Pollution Exposure in Île-de-France Educational Institutions

Introduction

Objective:
Study air pollution (NO_2, PM10, PM2.5) in Paris schools (2012–2017) by type and location.

Why:
To understand risks to children and guide safer school placement.
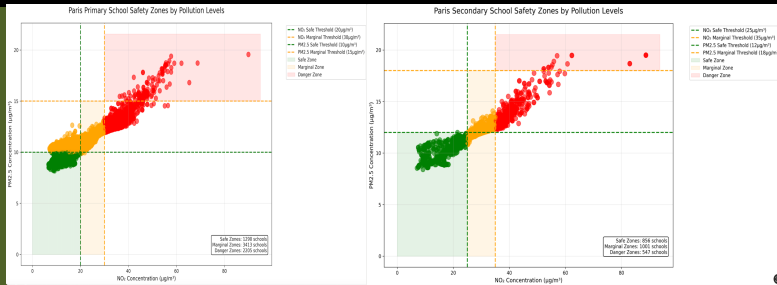
Goals:
• Compare pollution by school and area
• Track trends over time
• Map safe vs. risky zones
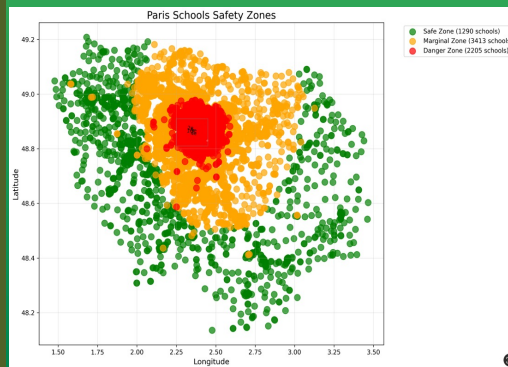• Find pollutant correlations

Method:
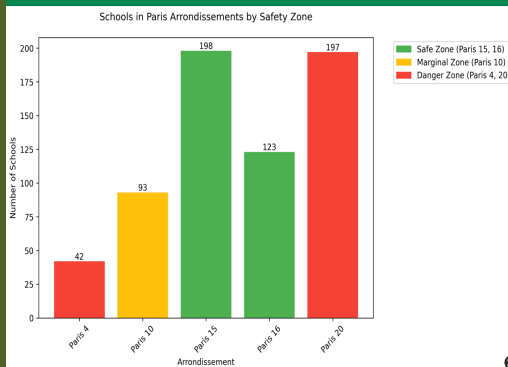Analyzed school pollution data using charts and maps.

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Graphs and analysis

This map shows 2017 PM2.5 and NO_2 levels, with 75015 and 75016 safest for schools, and 75004 and 75020 exceeding health limits.

This chart ranks five Paris districts for school sites: 75015 and 75016 lead; 75004 and 75020 lag; 75010 shows potential

2017 pollution data shows 75015 and 75016 as safest for schools; 75004 and 75020 exceed health limits, guiding safer planning.

NO_2 and PM10 declined steadily, while PM2.5 fluctuated before stabilizing. Strong correlations (0.90–0.95) point to traffic as a major source. Reducing NO_2 could improve overall air quality. Central Paris showed the highest, but decreasing pollution

Conclusion

Air pollution in Paris schools has improved (NO_2, PM10), but PM2.5 remains inconsistent. Some areas still pose health risks.
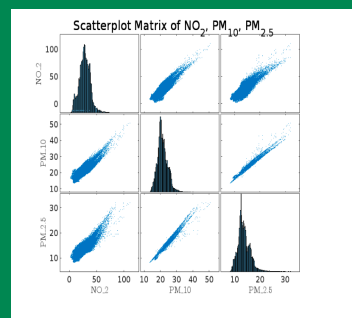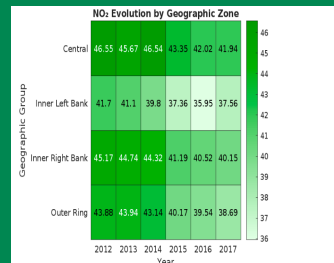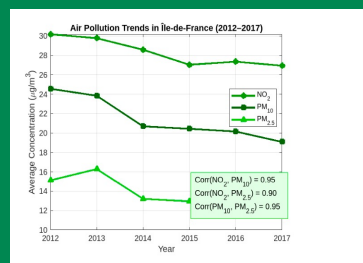
Implications:
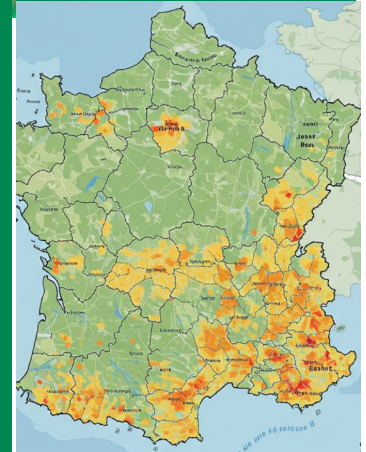Clean air is crucial for school safety and city planning.

Recommendations:
• Build in low-pollution zones
• Add filtration to high-risk schools
• Link building permits to air quality data

Data source : data.gouv.fr