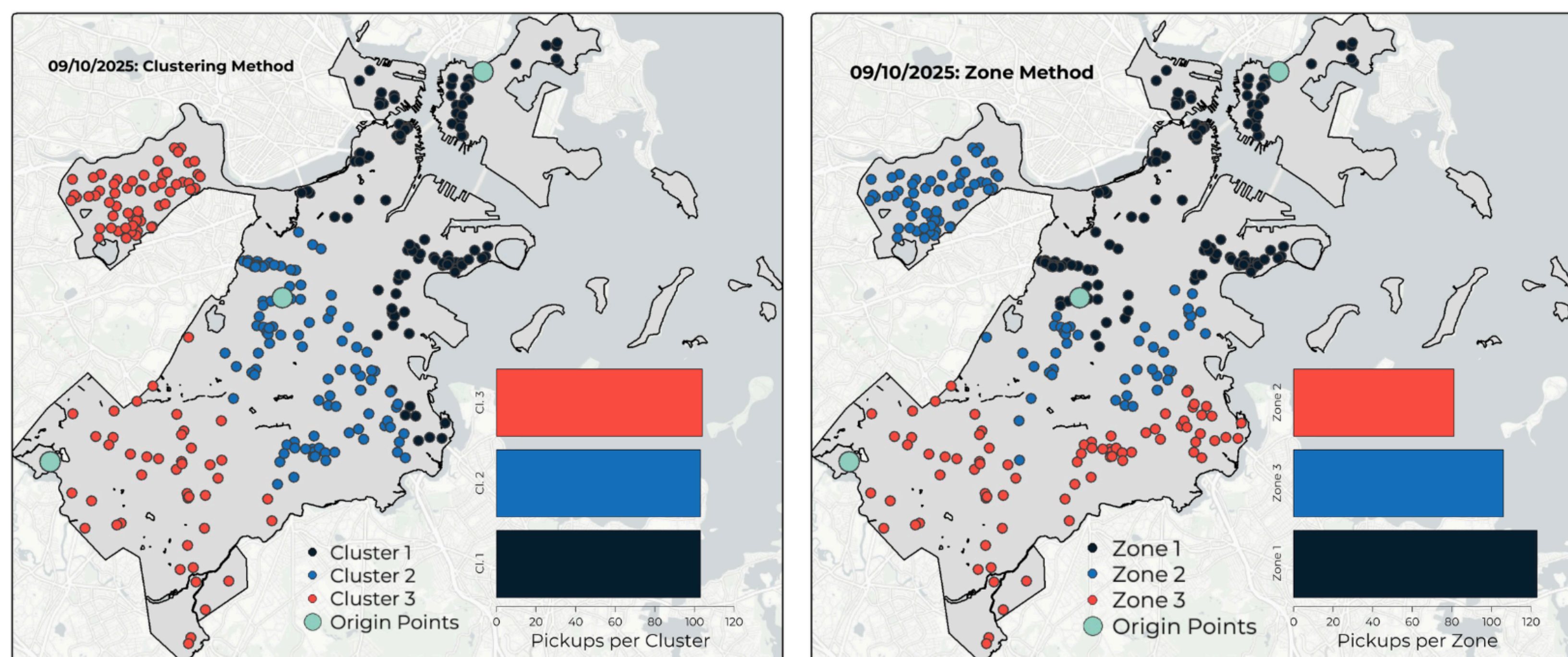


NEW ALGORITHMS FOR OLD MATTRESSES

BOSTON
250

TEAM: Ian Smith, Jeff Lambart, Jeff Kaplan, Jacob Cabral, Millan Andreoli

CONTACT: Innovation and Technology Cabinet (doit@boston.gov)



INNOVATION:

We developed a dynamic clustering approach that reassigns pickup areas each day so each contractor truck handles a similar number of mattresses while minimizing total travel distance and improving operational efficiency.

IMPACT:

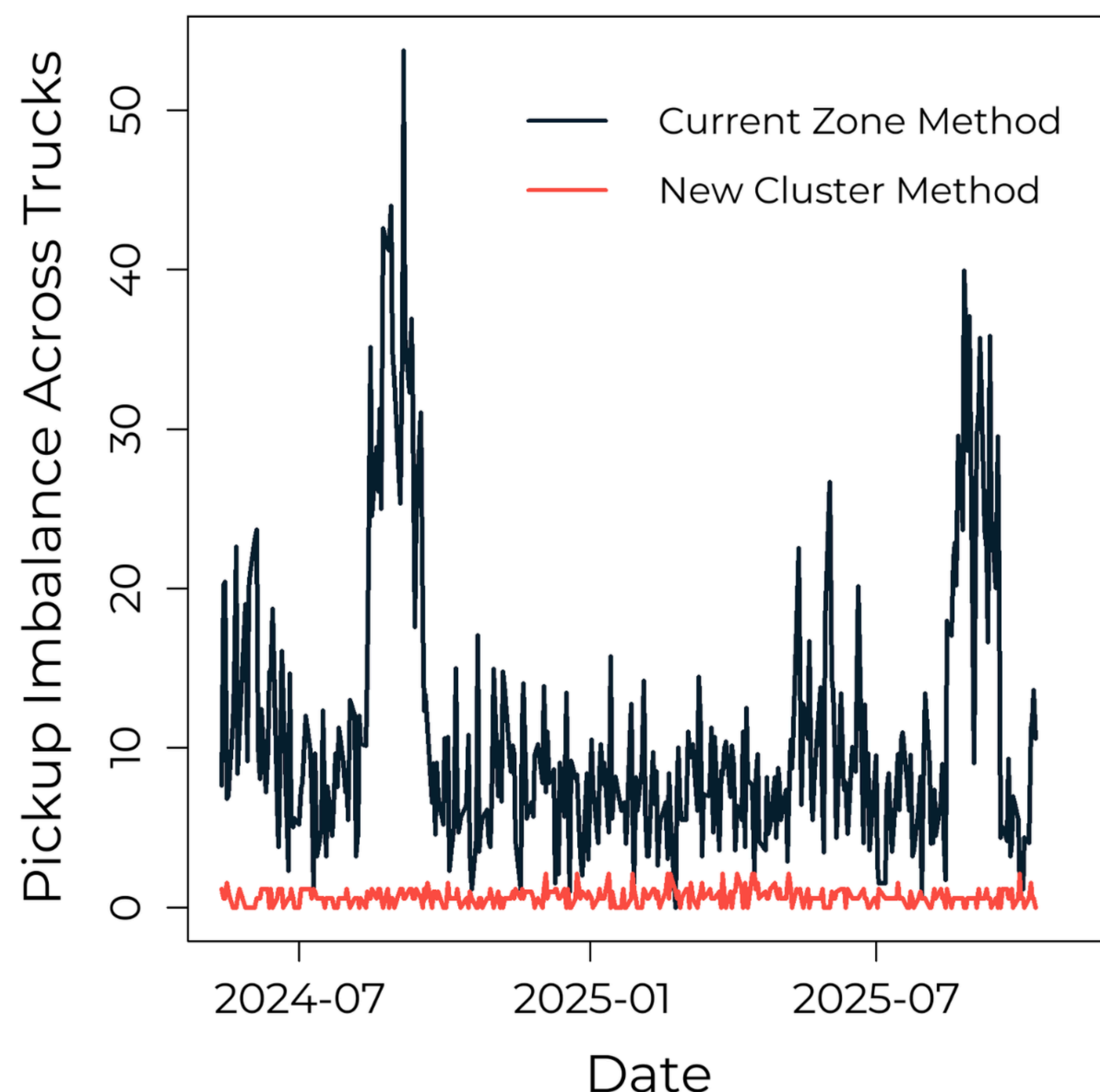
94% decrease in daily pickup imbalances

During surge periods, the new method enables the City to **collect an average of 31 additional mattresses per day** without increasing vehicle miles traveled



CHALLENGE:

Daily mattress collection currently relies on fixed geographic zones assigned to contractor trucks, causing imbalances in workload, especially during high-volume periods like student move-in, leading to inefficiencies, delays, and uneven service levels.



City of Boston
Analytics Team

INNOVATION
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