

Reviewer's report

Title: Land Use Regression Modeling of Intra-Urban Residential Variability in Multiple Traffic-Related Air Pollutants

Version: 1 **Date:** 19 August 2007

Reviewer: Russell Lopez

Reviewer's report:

General

This paper reports on an effort to characterize the air quality in a northeastern city. The ultimate goal of this study was to provide for the incorporation of air data into a health study. While it is clear that the health results are not part of this paper, the authors should keep in mind that their work may serve to instruct the public and other researchers on how to understand the local generators of air pollution and that others may use this paper as part of an effort to plan how to proceed with a study of their own.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. The recommendations are weak. What should other researchers do to incorporate these findings to make their research more effective?
2. The other concern is context. How do the levels here relate to health? It is hard to evaluate the findings without better documentation on how these levels compare to other levels in the US. Similarly, the reporting of effects by standard deviation lowers the contextual basis of the findings since standard deviation only gives information on this one sample.. They should also report by a fixed amount.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.