

Responsiveness to Noise Complaints Related to Construction Projects Report 2016-N-3

Division of State Government Accountability



NYS COMPTROLLER

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INTRODUCTION



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Noise in New York City

- Noise has significant quality of life and public health impacts.
- Noise must be managed.
- New York City has a model local Noise Code and has declared that excessive, unreasonable, or prohibited noises are a “menace to public health, comfort, safety, welfare and prosperity.”



Problem: Construction is Booming in New York City and It's Noisy!

The definitive guide to the Hudson Yards development boom

These projects are in various states of development in the bustling west side neighborhood

By Tanay Warekar | @TanayWarekar | Updated Apr 26, 2018, 10:00am EDT

The New York Times

With Electric Jackhammers, Plans to Quiet an Earsplitting City Sound

9 affordable housing projects that will transform the South Bronx

At present, 5,000 affordable apartments are in various stages of development in the Bronx

By Tanay Warekar | @TanayWarekar | Mar 3, 2017, 2:46pm EST



Construction noise complaints build up in the city

By GLENN BLAIN | NEW YORK DAILY NEWS | AUG 31, 2017 | 2:20 PM

NEW YORK POST

Buildings Dept. approves night construction, angering residents

By Rubin Vincenz and Melissa Kline | January 30, 2016 | 1:51pm



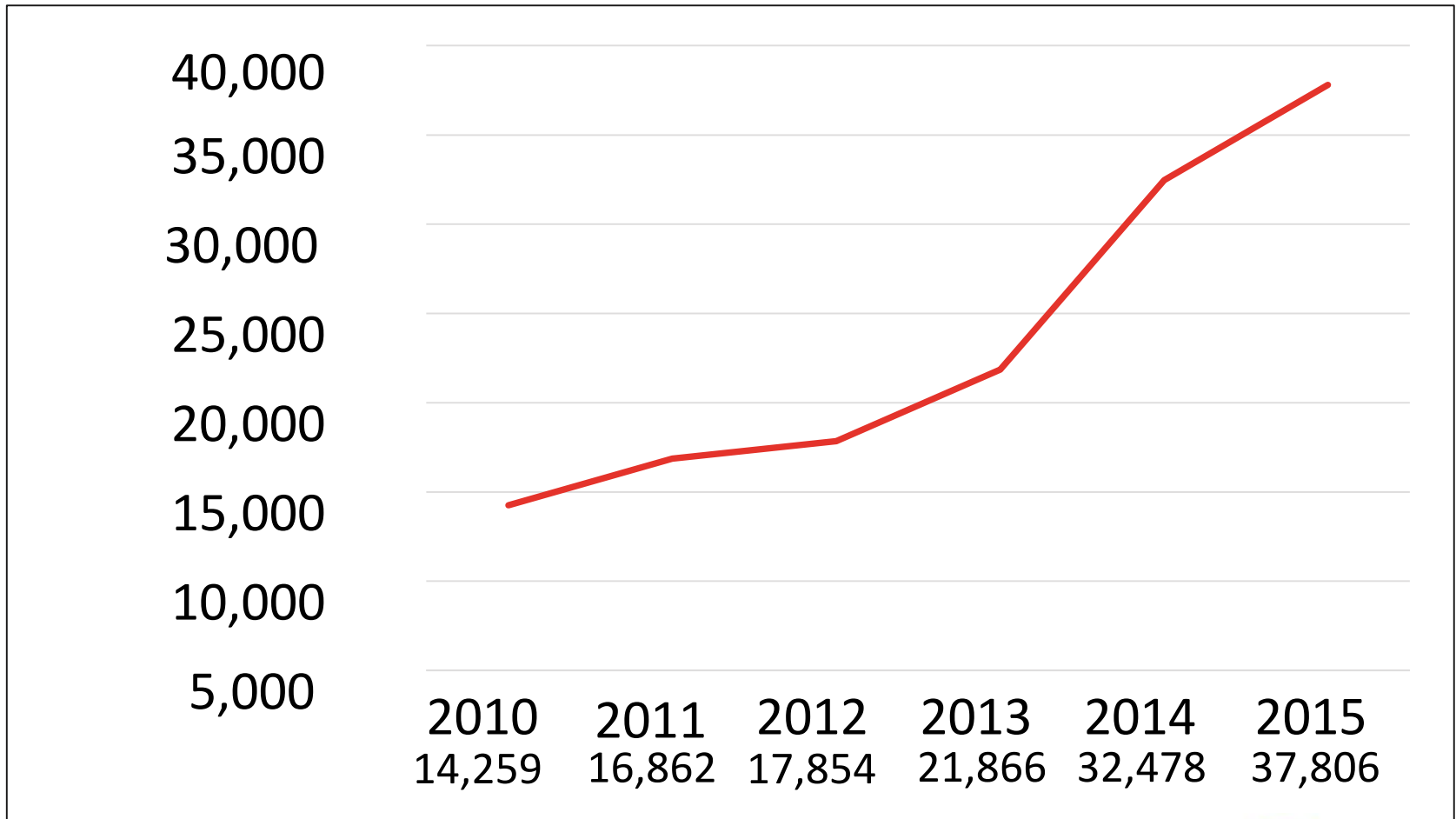
BUSINESS INSIDER | TECH | FINANCE | POLITICS | STRATEGY

Essex Street today (above) vs. a rendering of Essex Crossing in Manhattan (below) | [Setback/Essex Crossing](#)



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Construction Noise Complaints Kept Increasing



Source: *Responsiveness to Noise Complaints Related to Construction Noise (Report 2016-N-3)*.

Risk Assessment

How can we get at the causes of rising complaints?

- Analyzed trends in construction noise complaints; interviewed City officials on complaint processing.
- Engaged the public in the audit process via survey.
- Survey Purpose: Learn about people's experience of noise in their neighborhoods and their efforts to mitigate the noise by making a complaint.



Engaging People

OSC Noise Survey

- Survey Development
 - Analyzed 1.6 million noise complaints to NYC 311.
 - Reviewed other national and local noise surveys.
 - Literature review: noise control policies; economic, health, and other impacts of ambient noise.
 - Interviewed experts on noise and public officials.
- Translated into Chinese, Russian, Spanish
- Community Boards, media distributed survey
- More than 4,000 responses



Survey Results Informed Audit Program

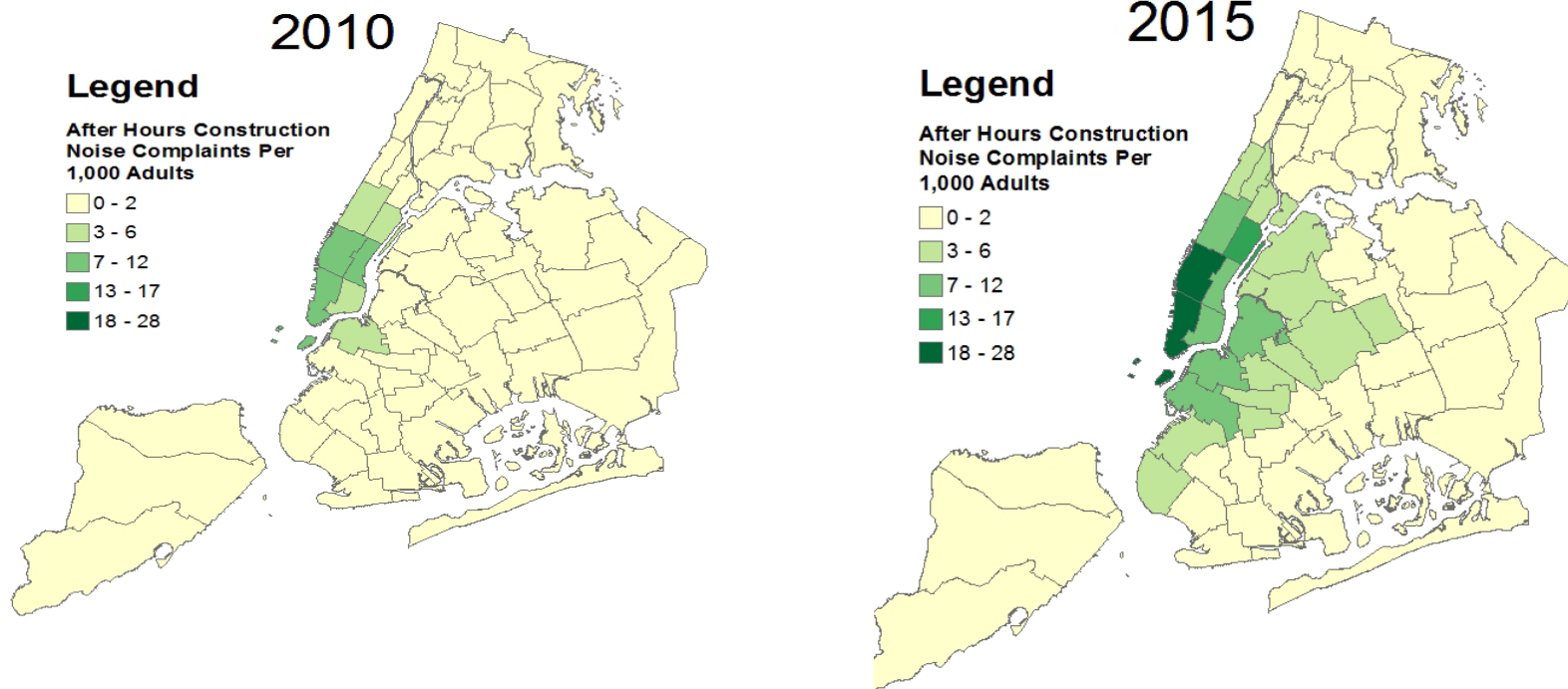
Common Responses from Survey Takers

- Late night, early morning, weekend construction (“after-hours” construction).
- NYC approved too many permits.
- NYC took too long to investigate complaints and investigated when noise was not occurring.
- Complaints did not stop the noise.
- Was Noise Code was actually being enforced?



Visualization Identifies Neighborhood Trends

311 Noise Complaint Data, American Community Survey data, and GIS Systems show that some New York City neighborhoods were disproportionately burdened by construction noise, as measured by the rate of after-hours construction noise complaints per 1,000 adults in each Community District and the problem was intensifying over the six-year period.



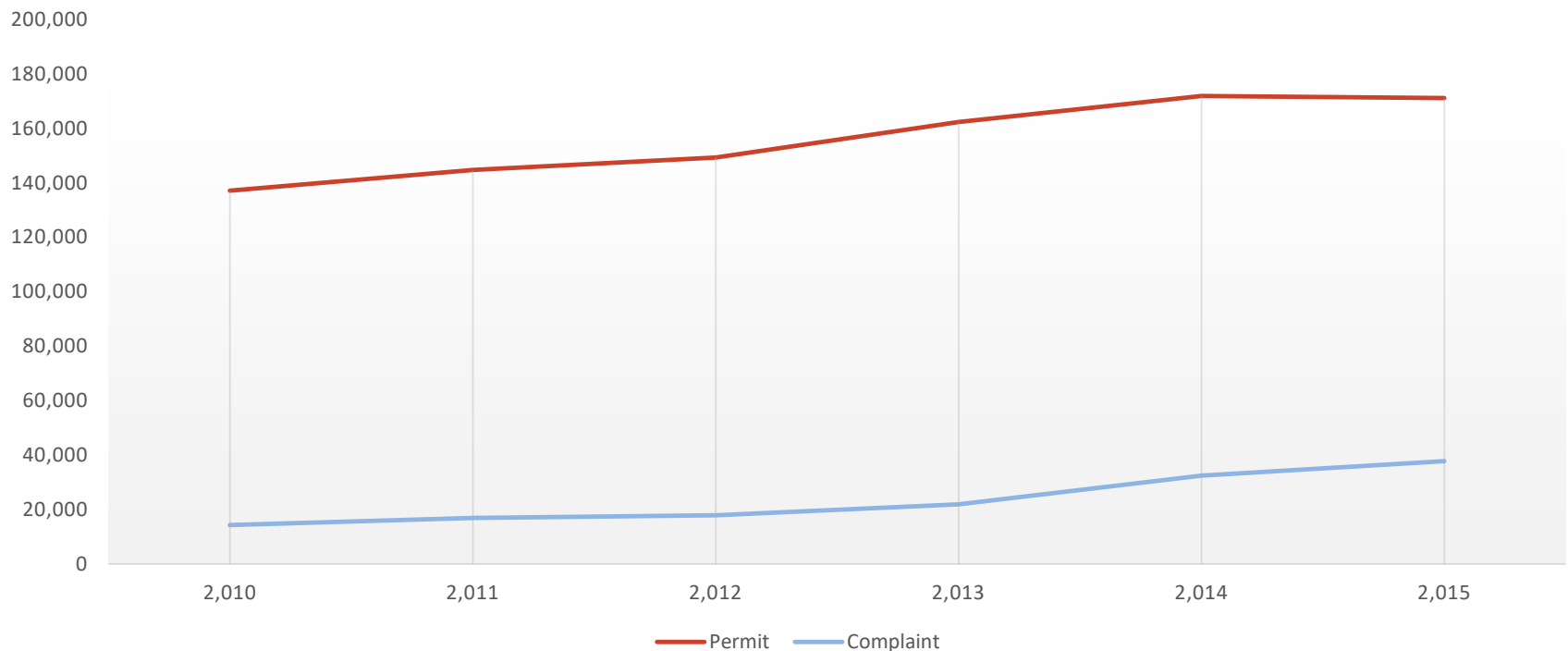
Source: *Noise in New York City Neighborhoods Assessing Risk in Urban Noise Management (Report 2016-D-4)*.



Visualization of Potential Root Causes

As Permits Increase, So Do Complaints

311 Noise Construction Complaints v. DOB Issued Work Permits, 2010 - 2015

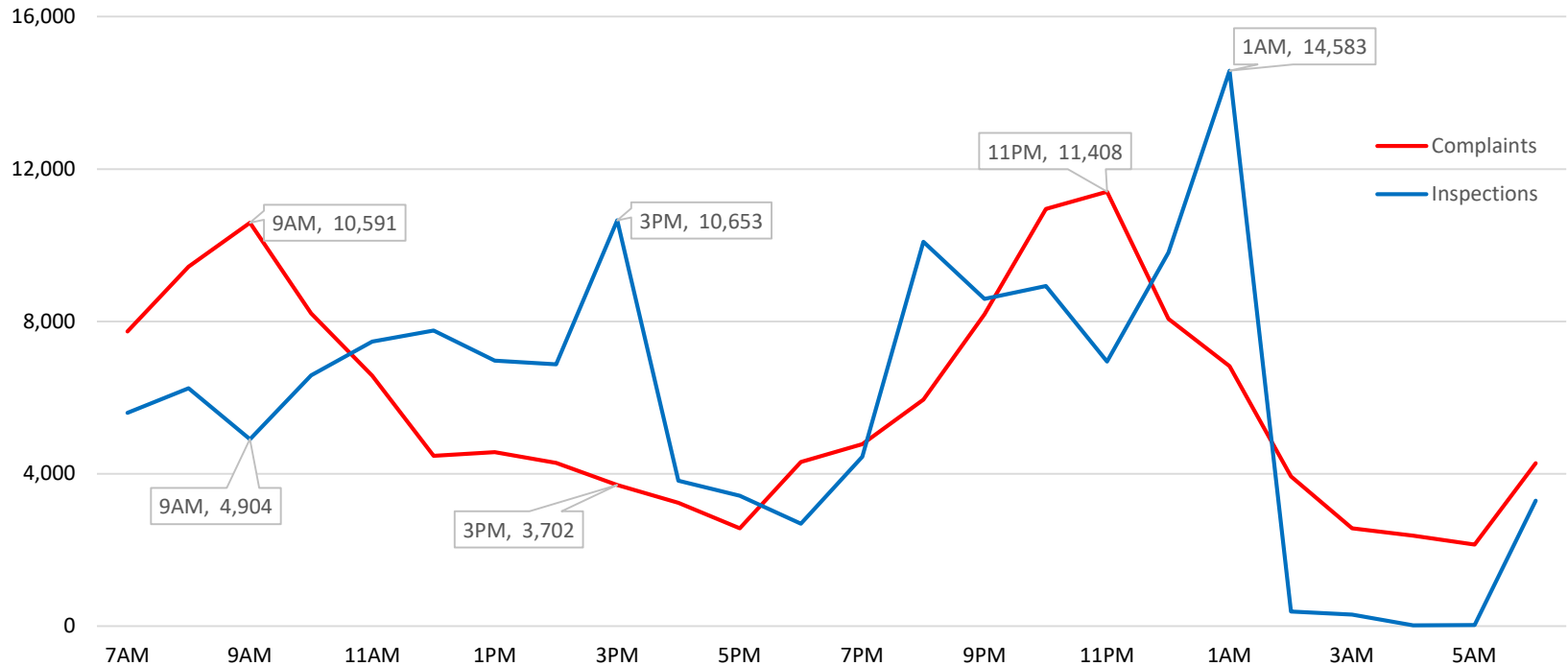


Source: *Noise in New York City Neighborhoods Assessing Risk in Urban Noise Management* (Report 2016-D-4)



Visualization Assesses Complaints of Survey Takers

Timing of Noise Occurrence and Complaint Inspections*



*Complaint creation time and complaint closed time were used as proxies to measure when noise was occurring and when an inspection was performed.
Source: *Noise in New York City Neighborhoods Assessing Risk in Urban Noise Management* (Report 2016-D-4)



Smart Audit: Comprehensive Planning Results in Efficient, Impactful Auditing

Comprehensive planning and risk assessment result in effective audit objectives and efficient audit work

- Audit completed in less than 2,000 hours.
- Audit pointed out a lack of coordination in New York City government.
- Audit got two New York City agencies to work better together for the public's benefit: Department of Environmental Protection (DEP) and Department of Buildings (DOB).

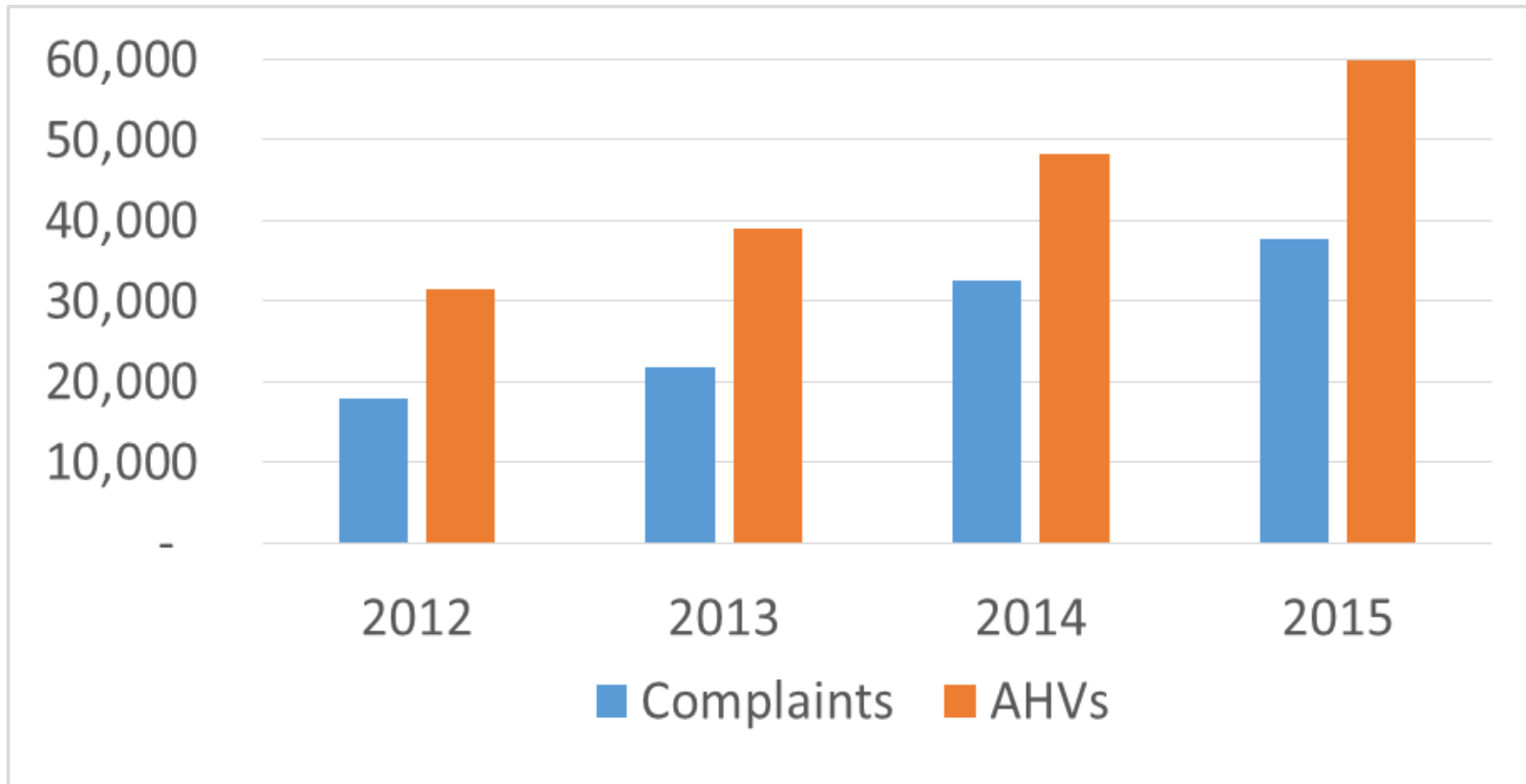


Audit Findings Validated Complaints of Survey Respondents and 311 Callers

- DEP concluded “no excessive noise” for 84% of complaints in audit sample.
- DEP took 5 days on average to investigate complaints.
- Violations issued for only 1.2% of complaints.
- DOB issued large number of permits for late night, early morning, and weekend construction (“after-hours variances”).



Construction Noise Complaints Increase with After-Hours Variances Approvals



Source: Responsiveness to Noise Complaints Related to Construction Noise (Report 2016-N-3).



After-Hours Variances

Cause of Increasing Construction Noise Complaints

- AHV's for 14 day period can be extended.
- Variance requests automatically approved.
- DOB does not consider noise complaints in deciding on after hours variances.
- *AHV issued August 2015 extended 24 times through July 2016 – 112 complaints filed.



Audit Findings Identified Opportunities for Management Improvements

- DEP complaint inspection reports did not include noise level measurements, and if taken, noise level measurements were not reported to 311.
- DEP lacked formal process to analyze 311 data to identify problematic construction sites for consideration by DOB for approving or denying after-hours variances.
- DEP did not have noise level meters for each inspector, even though the Noise Code had been in effect since 2007.



Audit Findings Identified Opportunities for Management Improvements

- DOB did not consider 311 noise complaints when reviewing after-hours variance requests.
- DOB did not work with DEP to identify noisy sites.
- DOB continually renewed variances and appear to be approving variances out of compliance with the Noise Code.
- DEP had repeatedly questioned DOB's practices, but received no response.



Audit Recommendations Focused on Improving Inter-Agency Coordination

- DOB to make After-Hours Variance and permit data available to DEP inspectors.
- DEP and DOB to share information regarding locations with excessive numbers of noise complaints.
- DEP to formally analyze 311 data and share results with DOB.



Outcomes: Better Governance

- Two agencies agreed to work better together on handling construction noise complaints, without added costs or staff.
- New York City enacted new legislation to control late and early morning construction noise.
 - New violations for excessive noise
 - Lower decibel limits
 - Inspections happen when reported noise is likely to occur – not simply when staff are available



SGA DRIVES BETTER GOVERNANCE



DATA ANALYTICS

Data analytics validates insight from survey results.

VISUALIZATION

Visualization effectively identifies geographic patterns and trends, including hot spots.

PUBLIC DATA

Used publically available data so source can be accessed and methodology replicated. Risk assessment made available to the public.

ENGAGING PEOPLE

Outreach to and survey of the public's experience of noise and of making noise complaints. Interviewed academic experts and New York City representatives on noise mitigation. Unusual audit topic required diverse staff on audit team (i.e. Data Scientist, Sociologist, Research Specialist, Urban Planner, Geographic Information Analyst, Auditors)

SMART AUDIT

Comprehensive planning and innovative risk assessment effectively and accurately developed audit objectives and risks. It also reduced the amount of data analysis needed and kept audit hours under 2,000.

OUTCOMES



Audit got two agencies working better together and to collaborate on handling noise complaints, without added cost or staff

- ✓ Sharp decline in the number of after-hours variances issued – the source of many construction noise complaints

New Legislation to control late night and early morning construction noise was enacted

- ✓ New violations for excessive noise
- ✓ Lower decibel limits
- ✓ Inspections to occur when reported noise is likely to occur – not simply when staff are available

