## Impacts of Closure Periods on BU CO<sub>2</sub> and CH<sub>4</sub> Emissions and Local Concentrations



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## **BU emissions sources and causes**

- <u>Problem</u>: emissions of greenhouse gases and other pollutants are causing climate change and creating adverse health effects
- <u>Goal</u>: establish ways to decrease emissions by determining their sources and how our behaviors affect these sources

#### FIGURE 5: CURRENT BU EMISSIONS BY SOURCE



Boston University's Climate Action Plan

# **CH<sub>4</sub> concentrations and COVID**

**BU/PRU CH4 2020** 

- Looked at the ratio of methane concentrations at Boston University and the Prudential building
- There is a decrease in CH<sub>4</sub> concentrations that occurs at the time of the COVID lockdown



# **CH**<sub>4</sub> concentrations and BU closure periods



- Looked at the effects of closure periods at BU on local methane concentrations
- There is a decrease in methane concentrations when BU closes

## **CO<sub>2</sub>** emissions and Red Sox games

Comm. Ave: BU Bridge to Kenmore Kenmore Square: Inbound from Beacon St. 0.8 0.8 Game Day Game Day Non-Game Day Non-Game Day **1**4.7% **1**4.8% 0.6 0.6 Emissions (Mg  $CO_2 \text{ km}^{-1}$ ) Emissions (Mg  $CO_2 \text{ km}^{-1}$ ) 0.4 0.4 0.2 0.2 0.0 0.0 12a 4a 8a 12p 4p 8p 12a 8a 12p 8р 4a 4p Hour of Day Hour of Day

## Lessons and next steps



NIVERSIT

- The Boston University climate action plan has a goal to reach net zero direct greenhouse gas emissions by 2040
- Through further analysis of CO<sub>2</sub> and CH<sub>4</sub> concentrations and emissions, closure data, and events data, we hope to uncover opportunities for future emissions reductions



SYNTHESIS AND OVERVIEW December 2017