Regeneration or Gentrification: What are the effects of reurbanization in Wilmington, Delaware? Which of its attributes are correlated with regional reurbanization?

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# Introduction

While most reurbanization research examines medium and large cities, small ones have been overlooked. This proposal advocates researching reurbanization in Wilmington, Delaware. Given Wilmington’s industrial history, the city serves as a viable subject for generalizing reurbanization’s effects in small, post-industrial cities. This piece posits two research inquiries regarding Wilmington’s reurbanization and its characteristics. Is reurbanization affecting the majority or are benefits accruing unequally? Which of Wilmington’s characteristics are correlated with regional reurbanization?

Beginning with the history of Wilmington and a review of urbanization models and theories, this proposal advocates methodologies for addressing these inquiries.

Wilmington is representative of small, post-industrial cities, in the United States and abroad. Originally purchased from the Lenape by the Swedes in the 17th century, New Sweden was established at Fort Christina, and was subsequently captured by the Dutch and then the British. Under British control, Fort Christina was renamed Wilmington (The City, 2018). In the 1800s, the DuPont family constructed a gunpowder mill that spurred development of supporting industries (Encyclopaedia Britannica, 2016). As a result, Wilmington was heavily involved in the Civil War, producing more gunpowder and ironclads than all other states combined. The fact that it supplied both the Union and the Confederacy contributed greatly to its economy and growth. Industry and population continued to grow until the post-war era, when suburbanization caused growth to reverse and stagnate (The City, 2018). Martin Luther King Jr.’s assassination and the subsequent riots and 9-month military occupation that followed intensified “white flight” and entrenched racial tensions (Miller, 2014; The City, 2018).

Today, Wilmington is within the Boston-Washington megalopolis and is best-known as a corporate tax haven (The City, 2018). Over half of the US’s publicly-traded companies are headquartered in Delaware, and, with more than 1,000,000 corporations, Delaware is home to more companies than people (Delaware Division of Corporations, 2018). The Port of Wilmington also contributes to the economy and is ranked first in US fruit imports. It manages shipments ranging from wind turbines to rocket components (GT USA Wilmington, 2018).

Figure 1 illustrates the significant demographic differences between Wilmington and Delaware.

**Figure 1: Selected Demographics of Delaware and Wilmington**

|  |  |  |
| --- | --- | --- |
|  | ***Delaware*** | ***Wilmington*** |
| ***Population*** | 961,939 | 71,106 |
| ***Change in Population (2010-2017)*** | 7.1% | 0.4% |
| **White** | 62.3% | 28.3% |
| **Black** | 22.8% | 58.1% |
| **Hispanic** | 9.3% | 10.8% |
| **Asian** | 4.1% | 1.5% |
| ***Med. Household Inc.*** | $63,036 | $40,221 |
| ***Proportion in Poverty*** | 13.6% | 27.0% |
| ***Data from United States Census Bureau QuickFacts, statistics as of July 1, 2017.*** | | |

## Literature Review

In order to analyze reurbanization, definitions from urbanization models and empirical studies will be considered. Reurbanization is first described in the stages of urban development (SUD) (Berg et al., 1982). The originators of SUD, Klaassen and Scimeni, write that “…the term ‘reurbanization’ [may refer to] the first phase of the second urban cycle” (1981, p. 26). This implies that, like urbanization, for a city to experience reurbanization its population must increase at the detriment of its periphery. Instead, Champion finds that urban centers are growing but suburbs generally lack the predicted outflows (2001, pp. 153-158), indicating a paucity of explanatory power. Therefore, differential urbanization should be examined to see which model better describes recent trends.

In differential urbanization, reurbanization occupies a similar position in the model. Geyer and Kontuly write that “counterurbanization will be followed by a concentration or urbanization stage in which net migration once again benefits metropolitan areas at the expense of mid-sized and small urban areas” (1993, p. 172). While this definition mirrors Klaassen and Scimeni’s in that reurbanization represents a cyclic re-initiation, it differs in context. By examining migration differentials of a region, a city’s attributes, relative to others, are the focus. These characteristics are crucial components for transitioning from microlevel analysis of urban cores and their peripheries to macrolevel examination of regional migration. From this, it can be deduced that the two models apply to migration at different scales. For the case of examining reurbanization in Wilmington, SUD seems more applicable, but it would be myopic to dismiss regional migration altogether. For instance, movement exists between Wilmington and neighboring cities. While Champion dismisses SUD’s explanation of current trends, he strays from rejecting differential urbanization’s explanatory power (Champion, 2001, pp. 156-158). Therefore, additional reurbanization descriptions should be considered.

While these definitions are derived from models, researchers have also generated demographic characterizations. For instance, Buzar et al. designate three dimensions of reurbanization: diversification of the urban core, increase in household density and number, and expansive in-migrant distribution throughout the city (Buzar et al., 2007a, pp. 80-81). While differential urbanization considers regional migration, Buzar et al.’s definition should be employed with SUD’s to determine whether local flows are resulting in reurbanization or some other phenomenon.

In all three definitions, reurbanization is described in terms of migration and, therefore, is intrinsically a manifestation of the socio-spatial dialectic. In defining the dialectic, Soja quotes Lefebvre: “Space and the political organization of space express social relationships but also react back upon them” (Lefebvre, quoted in Soja, 1980, p. 5). These relationships inherently accelerate reurbanization, as a gradual shifting of spatial organization toward the city further popularizes social norms surrounding the shift, leading to increased urban migration.

The relationship between finance capital and industry capital exhibits a similar dialectic. Soja writes that industry capital organizes around urban centers but is eventually supplanted by finance capital. Subsequently, finance capital comes to dictate the formation of both urban centers and industry (1980, pp. 217-219). Wilmington’s development illustrates this narrative. The urban center grew around industry, which was eventually supplanted by finance capital as corporations exploited tax regulations. As this industry-to-finance capital shift occurred, so did suburbanization, resulting in substantial population reduction, as numerous industrial jobs were phased out for relatively scare white-collar positions. Further research should therefore examine how a city’s capital composition influences its propensity to experience reurbanization.

While Buzar et al. and SUD set a strong foundation for local reurbanization research, the second demographic transition and gentrification must be examined before Wilmington’s experiences can be analyzed. Buzar et al. investigate the second demographic transition through household changes (2005, pp. 428-429). Notable components of this transition are decreasing fertility and marriage rates, greater incidences of living alone or in non-traditional arrangements, and the migration of younger people toward cities (Buzar et al., 2007b). Even though reurbanization can result in gentrification, Buzar et al. stipulate that identifying gentrification is simpler (Buzar et al., 2005, pp. 427-429; Buzar et al., 2007b, pp. 652). How can this be?

Gentrification’s meaning has become muddled, but further examination illustrates that its indicators are easily disaggregated from reurbanization’s. ‘Gentrification’ was first coined by Ruth Glass to describe replacement of the working class by the middle class, or gentry, in London’s Islington neighborhood (1964). In *Building and Dwelling*, Sennett furthers this description as the “…process by which the bottom 70-75 [percent]…become vulnerable to expulsion by the top quarter…” (2018, p. 138). Likewise, in *The New Urban Crisis*,Florida explains that gentrification results from well-off groups pushing poorer people out of residential areas by raising amenity rents through their consumption behavior (2018, pp. 63-86). While these definitions vary in language, they are essentially the same, and indicate that gentrification should be analyzed through migratory flows, like reurbanization. In conjunction, the definitions for gentrification and reurbanization indicate that there is fundamentally no difference between the phenomena; what differs are the outcomes—the resultant equalities or inequalities. For instance, Buzar et al. demonstrate that gentrification’s results are more apparent than equality’s (Buzar et al., 2005, pp. 427-429; Buzar et al., 2007b, pp. 652). It seems reurbanization always precedes gentrification, but not all reurbanization produces gentrification.

While a microlevel analysis is feasible at this point, Wilmington and its neighbors must be classified by function, size, creativity, and approach to reurbanization. These classifications will eventually allow for correlates of regional reurbanization to be determined.

In defining urban functions, McKenzie outlines four groups: rural towns, trading centers, industrial cities, and material parasites (1924, p. 301). Positioned at the confluence of the Christina and Delaware Rivers, Wilmington was established as a trading center, but progressed to an industrial settlement following the DuPonts’ arrival, before ultimately regressing to a commercial center in the post-war period. Aligning with suburbanization and the industry-to-finance capital shift, this reversal exacerbated population decline, indicating that urbanization stage and urban function are correlated. McKenzie also comments that “…the railroad and steamship…determine where a new business shall be developed” (p. 293). Indeed, Wilmington is also situated among a railway and interstate highway that connect it to Philadelphia and other cities. Further research should examine how cities’ infrastructural connections impact migratory region size.

Creativity is correlated with urban prosperity, and, therefore, may also be correlated with reurbanization. Florida is the original proponent of the “creative class”, and, thus, the “creative city”. He theorizes the importance of “the ‘[three] Ts of economic development’: talent, technology, and tolerance” (2018, p. xxi). Indeed, cities offer greater open-mindedness than rural areas, have a higher density of educational and artistic resources, and entice innovative firms through agglomeration benefits. However, while some cities are creative, others, like Wilmington, are not. A shortage of universities, museums, and technology firms and low diversity indicates that it is an uncreative city. Inherently, “creative” theory’s divisive nature seems to extenuate urban inequalities.

This has led to debate regarding metropolitan governments exploiting the three Ts to revitalize parts of their city. Pratt indicates that creativity, neo-liberalism, and universalism are highly correlated, and that promotion of the creative class contradictorily threatens diversity by valuing only majority views (2011, p. 129). Heinze and Hoose discount Florida’s analyses altogether but admit that the creative sector’s importance is undeniably growing (2012, p. 531). While this dissent is warranted, a city’s creativity classification measures innovation and societal progress, even if it may be in terms of the ‘good society’ (Pratt, 2011, p. 129). Therefore, the number of academic institutions, the number of technology firms, and diversity metrics will be used to classify Wilmington and its neighbors.

As an essential tenet of differential urbanization, a city’s size, relative to cities in its region, has been shown to impact migration. In this model, French cities with populations greater than 100,000 are considered primate and those with populations less than 10,000 are considered small. Those in between are considered intermediate-sized (Geyer & Kontuly, 1993, p.166). Another study classifies Korean cities as rural, local, regional, and metropolitan centers. Rural centers have between 20,000 and 50,000 people, local centers have between 50,000 and 200,000 people, regional centers have more than 200,000 people, and the very largest cities are metropolitan centers (Lee, 1989, p. 149). Adjusting these two scales yields a classification system for US cities (see Figure 2).

**Figure 2: Proposed Size Classifications, US Cities,**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Small*** | ***Intermediate*** | ***Metropolitan*** | ***Primate*** |
| 10,000 – 74,999 | 75,000 - 249,999 | 250,000 - 999,999 | 1,000,000+ |

Figure 3 illustrates that the relation between the population and rank of most US cities is lognormal, which is supported by research (Decker et al., 2017). Figure 4 depicts the distribution of sizes and shows how many cities are in each classification. Representing 3,206 US cities, the data show that there are far more small cities than all other sizes combined (SimpleMaps, 2018), indicating the dire need for further research in this area.

**Figure 3: Relation between Rank and Logged Population, US Cities, 2018**

**Figure 4: Distribution by Size Classification, US Cities, 2018**

Cities can also be classified according to their reurbanization policies. Griffiths outlines three primary approaches: promotional, integrationist, and cultural (1995, p. 254). Promotional approaches feature high art to attract investment and residents to the core (p. 255). Integrationist approaches focus on the city center as well but strives to unite individuals with shared cultural and communal values to spur “reclamation and rediscovery” (p. 254). Cultural approaches have no spatiality but focus on sustainable growth while developing cultural and art industries (pp. 254-255). Griffiths also outlines the importance of understanding initiatives’ audience, location, and beneficiaries (p. 255). These three aspects should be analyzed to determine initiatives’ true priorities.

Recently, Wilmington’s formal implementations have concentrated on improving visual attraction (Jedra, 2018; *Mike Purzycki*, 2017). Additionally, there has been a surge of residential investment, gig-economy workspace creation, and culinary development (Morris, 2018); however, most initiatives disproportionately benefit wealthy residents (Jedra, 2017; Baker, 2018). Despite focus on various urban aspects, these initiatives are integrationist or promotional. The lack of cultural movements indicates that Wilmington’s reurbanization is benefiting outsiders at the expense of its residents, especially since new initiatives raise the price of ordinary amenities, like rent, foodstuffs, and entertainment, leading to gentrification.

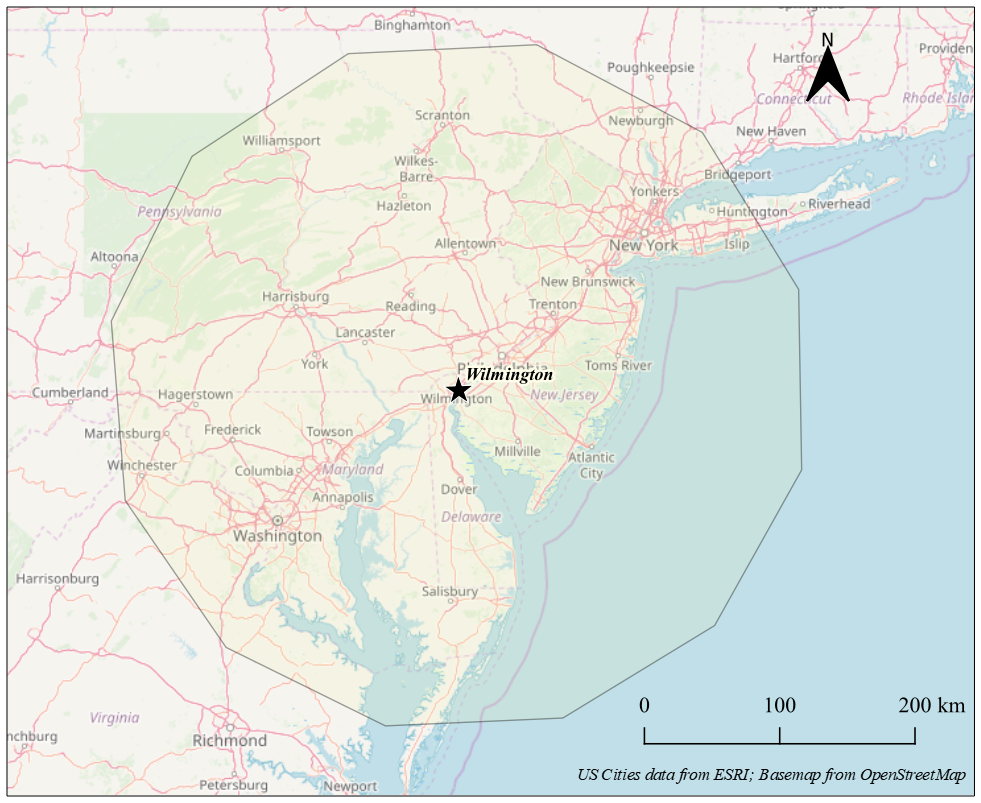
Reurbanization and gentrification studies have also utilized nonmigratory metrics. Glaeser et al. examine Yelp to analyze gentrification and find that increases in establishments and reviews are correlated with housing price increases (2018, p. 14). Other studies have used neighborhood changes in professionalism as a proxy for gentrification (Atkinson, 2000, pp. 151-152). Seo uses the same proxies as Buzar et al. but concludes that some demographic and migratory variables reveal gentrification while others indicate universal prosperity (Seo, 2002, pp. 121-122). In identifying reurbanization, further research should explore how these methodologies compare to those proposed below.

# Methodology

Given the contextual differences of SUD and differential urbanization, SUD’s and Buzar et al.’s definitions of reurbanization will be utilized to analyze microlevel migration within Wilmington. This will show whether local population shifts satisfy Buzar et al.’s tripartite definition for reurbanization. Data from the US Census Bureau and the American Community Survey (ACS) and will be utilized to calculate variation in the core’s diversity and change in household densities, between 2000 and 2010 (The City, 2010; United States Census Bureau, 2010; American Community Survey, 2017a). Interviews will need to be conducted on population samples from each census tract to determine in-migrant distribution throughout the city. Ultimately, if Buzar et al.’s requirements are fulfilled, demographic variables will be examined to determine the status and population of original residents, before and after the population increase. If original residents are worse off or have been replaced, it will be concluded that gentrification has occurred. Once these analyses are completed for each tract, the results will be aggregated to determine whether, on average, Wilmington is undergoing reurbanization or gentrification.

Differential urbanization’s definition will be utilized to determine if Wilmington is experiencing regional reurbanization. Migration within the region will be analyzed and cities that have grown at the detriment of others will be classified as having experienced reurbanization. The ACS’s data on metro-to-metro migration will be used in conjunction with data from the Census Bureau’s Census Flows Mapper (American Community Survey, 2017b; United States Census Bureau, 2017). However, before analysis can be conducted, Wilmington’s statistics must be disaggregated from the Philadelphia-Camden-Wilmington region. While sprawl exists between Wilmington and Philadelphia, it is mostly low-density, residential growth surrounding industry. A 250 kilometer buffer represents the region and is shown below.

**Figure 5: Proposed Region of Focus**



Once the comparative analyses among cities is complete, results and classifications will be examined using a logistic regression. Reurbanization results will be converted to a binary and used as the dependent variable, and classifications will be converted to binaries to serve as independent variables. Coefficients will capture the likelihood of a city with that attribute to undergo reurbanization, *ceteris paribus*. A preliminary regression is specified below.

**Figure 6: Specification of the Proposed Logistic Regression**

Regarding further research, multiple extensions have been suggested. Additionally, variables that capture past urban functions could be illustrative. For instance, a regression like the one above can be utilized to determine the propensity of post-industrial cities to experience reurbanization. Further research should also examine why cities experience reurbanization regionally but not locally.

Once complete, local and regional analyses will be compared to conclude whether Wilmington is undergoing reurbanization on both scales. It may be that Wilmington has experienced reurbanization locally but not regionally. Likewise, metrics of original residents will be analyzed to ascertain whether gentrification has occurred. Finally, a logistic regression will be analyzed to determine which urban characteristics are correlated with regional reurbanization. The study will last approximately two years, as interviews need to be conducted. At that point, new census data will hopefully be available, providing for a more topical study.

Ultimately, the goal of the proposed analysis is to fill a gap in reurbanization research. Previous studies tend to focus on reurbanization in intermediate-sized to primate cities, but often ignore how the phenomenon manifests in smaller urban agglomerations. While the goal is to address this problem, the proposed study is not a panacea. Its focus is determining how reurbanization has affected Wilmington, if at all, in addition to indicating which urban characteristics are possibly correlated with the phenomenon. With respect to Wilmington, these analyses are expected to be ample, whereas further research should examine whether the generalizations extended to urban attributes and their correlations with reurbanization are substantial and irrefutable.

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