Optimizing Local Smoke Alarm Inspections with Federal Data

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ABSTRACT

This paper outlines a fully-realized civic tool that predicts municipal blocks least likely to have homes with functioning smoke alarms and most likely to have residents who are at highest risk for fire fatality. Using a novel merge of the American Community Survey (ACS) and the American Housing Survey (AHS), we are able to model these two risk factors at the geography of census block groups, and with the aid of the TIGER Census dataset, return actual street addresses with associated risk scores. This tool represents a potential model for developing reusable civic analytic applications that can serve multiple cities while responding to local particularities.

Keywords

Civic Analytics, Fire Prevention, Census, ACS, AHS, TIGER

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