

Environmental Justice Chapter of Housing Report

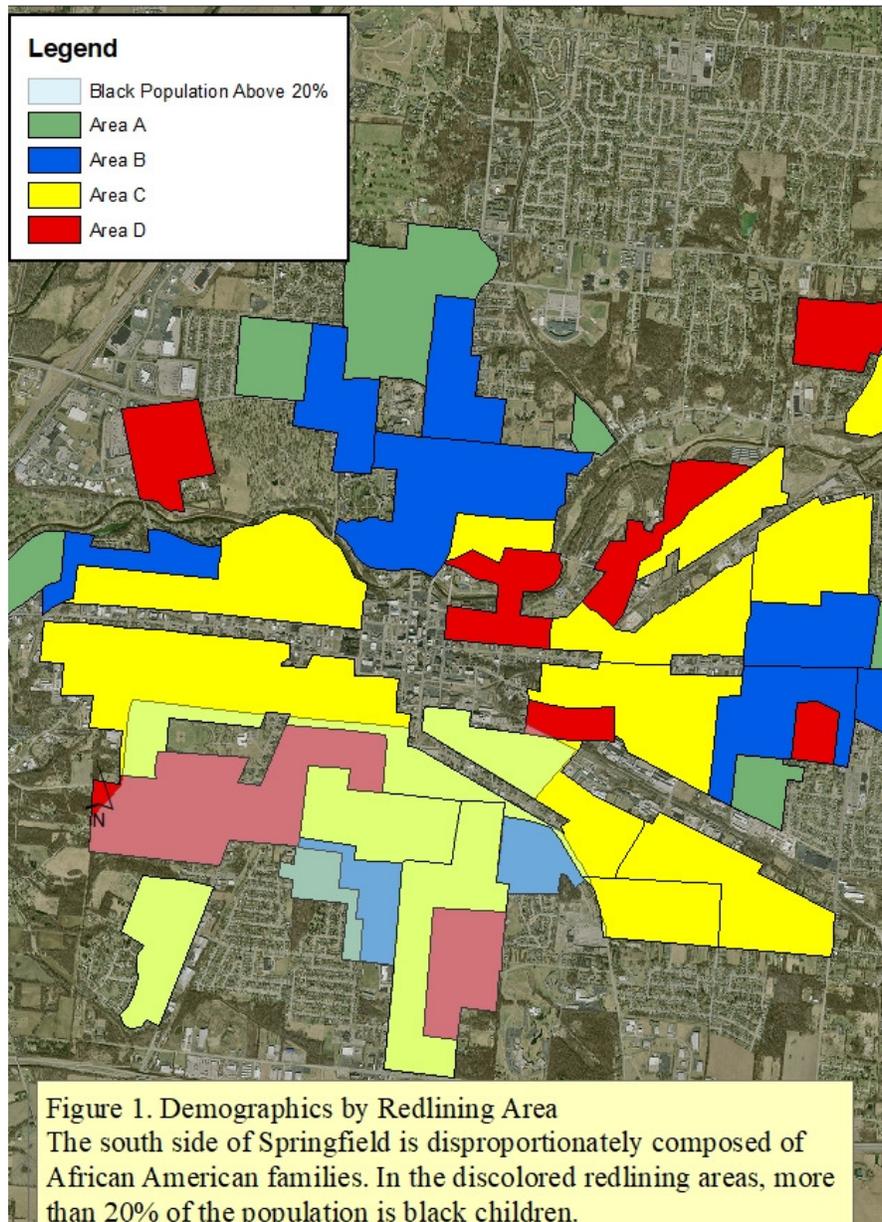
Redlining

Redlining is the denial of a service to an individual based on where they live. This can come in the form of mortgages, insurance, and access to transportation, or even quality of the schools and healthcare providers in the area. This creates a form of systematic inequality that disproportionately diminishes the quality of life of individuals living within these redlined areas. The Home Owner's Loan Company created four designations of redlining. These designations are divided into Area A, Area B, Area C, and Area D. Although none of these areas necessarily have a high economic status, Area A has the highest economic status of the designations and Area D has the lowest economic status. In addition to this higher economic status, individuals in Area A have a better quality of life due to easier access to hospitals, medical centers, schools, grocery stores, and transportation. It is worth noting that in Springfield, redlining is focused more on the south side of the city, an area known to be of lower socioeconomic status, that has limited transportation, and is at risk of becoming a food desert.

Environmental Justice

Environmental injustice is the certainty that communities of a lower socioeconomic class are often subject to disproportionate measures of pollution and contamination. This can be through older homes having lead paint, certain areas of a city being more exposed to industrial waste, or any other negative environmental consequence because of location. There is also environmental injustice in the form of a disproportionate distribution of environmental assets. This occurs when areas of a high socioeconomic status have an environmental advantage, such as the presence of rivers, more trees, or even landscaping that can prevent runoff contamination.

Environmental injustices also come in the form of environmental racism, especially in the circumstance of redlining. Environmental racism occurs when there is an unequal distribution of these environmental justice issues affecting one or more race, ethnic group, or minority. When looking at Springfield's HOLC zones, it is obvious that there is a disproportionate number of African American families located in the lower socioeconomic designations (Figure 1).



Springfield Housing Issues Associated with Redlining

Redlining data in Springfield shows that areas of a lower socioeconomic value contain more lots that are vacant. These areas become undesirable to live in, and as individuals move out the vacancies are not filled. This problem only increases with these vacancies as old and empty houses are boarded up, and become neighborhood eyesores. In addition to this, there is an increasing risk of lead exposure as these houses sit and decay. Over time, a vacant house with exterior lead paint will begin to chip and flecks of lead paint will begin to permeate the soil around the house. From there, the lead contamination will affect the lead concentration in run off, soil in neighboring properties, and inevitably compromise neighborhood safety as increased lead concentration can cause a myriad of health risks, especially in children.

The number of overall vacancies greatly increased from Area A to Area D, with C having the highest number of vacancies (Figure 2). Despite the number of vacancies overall being higher in C, D had the highest density of vacancies at 753 vacancies per square mile (Table 1). In comparison, Area A, with the highest socioeconomic status, only had 109 vacancies per square mile (Table 1).



"Vacant Building- Manitowoc, WI" by MichaelSteeber is licensed under CC BY-SA 2.0

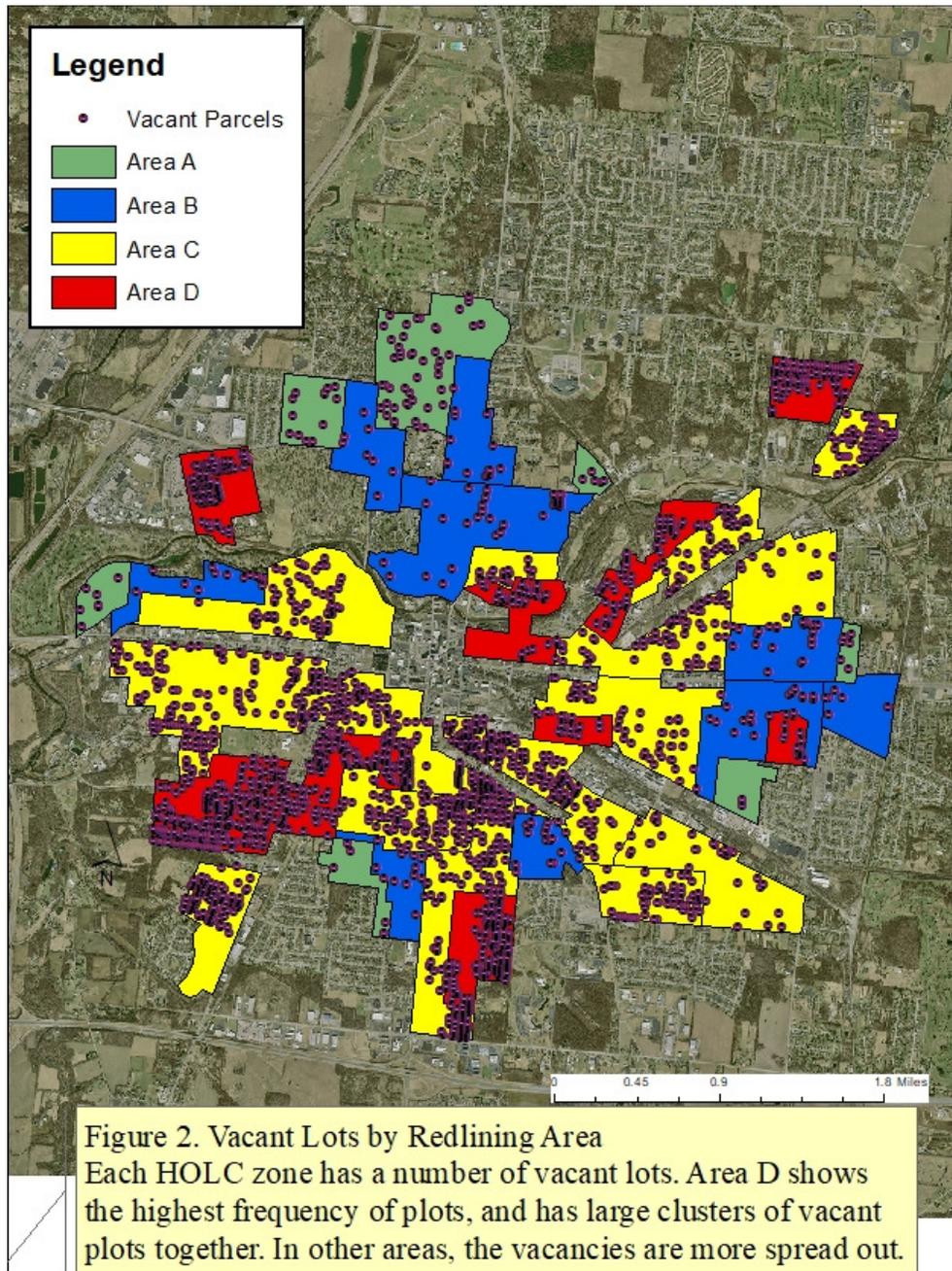


Table 1. Density of Vacant Lots The total number of vacant lots generally increases as the designation is lower. Additionally, the lowest socioeconomic designation has the highest density of vacant lots.

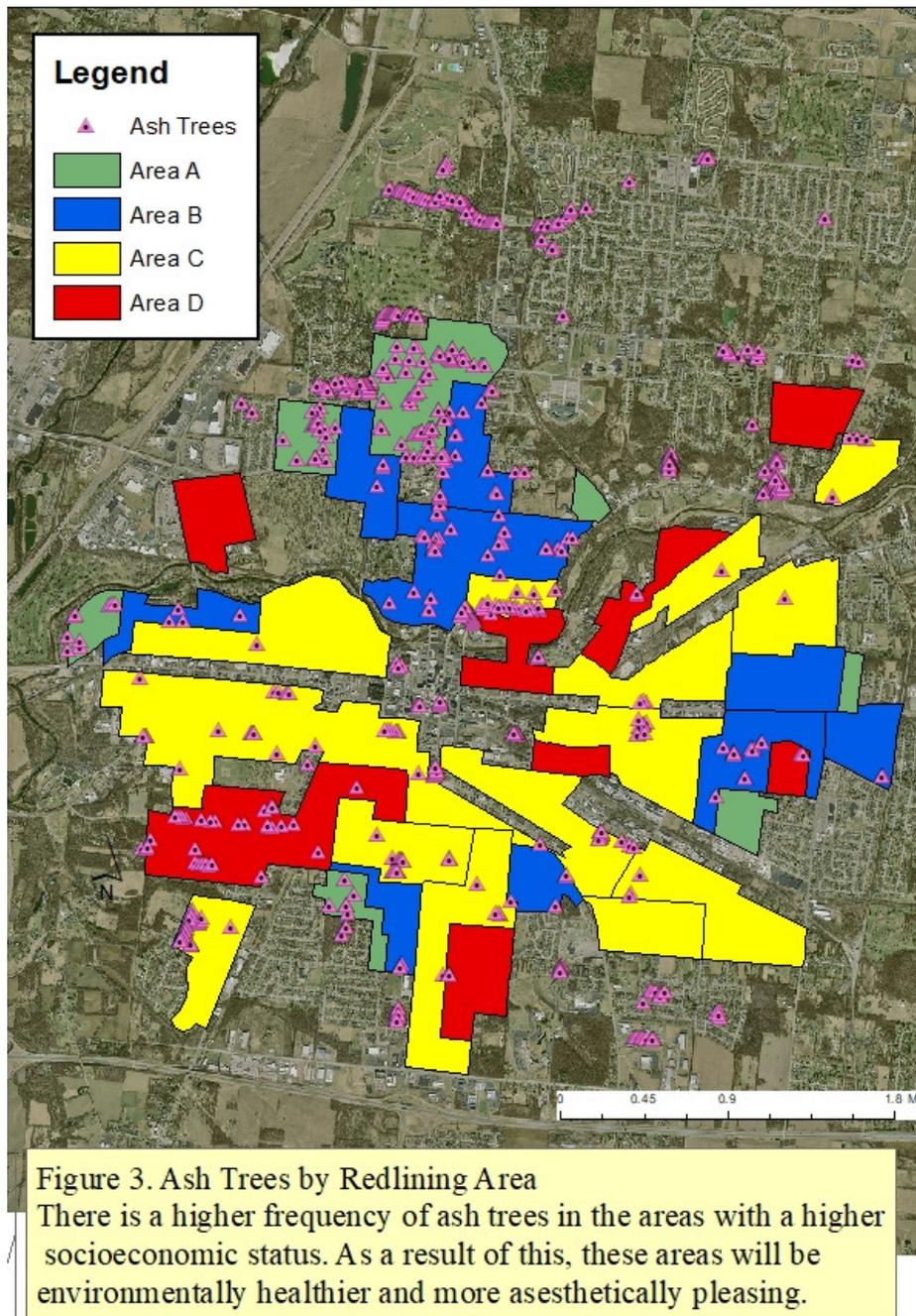
HOLC Zone	Total Number of Vacant Lots	Density of Vacant Lots per Square Mile
Area A	88	109.0853196
Area B	154	89.06470493
Area C	1403	360.5228738
Area D	1105	753.0438646

Environmental Injustice in Springfield

An environmental injustice in Springfield comes from the inequitable distribution of ash trees. Area A and Area B have a higher total population of ash trees when compared to Area C and Area D (Table 2). The south side of Springfield has significantly less ash trees overall than the north side of Springfield (Figure 3). Some of these trees are impacted by ash borer and will likely be replaced. As city planners address this, they have the opportunity to evaluate the distribution of trees in neighborhoods. Trees assist in keeping toxins out of the air, add nutrients to the soil, remove harmful gases from the air, prevent runoff, prevent soil erosion, and can even improve energy efficiency in an area.

Table 2. Number of Trees per HOLC Designation Area C has the highest number of ash trees overall, but Areas A and B combined have a higher number of ash trees (210) and therefore a higher environmental advantage than Areas C and D (197).

HOLC Designation	Number of Ash Trees
Area A	114
Area B	96
Area C	133
Area D	64



Planning Practices in Other Cities

One solution to the environmental injustice in Springfield would be to plant and monitor the growth of more trees (not just ash trees). A study done in Philadelphia showed that by planting more trees, the different

levels of resources allocated to the different communities' environments began to diminish (Schwarz *et al.*, 2015). Because of these resource reallocations, the environmental health of the area increase. This increase could make the area more aesthetically pleasing, and has the potential to draw homebuyers back to some of the lower socioeconomic areas. This could both improve the socioeconomic status of Area C and Area D, but also decrease the number of vacant plots. Additionally, a study in Cincinnati showed that neighborhoods that were more aesthetically pleasing were more sought out in younger couples looking to start a family and find new employment (Varady, 2007). By increasing the number of trees (and other native Ohio plants) and monitoring their growth, Springfield may be able to make the south side more aesthetically pleasing, encouraging families to move in.

References

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