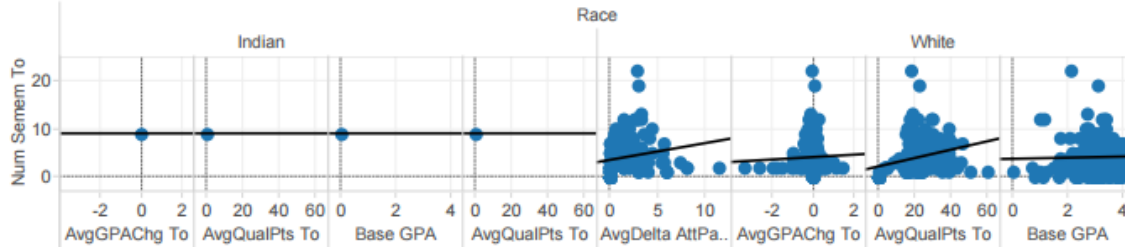
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1



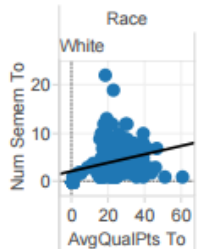
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1



AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1

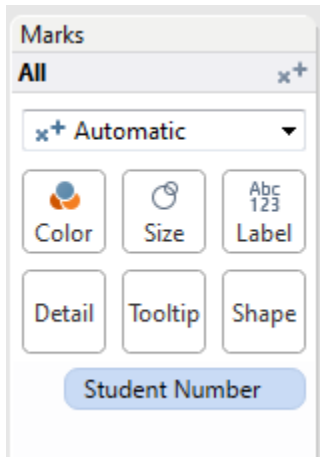


AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

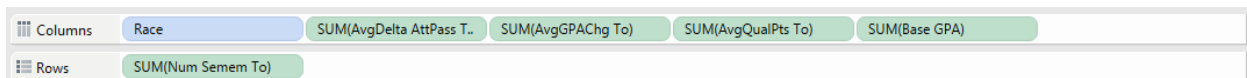
Above are the Linear Fit by Race Charts as displayed on the course website:

http://www.nvc.vt.edu/rmajor/bit5534/Docs/Tableau_TrendLines_LinearFit.pdf

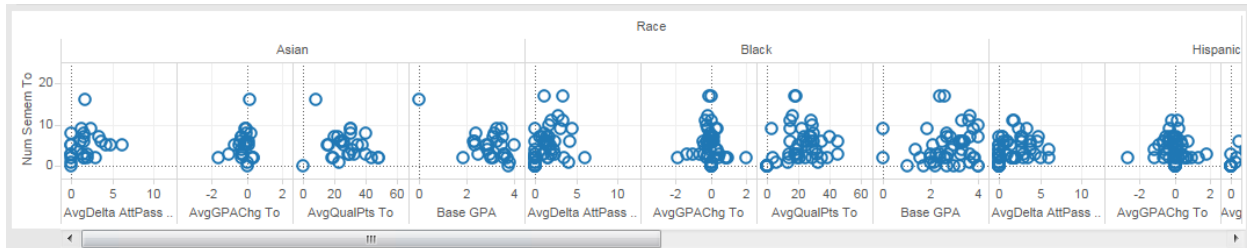
Step 1: Click and drag “Student Number” from Dimensions to the “Detail” section under Marks.



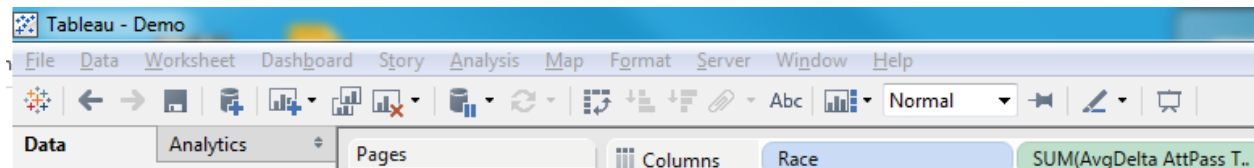
2: Click and drag “Num Semem to” from Measures to Rows field. Click and drag “Race” from Dimensions to Columns. Click and drag 1)“AvgDelta AttPass To” 2)“AvgGPACHg To” 3)“AvgQualPts To” and 4)“Base GPA” from Measures to Columns field.



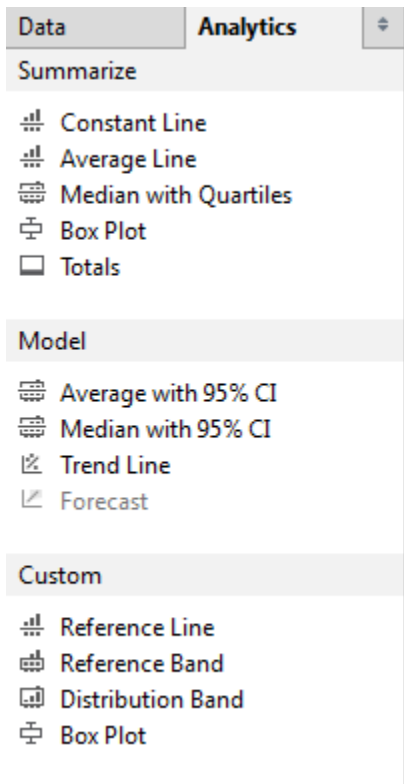
3: Now, your scatterplot graphs should look like this (not all graphs generated are currently shown in single image below):



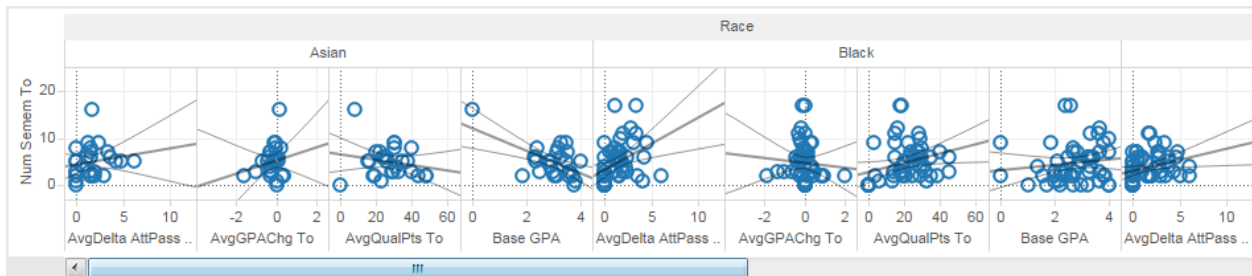
4: Click on the “Analytics” tab below the toolbar menu at top left of page:



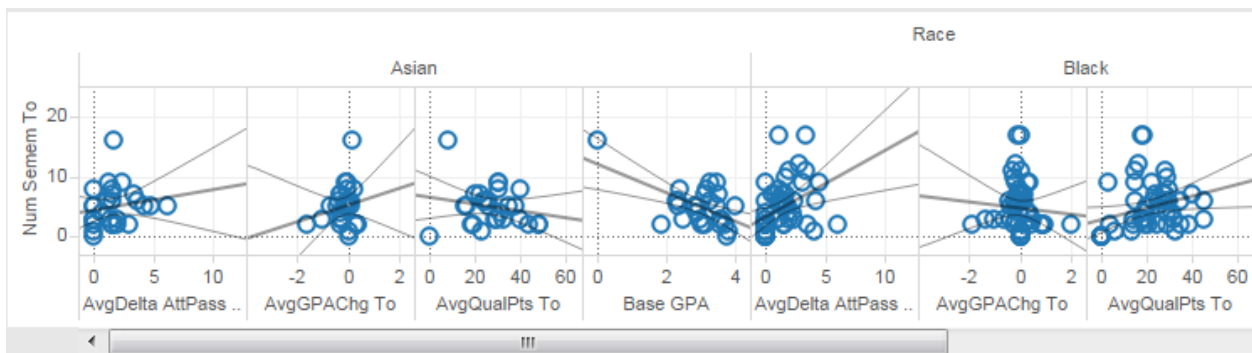
5: Listed are the options within the “Analytics” tab:



6: Click and Drag “Trend Line” onto your scatter plots and hover it over the “Linear” option. Your scatterplots should now look like this (not all graphs are shown in example below):



7: Your final product will look as follows:



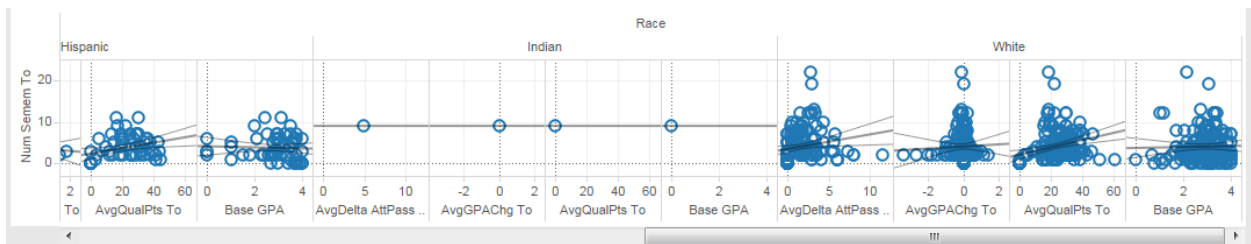
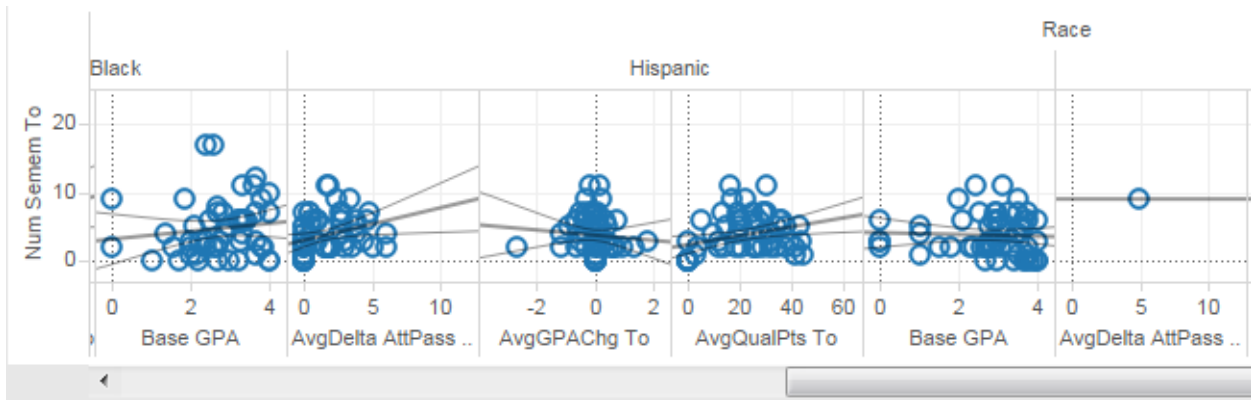
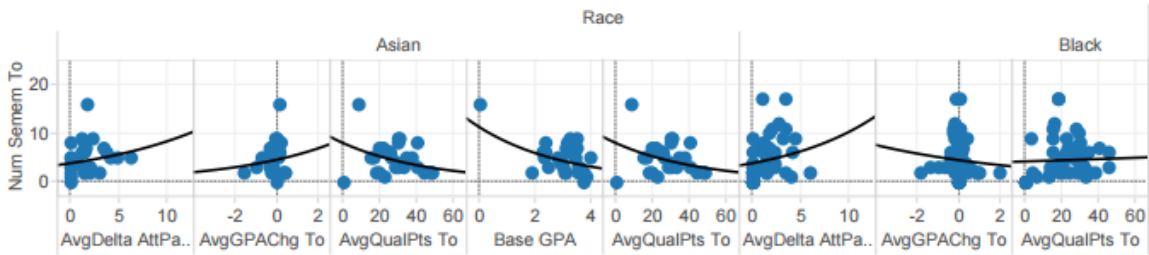


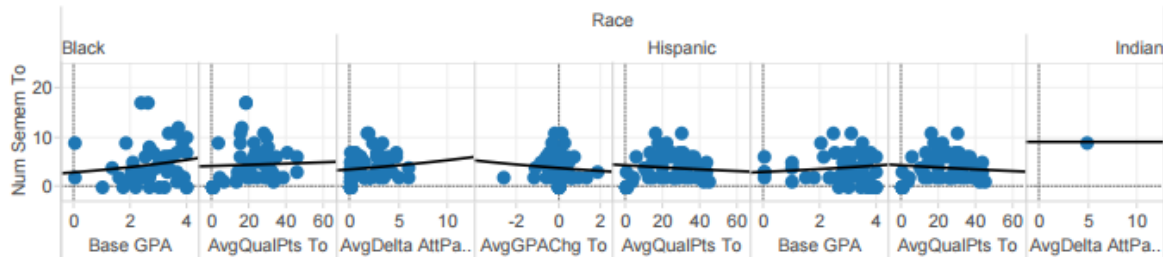
Tableau: Exponential Fit By Race

Sheet 1



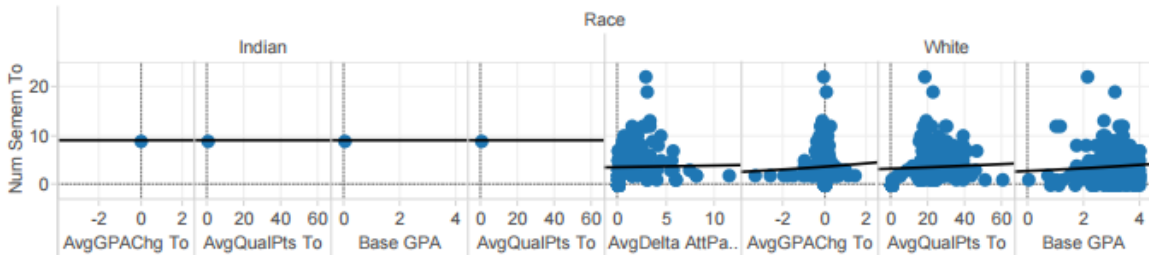
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1



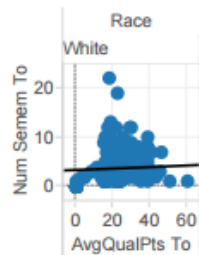
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1



AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1

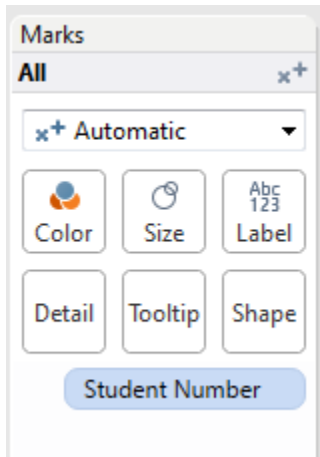


AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

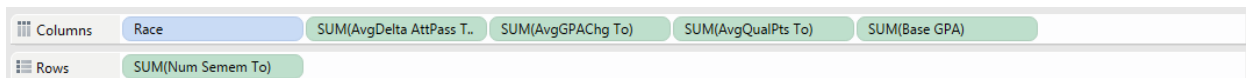
Above are the Exponential Fit by Race Charts as displayed on the course website:

http://www.nvc.vt.edu/rmajor/bit5534/Docs/Tableau_TrendLines_ExpFit.pdf

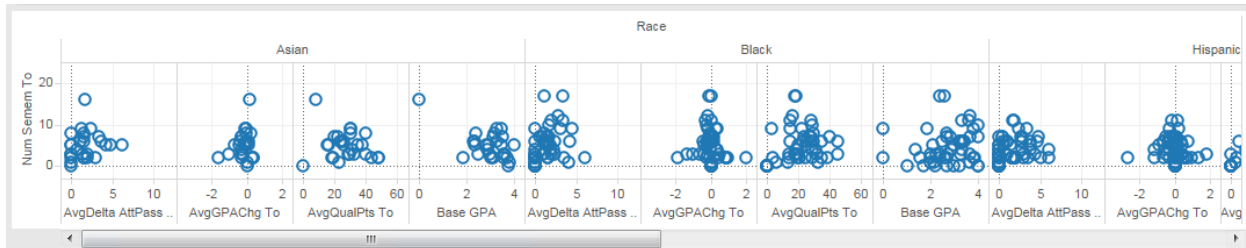
Step 1: Click and drag “Student Number” from Dimensions to the “Detail” section under Marks.



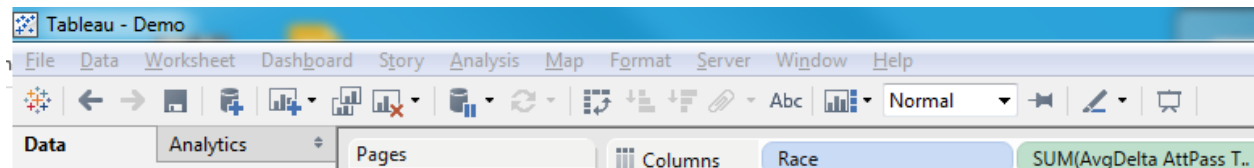
2: Click and drag “Num Semem to” from Measures to Rows field. Click and drag “Race” from Dimensions to Columns. Click and drag 1)“AvgDelta AttPass To” 2)“AvgGPACHg To” 3)“AvgQualPts To” and 4)“Base GPA” from Measures to Columns field.



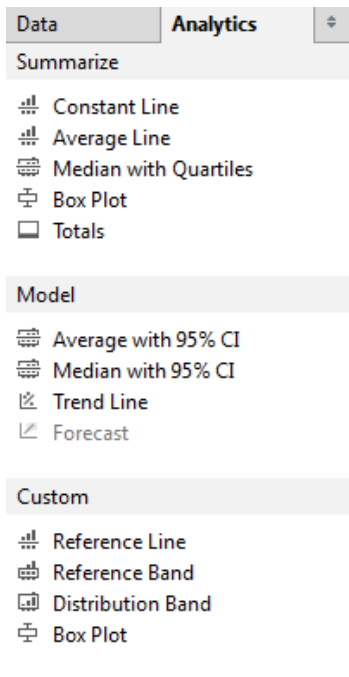
3: Now, your scatterplot graphs should look like this (not all graphs generated are currently shown in single image below):



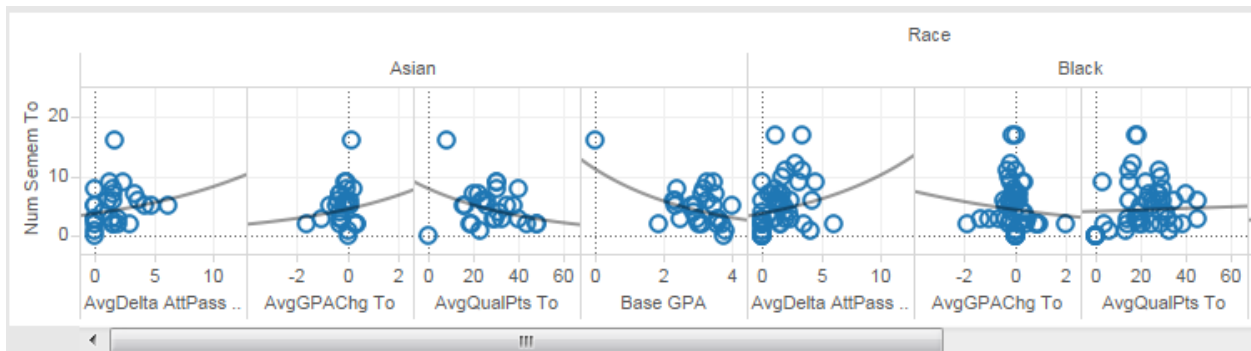
4: Click on the “Analytics” tab below the toolbar menu at top left of page:



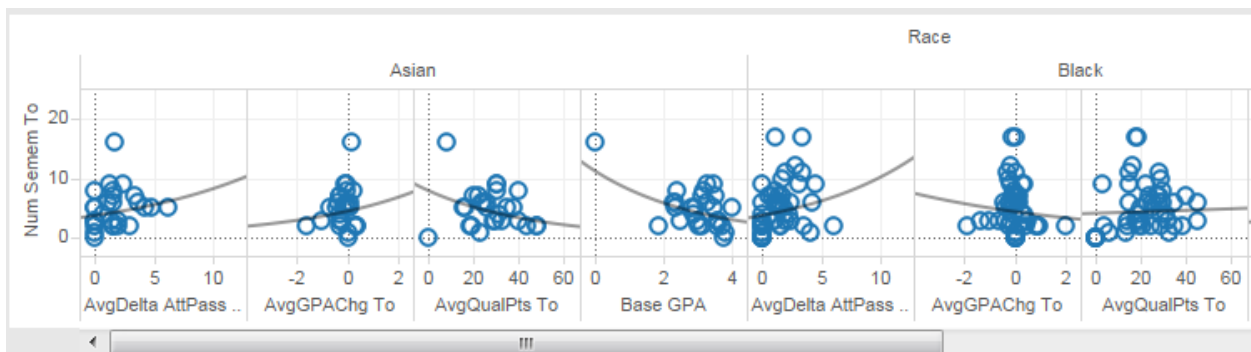
5: The options within the “Analytics” tab:



6: Click and Drag “Trend Line” onto your scatter plots and hover it over the “Exponential” option. Your scatterplots should now look like this (not all graphs are shown in example below):



7: Your final product will look as follows:



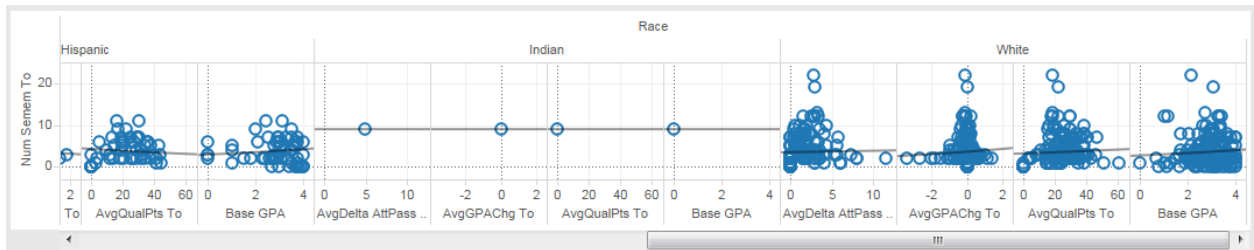
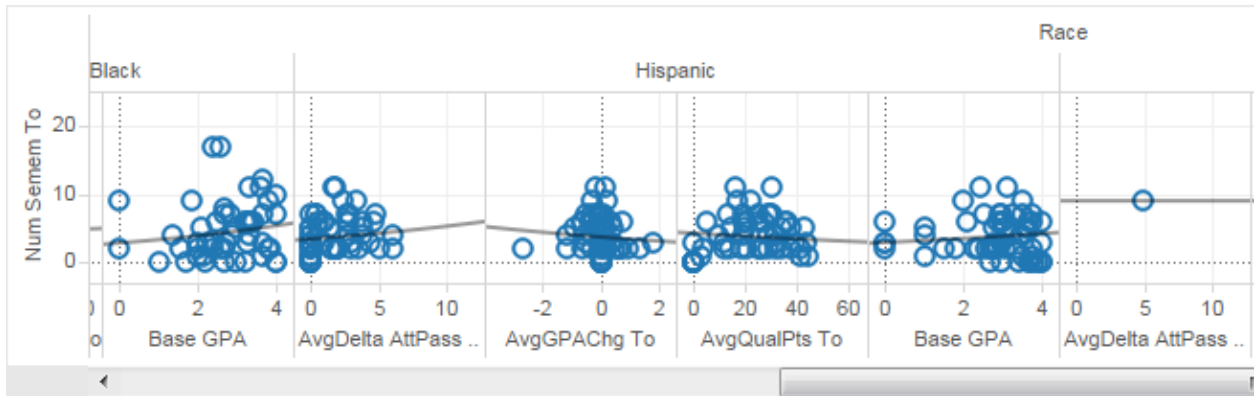
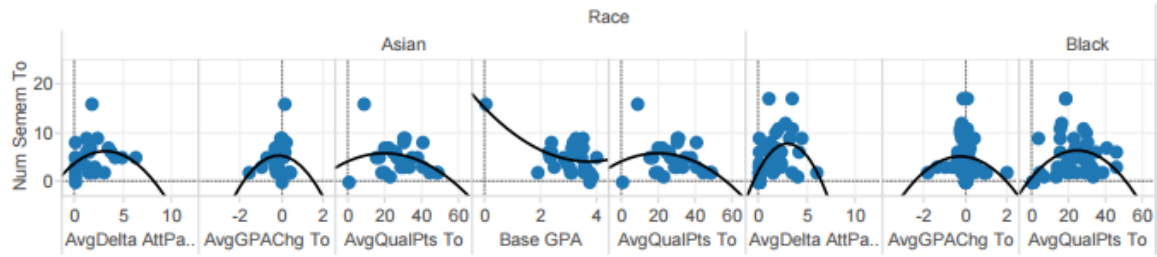


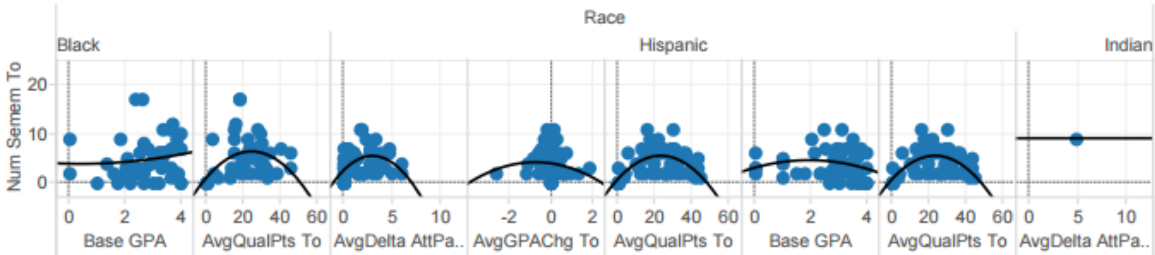
Tableau: Polynomial Fit By Race

Sheet 1



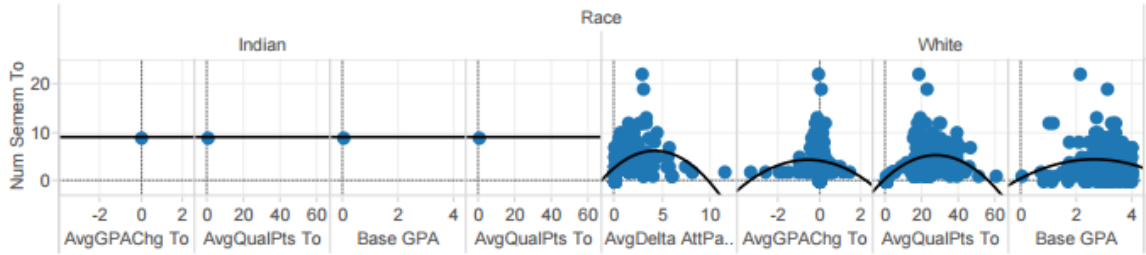
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1



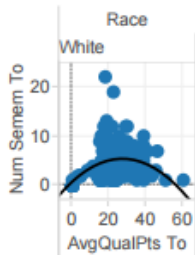
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Sheet 1



AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

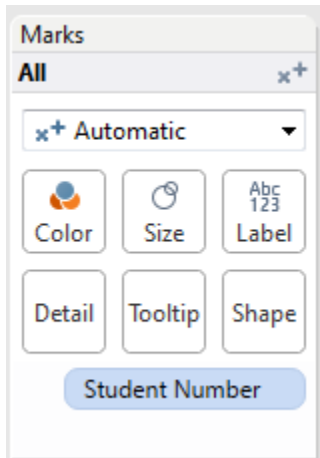
Sheet 1



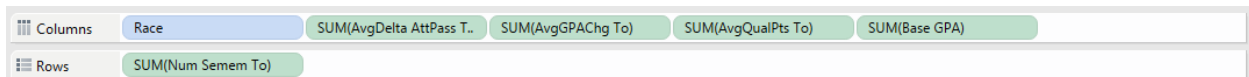
AvgDelta AttPass To, AvgGPACHg To, AvgQualPts To, Base GPA and AvgQualPts To vs. Num Semem To broken down by Race.

Above are the Exponential Fit by Race Charts as displayed on the course website:
http://www.nvc.vt.edu/rmajor/bit5534/Docs/Tableau_TrendLines_ExpFit.pdf

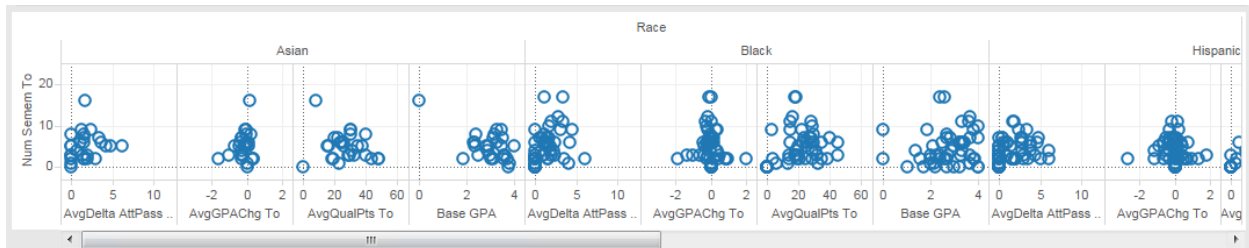
Step 1: Click and drag "Student Number" from Dimensions to "Detail" under Marks.



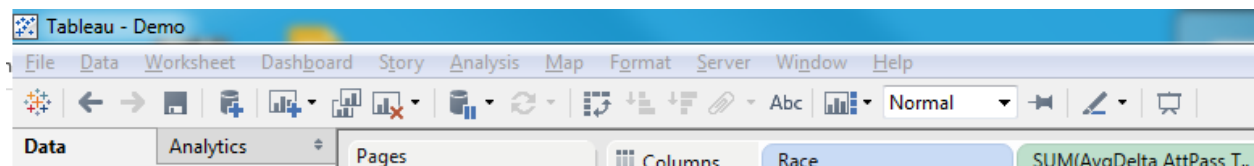
2: Click and drag "Num Semem to" from Measures to Rows field. Click and drag "Race" from Dimensions to Columns. Click and drag 1)"AvgDelta AttPass To" 2)"AvgGPACHg To" 3)"AvgQualPts To" and 4)"Base GPA" from Measures to Columns field.



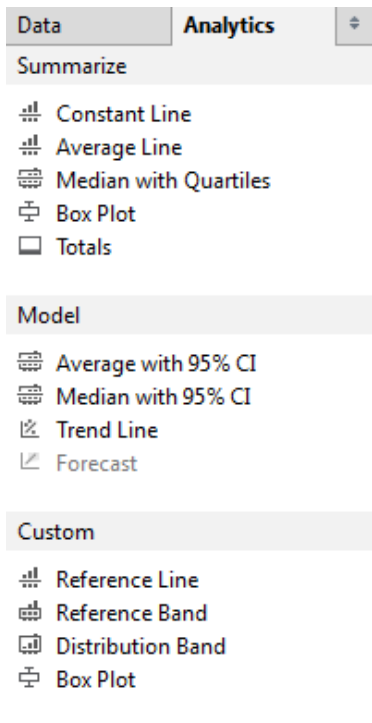
3: Now, your scatterplot graphs should look like this (not all graphs generated are currently shown in single image below):



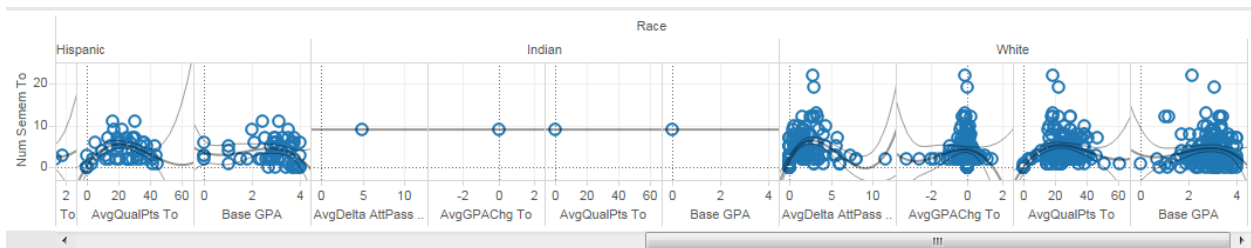
4: Click on the "Analytics" tab below the toolbar menu at top left of page:



5: The options within the “Analytics” tab:



6: Click and Drag “Trend Line” onto your scatter plots and hover it over the “Polynomial” option. Your scatterplots should now look like this (not all graphs are shown in example below):



7: Your final product will look as follows:

