

# Air Quality in NYC: Trends, Impacts, and Insights

Introduction	Objective	How New York’s Air Quality Has Shifted O..	Emissions, Asthma, and Hospitalizations ..	Air Quality: Weekdays vs Weeken	Seasonal Shifts in Air Quality..	Regional Air Quality Insights
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Air quality isn't just an environmental metric. it's a public health signal, a policy lever, and a lived experience for millions of New Yorkers. This dashboard explores the evolving landscape of air quality across New York State from 2005 to 2022, weaving together emissions data, seasonal shifts, borough-level comparisons, and health outcomes like asthma and hospitalizations.

By visualizing patterns across time, geography, and behavior (weekday vs weekend), we uncover how pollution levels fluctuate, which regions face the greatest respiratory risks, and how seasonal and temporal factors shape exposure. From the Bronx to Staten Island, from winter smog to spring relief, this dashboard offers a multi-dimensional view of the air we breathe and the impact it leaves behind.

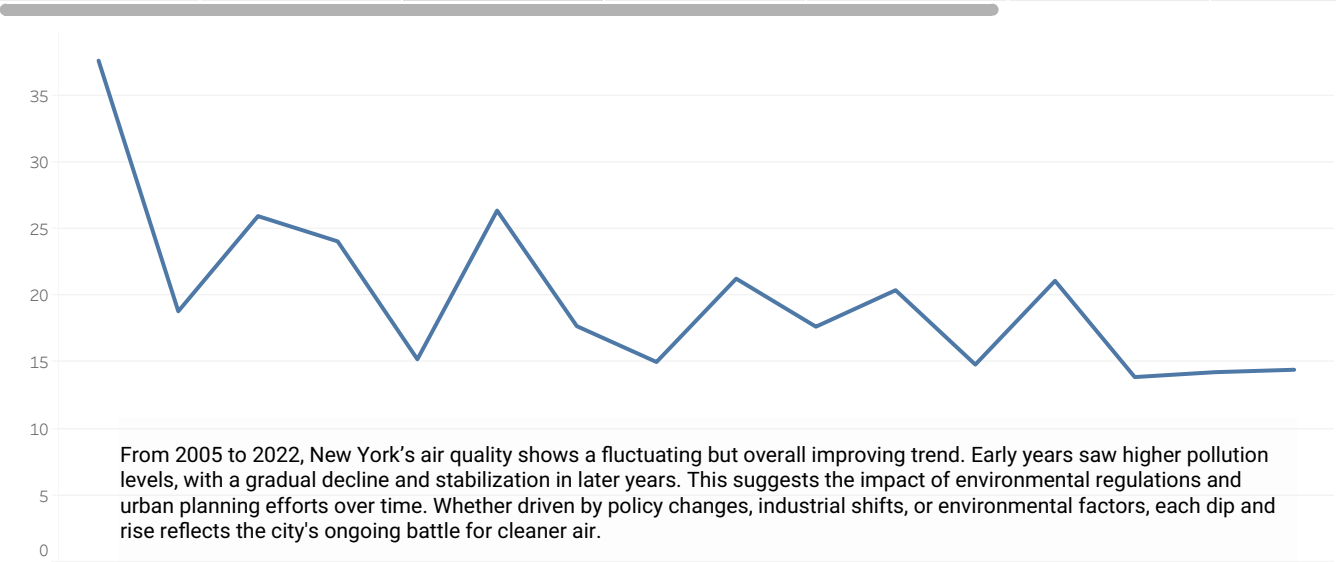
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To analyze and visualize air quality trends across New York State from 2005 to 2022, highlighting temporal patterns, regional disparities, and public health impacts. This dashboard integrates emissions data, seasonal variation, weekday/weekend comparisons, and borough-level insights to support environmental monitoring, health risk assessment, and data-driven policy decisions.

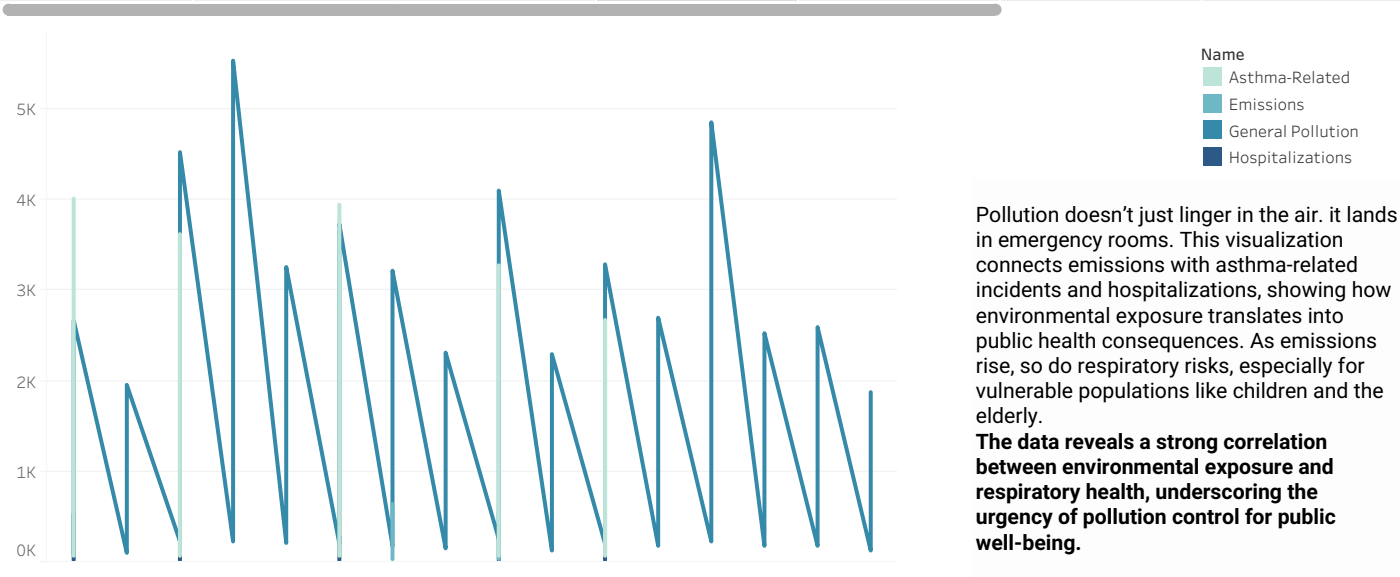
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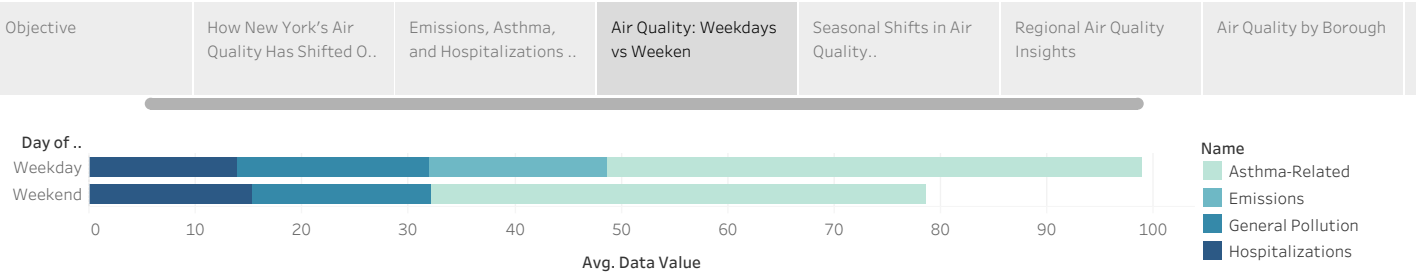


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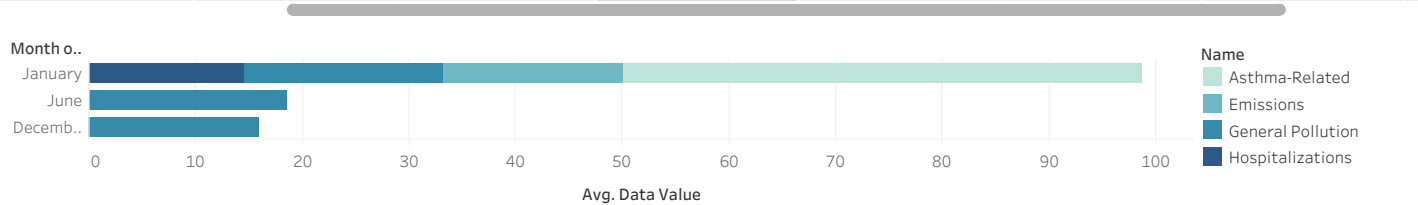


Our routines shape our environment. This chart compares air quality between weekdays and weekends, uncovering how traffic, commuting, and industrial activity influence pollution levels. The data suggests that weekends offer a brief reprieve an opportunity to breathe easier, if only for a moment.

**Weekdays consistently show higher pollution levels than weekends, likely due to increased traffic and industrial activity. This pattern highlights how human behavior directly influences air quality and how weekends offer a brief environmental reprieve**

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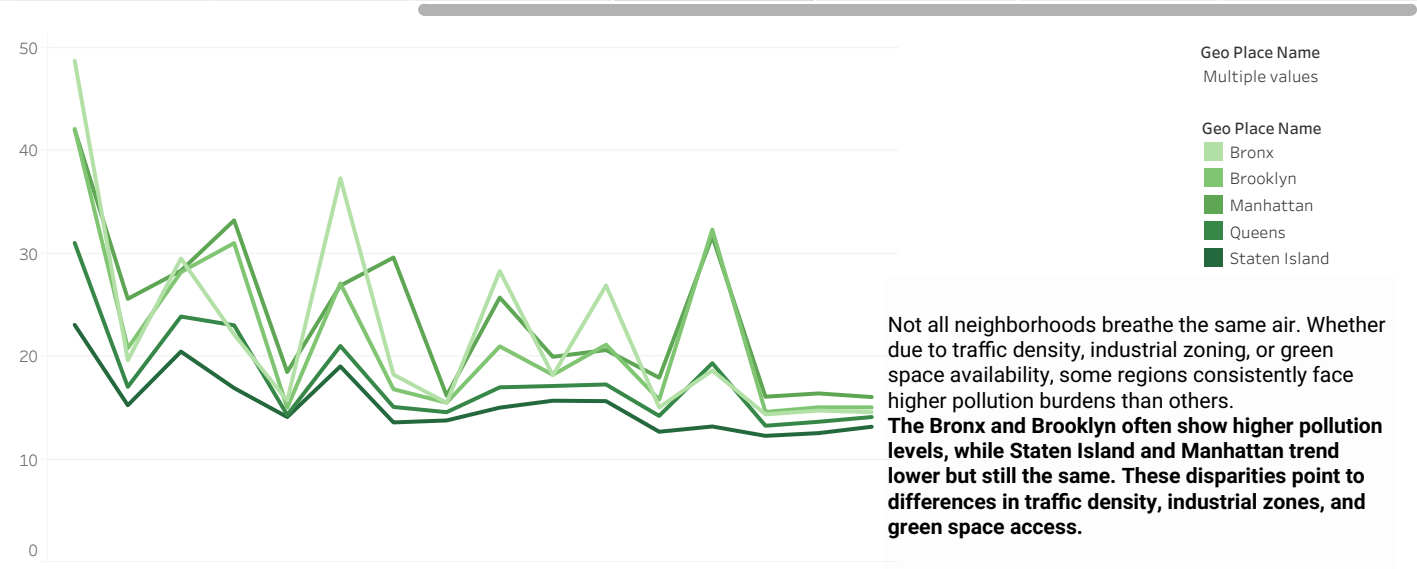


From winter smog to spring clarity, the air we breathe changes with the seasons. This analysis reveals how temperature, humidity, and seasonal behaviors affect pollution levels across boroughs. It’s a reminder that environmental conditions are dynamic and so are the risks they carry.

**This chart reveals that in December, general pollution levels are significantly higher than asthma-related hospital admissions and respiratory illnesses suggesting that environmental exposure peaks during winter, even if health outcomes lag slightly behind**

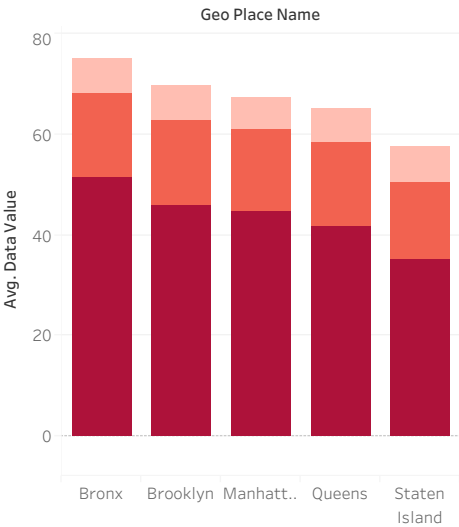
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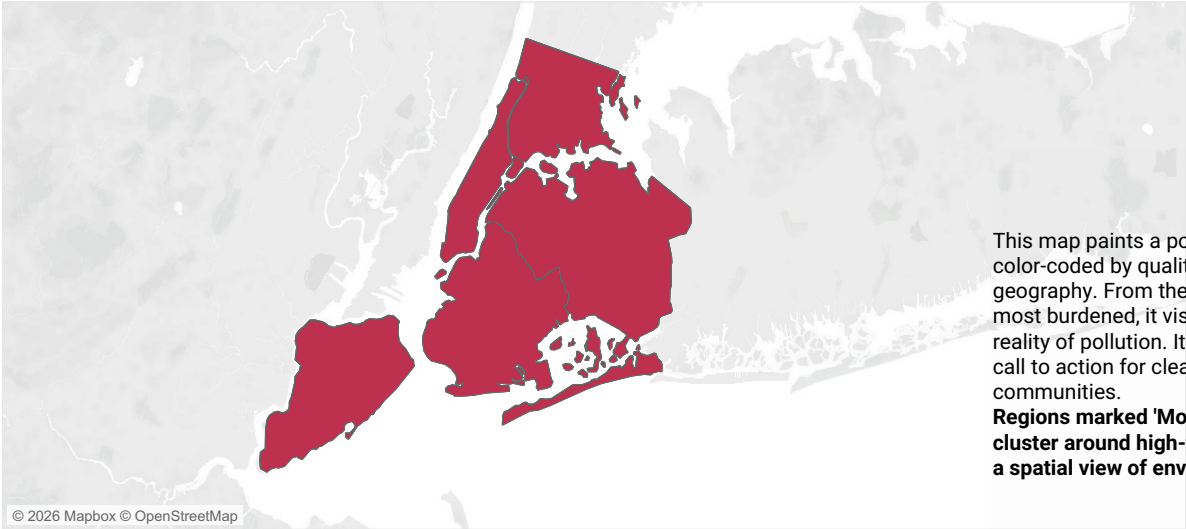
Where you live can determine how clean your air is. This borough-level breakdown shows how air quality varies across New York, offering a snapshot of environmental equity or the lack thereof. It invites viewers to consider how geography intersects with health and opportunity.

**This breakdown confirms that borough-level differences are persistent. Areas with higher population density and fewer green buffers tend to experience worse air quality, reinforcing the need for targeted environmental interventions.**



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Air Quality Category

- Bad
- Good
- Moderate

This map paints a portrait of New York’s air color-coded by quality and shaped by geography. From the healthiest zones to the most burdened, it visualizes the spatial reality of pollution. It’s not just data it’s a call to action for cleaner, more breathable communities.

**Regions marked 'Moderate' or 'Unhealthy' cluster around high-traffic zones, offering a spatial view of environmental inequality**

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This dashboard tells a layered story one of invisible forces shaping visible outcomes. From seasonal spikes in pollution to borough-level disparities and weekday behavioral patterns, the data reveals how air quality in New York is not just environmental it's deeply personal.

We see how winter months bring heavier pollution, how certain boroughs bear more respiratory risk, and how emissions ripple into hospital admissions. These patterns aren't random they're systemic, shaped by infrastructure, policy, and daily life.

By connecting these dots, this dashboard invites action. **Cleaner air isn't just a goal it's a necessity.** And understanding the rhythms of pollution is the first step toward protecting the health of every New Yorker, one breath at a time."