



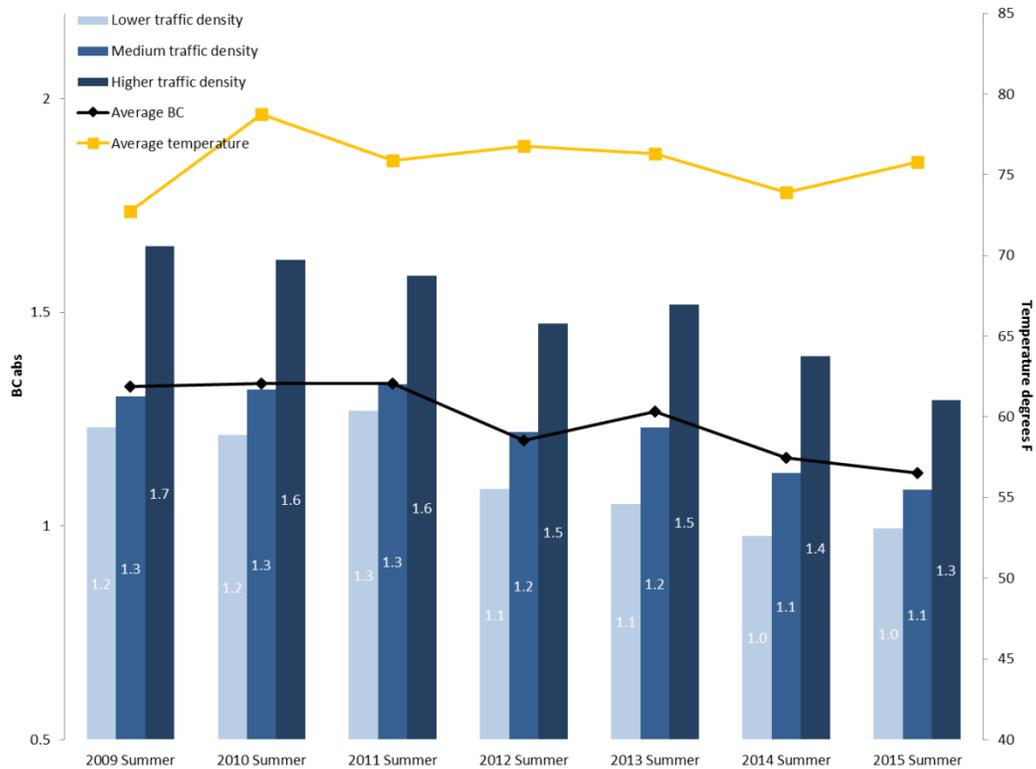
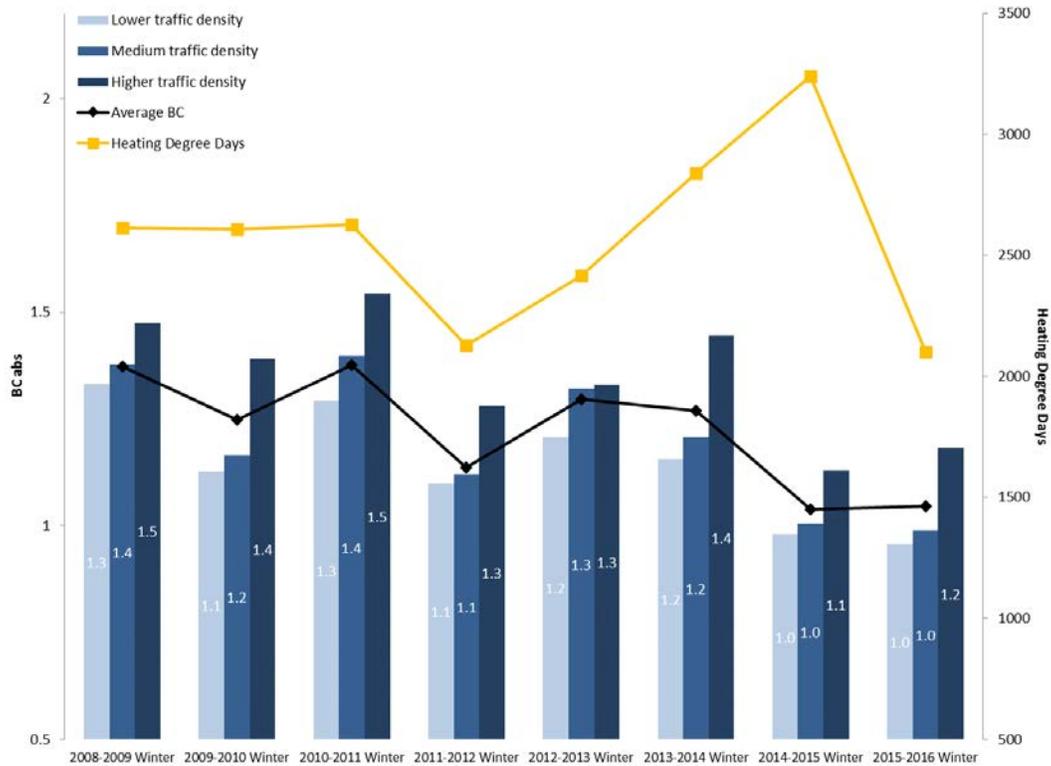
New York City Community Air Survey (NYCCAS) - Black Carbon (BC) Trends, 2009 - 2016

Summary

- The overall decrease in BC concentrations from 2009 to 2016 may be due to:
 - Shifts in fuel types used for power generation and building space and water heating from more polluting residual heating oils to cleaner distillate oils and natural gas.
 - Reduction in emissions from trucks and other motor vehicles as older vehicles are replaced with newer, less polluting models.
- The decrease in BC concentrations during the winters of 2013-2015 even with colder temperatures and therefore more need of building heat suggests decreased emissions from residual oil heating fuel. However, emissions from traffic (especially diesel exhaust) and buildings continue to cause higher BC concentrations in locations where these sources are most concentrated.

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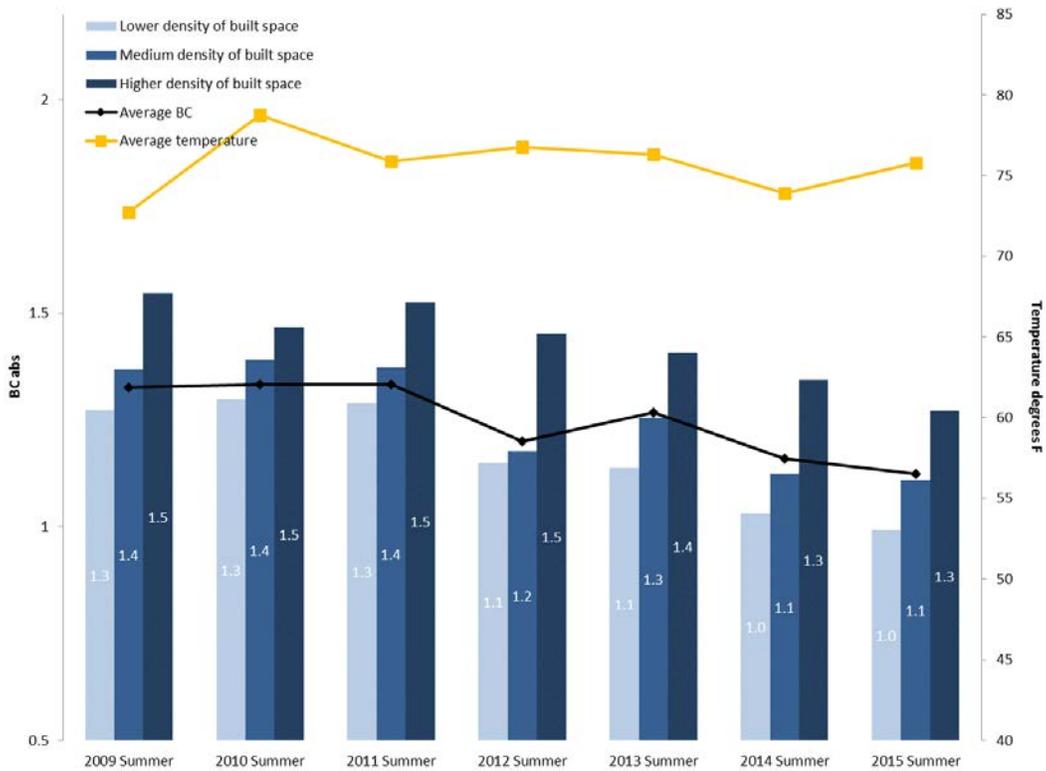
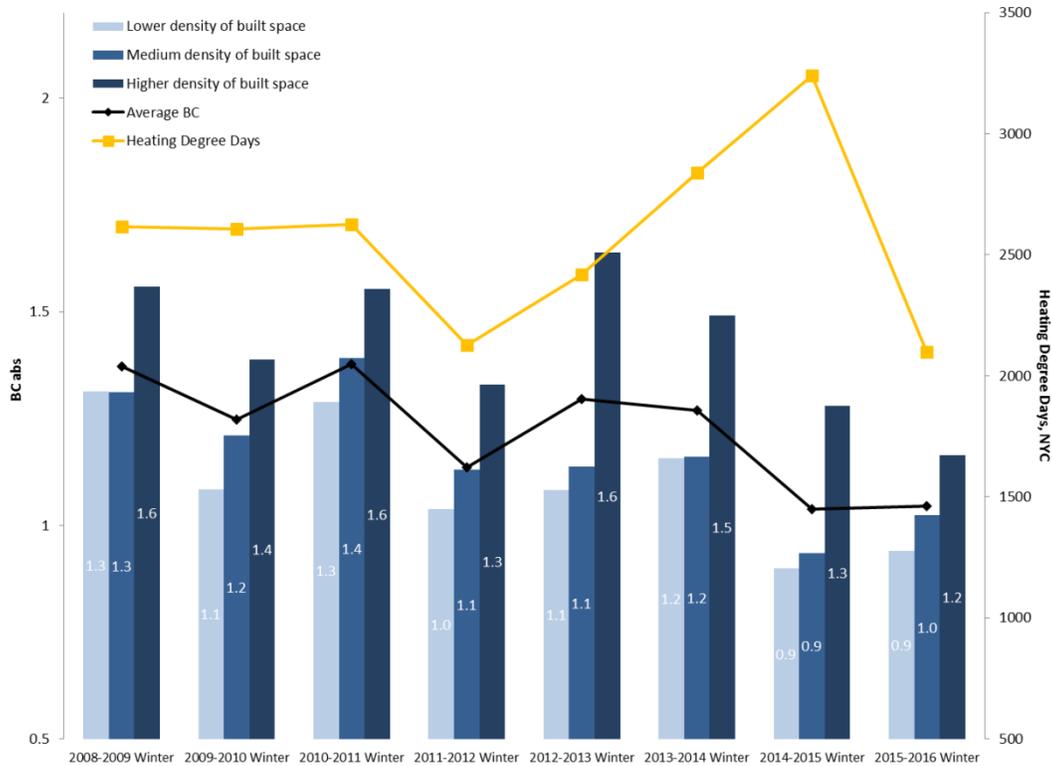
Seasonal average BC levels, by year and traffic density



Traffic density is estimated within 1 km of sampling location. Each category includes one-third of sampling sites with a traffic density of low, 126-11844; medium, 11844-23155; and high, 23155-43257 vehicle-kilometers per hour. Data source: New York Metropolitan Transportation Council. Heating Degree Day is the number of degrees that a day's average temperature is below 65 degrees F.

New York City Community Air Survey (NYCCAS) - Black Carbon (BC) Trends, 2009 - 2016

Seasonal average BC levels, by year and density of built space



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, 0-1.07; medium, 1.07-2.62; high 2.62-21.7 square kilometers. Data source: New York City Planning PLUTO tax lot data.