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June 2018

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### Abstract

This paper provides the introduction to the special issue on Race and the City in the Journal of Housing Economics in 2018. The paper surveys relevant topics on racial and ethnic discrimination and residential segregation, and provides a more detailed discussion of the specific papers in the special issue. The paper primarily focuses on the literatures on discrimination in housing, on-line markets and policing. In terms of racial segregation, the paper discusses work related to the pattern of residential segregation and the causes and consequences of segregation.

### Introduction

We write this introduction for the special issue on *Race and the City* on the 50<sup>th</sup> anniversary of the Fair Housing Act, which outlawed discrimination by realtors, landlords and lenders. While the evidence suggests that the prevalence of discrimination has fallen significantly over this half-century (Ross and Turner 2005), there is still much to say about the intersection between race and housing. Black-white segregation has declined (at least since 1980), but it remains high in most cities and extremely high in some of them (Iceland 2004). Moreover, Hispanics and Asians remain just as segregated from whites today as they did in 1980. Families of different races live in very different neighborhoods and have access to different amenities and public service bundles (De la Roca, Ellen, and O'Regan 2014).

The papers in this volume offer new insight on the links among race, housing and neighborhoods. The papers generally fall into two broad categories: estimates of discrimination and broader documentation of racial differences in outcomes, and examination of segregation patterns and the consequences of segregation.

### Racial Discrimination, Disparities and Attitudes

A long-standing strategy for testing for housing discrimination is to examine racial differences in the price of housing. The logic behind this test is that if discriminatory barriers spatially restrict where minorities can live then those minorities are likely to be crowded into housing submarkets that have above market housing prices. Cutler, Glaeser and Vigdor (1999) examine this premise longitudinally during and following the "Great Migration" of African-Americans to Northern cities. They demonstrate that African-Americans paid substantial housing price premia in the 1950's and continued to pay more modest premia in the 1970's, but that by the 1990's African-Americans were paying less for housing than whites. Cutler, Glaeser and Vigdor (1999) interpret these findings as evidence that rigid discriminatory barriers had declined substantially and been replaced by what they referred to as a

“decentralized racism” where whites were willing to pay a premium in housing prices to avoid living in neighborhoods with larger numbers of African-Americans. Clapp and Ross (2004) consider this question following a more structural approach where changes in employment at the industry level predict changes in metropolitan area racial and ethnic composition. They show that increasing Hispanic populations lead to greater segregation of Hispanics in towns that initially had larger Hispanic populations, but they do not observe higher housing prices in these towns, which would be consistent with the rigid discriminatory barriers that African-Americans faced through the 1970’s.

Kiel and Zabel (1996) argue that failure to find a housing price premia may arise because minorities tend to live in neighborhoods that are lower quality on other measures, such as the age of the housing stock or the poverty rate of the neighborhood. They demonstrate that the empirical price discount that blacks appear to face in the housing market is very sensitive to controls for neighborhood conditions. Two recent studies, Myers (2004) and Bayer, Casey, Ferreira and McMillan (2017) provide evidence that blacks pay more for housing after controlling for neighborhood quality. Notably, Bayer, Casey, Ferreira and McMillan (2017) show that this premium does not depend upon the race of the seller. If minority homebuyers face high search costs due to discrimination in the provision of services, then minority homebuyer bargaining positions can be weakened leading to higher housing prices (Courant 1978). Under such a model, the race-based price premia would likely be faced by all minority borrowers, regardless of the race of the seller. All of these papers examine housing prices within neighborhoods; in contrast to the papers described in the previous paragraph, which examine prices across neighborhoods for evidence that minority housing options are restricted to specific neighborhoods. While the rigid barriers of the 1950’s appear to be gone today, the more recent papers on housing prices are consistent with minorities facing higher costs of finding housing.

In this volume, Diagne, Kurban and Schmutz (2018) examine racial differences in the success rate among potential home buyers applying to an affordable housing program in Montgomery County Maryland. They document relatively equal success in purchasing a home through the program in the early and later years of the program, but find substantially lower success rates for black homebuyers in the period between 1995 and 2000. The unique feature of this period was that the total volume of applicants to the program and especially the volume of black applicants increased substantially. They identify several potential explanations for these differences including especially strong competition for the housing that was most attractive to black buyers, increased opportunity to discriminate as the supply of buyers in the program increased, or increased incentives to discriminate as the share minority in a development rose. They also examine racial differences in prices and, consistent with the literature, find African Americans pay less for housing when looking across neighborhoods, but in their data price differences are close to zero when looking within neighborhood consistent with blacks have similar bargaining power or outside opportunities as white program participants when negotiating home prices in the same development. Finally, they examine the sorting of African-Americans based on racial composition of neighborhoods. While they document the standard pattern of sorting across neighborhoods, within neighborhoods and developments they find that the program actually reduces segregation by causing white and minority homebuyers within the program to be more likely to live near each other.

The second major strain of research on housing discrimination has involved the use of trained testers or generated applications to randomize the race of the home buyer or renter relative to the attributes of the buyer/renter. This research is exemplified by the large federally funded Housing Market Practices Survey in 1978 (Wienk, Reid, Simonson and Eggers 1979), the first nationally representative Housing

Discrimination Study in 1989 (Turner, Struyk and Yinger 1991), and the two follow-up national Housing Discrimination Studies in 2000 (Turner, Ross, Galster and Yinger 2002) and 2012 (Turner, Santos, Levy, Wissoker, Aranda, and Pitingolo 2013). These studies trained and sent pairs of testers, one white and one minority, to inquire about for sale or rental housing randomly selected from advertisements. The Housing Market Practices Survey and even the first Housing Discrimination Study documented grossly explicit discriminatory behavior including for example real estate agents driving up to their office seeing the minority tester and then turning their car around leaving or being told explicitly that the agent did not rent to blacks. During the 1989 study, testers regularly returned from visits to real estate agents or rental agencies visibly upset at their treatment. By the time of the 2000 Housing Discrimination Study, such behavior had largely disappeared from the housing market, and virtually all testers were visibly treated with respect and curtesy. Comparison of the 1989 and 2000 studies showed that Housing discrimination in owner-occupied markets had fallen broadly across most measures of treatment for both blacks and Hispanics. Discrimination in rental markets fell substantially for blacks, but in the one major exception to the general findings, the levels of adverse treatment of Hispanics in rental markets remained at relatively high levels and in some cases increased (Ross and Turner 2005). The HDS 2010 study found that the low levels of discrimination found in 2000 generally persisted, but the higher levels of discrimination against Hispanics in the rental market had fallen to levels similar to the discrimination faced by African-Americans.

Recently, on-line markets have been expanding across a variety of sectors including housing. The anonymity of on-line markets would appear to reduce the potential for discrimination. For example, Scott Morton, Zettelmeyer and Silva-Risso (2003) find that racial differences in the price of automobiles disappear for on-line sales. On the other hand, to the extent that social media allows more personal interactions and relationships between sellers and buyers and that those interactions seem less visible and face less protection from traditional anti-discrimination laws and policies, discrimination could persist or even be exacerbated by the expanding on-line market place (Fisman and Luca 2016). Many studies primarily in the U.S. and in Europe have conducted on-line tests in the housing market often finding evidence of discrimination by race or ethnicity based on distinctive names or other markers of identity, e.g. Ahmed and Hammarstedt (2008), Hanson and Hawley (2011), Baldini and Federici (2011), Andersson, Jakobsson, and Kotsadam (2012), Carlsson and Eriksson (2012), Acolin, Bostic, and Painter (2016), and Auspurg, Hinz, Schmid (2017). In other markets, Pope and Sydnor (2011) show that race affects the availability and price of credit in one of the early on-line peer-to-peer lending websites, prosper.com. Doleac and Stein (2013) find that black sellers on Ebay receive lower prices for their products, especially in thin markets. Edelman, Luca and Svirsky (In Press) show that guests with distinctively black names are less likely to be accepted as renters on Airbnb. Edelman and Luca (2014) and in this volume Kakar, Voelz, Wu and Franco (2018) both find lower payments to minority landlords on Airbnb where race and ethnicity is often easily observable after controlling for all observable information on the attractiveness of rental units. Edelman and Luca (2014) find that blacks charge 12 percent less than non-black hosts, and Kakar et al. (2018) find that Asians and Hispanics charge 8-10 percent less than white hosts in San Francisco. Notably, Kakar et al. (2018) show that in spite of these price differences there are no differences by race on unit occupancy rates, as might be expected if the units rented by Asians and Hispanics were lower quality on unobserved unit attributes.

Even as explicit discrimination has declined, fear of hostility continues to shape the residential choices of minority homeseekers and may contribute to the disenfranchisement of significant segments of the

African-American population in U.S. cities. The growing attention paid to racial disparities in use of force by police, as evidenced by the “Black Lives Matter” movement, has made racial hostility more salient across the country.

One of the most common ways in which police interact with people is through traffic stops, and research shows that traffic stop rates are higher for African Americans (and in African American neighborhoods). Over the last decade, state and local governments across the country have begun to collect and analyze traffic stop data for racial disparities. The classic problem whenever examining traffic stop data is that we do not have a basis of comparison for assessing the racial composition of police stops because we do not know the composition of motorists on the road whose behavior puts them at risk of a stop. In the past, this problem has been addressed by examining police searches so that the racial composition of stops forms the counterfactual for assessing searches (Antonovics and Knight 2009, Knowles, Persico and Todd, Dharmapala and Ross 2004, Anwar and Fang 2006). However, traffic stops themselves represent a key margin on which African-Americans are significantly more likely to have direct contact with police officers. To test for racial bias, a few researchers have used a “Veil of Darkness” approach that uses seasonal variation in daylight under the assumption that police cannot observe race prior to a stop when it is dark out. The racial composition of stops just after sunset in the winter or just after the end of daylight savings time therefore forms a counterfactual for daylight stops made at the same time of day when race is observable either in the summer or just before daylight savings time (Grogger and Ridgeway, Horrace and Rohlin). However, Kalinowski, Ross and Ross (2017) raise concerns and provide evidence that this approach may fail to find discrimination because rational minority motorists will change their driving behavior and be more likely to speed in darkness when they know their race is unobservable to police.

Further, a number of studies have documented substantial racial differences in the use of force, especially lethal force, in the wake of high profile police shootings (Washington Post 2015; Guardian 2015; VICE News 2017; Ross 2015). Again, these studies suffer from the problem of establishing a counterfactual for assessing racial differences in experiencing police use of force. Fryer (2016) collects detailed administrative data in order to construct a counterfactual of the racial composition of individuals at risk of being exposed to “use of force” in Houston. He finds reduced, but substantial racial differences in non-lethal use of force, but no racial differences in the likelihood of a police shooting. In this volume, Harris and Yelowitz (2018) uses google searches concerning police shootings during this period to measure racial culture at the metropolitan level. They find that culture is important in that he observes a larger racial gap in homeownership rates in metropolitan areas, which generate the most google searches concerning police shootings of black men in the wake of such events. Potentially, this research has broader implications for the disenfranchisement that arises from differential rates of police stops and police use of force. Why do the social concerns that lead to large number of google searches lead to lower rates of homeownership? Do these concerns affect where African-Americans are willing to reside in metropolitan areas reducing the opportunity for homeownership? Do they reduce African-American attachment to local communities and therefore reduce the intangible or emotional returns to homeownership?

In a related paper from this issue, Bencik (2018) exploits high frequency social media self-reports on happiness in order to assess the impacts of the 2011 riots in the United Kingdom. The riots had substantial negative effects on happiness in the UK overall and especially in the areas affected by the riots. These effects persisted several weeks past the end of the riots, and varied across neighborhoods.

In particular, these negative effects were largest in predominantly black neighborhoods. This research complements earlier work (Schwartz, Laurito, Laco, Sharkey, and Ellen 2016) documenting a negative relationship between student performance in school and exposure to neighborhood crime in U.S. cities. Schwartz et al. (2016) also documents substantially larger effects for blacks. However, Bencik finds increased levels of happiness during the riots in areas with substantial skill deprivation suggesting that disenfranchised individuals had a different reaction to the riots than other UK residents. We see a potential parallel between these findings and Yelowitz's evidence that homeownership, a potential proxy for community attachment, was negatively correlated with google searches related to police use of force against black U.S. residents.

### Segregation and Racial Segmentation in Housing Markets

The second group of papers in this volume focuses on residential segregation and racial segmentation in housing markets. The literature on segregation falls into three basic camps: studies that describe segregation patterns and refine measures; studies that explore causes; and those that probe consequences. On measurement, most researchers use the dissimilarity index to capture patterns of segregation, with many also using the isolation index. These measures are valuable and easy to interpret, and their consistent use enables easy comparisons across studies, cities and time periods. The facts about shifting trends in these measures are well-established, though some emphasize the reductions that have occurred (Cutler, Glaeser, and Vigdor 1999), while others emphasize that segregation remains high (De la Roca, Ellen, and O'Regan 2014).

Despite their widespread use, however, both the dissimilarity index and the isolation index have some significant shortcomings. A key limitation is that the indices are entirely a-spatial; they treat census tracts as distinct islands, and ignore where the neighborhoods are located and the distances between them. For example, if all the Asians in a city live in just four of 100 neighborhoods, both the dissimilarity and isolation indices will report the same segregation regardless of whether those four neighborhoods are adjacent or located on the four corners of a city. As a result, the two indices paint an incomplete picture of segregation patterns. Demographers sometimes use indices of concentration and centralization to capture these missing elements, but economists have rarely adopted them.

Schuetz et al. (2018) - this volume - aims to address this shortcoming and offer a richer picture of segregation patterns as a result. First, they analyze not only segregation across tracts but also clustering among them. Focusing on 24 large metropolitan areas, they uncover high levels of clustering of minority tracts, especially largely black tracts. This spatial clustering of tracts housing particular minority groups is apparent not only in poor areas, but throughout a city. Second, they consider how close neighborhoods are to the center of cities. They examine the association between distance to the city center and income and show that it varies across racial groups. As suburbanization advanced in the U.S. in the 20<sup>th</sup> century, middle- and higher-income households were much more likely to move to the suburbs, leading to a fairly consistent income gradient. But Schuetz et al. (2018) find that while neighborhood income continues to increase with distance to city centers for blacks, Hispanics and Asians, consistent with patterns found in the 20<sup>th</sup> century, the income gradient for non-Hispanic whites has flattened. That is, as of 2010, non-Hispanic whites living near the center of cities had roughly the same incomes on average as those living further away.

Another strand of literature focuses on capturing and describing changes in the racial composition of individual neighborhoods. Most famously, Schelling (1971) showed that extreme segregation, or

tipping, can arise from even modest preferences to live among same-race neighbors. Card, Mas and Rothstein (2008) offer an empirical test of such tipping in U.S. metropolitan neighborhoods from 1970 to 2000, using regression discontinuity methods. They find evidence of tipping-like behavior among whites, with tipping points ranging from 5 to 20 percent minority. Ellen (2000b) shows that many neighborhoods are still able to remain stably racially integrated, though whites remain generally resistant to moving into racially integrated and largely minority neighborhoods. Ellen, Horn and O'Regan (2012) similarly show that during the 1990s and 2000s, integration primarily occurred through black households moving into predominantly white neighborhoods and not the reverse. In this issue, Kollman, Marsiglio and Suardi (2018) revisit Card et al.'s analysis for the 1930s and for the four decades between 1970 and 2010 for six metropolitan areas. The authors find little evidence of neighborhood tipping points in the 1930's prior to the dramatic increase in the great migration of African-Americans post world war II. Further, following Card et al., they test whether tipping points can explain changes in racial composition, and find a substantial decline in white flight from (to) neighborhoods with racial composition above (below) the tipping point between 1970 and 2010.

Madden and Ruther (2018) - this volume - offer new nuance on how the desegregation of blacks has occurred by shifting focus to the neighborhoods with highest levels of racial segregation. They find that integration gains between 1970 and 2010 were mostly the result of integration of non-black neighborhoods, and that the key change has been the rapid decline in the number neighborhoods that are less than 2.5 percent black. Meanwhile, there has been very little integration among neighborhoods that are over 90 percent black. Indeed, they show that the number of such neighborhoods actually increased, especially in the Midwest, even as the proportion of blacks living in such predominantly black neighborhoods decreased. These predominantly black neighborhoods were growing in numbers and declining in population and residential density. This is an interesting stylized fact, especially given the popular media's focus on gentrification. They show that predominantly black neighborhoods are generally failing to attract any population, much less a diverse population.

As for causes of segregation, economists continue to debate them, but most believe that a number of factors contribute, from income differences and preferences, to race-specific information channels and discrimination (Cutler, Glaeser and Vigdor 1999, 2008; Quigley and Raphael 2008). Galster (1991) finds a strong relationship between discrimination as measured by the 1989 Housing Discrimination Study and residential segregation, and Galster and Godfrey (2005) point to evidence of racial steering in the 2000 Housing Discrimination Study as evidence that discrimination may continue to play an important role in the persistence of racial segregation. On the other hand, Ross (2010) argues that the levels of discrimination documented in paired test studies are far too small to explain current segregation suggesting rather that past discrimination created high levels of segregation, which now persist in large part due to the consequences of this history. Others emphasize that segregation is perpetuated by continued reluctance of whites to move into largely black areas, due to race-based, neighborhood stereotypes (Ellen, 2000b). The recent increase in gentrification suggests that some white households are willing to move into predominantly minority areas, but these moves remain rare. This examination of the drivers of segregation has been mostly focused on African Americans. There has been far less exploration of the causes of segregation among Latinos and Asians.

There is also a rich economic literature on the impacts of residential segregation. A number of studies have found that black-white segregation undermines the socioeconomic outcomes for black Americans (e.g., Cutler and Glaeser 1997; Ellen 2000a; Card and Rothstein 2007; Ananat 2011). The precise mechanisms are unclear, but research consistently shows that segregation is not creating separate but equal neighborhoods, with more segregated metropolitan areas associated with greater racial

disparities in exposure to neighborhood poverty, violence, and local school performance (De la Roca, Ellen and O'Regan, 2014). John Kain (1968) theorized that segregation might take minority youth to neighborhoods further from jobs; Cutler, Glaeser, and Vigdor (1999) emphasize that segregation shapes exposure to college-educated adults.

This literature focuses on the last few decades of the 20<sup>th</sup> century. More importantly, perhaps, virtually all of the papers examine the impact of segregation on young black adults. Yet Latinos are now the largest ethnic group in the United States, and it is unclear whether segregation would have the same effect on Latinos. De la Roca, Ellen and Steil (this volume) thus extend the literature by examining how residential segregation affects the educational and labor market outcomes of young Latino adults and how these effects differ from the effects of segregation on young black adults. Estimating both metropolitan area fixed effects models and two-stage least squares models (using a new instrument for Latino-white segregation), they find strong evidence that segregation widens the gaps in outcomes between Latinos and whites, and the negative effects are just as large for Latinos as they are for blacks. As for mechanisms, they find exposure to neighborhood poverty, neighbors with college degrees and high employment growth industries together explain between one half and two thirds of the association between segregation and white-Latino gaps in outcomes.

The mechanisms identified in most of these studies tend to point toward differences in exposure to poverty, resident education levels or other factors that are consistent with segregation either increasing negative spillovers or decreasing positive spillovers across individuals who live near each other. When minority groups are disadvantaged on average within the population, segregation is very likely to reduce the human or social capital of minority households' neighbors as captured by economic variables like income, education or employment history. However, segregation can have broader impacts by reducing social interactions between racial and ethnic groups. Davis et al. (2016) provide direct evidence of lower levels of social interactions between whites and blacks. They examine racial segregation in visits to restaurants and find that most of this segregation is due to social barriers, rather than residential location patterns. Limitations of social interactions and relationships across races can have substantial impacts on minority outcomes. Bayer, Ross and Topa (2008) find that white-white pairs of workers are more likely to benefit from neighborhood job market referrals than other same race or mixed pairs both in terms of higher employment and wages. Hellerstein et al. (2010) find that the likelihood of obtaining a job at a firm depends heavily on whether neighbors of one's own race or ethnicity are also employed at the firm, and their effects are largest for Hispanic workers. Ananat, Fu and Ross (2013) find that African-American receive a much lower wage return to agglomeration economies than whites, and this lower return arises in work locations where most of the surrounding workers are white. When blacks are exposed to the agglomeration of economics activity of other blacks, the wage return to agglomeration is similar to the return experienced by whites. See Ross (2011) for a broader review of such studies.

In a very different vein, Newman, Holupka and Ross (2018) - this volume - show how racial segregation and housing market segmentation can shape the decision of young blacks to form new households. They study the evolution of the racial disparity in household formation during the recent housing boom and bust by comparing the decision to leave home to metropolitan area averages of rent, employment and wages. While they find no evidence that the Great Recession widened the disparity (even though the share of young adults in the United States who live at home with their parents increased between 2000 and 2015), they show that different factors explain the black and white decreases in household formation. Young blacks are much more sensitive to rising rents than young whites, and this sensitivity is only detected when household formation is related to the average rents paid by young blacks in the

metropolitan area. This last finding is consistent with housing submarkets where blacks on average live in different locations within the metropolitan area and therefore only respond to changes in rents in those areas. Blacks experienced much larger increases in rents than their white counterparts, even within the same metropolitan areas, and therefore saw a decrease in household formation. On the other hand, white household formation was strongly related to overall employment rates in the metropolitan area, which naturally fell during the economic downturn.

### Conclusion

The papers in this special issue offer fresh insights into the role of race in housing markets. Collectively they offer a mixed picture. On the one hand, they show that we have come a long way from the blatant discrimination experienced by African Americans during much of the 20<sup>th</sup> century. We see reductions in white flight and segregation, and suggest that African Americans tend to receive similar treatment when searching for the same homes. But on the 50<sup>th</sup> anniversary of the Fair Housing Act, race still matters. We continue to see high levels of segregation and large racial disparities in homeownership and neighborhood conditions, which in turn shape opportunities for economic mobility and advancement.

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