# Key Questions

This analysis is dual purposed: first, to determine and forecast the **general sales trends** within the State of Connecticut and its individual towns. And second, to explore **COVID-19 impact** on the real estate market in Connecticut.

## General Sales Trends:

1. **How have sales changed from year to year across all property types?**

* Frequency increases from 2011 until 2015, plateaus 2016 to 2018, increases 2019 to 2020.

1. **How have sales changed from year to year for each individual property type?**

* Residential is the only property type that has records prior to 2020, So this question cannot be answered with this data set.

1. **Do sales vary from month to month?** 
   1. **When do most sales occur? And the fewest?**
   * Most sales: June, July, and August
   * Fewest sales: January, February, and March
   1. **What month has the lowest sales ratio? And the highest?**

* Lowest: July
* Highest: February
  1. **Is there a seasonality to real estate sales?**
* Yes.

1. **Do sales volume (count of sales), sales amounts, and sales ratios vary by town?**
   1. **What are the top 5 towns for volume of sales?**

* Stamford, Norwalk, Waterbury, Bridgeport, West Hartford
  1. **What are the top 5 towns for total amounts of sales?**
* Greenwich, Stamford, Westport, Darien, Norwalk
  1. **What 5 towns have the smallest average sales ratio? And the 5 largest?**
* Smallest: Hartford, Danbury, Warren, Brooklyn, Woodstock
* Largest: Norfolk, Canaan, Torrington, North Canaan, Bridgeport

## COVID-19 Impact:

**Follow the same structure as General Sales Trends, but break each question into pre- and peri-pandemic chronological categories and compare the two. March 11, 2020 will be the dividing line (**[**https://www.who.int/news/item/27-04-2020-who-timeline---covid-19**](https://www.who.int/news/item/27-04-2020-who-timeline---covid-19)**).**

1. **How have sales changed before and after COVID-19?**

* Average normalized sale price during COVID-19 is $20,430 higher than before.
* Average normalized assessed value during COVID-19 is $2,001 lower than before.
* Average assessment/sale ratio during COVID-19 is 0.1433 lower than before.

1. **Do sales vary from month to month differently before and after COVID-19?** 
   1. **Have the months with the most sales changed since COVID-19? And the least?**

* Most sales during the COVID-19 pandemic occurred one month later than before (in August rather than July).
* February remains the month with the fewest sales.
  1. **Have the months with the lowest sales ratios changed since COVID-19? And the highest?**
* Assessment/sale ratio counts have changed little.
  1. **Has sales seasonality changed since COVID-19?**
* During the pandemic, there was a much stronger preference for summer vs winter months than before. Seasonality is more pronounced during the pandemic.

1. **Have sales volume (count of sales), sales amounts, and sales ratios per by town changed post COVID-19?**
   1. **What are the top 5 towns post COVID-19 for volume of sales?**

* Stamford, Waterbury, Norwalk, Greenwich, West Hartford
  1. **What are the top 5 towns post COVID-19 for total amounts of sales?**
* Greenwich, Stamford, New Canaan, Darien, Norwalk
  1. **What are the top 5 towns post COVID-19 for average sale price?**
* Greenwich, Darien, New Canaan, Westport, Washington
  1. **What 5 towns post COVID-19 have the smallest average sales ratio? And the largest?**
* Smallest: Hartford, New Fairfield, Sterling, Waterbury, Woodstock
* Largest: Hartland, Westport, Deep River, Wallingford, Southington