An Analysis of Nuisance and Foreclosed Properties in Central Falls, Rhode Island: Locating Hot Spots to Determine Resource Allocation

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Introduction

Central Falls, a one-square mile city with a poverty rate of 27%, is both the smallest and poorest city in Rhode Island. It is located approximately five miles north of Providence, the state’s capital. Since the beginning of the economic crisis in the late 2000’s, Rhode Island has been one of the states hit hardest by the foreclosure crisis. In turn, Central Falls has one of the highest mortgage foreclosure rates in the state. The city has also faced a high rate of nuisance properties, defined by the Oxford Dictionary as “unlawful interference[s] with the use and enjoyment of land.” Structures that are vacant, abandoned, cause repeated public safety concerns and/or violate police and fire codes are all considered nuisance properties.

In an effort to locate and remediate nuisance properties, the Central Falls Nuisance Task Force was established in 2013. This study not only spatially depicts foreclosed and nuisance properties, but also investigates overlap between the two classifications and determines census blocks with high concentrations of such properties.

Research Questions

What is the spatial distribution of foreclosed properties in Central Falls from the years 2007-2013? What is the spatial distribution of nuisance properties in Central Falls today? Is there overlap between properties that were declared foreclosed from 2007-2013 and those that are declared nuisance today? What census blocks in Central Falls have high concentrations of foreclosed and nuisance properties?

Data Sources

- e911Sites14r1.lyr from RIGIS
- List of foreclosed properties from the Office of the Assessor, city of Central Falls
- List of nuisance properties from the Central Falls Nuisance Task Force

Methods

- Isolated properties in Central Falls from e911Sites14r1.lyr
- Cleaned Excel files with nuisance and foreclosure data
- Joined nuisance and foreclosure data to layer file with Central Falls properties
- Mapped foreclosed properties from 2007-2013 and nuisance properties, symbolizing for number of code violations
- Used SQL statement to isolate properties declared both nuisance and foreclosed and mapped overlap
- Assigned all properties with neither nuisance nor foreclosure designation a 0, properties with one of the two designations a 2 and properties with both designations a 4 in order to complete Hot Spot Statistical Analysis

Foreclosure Analysis

Foreclosed Properties 2007

In this map, the total number of foreclosures from 2007-2013 is displayed. During 2007-2013, the highest number of foreclosures occurred in 2007 (70%).

Foreclosed Properties 2008

The Nuisance Property Task Force is investigating the properties displayed in this map. Nuisance properties are symbolized based on their level of code violation, from a value of 4 to 19.

Foreclosed Properties 2009

Nuisance Foreclosure Overlap

In this map, the properties that were foreclosed are displayed. Approximately 30% of the nuisance properties today were foreclosed at some time from 2007-2013.

Foreclosed Properties 2010

In this map, the properties that were neither foreclosed nor designated nuisance were given a value of 0, the properties with one of these designations were given a value of 2, and those with both were given a value of 4 in order to complete this analysis. The census blocks with the highest concentrations of nuisance and foreclosed properties are 2003, 2005, 2006, 2007, 2009, 2010, 2013 and 2016.

Hot Spot Analysis

A hot spot statistical analysis was conducted to determine high concentrations of nuisance and foreclosed properties. The properties that were neither foreclosed nor designated nuisance were given a value of 0, the properties with one of these designations were given a value of 2, and those with both were given a value of 4 in order to complete this analysis. The census blocks with the highest concentrations of nuisance and foreclosed properties are 2003, 2005, 2006, 2007, 2009, 2010, 2013 and 2016.

Conclusions

As the Central Falls Nuisance Property Task Force continues to address the problems of nuisance and foreclosed properties in the city, this study will be valuable for two reasons. It is not only important for remediating current nuisance properties and understanding the influence of foreclosed properties on the occurrence of nuisance properties, but it also highlights census blocks whose properties are most susceptible to nuisance and foreclosure designations.

Limitations of Data and Future Research

The current foreclosure data does not include foreclosed properties in 2014. It also does not reveal the current state of properties that were foreclosed years ago, which is an important consideration. Future studies would address these issues. It would also be very interesting to investigate income levels, race, property prices and other demographic factors in relationship to the census blocks with high concentrations of foreclosed and nuisance properties.

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Bibliography