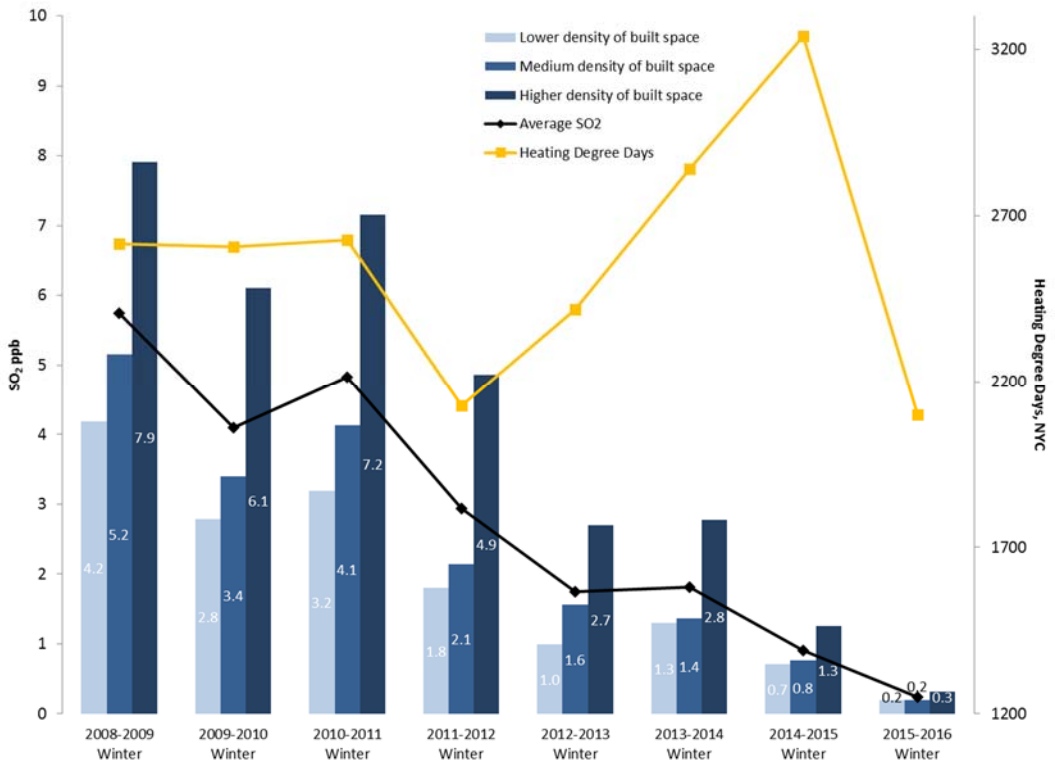
New York City Community Air Survey (NYCCAS) - Sulfur Dioxide (SO_2) Trends, 2009 - 2016

Summary

- Average SO_2 concentrations continue to decrease in recent years.
    - The decreases in SO_2 from the winter of 2012-2013 to winter 2014-2015, despite an increase in heating degree days (an indicator of heating fuel consumption),were likely due to changes in New York State and New York City heating oil regulations:
        - Beginning in the end of 2012, New York State rules require all #2 heating oil sold in New York City to contain only 15 ppm sulfur, compared to prior limits of 2000 ppm.
        - In 2012, New York City regulations began to phase out #4 and #6 heating oil, both high in sulfur content.
- Highest levels of SO_2 continue to occur in areas with the highest building density, however, levels are almost equivalent to background levels.

Wintertime average SO_2 concentrations by year and building density



Density of built space is estimated as total interior built space within 900m. Each category includes one-third of sampling sites, with total interior built space area of low, 0-1.32; medium, 1.32-2.63; high 2.63-21.7 square kilometers. Data source: New York City Planning PLUTO tax lot data. Heating Degree Day is the number of degrees that a day's average temperature is below 65 degrees F, the temperature below which buildings need to be heated. NYCCAS data based on 60 sites continuously monitored from 2008 through 2016.