

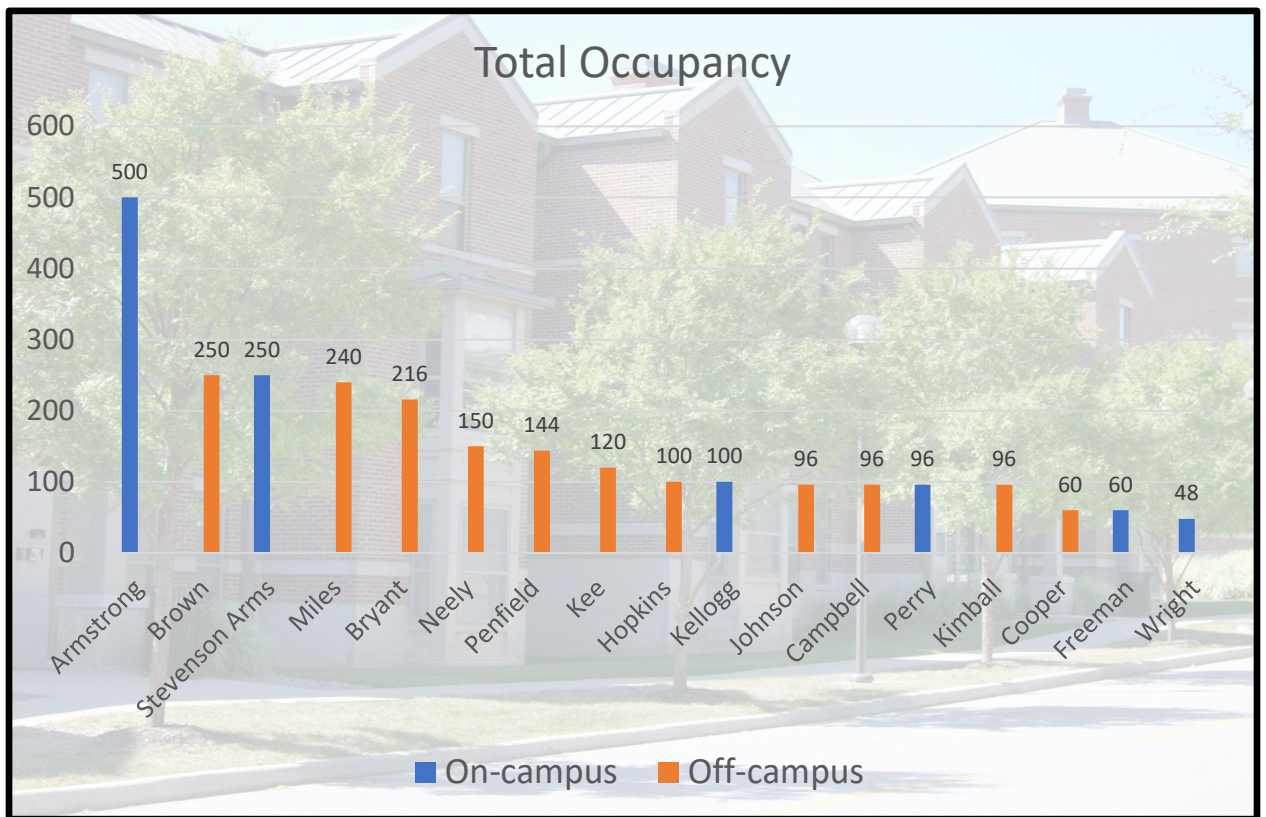
## PowerPivot Group Assignment

Start Excel and open a blank workbook. You are to create a Power Pivot based PivotTable and PivotChart from three data files related to residence locations, occupancy of residence halls and annual residence fees at a local college.

### Steps:

- 1) Use 'Get and Transform Data' to bring the following Excel files into your blank workbook:
  - a) Locations.xlsx (shows residences as on-campus or off-campus)
  - b) Fees.xlsx (shows fees charged by type of room)
  - c) Halls.xlsx (shows the residences, number of units, number of rooms and number of students per room)
- 2) Delete the Sheet1 worksheet.
- 3) Use PowerPivot to build a Data Model that includes the three datasets.
- 4) Use PowerPivot to create the applicable relationships between the three tables.
- 5) In the Halls table:
  - a) Add a field to show whether the Residence is On-campus or Off-campus (based on the Locations table). Give the field an appropriate name.
  - b) Create a calculated field that shows the total occupancy per Residence. Give the field an appropriate name.
  - c) Create a field that shows a 10% discount if the Residence Location is Off-Campus, otherwise no discount (i.e., 0%). Format the column as percentage, no decimal places). Give the field an appropriate name.
  - d) In one calculated field, show the total Annual Fee revenue per Residence (for all students) using the appropriate fields from the different tables. Do not forget to include the discount. Format the field as Currency, no decimal places. Give the field an appropriate name.
  - e) In the area below the data (and below the divider line), select a cell in the Total Revenues column and add a Measure that calculates the Total Revenues for all Residences (i.e., Grand Total). Give the Measure an appropriate name and format as currency, no decimal places.
- 6) Create a Power Pivot PivotTable (as a New Worksheet) as follows:
  - a) Include Location (from the Locations table) in Columns, Name (from the Fees table) and Residence (from the Halls table) in Rows and Total Revenues (from the Halls table) in Values.
  - b) Sort the Name to be ordered: Single, Double, Triple, Quad.
  - c) Sort the columns to be ordered: On-Campus, Off-Campus.
  - d) Check to confirm the Grand Total of Total Revenues matches the Measure calculation completed in Step 5-e.
  - e) Name the Worksheet 'PivotTable'.

- 7) Create a Power Pivot PivotChart (as a New Worksheet) as follows:
- a) Include Location (from the Locations table) as the Legend, Residence (from the Halls table) as the Axis and Total Occupancy (from the Halls table) in Values.
  - b) Sort the data by Total Occupancy, largest to smallest (left to right).
  - c) Remove the Field Buttons, add Data Labels and add a Chart Title (Total Occupancy). Move the legend to the bottom of the chart.
  - d) Remove the Gridlines from the Worksheet.
  - e) Format the chart to add a background image (use the Residence.jpg file) at 75% transparency, add a border (black, 2.5pt width) and increase the font sizes so that your PivotChart looks similar to the one below.
  - f) Name the Worksheet 'PivotChart'.



- 8) Save the file (the PowerPivot will automatically save with the Excel Workbook), naming it PowerPivot\_GroupX.xlsx (replacing the 'X' with your group number) and submit to the appropriate Slate dropbox.