# OVER THE EDGE: Trajectories of African-American Middle Neighborhoods in St. Louis Since 2000

Alan Mallach Center for Community Progress Washington DC amallach@comcast.net

### ABSTRACT

The phenomenon of the middle neighborhood, those urban working-class neighborhoods, that are, in Paul Brophy's words, "not in deep distress but not thriving either," has not been widely studied, particularly African-American middle neighborhoods. This paper calls attention to the large number of such neighborhoods that emerged in the 1970s in the wake of white flight and examines the trajectory of those neighborhoods in St Louis since 2000, showing how the great majority of these neighborhoods, after decades of relative stability, have seen devastating social, economic and housing market decline since 2000. The paper examines the roles of subprime lending and the foreclosure crisis, as well as accelerated suburbanization of black middle-class families since 2000, as central factors in the decline, explores the effect of the decline on black homeowners' equity as well as the larger social and political configuration of the city, and suggests policy directions to address these neighborhoods' decline.

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## 1. Introduction: the idea of the middle neighborhood

The purpose of this paper is to investigate a phenomenon that has been given little attention in the research literature, the trajectory of African-American middle neighborhoods since the beginning of the current millennium. Since not only this subject, but the entire concept of what are referred to as "middle neighborhoods" (Brophy 2016) is likely to be unfamiliar to many readers, I will begin with a short introduction to place the subject in perspective, as well as to identify the extent and limitations of the relevant literature.

The ongoing process of urban neighborhood change and the nature of the forces driving those changes have been the subject of a vast literature since the work of the Chicago School in the 1920s (Park 1952, Keller 1968, Schwirian 1983, Grigsby 1986, Mallach 2015a among many others). While much of the classic work on neighborhood change was produced many years ago, in recent years important work has appeared on specific forces driving change, such as mortgage foreclosures (Li and Morrow-Jones 2010, Schuetz, Been and Ellen 2008 among others); the effect of interventions such as demolition or housing rehabilitation on neighborhood trajectories (Griswold et al 2014, Dynamo Metrics 2016); and above all, on that subset of neighborhood change generally referred to as gentrification, where the volume of literature is so extensive that it needs no citation<sup>1</sup>.

A pronounced imbalance appears to exist, however, in the nature of the neighborhoods and changes studied. For one, gentrification appears to be a much more popular subject than neighborhood decline, as reflected in the number of books and both scholarly and popular articles that have appeared,<sup>2</sup> as well as the extent to which it is the subject of controversy and local policy advocacy. This appears to be the case not only in cities like Seattle or Washington DC, where gentrification is extensive, but also in Midwestern cities like Milwaukee or Detroit, where the evidence indicates that decline is substantially more widespread than gentrification (Mallach 2015b, Webber 2016, Dowdall 2016).

With regard specifically to predominately African-American neighborhoods, a similar imbalance can be seen. The bulk of the research is on neighborhoods of concentrated poverty, often focusing on the problems associated with those neighborhoods, such as crime or health problems; as Patillo (2005) points out, "Although the seminal studies of black community life always included a consideration of the enclaves carved out by the small group of middle-class African Americans, the spotlight put on the black poor beginning in the 1960s altered that

practice. With few exceptions, the focus was on poor blacks in poor neighborhoods, as illustrated by a slew of now-classic "ghetto" ethnographies (p306, citations omitted)".

Yet most black households are not poor, and most do not live in concentrated poverty neighborhoods. There has, of course, been research on the black middle class, but relatively little on the neighborhoods in which they live, and of that little, much of it focuses on the dynamics of suburbanization by the black middle class, rather than the trajectories of their neighborhoods as such. Patillo's pioneering taxonomy of those neighborhoods (Patillo 2005), and the rich sociological/ ethnological case studies by Patillo (2013) and Woldoff (2011) are notable exceptions.

The scholarly imbalance has been paralleled by a similar imbalance in the world of practice where in recent decades, at least until recently, the overwhelming focus of attention and resource allocation by municipal governments, philanthropies or community development corporations (CDCs) has been on the poorest, most disinvested, neighborhoods, rather than on those many neighborhoods in American cities that veteran urban practitioner Paul Brophy aptly puts it, "are not in deep distress, but are not thriving either." (Brophy 2016, vii) These neighborhoods have recently been dubbed, by Brophy and others, "middle neighborhoods." As George Galster has written, "compared with places that are gentrifying or concentrating disadvantage, middle neighborhoods have been largely ignored by urban scholars and planners (Galster 2016, p9),"

Exactly what is a middle neighborhood may not be susceptible to precise definition. Webber (2016) defines them as "traditionally [...] the heart of American cities....the neighborhoods where working and middle class citizens live, raise families, pay taxes, send their children to school, go to church, synagogue or mosque, and shop at the local grocer."<sup>3</sup> In past eras when the middle class, roughly defined as those households with incomes reasonably close to the citywide median income, made up the majority of most urban populations, they were the dominant urban neighborhood type; neighborhoods made up of single family houses<sup>4</sup> with high levels of homeownership, which provided homes for the middle-income workers who propelled the city's economy and government, and which for the most part provided their families with a safe and supportive environment.

Contrary to the widely held view that such neighborhoods disappeared with suburbanization and white flight, a view implicitly reinforced by thoughtful yet one-sided books mourning their demise (Ehrenhalt 1995, Suarez 1999), they continued to exist, although diminished in number and extent. In some cases, they remained predominately white neighborhoods, often with a distinct ethnic identity, like The Hill, an Italian neighborhood in St Louis.

More often, however, they went through racial transformation but – at least for many years – experienced far less demographic or economic change, as striving African-American families took advantage of the space left by white flight to move into neighborhoods from which they had been largely blocked before passage of the Fair Housing Act. In a little-recognized process

largely obscured by dominant narratives about neighborhood decline and suburbanization, many formerly white middle-class neighborhoods in America's older cities that went through racial transitions in the 1970s became and remained for some decades thereafter black neighborhoods of similar middle class character. That process, which to the best of my knowledge has not been the subject of systematic investigation, is worth a major study in itself.

That is not the subject of this paper. Instead, using St Louis as a case study, I will focus on what happened to a cluster of those neighborhoods after 2000, as the increasingly fragile framework of the black middle-class urban neighborhood began to collapse. In the second part of this paper, after a short discussion of the larger neighborhood context in St Louis, I describe the trajectories of its African-American middle class neighborhoods, exploring both housing market and socioeconomic change over the period since 2000 in eighteen census tracts which I define as middle neighborhoods.

The third part of the paper explores what factors might be responsible for the precipitous change documented in the first part. While this is a preliminary investigation, and does not offer definitive answers, I show how a cluster of inter-related forces, most significantly the foreclosure crisis of the early 2000s and the evidence for a strong black middle-class exodus from the city during those years, may represent a significant part of the explanation for the change. Finally, I explore the implications of this change, in terms of both the loss of African-American household wealth associated with the loss of home equity, and its effect as a driver of increased racial and economic polarization in the city of St Louis, closing with some brief comments on the public policy implications of the changes that I describe.

2. The trajectories of African-American middle neighborhoods in St Louis

#### a. Overview

St Louis is a good place to study neighborhood trajectories in America's older industrial or legacy cities (American Assembly 2011). In contrast to Detroit, whose precipitous decline after 2000 makes it an extreme case among major US cities, St Louis has seen significant revival in recent years fueled by in-migration of college-educated Millennials, growth in the higher education and health sectors, and revitalization of a number of city neighborhoods (Mallach and Beck Pooley 2018). Since 2000 its rate of growth in median incomes and house values has outpaced national trends. As such, its post-2000 trajectory with respect to demographic, economic and housing market factors is generally similar to that of many other older cities, including Baltimore, Pittsburgh and Cincinnati. As is true of those cities, St Louis is still a relatively poor city by national standards, in marked contrast to a handful of older cities like Boston, Seattle or Washington DC, which have revived to such an extent that they are now significantly more prosperous than the nation as a whole. While not typical of all cities – recognizing that significantly different dynamics affect cities in the Southwest and West in particular – it is representative of a significant class of American city.

St Louis, moreover, has a straightforward spatial configuration and a highly segregated racial history. The city, which is shaped much like a teardrop, is divided into three distinct areas. The Central Corridor, a strip 1 to 1.5 miles wide, contains downtown St Louis, the city's major medical centers and universities, a few neighborhoods, most notably the historic and affluent Central West End and the iconic Forest Park, modelled by its designers after Olmsted's recently-completed Central Park and Prospect Park. The rest of the city is divided into North City and South City (also known as Northside and Southside), each of which is made up of many distinct neighborhoods (Figure 1).

Figure 1: City of St Louis map showing principal geographic divisions



Historically, St Louis was highly racially segregated, with areas of black residence limited to areas north of Delmar Boulevard, the *de facto* boundary between the Central Corridor and North City, a line widely known in St Louis as the "Delmar divide" (Harlan 2014, Hines 2018). Although the reality on the ground has shifted in recent years, this divide still dominates perceptions of racial 'territory' in St Louis today. Well into the postwar period, African-Americans were excluded from all but a handful of enclaves south of Delmar Boulevard, and for much of that period, from most of the area north of Natural Bridge Road (dashed line in Figure 1) as well. Although over 25% of the population of South City is African-American today, North City continues to be racially segregated, with 96% of its 2015 population black.

While, as I have suggested earlier, the concept of a middle neighborhood is both multifaceted and arguably in part subjective, for this analysis I have adopted a straightforward definition, treating as middle neighborhoods those census tracts in which the tract median household income is between 80% and 120% of the citywide median household income. To measure trends, I look at those census tracts where the median income is within that range for the baseline year of the trend. While the use of household income as the definition seems intuitively reasonable; e.g., middle neighborhoods being where middle income people live<sup>5</sup>, I recognize that the choice of any particular income range is open to debate. My definition of middle income reflects what it might mean in the specific context of the city of St Louis, rather than what it may mean from a regional or national perspective. As such, given St Louis' relative poverty, many of these neighborhoods, particularly those at or near the bottom of the range, might well not be considered middle neighborhoods in more affluent regions.

As is customary in neighborhood research, I used census tracts as the *de facto* equivalent of a neighborhood. I used the Geolytics/Urban Institute Neighborhood Change Data Base, which provides historic data for census tracts normalized to post-2010 boundaries to extract data for 2000 and earlier and the five-year American Community Survey for post-2000 data.<sup>6</sup> I have supplemented that data with data on real estate market activity from 2000 to 2017 acquired from CoreLogic.

The number of middle neighborhoods as defined above in St Louis as a whole has declined sharply since 2000, going from 48 census tracts to 23 by 2015. The *trajectory* of change, however, was very different in North City than elsewhere in St Louis. As Table 2 shows, while 14 of 18 or nearly 80% of middle neighborhoods in 2000 in North City followed a downward trajectory between 2000 and 2015, the same was true of only 20% of middle neighborhoods in the rest of the city, 40% of which moved upward with the balance remaining unchanged. This is in sharp contrast to the 1990s. Among areas that were middle neighborhoods in 1990, whether located in North City or South City, almost all (90%) were still middle neighborhoods in 2000. Table 1 compares neighborhoods using the same definition; i.e., neighborhoods that were in the same income bands in 2000 and in 2015 relative to the (changing) citywide median, while Table 2 looks at the change in the incomes of areas that were middle neighborhoods in 2000.

This is not a simple matter of racial population distribution; of the 12 middle neighborhoods in South City and the Central Corridor that moved upward, three were roughly two-thirds black in 2000, while four more were roughly 40% black in 2000. All seven tracts, however, had features that made them particularly well positioned to benefit from an influx of largely white middleand upper-income households, including their location close to the jobs and amenities in the Central Corridor and the distinctive architectural and historical character of much of their housing stock and urban landscape (Guerrieri, Hartley and Hurst 2013, Mallach and Beck Pooley 2018).

Moreover, with the exception of one area, where a local community development corporation has pursued a unusual and successful strategy that combines inclusion with market-building and where the black population remained stable, the black population of the rest of the seven tracts declined by over 40% or 5,000 people between 2000 and 2015, making clear that these neighborhoods were far from stable, but were undergoing significant upward neighborhood

transition or gentrification (Mallach and Beck Pooley 2018). As I have written about these neighborhoods in detail recently, I will not discuss their trajectory further in this paper except for purposes of comparison with the subject census tracts.

	2000	2015	CHANGE
NORTH CITY			
UPPER (>120% citywide median)	0	0	0
MIDDLE (80-120% citywide median)	18	5	-13
LOWER (<80% citywide median)	22	35	+13
ST LOUIS BALANCE			
UPPER	25	33	+8
MIDDLE	30	18	-12
LOWER	11	15	+4
CITY AS A WHOLE			
UPPER	25	33	+8
MIDDLE	48	23	-25
LOWER	33	50	+17

Table 1: Distribution of census tracts by income status 2000 and 2015

Table 2: Change in status of middle neighborhoods 1990-2000 and 2000-2015

	1	0
	1990-2000	2000-2015
NORTH CITY		
TO UPPER INCOME	0	0
NO CHANGE	7	4
TO LOWER INCOME	1	14
ST LOUIS BALANCE		
TO UPPER INCOME	0	12
NO CHANGE	21	12
TO LOWER INCOME	2	6

18 out of 40 North City census tracts, containing 49% of North City's population, were middle neighborhoods in 2000 by my definition. Twelve of the eighteen were located north of Natural Bridge Road, and seven were predominately white neighborhoods in 1970, which went through rapid racial transition during the 1970s. The black population share of those seven census tracts increased from 13% to 77% between 1970 and 1980. In the area north of Natural Bridge Road as a whole, the black population share went from 43% to 83%, as three-quarters of the area's white population left during the decade.

The transition was largely seamless. Older white homeowners were generally replaced by black

homebuyers, and the homeownership rate remained the same, although family incomes, adjusted for inflation, dropped by about 10% between 1970 and 1980. While many of these areas showed increasing signs of strain, including rising poverty and housing vacancy rates, over the next two decades, they remained relatively stable family and homeowner-oriented middle-income neighborhoods, and for the most part were still such neighborhoods in 2000. That should not be overstated; they were not *affluent* neighborhoods. Relative to national levels, many already had relatively low incomes and high poverty rates in 2000. They had gradually declined over the preceding decades, paralleling St Louis' overall decline during those years. As noted earlier, they were middle neighborhoods *relative to the city of St Louis*, which was and is far from a wealthy city.

### b. The post-2000 collapse

The 18 North City census tracts that I have identified as middle neighborhoods in 2000 showed precipitous declines across the board with respect to social, economic and housing market conditions from 2000 to 2015. Table 3 shows the change in key social and economic indicators in the 18 tracts as a whole (Appendix Table A-1 shows changes for individual tracts). In 2000, the median income for these tracts as a group was 92% of the citywide median; by 2015 that had dropped to 70%. Poverty rates had risen sharply, and in four of the 18 tracts was now above 40%. The population of the area had dropped far faster than that of the city during the same period, while the number of employed residents dropped even more, as their share of the area population declined. Unemployment skyrocketed, with the number defining themselves as unemployed – a figure likely to be higher than the official definition – approaching 25% of the workforce. Significantly, in terms of social and economic stability of this area, the number of married couples with children under 18, which had already declined by 30% between 1990 and 2000, declined by nearly 60% from 2000 to 2015.

TABLE 5. Change in social and economic indicators 2000 to 2015 in 16 census tracts						
	2000	2015	N CHANGE	% CHANGE		
			2000 -2015	2000-2015		
Total population	60159	47243	-12916	-21.5%		
Median income (in constant \$\$\$)	\$36254	\$25564		-29.5%		
Poverty Rate	24.1%	32.7%		+35.7%		
Number of married couples with	2010	845	-1165	-58.0%		
children <18						
Number of employed residents	20401	15297	-5104	-25.0%		
Number of unemployed residents (1)	3815	5033	+1218	+31.9%		
Unemployment rate (1)	15.8%	24.8%		+57.0%		

TABLE 3: Change in social and economic indicators 2000 to 2015 in 18 census tracts

(1) Unemployment rate is based on self-reporting in the Census and American Community Survey rather than the official unemployment rate. It is likely to be significantly higher than what would be determined using the official definition.

The change in housing markets was equally pronounced. Table 4 shows the change in key

housing indicators in the 18 tracts as a whole (Appendix Table A-2 shows changes for individual tracts). Although differences in methodology between the 2000 census and the American Community Survey are likely to have led to the latter somewhat overstating housing vacancy relative to the former (Anderson and Hefter 2012), the increase is still notable, with the number of 'other vacant' units – a rough proxy for abandoned units – doubling. The number of homeowners, another indicator of residential stability, dropped by over 3,600 or 29%, while real estate sales volumes, after rising from 2000 to 2006, declined to a level so low as to suggest outright market failure than merely market weakness.

	2000	2006	2015	N	%CHANGE
				CHANGE	2000-2015
				2000-	
				2015	
Overall vacancy rate(1)	17.3%		27.8%		+60.7%
Number of 'other vacant' units	2676		5353	+2677	+100.4%
'Other vacant' rate (1)	10.1%		21.1%		+108.9%
Number of homeowners	12799		9123	-3676	-28.7%
Homeownership rate (2)	58.5%		49.9%		-14.7%
Number of home sales	545	927	95	-450	-82.6%
Sales volume (3)	3.5%	6.0%	0.6%		-82.9%

TABLE 4: Change in housing indicators 2000 to 2015 in 18 census tracts
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(1) Calculated as percentage of total housing units

(2) Calculated as percentage of occupied housing units

(3) Calculated as percentage of single family units

It is more difficult to assemble reliable data on sales prices in this area, because of the small volume of sales, particularly in recent years, and substantial fluctuation from one year to the next in terms of the spatial distribution of those sales. To get some sense of the sales price trend, I look at those six census tracts with the most transactions, and at least 10 transactions in 2017; these six tracts accounted for nearly three-quarters of all recorded transactions in the area as a whole (Table 5). It shows a consistent picture; a moderate increase in prices, coupled, however, with a sharp increase in the volume of transactions, from 2000 to 2006, and a decline, first gradual and then precipitous, resulting in a drop of 52% in the median sales price in the area in constant dollars.

The decline in both prices and sales volume has led to a striking drop in the level of home purchase investment in these tracts (Figure 2). From 2000 through 2003, \$16 to \$17 million was invested annually in home purchases in these tracts. In 2006, at the peak of the housing bubble, that figure rose to \$36 million, only to drop to \$5 million by 2011 and to \$2 million by 2016. The number of home purchase mortgages made in these six tracts dropped from 301 in 2006 to 34 in 2015.

		2000		2006		2011		2017
105500	45	\$70,000	60	\$105,000	12	\$81,700	13	\$63,500
107300	67	\$46,000	136	\$67 <i>,</i> 000	11	\$58,871	13	\$26,875
108100	66	\$50,000	78	\$65 <i>,</i> 000	7	\$74,950	21	\$35,500
108200	28	\$60,000	49	\$65,950	10	\$54,049	16	\$37,800
108300	49	\$44,950	67	\$63 <i>,</i> 850	4	\$32,500	10	\$32,500
126900	58	\$48,000	118	\$70,000	9	\$58,000	10	\$57,500
All six tracts	313	\$60,442	508	\$71,361	53	\$63,115	83	\$41,267

TABLE 5: Median sales prices and sales volumes by year for selected census tracts

SOURCE: CoreLogic





SOURCE: CoreLogic

As the market declined, the mix of buyers shifted sharply from owner-occupants to absentee buyers or investors, something which can be seen as both a symptom and possibly a causal factor of that decline. In the six census tracts, the percentage of residential sales to investors increased from roughly 20% between 2000 and 2003, to over 50% from 2013 onward. In contrast, in South City middle neighborhood tracts in 2000 which saw subsequent increases in sales prices and median incomes, the share of investors in the market actually declined slightly over the course of the same period (Figure 3).

In sum, over the same years that the city of St Louis was showing strong signs of revival and the great majority of 2000 middle neighborhoods in South City were remaining stable or seeing upward movement in household incomes and house prices, the great majority of neighborhoods with a similar 2000 income profile in North City were turning into high-poverty, high-vacancy and low house value areas. What factors might account for this dramatic decline?



FIGURE 3: Percentage of real estate sales to investors in selected North City and South City census tracts 2000 to 2017.

# 3. Drivers of decline: Why did North City's middle neighborhoods fall off a cliff after 2000?

While it is always risky to assign causality to any one, two or even more factors in interpreting a complex social and economic phenomenon like neighborhood change, especially when it is as pronounced as shown here, it is important to try to identify those factors which seem to be particularly critical in driving the trajectory of these North City neighborhoods; or alternatively, factors that are *absent* in those neighborhoods compared to the stable or reviving South City middle neighborhoods, in order to begin to frame explanations for the observed decline.

The North City neighborhoods were disproportionately affected by the subprime lending frenzy of the early years of the millennium and by the foreclosure crisis that followed on its heels, being particularly attractive to prospective lower income homebuyers because of their high affordability coupled with relative stability. In view of the extent to which subprime lending disproportionately affected African-American neighborhoods (Rugh and Massey 2010, Faber 2013), as well as the extent to which this reflected deliberate targeting of African-American communities across the United States (Fisher 2009, Steil, Albright, Rugh and Massey 2018), it appears unlikely that any mechanisms unique to St Louis were involved.

In 2005, the last full year of the subprime frenzy, 407 of 544 purchase mortgages or 75% of all mortgages made in the 18 North City middle census tracts were high-cost mortgages, compared to 29% in the rest of the city. Figure 4 graphically shows the disparity in high-cost mortgage lending between the all-but-entirely black North City census tracts and predominately white or

racially mixed areas in the Central Corridor and South City. The picture also reflects the extent to which subprime lending fueled the movement of African-American families into the struggling inner suburbs of North St Louis County west of North City, including the nownotorious city of Ferguson, located in the upper left of the map.



FIGURE 4: Distribution of high-cost purchase mortgages by census tract in 2005

SOURCE: HMDA; map from PolicyMap

Coupled with this explosion of subprime lending in North City, sales volumes increased in North City at rates far greater than elsewhere in the city between 2000 and 2007 (Figure 5). This was not the product of new residential construction, but of increased sales within the existing stock, most probably including speculative buying and possible 'flipping' of properties. Sales volumes then dropped far more sharply in North City – and particularly in the 18 middle census tracts after 2007 – than elsewhere and have yet to recover. By 2017 South City and Central Corridor sales volumes had returned to 80% of their 2000 level, but sales volumes in the 18 census tracts were still less than 20% of their 2000 level.

Predictably, as foreclosures started to rise in St Louis as elsewhere in the United States, they rose more sharply in North City, and in the 18 middle census tracts in particular, than in other parts of the city. The foreclosure rate in those tracts was already high relative to the rest of the city in 2000; although we do not have data on lending practices prior to 2000, this suggests that there was already considerable instability among the owners of these tracts' housing. Although they contained 15% of the city's total housing stock and 20% of its single-family stock, those tracts had accounted for 26.5% of citywide foreclosures in that year.





#### SOURCE: CoreLogic

NOTE: Values are shown relative to 2000 value (2000 value = 1)

Foreclosures increased markedly over the next few years. Between 2004 and 2006, these 18 tracts accounted for over 36% of all foreclosures in St Louis. Foreclosures rose in those tracts well before the end of the subprime boom; during 2004 and 2005, lenders were still making large numbers of high-cost loans in the area even as foreclosures were rising precipitously. During the same period, the number of foreclosures in the six reviving South City middle census tracts mentioned earlier actually *declined*; even at the height of the foreclosure crisis, the number of foreclosures in those tracts never exceeded their 2000 level.

The explosion of subprime lending, coupled with the rise in foreclosures, and the subsequent shift in home purchase activity from homebuyers to investors, as described earlier, were significant destabilizing factors affecting North City's middle neighborhoods. They were coupled with, and arguably contributed to what may be an even more significant factor, the precipitous exodus of middle-class households from the area.

Although black middle-class suburbanization not a new phenomenon (Winsberg 1985), many observers suggest that it has accelerated markedly since 2000. While the increase in 'black flight', as it has been widely called, has yet to receive systematic scholarly attention, it has been the subject of many journalistic accounts, including reports from Philadelphia (Ferrick 2011, Mallowe 2011), Chicago (Lee 2016) and Detroit (Kellogg 2010), as well as more modest but credible accounts from many other cities including Birmingham, Dallas, Memphis and Oakland. As demographer William Frey has written, "Leading black movement to the suburbs are the young, those with higher education, and married couples with children—attributes that characterized white suburbanization for almost a century. While delayed for decades, a full scale suburbanization of blacks is finally underway (2015, np)."

Census tract level data does not allow one to track mobility as such in detail by economic status, but a convincing picture can be obtained by comparing the income distribution of households between 2000 and 2016. While income change reflects factors other than mobility, such as job loss, retirement or change in household composition, one rarely finds a compelling reason that such changes should disproportionately affect any particular income group in a small area more than another relative to citywide, regional or national trends. Thus, a disproportionate shift in one direction or another in a small area relative to other areas is likely to reflect a local migration pattern. In that light, I looked at changes in household income distribution between 2000 (1999 incomes) and 2016 in three groups within the city of St Louis; residents of the 18 North City middle census tracts; the balance of the city's black population; and the citywide non-black population, which is largely non-Hispanic white.<sup>7</sup> I used the CPI to adjust income ranges for inflation from 1999 to 2016.<sup>8</sup> The results are shown graphically in Figure 6 and numerically in Table 6.



FIGURE 6: Change in number of households by inflation-adjusted income range 2000 to 2016

SOURCE: Decennial Census; American Community Survey

The discrepancies between the three groups are striking. The number of both white and black households in St Louis declined from 2000 to 2016, but the income distribution of that decline varied sharply by race. As the number of low and moderate income white/other households dropped, the number of white/other households in St Louis with incomes over \$75,000 in 1999 dollars (\$108,263 in 2016 dollars) increased by over one-third. The city's black population shifted in the opposite direction, with a net increase in lower-income households and a decline in households with incomes above \$35,000 in 1999 dollars. Finally, the North City middle census tracts saw the most severe disparities; as the number of low-income households grew, the number of households with incomes over \$50,000 in 1999 dollars dropped by nearly 60%, a far greater decline than among the black population elsewhere in St Louis, and the equivalent

INCOME RANGE	IE RANGE HOUSEHOLDS IN 18 MIDDLE		BLACK HOUSEHOLDS IN BALANCE			WHITE/OTHER HOUSEHOLDS				
		CENSUS 1	FRACTS		OF CITY			CITYWIDE		
							%			
1999	2016 (1)	2000	2016	% CHANGE	2000	2016	CHANGE	2000	2016	% CHANGE
LOW										
0-\$24,999	0-\$36,087	10625	11663	+9.86%	28126	29248	+3.8%	30243	28508	-5.7%
MODERATE										
\$25,000-	\$36,088-									
\$34,999	\$50,522	3089	2136	-30.9%	5947	6197	+4.2%	12427	10491	-15.6%
MIDDLE										
\$35,000-	\$50,523 -									
\$49,999	\$72,175	3161	2000	-36.8%	5384	4495	-16.5%	14352	12235	-14.8%
UPPER-MIDDLE										
\$50,000-	\$72,176-									
\$74,999	\$108,262	2903	1281	-55.9%	4046	2895	-28.4%	12880	12642	-1.8%
UPPER										
\$75,000 AND	\$108,263									
ABOVE	AND ABOVE	1775	713	-59.8%	2372	1878	-20.8%	10749	14410	+34.1%
TOTAL		21553	17793	-17.5%	45875	44713	-2.5%	80651	78286	-2.9%

TABLE 6: Change in number of households by inflation adjusted income range 2000 to 2016

(1) 1999 income ranges adjusted for CPI change (+.4435) from 1999 to 2016

of a seismic shift in economic composition. The share of low income households in those tracts rose from 49% to 66% of all households.

While income shifts represent only an indirect measure of possible migration, no explanation other than middle-class out-migration is convincing. Although the population of the North City middle census tracts is older than that of the city as a whole, the difference is slight; 15.1% of those tracts' population was over 65 in 2000, compared to 13.7% for the city as a whole, far too little to explain more than a minute part of the discrepancy in income trends. Some part of the decline in incomes experienced by wage earners in these tracts, however, may be attributable to the loss of manufacturing employment, potentially affecting both income loss and out-migration, as discussed below.<sup>9</sup>

While a full explanation of the complex dynamics leading to such a pronounced middle-class exodus is a complicated matter, which is likely to require ethnographic as well as quantitative research, the data make it possible to suggest some of the mechanisms that are likely to have played a role. The effects of subprime lending and subsequent foreclosures, both of which were disproportionately prevalent in the North City middle neighborhoods, were likely to have been significant. In the course of that process, many homeowners – including both long-time residents who refinanced with subprime mortgages as well as newcomers who used subprime loans to buy their homes in these neighborhoods – lost their homes. In many cases, their homes were bought by investors and subsequently rented to lower-income households, while in others, they may have remained vacant and ultimately abandoned. As a result, not only were many home owners forced to move, but other middle-class residents, facing increasing destabilization in their midst that they lacked the ability to change, concluded that flight was the only rational response. That response was facilitated by the fact that houses in large parts of suburban St Louis, including but not limited to already largely African-American areas of North St Louis County, were readily affordable to households of moderate or middle incomes.

In that light, the effects of foreclosure can be seen as reinforcing the argument that middleclass flight reflects a response to disorder (Taub, Taylor and Dunham 1984, Skogan 1990), including conditions not necessarily reflected in crime rate statistics. This is supported by Woldoff's characterization of the goals of those she characterizes as black "pioneers". "Their goal," she writes, "was not to achieve a minimal standard of safety from extreme violent crime and brazen disorder; for them the desire for an improved atmosphere for their families included a neighborhood with a greater representation of conventional families and lifestyles" (2011, p147). This is consistent with my personal experience working on the Detroit Future City strategic planning process during 2011 and 2012, during which time I met with many residents of similar neighborhoods in Detroit. Disorder and petty crime – matters rarely reported to the Detroit police – were recurrent themes in their discussion of why middle-class households were leaving their neighborhoods. St. Louis police department data, which is available by neighborhood from 2008 onward, shows that violent crime rates in the neighborhoods that correspond generally to the census tracts under investigation<sup>10</sup> are consistently higher – in some areas slightly and in others substantially – than citywide rates. Other factors are also likely to be at work. Changes in employment patterns, such as the loss of well-paying unionized jobs, have been widely cited as a factor in the relative economic position of African-Americans, particularly African-American men (Bound and Freeman 1992, Kasarda 1989). Although much of those losses had taken place before the neighborhood decline described in this paper, it is worth noting that St Louis city, and even more so St Louis County, which surrounds the city,<sup>11</sup> experienced a pronounced decline in manufacturing employment after 2000, with the decline taking place between 2000 and 2009, paralleling but more pronounced than simultaneous national trends, as shown in Table 7. With much of the region's manufacturing industry clustered in North City and in nearby northern parts of the county, it is likely that this sector provided an important part of the economic base for the middle-class residents of the North City middle neighborhoods, and that its decline contributed to those neighborhoods' economic decline. That conjecture is supported by the fact that the number of residents of the 18 middle census tracts holding manufacturing jobs dropped from 2555 to 1040 between 2000 and 2016, a drop of nearly 60%. The loss of those jobs may well have prompted some households to leave the area, and led to a loss in income of some of those remaining. Still, it can only account for a small part of the observed change.

0	0			
	2000	2009	2016	Change 2000-
				2016
St Louis County	58999	40454	41765	-29.2%
St Louis City	26421	18426	16635	-37.4%
Total	85420	58880	58400	-31.6%

TABLE 7: Change in manufacturing empl	oyment in city and county	of St Louis 2003 to 2016
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SOURCE: United States Census, County Business Patterns

The role of education quality as a driver of middle-class flight from American cities is wellknown, while a post-2000 exodus of African-American children from urban public schools has been described in Dallas (Hacker and Hobbs 2010), Minneapolis (Raghavendran and Webster 2017) and elsewhere. Indirect evidence of a similar trend in North City middle neighborhoods is found in the decline in the number of children under 18, both overall and particularly with respect to children of married couple households, a rough proxy for middle class status. While the number of children in the city as a whole dropped between 2000 and 2016, the decline among children in married-couple households citywide was not disproportionate to the total decline. The picture was quite different in the North City middle neighborhoods; not only did the number of children drop by a larger percentage than in the balance of the city, but the decline was disproportionately greater among married-couple households, with their number dropping by more than half (Table 8).

In the final analysis, it is likely that all of these factors, as well as others such as inadequate public services and unresponsive city bureaucracies, and the affordability of housing in many of St Louis' suburbs, which made exodus relatively easy even for families of modest means, all played a role in fostering the out-migration of middle-class households and the decline of

	All house	holds with	nown	Married-couple families with			
	children	under 18		own children under 18			
	2000	2000 2016 Change		2000	2016	Change	
18 middle census							
tracts	12757	7868	-38.3%	3820	1842	-51.8%	
Balance of St Louis	61367	45275	-26.2%	27736	19725	-28.9%	
Citywide	74124	53143	-28.3%	31556	21567	-31.7%	

TABLE 8: Change in population under 18 by family type 2000 to 2016

SOURCE: Decennial Census; American Community Survey

formerly middle neighborhoods. All of these factors, however, must be seen in the context of the devastating impacts of subprime lending and foreclosures, which not only led to many homeowners losing their homes, but arguably fostered increases in the disorder – both social and physical – that may have triggered the decision to move. In the absence of the effects of subprime lending and foreclosures, it is likely that there would have been some exodus of middle-class families from these neighborhoods, but it is equally likely that it would have been smaller, and that the economic and housing market decline proportionately less pronounced.

The decline of these neighborhoods, however, was not only a function of the out-migration of the middle class, but the absence of middle-class replacement. Even before looking at the specific factors that triggered their market collapse, a series of quasi-systemic factors all but dictated weak demand for homes in these and similar neighborhoods. Despite some change over recent years, market demand is still powerfully racially segmented. While black buyers are generally willing to buy homes in neighborhoods of all racial configurations, and white buyers are increasingly willing to buy in racially integrated or mixed areas, they continue to avoid areas that are overwhelmingly African-American, particularly in those parts of cities that have been defined as distinct racial "territories" (Krysan 2008, Howell and Emerson 2018). As Krysan writes, "whites mainly search in white communities, while African Americans search in communities with a variety of racial compositions (p581)." Thus, little of the large white demand pool reaches black areas, while the small regional black demand pool is spread across all of the region's neighborhoods. As I will discuss below, little of the black homebuying demand that has emerged since the recession is flowing into these neighborhoods.

The disparity in the size of the demand pool is exacerbated in St Louis, as in many reviving older industrial cities, by the fact that white in-migration in recent years has significantly exceeded black in-migration; thus, the white demand pool for housing in the city is not only larger to begin with but growing faster than the African-American pool.<sup>12</sup> It is also affected by the fact that housing construction in the St Louis metropolitan area has significantly outpaced household formation. According to an analysis by Todd Swanstrom, the cumulative extent of overbuilding in the metropolitan area since 1990 exceeds 141,000 housing units,<sup>13</sup> further exacerbating the competition for the small pool of prospective homebuyers.

Leaving aside the powerful implications of these dynamics from the standpoint of social equity, segregation and wealth, they have a distinct market effect: they mean that the pool of potential buyers for the supply of houses in African-American middle neighborhoods is far smaller than in mixed or predominately white neighborhoods, creating what could be called a 'segregation tax" reducing potential demand and depressing sales prices and wealth accumulation.

The pool of potential black buyers, however, small as it may be, would be large enough to restore a significant part of the homeownership decline in these neighborhoods if they moved there in significant numbers. The opposite, however, is taking place; as reflected in mortgage data, black buyers in recent years are buying homes in the suburbs and in other parts of St Louis city, but only rarely in the eighteen census tracts that were the heart of middle-class black St Louis (Table 9). Thus, although those census tracts – despite erosion – contained 45% of the black homeowners in the city in 2010, they accounted for only 15% of the home purchase mortgages made by black homebuyers in the city between 2014 and 2016, and only 2% of those in the combined city-county area. Meanwhile, during the same three-year period, only 13 home purchase mortgages to white homebuyers were made in these neighborhoods, out of a total of 6,566 made in the city of St Louis<sup>14</sup>.

	Black	Share of city-	Home purchase	Share of city-
	homeowners	county total	mortgages to black	county total
	2010		homebuyers 2014-2016	
18 Census tracts	9,561	14.3%	103	2.3%
Balance of St	11,745	17.6	593	13.5%
Louis city				
St Louis County	45,531	68.1%	3,690	84.1%
TOTAL	66,837	100%	4,386	100%

TABLE 9: Distribution of African-American homeowners in 2010 and distribution of home purchase mortgages by African-Americans between 2014 and 2016

SOURCE: US Census, Home Mortgage Disclosure Act data from PolicyMap

These factors have combined with the effects of the foreclosure crisis including increasing numbers of vacant and abandoned properties, collapsing property values, and arguably widespread perceptions of these neighborhoods as being in decline, to bring about an all but total collapse of the housing market in the North City middle neighborhoods. The market collapse and the rising levels of property abandonment and family impoverishment in these neighborhoods since 2000, and particularly since 2006 or 2007, triggered a vicious cycle. At this point, the few buyers in the market are likely not only to be absentee investors, but largely those driven by the depressed property values to "milk" them for short-term cash flow, with little or no concern for the long-term stability of either their properties or the neighborhood (Mallach 2014), further destabilizing the neighborhoods and prompting any remaining middle-class families to leave if they can.

With the demand from even those buyers inadequate to absorb the available supply, as the area's negligible sales volumes reflect, vacancy and abandonment are likely to continue to increase. The low property values in these neighborhoods, which dictate that the cost of rehabilitation will significantly exceed the potential resale price of a rehabilitated home, mean that the small contractors and developers who are active in reviving neighborhoods in South City are unlikely to invest their time and money in these areas. That, in turn, means that no supply of houses in "move-in" condition likely to attract prospective homebuyers is being created, in contrast to what is taking place in the reviving South City middle neighborhoods.

Many of the North City middle neighborhoods contain attractive, historic housing and streetscapes, the equal of those in reviving South City neighborhoods(Figure 7). In contrast to those neighborhoods, however, they lack proximity to high-value, high-demand neighborhoods or to significant institutions or nodes of activity, conditions which research suggests are critical threshold factors for revitalization ((Guerrieri, Hartley and Hurst 2013; Steiff, Fichman and Kassel 2016; Mallach and Beck Pooley 2018). In the absence of such conditions, reversing their downward trajectory is likely to be difficult if not impossible.



FIGURE 7: Historic streetscape along Palm St (Census Tract 1104)

SOURCE: Google Earth

# 4. Conclusions: the implications of black middle neighborhood decline

The decline of black middle neighborhoods, in St Louis and other American cities, has significant implications both for African-American households as well as for the cities in which these neighborhoods are located, raising serious and troubling questions about the future course of racial inequality in the United States, particularly in cities like St Louis which are undergoing strong albeit uneven economic revival.

The story of St Louis' black middle neighborhoods confirms the national narrative of the loss of black household wealth as a result of the foreclosure crisis and the Great Recession; as one study found, "Overall, half the collective wealth of African-American families was stripped away during the Great Recession due to the dominant role of home equity in their wealth portfolios and the prevalence of predatory high-risk loans in communities of color (Shapiro, Meschede and Osoro 2013, p4)." While the data available for census tracts do not permit measuring overall household wealth, they make it possible to estimate, at least roughly, the loss of home equity in recent years.

To illustrate this, I have estimated the change in homeowner equity in North City census tract 1073, roughly corresponding to the Walnut Park West neighborhood, from 2008 to 2016. For this analysis, I have made a number of assumptions: (1) the median value for all owner-occupied properties is the same as the median sales price for that year, with the difference in value for properties with or without a mortgage adjusted by the ratio between the two in the American Community Survey for 2006-2010 and 2012-2016 respectively; and (2) home owners with a mortgage have average equity of 25%, an estimate consistent with the limited literature on the subject (CoreLogic 2017, Li and Goodman 2016). The findings are shown in Table 10<sup>15</sup>.

2008	N	Estimated Median value	Equity %	Equity	Total equity
With mortgage	876	\$73,650	25%	\$16,129,350	
No mortgage	527	\$78,300	100%	\$41,264,100	
TOTAL		•			\$57,393,450
2016	N	Estimated	Equity	Equity	Total equity
		Median value	%		
With mortgage	578	\$47,600	25%	\$ 6,878,200	
No mortgage	471	\$32,800	100%	\$15,448,800	
TOTAL					\$22,337,000
Change 2008-					(-\$35,046,450)
2016					

TABLE 10: Estimated change in homeowner equity in census tract 1073 from 2008 to 2016

SOURCE: Underlying data from American Community Survey and CoreLogic. Analysis by author.

Tract 1073's homeowners, 98% of whom are African-American, lost an estimated \$35 million in equity from 2008 to 2016, or 61% of their aggregate 2008 equity. This contrasts with the trend at the same time in South City's Shaw neighborhood (tract 1172), a middle neighborhood in 2000, where aggregate homeowner equity in 2008 was much the same as that in tract 1073<sup>16</sup>. By 2016, homeowner equity in tract 1172 had increased by over \$46 million, and was roughly five times greater than that of tract 1073 (Table 11).

The loss of hundreds of millions of dollars in thousands of homeowners' wealth is a severe blow to the economic condition and sustainability of St Louis' African-American community. To this

economic loss, one must add the psychological trauma of watching one's neighborhood deteriorate, and of being uprooted – whether involuntarily through foreclosure or nominally by one's own choice – from the neighborhood that has been one's home.

2008	N	Estimated	Equity	Equity	Total equity
		Median value	%		
With mortgage	934	\$161,000	25%	\$37,593,500	
No mortgage	132	\$171,200	100%	\$22,572,000	
TOTAL			\$60,165,500		
2016	Ν	Estimated	Equity	Equity	Total equity
		Median value	%		
With mortgage	995	\$261,200	25%	\$64,973,500	
No mortgage	233	\$180,000	100%	\$41,940,000	
TOTAL					\$106,913,500
Change 2008-					+\$46,748,000
2016					

TABLE 11: Estimated change in homeowner equity in census tract 1172 from 2008 to 2016

SOURCE: Underlying data from American Community Survey and CoreLogic. Analysis by author

The loss of African-American middle neighborhoods and their middle income families is likely to have significant and problematic effects on St Louis as a whole. Independent of the specifically racial dimension of the shift, the loss of so many middle neighborhoods is itself problematic. As we saw in Table 2A, the number of middle income census tracts dropped by more than half, from 48 to 23, between 2000 and 2015. This reflects two separate trends, the increased polarization of households by income, with more low income and more affluent households but fewer in the middle income brackets, the "hollowing of the middle class" (Davidson 2014 among many others), coupled with the increased 'economic sorting' of households by income level, resulting in more affluent and more poor neighborhoods, with fewer in the middle (Booza, Cutsinger and Galster 2006, Bischoff and Reardon 2013). This is manifest in St Louis, where North City – and some parts of South City - are becoming poorer, while neighborhoods in the Central Corridor such as the Central West End, and those South City neighborhoods near the Corridor, including Shaw, Lafayette Square and Benton Park among others, are becoming more affluent. St Louis' Gini index of economic inequality increased from .469 in 2007 to .531 in 2016, roughly the same as that of Guatemala<sup>17</sup>. St Louis is becoming a city of poor and well-todo households with fewer and fewer in between.

The economic polarization of St Louis has an explicitly racial dimension. Reflecting in part the effects of the migration shown in Table 6, the city's white population is becoming more affluent and its black population poorer. Between 2000 and 2016, the median black household income dropped from 62% to 46% of the median white household income (Table 12). Similar shifts have taken place in many other American cities.

	Median hou	Change in		
	2000	2000 (in 2016 \$\$)	2016	constant \$\$
White	\$33514	\$48377	\$52074	+ 7.6%
Black	\$20785	\$30003	\$23751	- 20.8%
Black income as % of white income	62%	46%		

TABLE 12: Income change by race in St Louis 2000 to 2016

SOURCE: 2000 Census, American Community Survey. Inflation adjustment based on Consumer Price Index (CPI).

By 2016, although the total number of white and African-American households in St Louis was roughly the same, 2/3 of all households earning under \$25,000 were black, while nearly 80% of all households earning \$75,000 or more were white. These households are increasingly sorting into distinct spatial bands of poverty and affluence. In another reflection of racial disparity, in 2016 only 14% of black adults, but 48% of white adults, had a B.A. or higher degree.<sup>18</sup> This economic and racial polarization carries with it dire implications for the future of the city not only from the standpoint of equity and justice, but with respect to its future economic growth and physical vitality.

The loss of black middle neighborhoods and the shrinking of the black middle class have other negative implications. The loss of these neighborhoods as viable communities reduces the options available to upwardly mobile African-American households, and increases the likelihood that more will continue to leave St Louis to find better housing and quality of life, thus further perpetuating the city's growing racial and economic polarization. Moreover, the shrinkage of the black middle class in St Louis reduces the pool of those African-Americans most likely to engage in the city's organizational, civic and political life, diminishing the number and variety of black voices likely to be heard in its institutional and political discourse and the extent to which African-Americans meaningfully share in the distribution of political, if not economic, power in the city.

The challenge of preserving or restoring the vitality of African-American middle neighborhoods is a difficult one, but one that should be a high priority for local officials, civic and philanthropic institutions, and community development organizations in St Louis and elsewhere. It must begin by addressing the reality that these neighborhoods have been largely neglected by policymakers, as they have by researchers; as Cleveland community development leader Jeffrey Verespej points out "They're not as sexy as high-investment, high-growth neighborhoods and lack the moral imperative to help those who are truly needy." (quoted in Greenblatt 2008). Greenblatt puts it bluntly, "when a neighborhood isn't rich – but isn't poor – government tends to forget about it." As George Galster (2016) writes, however, "these places are not where the most vulnerable citizens live, nor where the evils of filtering wreak the most havoc of blight and abandonment, they are the places where interventions may plausible head of these worst-case situations in the future (p18)."

devastated blocks and neighborhoods that lie between the heart of St Louis' middle neighborhoods and the city's downtown.

If the first step is to prompt local – as well as state and federal – governments to pay attention to these neighborhoods, and try to stabilize them before they pass the point of no return, the second is to focus on rebuilding housing market confidence and demand; as David Boehlke (2016) writes, "these places all face an unstated dilemma: a profound lack of confidence in the neighborhood, resulting in an inability to complete for the solid buyers and renters that every neighborhood must have to succeed" (pp85-86). Reversing the loss of demand, which in some areas can be characterized as market failure, requires more than bargain prices (which already exist) or marketing; it will require significant investment in upgrading the quality of life in the neighborhood, addressing issues of crime, disorder and quality education, as well as making housing improvements and enhancing the visible public realm. Promoting these neighborhoods is important, but as marketing expert Marcia Nedland (2016) cautions, "a promotion strategy will not work if the product – the neighborhood – is not competitive. [...] Just being an adequate place to live is not enough to compete for a shrinking pool of homebuyers (p101)."

In the end, I would argue that there is indeed a moral imperative to address the decline of middle neighborhoods, particularly those that have been a haven for African-American families for decades. The continuing viability of middle neighborhoods is what stands between the reconfiguration of the future American city as one polarized spatially, economically and racially between affluence and poverty, between prosperous whites and increasingly impoverished African-Americans, only barely leavened by the growing presence of other racial and ethnic communities. That is not a future that I, and I believe most people, consider desirable.

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CENSUS	POP-	POP-	CHANGE	MED	MED INC	MED	CHANGE	Ν	Ν	CHANGE	%	%
TRACT	ULATION	ULATION	2000-	INC	1999 in	INC	IN	POVERTY	POVERTY	2000-	POVERTY	POVERTY
	2000	2015	2015	1999	2015 \$\$\$	2015	CONSTANT	2000	2015	2015	2000	2015
					(note 1)		\$\$ 2000-					
							2015					
105500	2993	2993	0	\$22047	\$31562	\$31088	-1.5%	675	942	+267	22.6%	31.6%
106400	3088	2445	-643	\$25195	\$36069	\$22147	-38.6%	624	737	+113	20.4%	30.1%
106700	4321	2960	-1361	\$25925	\$37114	\$23019	-38.0%	950	1278	+328	22.1%	43.5%
107200	1730	1156	-574	\$22143	\$31700	\$22230	-29.9%	518	452	-66	30.0%	39.3%
107300	6086	4675	-1411	\$29033	\$41564	\$24519	-41.0%	1148	1362	+214	18.9%	29.5%
107400	3625	2968	-657	\$23836	\$34124	\$24189	-29.1%	1230	1416	+186	34.1%	48.2%
107600	2196	2197	+1	\$24035	\$34409	\$19219	-44.1%	524	751	+227	24.0%	34.6%
108100	3800	3144	-656	\$30605	\$43814	\$33788	-22.9%	724	652	-72	19.1%	21.0%
108200	2996	2504	-492	\$25850	\$37007	\$26202	-29.2%	527	651	+134	19.0%	28.2%
108300	2587	1987	-600	\$27656	\$39592	\$29891	-24.5%	574	501	-73	22.2%	25.3%
109600	4139	3222	-917	\$24911	\$35663	\$32672	-8.4%	1103	845	-158	26.6%	26.4%
110100	3737	2879	-858	\$25709	\$36805	\$25659	-30.3%	794	887	+93	21.3%	30.9%
110200	3469	2309	-1160	\$22337	\$31978	\$21693	-32.2%	863	949	+86	24.9%	41.1%
110400	3136	2147	-989	\$22446	\$32134	\$22784	-29.1%	987	626	-361	31.6%	29.2%
122000	2237	1645	-592	\$21982	\$31469	\$19703	-37.4%	638	612	-26	29.9%	38.5%
120200	1501	1370	-131	\$22857	\$32722	\$20682	-36.8%	470	737	+267	34.6%	57.6%
126900	5716	4590	-1126	\$27964	\$40033	\$24482	-38.8%	1508	1743	+235	26.5%	39.6%
127000	2802	2052	-750	\$23258	\$33296	\$22773	-31.6%	615	331	-284	34.5%	29.2%
ALL TRACTS	60159	47243	-12916	\$25324	\$36254	\$25564	-29.5%	14472	15472	+1000	24.1%	32.7%
CHANGE			-21.5%							+6.9%		+35.7%
2000-2015												
CITYWIDE	348189			\$27456	\$39306	\$35599	-9.4%				24.6%	27.1%

APPENDIX TABLE 1: POPULATION, INCOME AND POVERTY CHANGE IN MIDDLE INCOME CENSUS TRACTS 2000-2015

Note 1. Constant dollars were calculated on the basis of the CPI increase of .4316 from 1999 to 2015.

	TOTAL HOUSING				<b>'OTHER VAC</b>	OTHER VACANT		HOMEOWNERS		RESIDENTIAL SALES		
	UNITS		VACANT U	JNITS	UNITS							
CENSUS												
TRACT	2000	2015	2000	2015	2000	2015	2000	2015	2000	2006	2015	
105500	1489	1564	300	478	58	247	600	552	45	60	16	
106400	1715	1566	425	596	245	486	629	398	20	29	5	
106700	2161	2003	422	660	302	415	905	565	35	47	4	
107200	689	663	129	201	80	114	318	221	8	23	1	
107300	2289	2261	207	435	148	374	1564	1035	67	136	11	
107400	1404	1331	265	423	211	358	771	515	39	64	1	
107600	1195	1189	303	315	119	284	517	467	19	50	4	
108100	1526	1510	174	391	80	279	1003	601	66	78	14	
108200	1240	1287	101	192	14	171	697	653	28	49	8	
108300	1053	1077	108	207	60	191	664	513	49	67	3	
109600	1832	1647	274	417	156	393	803	627	10	33	2	
110100	1779	1637	347	476	228	434	835	482	41	57	3	
110200	1628	1451	352	496	259	421	663	391	19	30	3	
110400	1567	1427	377	454	238	330	586	447	8	25	2	
122000	967	970	195	322	106	186	331	234	11	41	2	
120200	532	664	108	232	75	166	165	137	2	3	1	
126900	2478	2240	321	523	182	359	1426	1090	58	118	9	
127000	945	849	186	220	115	145	322	195	20	17	6	
ALL												
TRACTS	26489	25336	4594	7038	2676	5353	12799	9123	545	927	95	
CHANGE												
2000-2015		-4.4%		+53.2%		+100.0%		-28.7%			-82.6%	
CITYWIDE	176354	139555	29278	36036	12881	22683	68939	61266	5115	6307	3722	

#### APPENDIX TABLE 2: HOUSING MARKET CHANGE IN MIDDLE INCOME CENSUS TRACTS 2000 TO 2015

#### **ENDNOTES**

<sup>1</sup> A recent Google search by the author identified well over 5,000 published books and papers with the word 'gentrification' in the title, over 3,000 of them published since 2010.

<sup>2</sup> Although a wildly imperfect measure, it is worth noting that a Google Scholar search of documents where the words "neighborhood decline" appeared yielded 3,460 results compared to 101,000 for documents where the word "gentrification" appeared.

<sup>3</sup> Sadly, the number of people who shop at the local grocer today, with the exception of the very poor and mobility-impaired, is small, whatever the type of neighborhood they live in.

<sup>4</sup> With the exception of a belt of East Coast cities running from the Newark, New Jersey area north through New England where, for various historical reasons, the dominant housing type is a two or three family house, which is, however, typically owner-occupied, with the owner renting out the other unit(s).

<sup>5</sup> In theory, one could use median house values, from the same sources; i.e., the 2000 Census and the 2011-2015 American Community Survey. In practice, those figures, which are based on self-reporting by owners of their properties' worth, are wildly disconnected from reality, particularly since the end of the housing bubble, as can be seen in the vast disparity between them and data on sales transactions for the same areas.

<sup>6</sup> For simplicity, I refer to data from the five year American Community Survey by the most recent year; e.g., 2011-2015 data is referred to as 2015.

<sup>7</sup> Latinos made up roughly 4% of the city's population, and Asians another 3%, in 2016.

<sup>8</sup> The inflation adjustment was 44.35%

<sup>9</sup> I am grateful to an anonymous peer reviewer for the suggestion to investigate this subject.

<sup>10</sup> Unfortunately, there are hardly any clean matches between census tracts and the neighborhood areas used by the city for reporting purposes; there are, however, a number of neighborhoods that are located entirely or largely within the 18 census tracts under investigation.

<sup>11</sup> In contrast to most central cities, which are parts of larger counties, the city of St Louis is also a county in its own right; thus, it is not part of St Louis County, which surrounds it on three sides.

<sup>12</sup> Based on the five-year 2012-2016 American Community Survey, average annual white in-migration to the city of St Louis over that period was 15,621, compared to 9,434; although both white and black populations both showed a net negative migration, the ratio of out- to in-migration was substantially higher for African-Americans. In any event, it is the in-migration that drives demand.

<sup>13</sup> Communication from Prof. Swanstrom, March 8, 2018.

<sup>14</sup> While purchase mortgages are not the same as total sales, they are reasonably close. The Campbell/Inside Mortgage Finance Housing Pulse Tracking Survey (September 2014) found that 90% of first-time homebuyers and 75% of current (or 'move-up') homebuyers use a mortgage to purchase their home.

<sup>15</sup> The aggregate totals are slightly under-estimated because of the use of medians rather than averages; the variation between median and average in this and similar census tracts, however, is under 5%.

<sup>16</sup> One-third of the homeowners in tract 1172 in 2016 were African-American.

<sup>17</sup> Central Intelligence Agency, World Fact Book, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html

<sup>18</sup> In a telling note, nearly 2/3 of the African-American adults with a B.A. or higher degree in St Louis were women. There was no similar gender disparity among white college graduates.