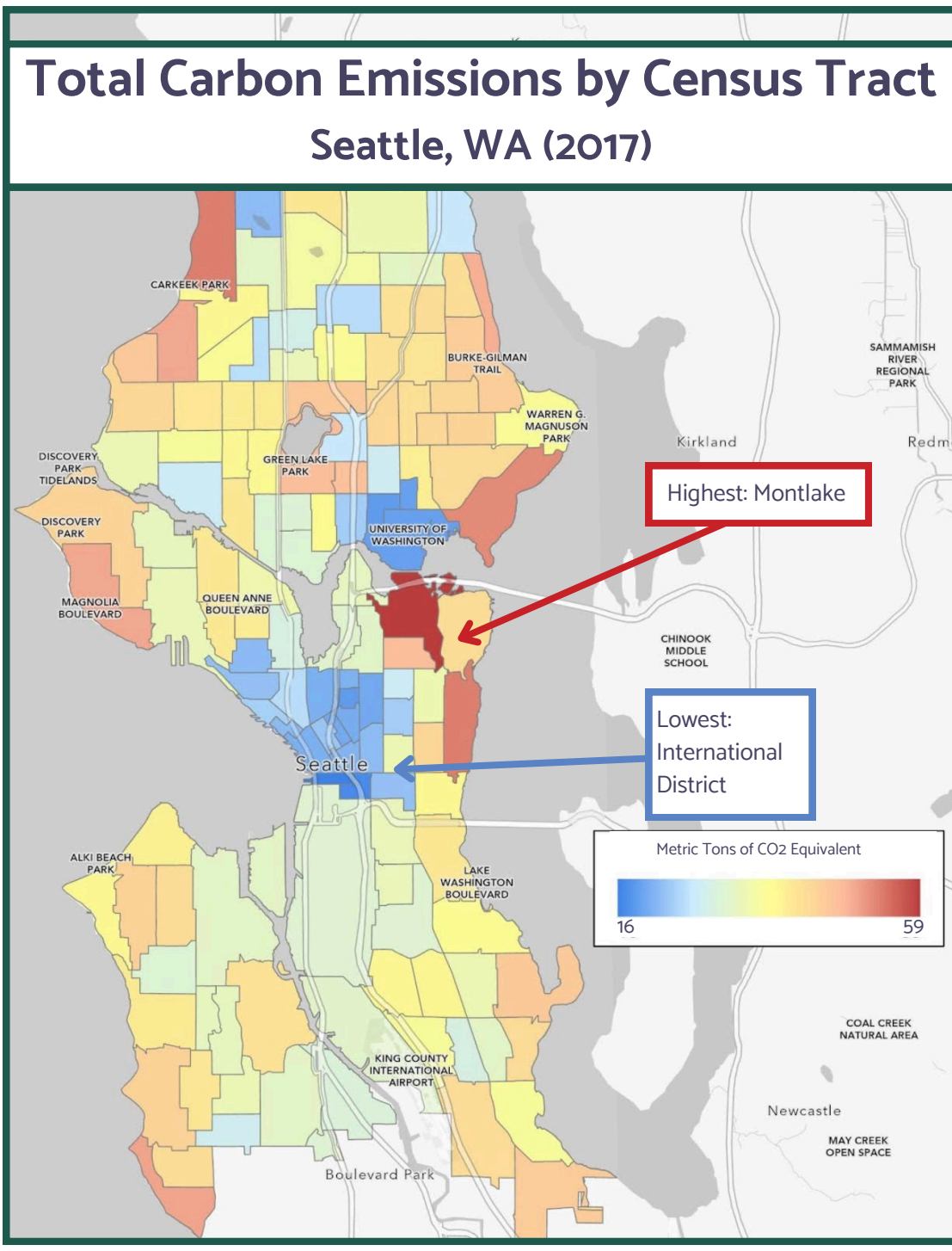


# Zoning in Seattle: Carbon Emissions

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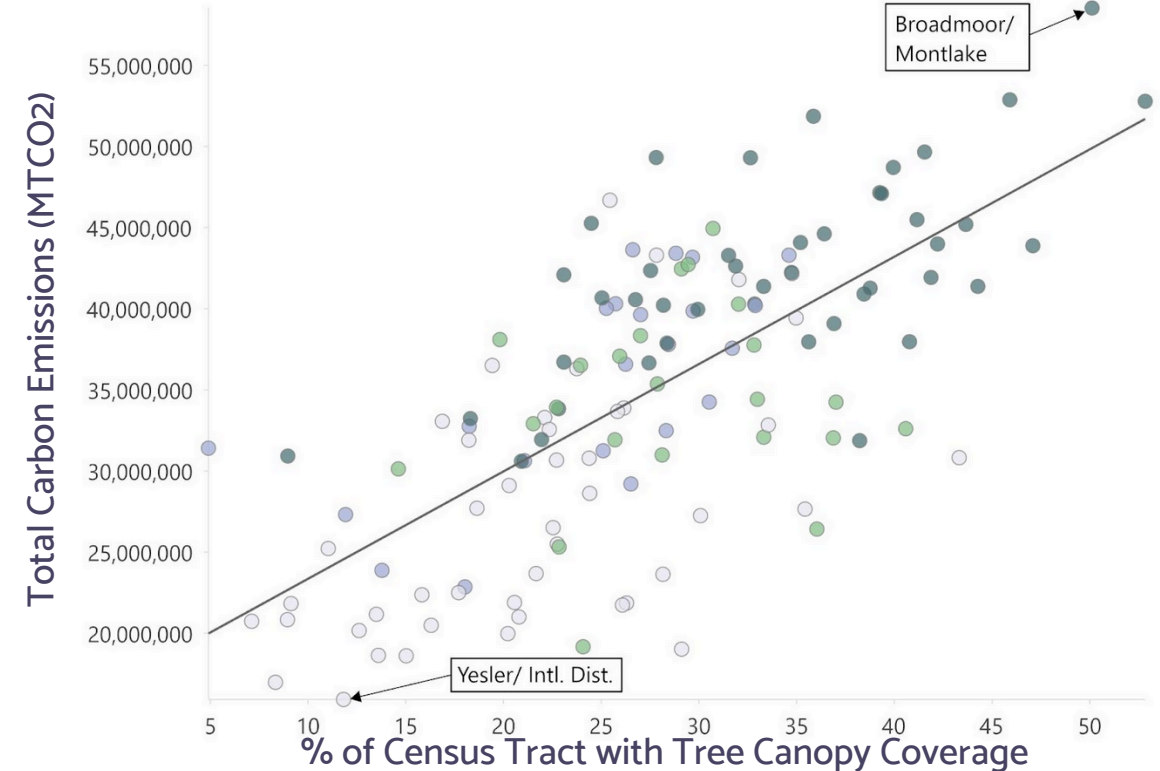


In the next year, the City of Seattle will update its Comprehensive Plan, a document that will dictate land-use practices for the next 20 years. The city is clearly experiencing a housing crisis, yet **64%** of Seattle is zoned as “Neighborhood Residential,” a strict category that only allows for detached, single-family homes. Not only do single-family zones stand in the way of affordable, multi-family development, but they also have a disproportionately large carbon footprint. In order for House Our Neighbors to achieve their dual goals of climate action and social housing, the dominance of single-family zones must be addressed.

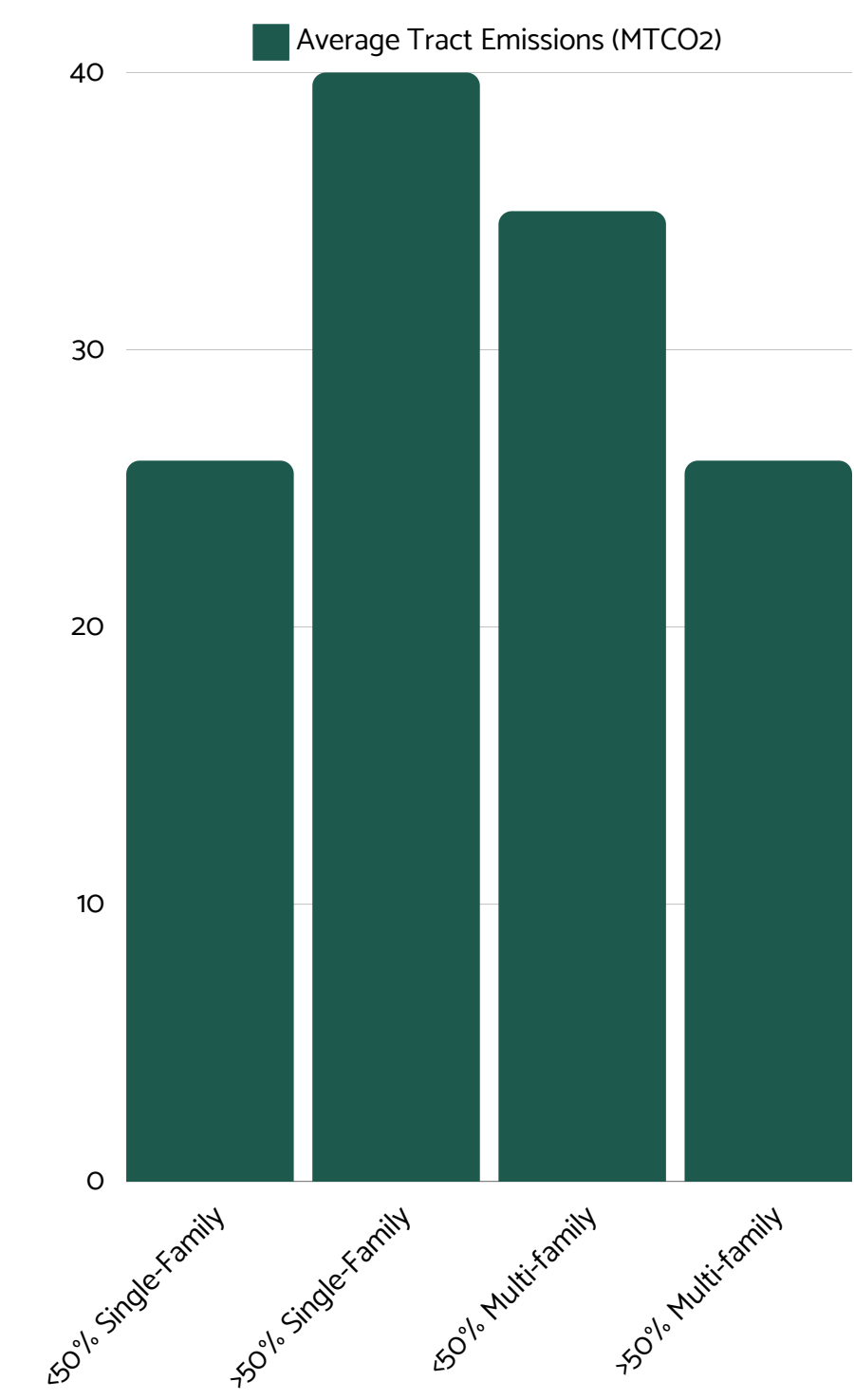
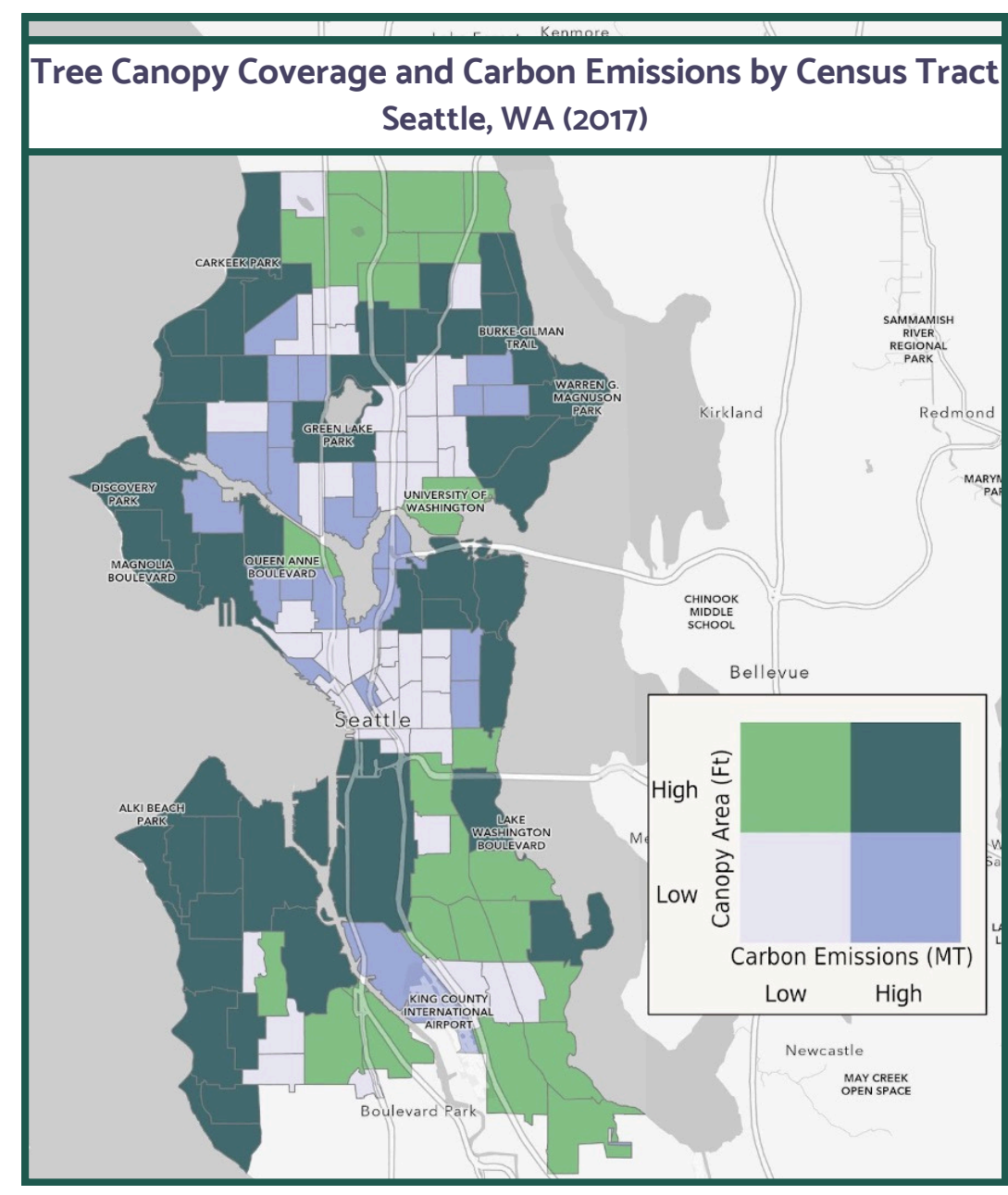


This map displays the “Consumption-Based Greenhouse Gas Carbon Emissions Inventory,” a statistical model based on a methodology by EcoDataLab that represents estimated emissions by census tract based on consumption behavior. There are clear geographic patterns to the variation of carbon emissions, with wealthier, single-family residential neighborhoods producing the highest emissions.

While tree canopy coverage is a great tool for sequestering carbon from the atmosphere, the presence of trees does not mean that a neighborhood has a lower carbon footprint. Much of our individual carbon footprint comes from activities we do outside the home, such as driving, flying, and purchasing goods.

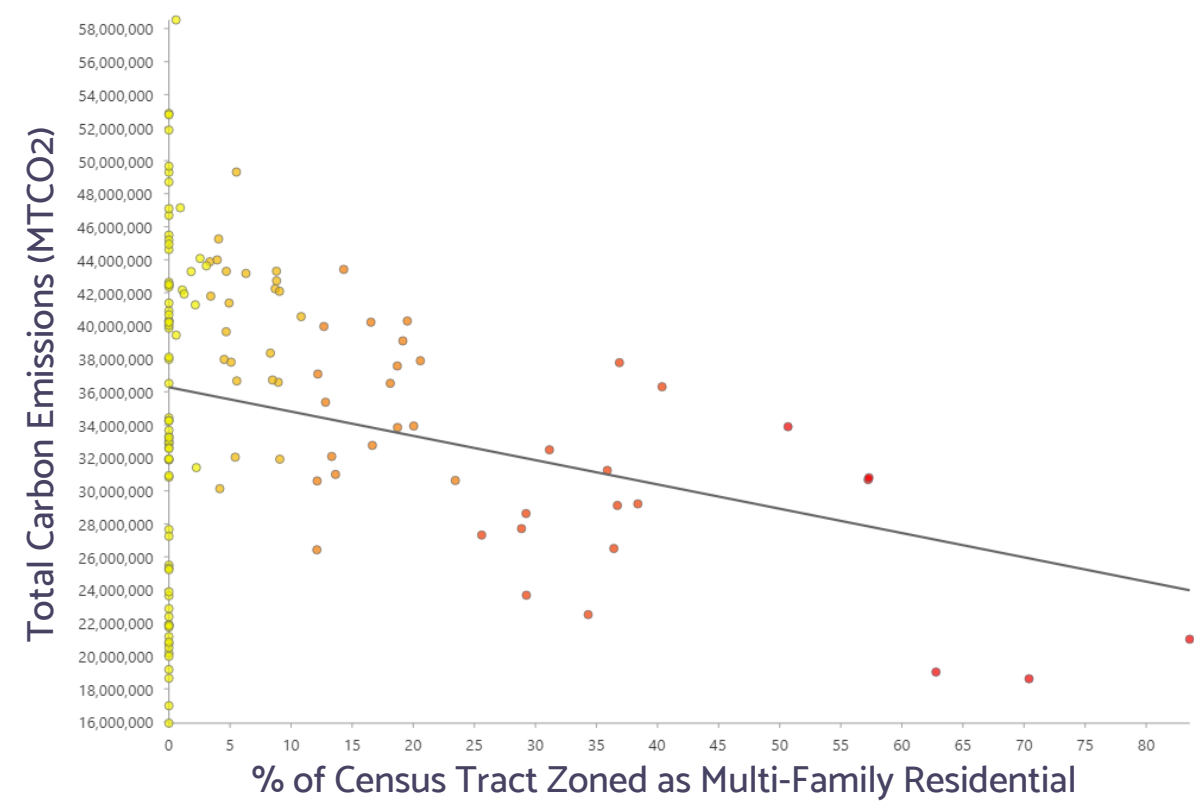


Since wealthier, single-family dominated census tracts generally have a larger tree canopy, there is a strong positive correlation between higher tree coverage and carbon emissions.



On average, majority single-family zoned neighborhoods have much higher carbon emissions. This is most likely due to the car-dependence and large home size common in single-family neighborhoods.

The map to the right labels census tracts as either being higher or lower than average in carbon emissions, and higher or lower than average in tree canopy coverage. This is useful for highlighting how many neighborhoods have both a large tree canopy and higher than average emissions, such as Magnolia, Montlake, and West Seattle.



Multi-family zoning is far less prevalent in Seattle than single-family zoning, where nearly half of all census tracts have no multi-family parcels at all. Census tracts with higher proportions of multi-family zoning have, on average, lower carbon emissions. While we cannot conclude a causal relationship between multi-family zoning and lower carbon emissions, aspects of multi-family residential neighborhoods, such as residential density and access to public transportation, are shown to lower emissions.

**Geographic Data Sources:**  
City of Seattle. (2010). “2010 Census Blocks - Seattle”. ArcGIS Online.  
City of Seattle. (2024). “Current Land Use Zoning Detail”. ArcGIS Online.  
City of Seattle. (2024). “Tree Canopy 2016”. ArcGIS Online.  
EcoDataLab and Stockholm Environment Institute. (2022). Seattle Communitywide Consumption-based GHG Emissions Inventory. Puget Sound Regional Emissions Analysis Final Report.