

### **Housing Policy Debate**



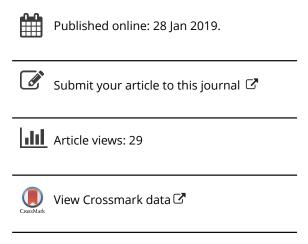
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## Do Small Area Fair Market Rents Reduce Racial Disparities in the Voucher Program?

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#### **ABSTRACT**

A lawsuit that argued that the method used to calculate rent limits in the Housing Choice Voucher Program promoted racial segregation in Dallas, Texas, resulted in the U.S. Department of Housing and Urban Development developing zip code-based voucher rent limits in Dallas in 2011. This rent calculation approach was then expanded to five other demonstration sites in 2012. This article analyzes whether adjusting voucher rent limits reduces a minority household's likelihood of living in a high-minority neighborhood, improves their likelihood of living in a higher opportunity neighborhood, and reduces the disparity in location outcomes between minority and White households in the voucher program. This article finds evidence of improvements in the location outcomes of Black and Hispanic voucher households because of the use of zip code-based rent limits, but that these results are only marginal with respect to the persistent disparities in outcomes based on race within the voucher program.

#### **ARTICLE HISTORY**

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#### **KEYWORDS**

Fair housing; race; segregation; neighborhood opportunity; voucher

We know that neighborhoods matter (Chetty, Hendren, & Katz, 2016; Ellen & Turner, 1997), but much remains unknown about whether and how policy tools can be used to increase access to opportunity neighborhoods, particularly for minority households. This is true for the Housing Choice Voucher Program, where the neighborhoods that households access with the subsidy significantly vary by race. Recently, the U.S. Department of Housing and Urban Development (HUD) allowed Section 8 voucher rent limits to be calculated at the zip code level instead of the metropolitan level through its Small Area Fair Market Rent (SAFMR) program. The explicit goal of this policy is to improve access to opportunity neighborhoods for voucher households. However, an equally important if less explicit goal of this program is to reduce racial and economic segregation. This article looks at whether adjusting voucher rent limits reduces a minority household's likelihood of living in a high-minority neighborhood, improves their likelihood of living in a higher opportunity neighborhood, and reduces the disparity in location outcomes between minority and White households within the voucher program.

There is evidence that minority households with a voucher live in more distressed neighborhoods than similar White households do (Basolo & Nguyen, 2005; Reina & Winter, 2018). This article focuses on whether adopting a zip code-based rent voucher limit reduces the disparity in location outcomes of households within the voucher program based on race. If voucher rent limits are set at a metropolitan level, and higher opportunity neighborhoods have higher rents that reflect the positive neighborhood amenities in these neighborhoods (loannides, 2011), then most higher opportunity neighborhoods will be above the traditional HUD metropolitan-level rent limit. As a result, the move from a metropolitan-level voucher rent limit to one at the zip code level increases a voucher household's choice set because it now includes these higher opportunity neighborhoods. Race is highly correlated with housing prices, with minority households being more

concentrated in neighborhoods with lower house prices (Reina, Wegmann, & Guerra, 2018), which means that metropolitan-level rent limits are more likely to steer voucher households into neighborhoods with a higher share of minority households. Again, this implies that zip code-level voucher rent limits could reduce the odds that a voucher household lives in a majority minority neighborhood.

The existing literature finds that a movement to zip code-level rent limits produced better location outcomes for voucher households in Dallas, Texas (Collinson & Ganong, 2018; Finkel et al., 2017; Reina, Acolin, & Bostic, 2019), and had mixed but encouraging results in all of the other demonstration sites except Chattanooga, Tennessee (Finkel et al., 2017; Reina et al., 2019). These studies focus on the primary goal of the program, but not on whether these results vary by race and ethnicity, which is the topic of this article. In addition, these studies do not look at whether zip code-level rents reduce the concentration of voucher households in neighborhoods with a higher share of minority households.

The policy of zip code-based voucher rent limit calculations was a product of a court case in Texas about racial and economic segregation. The Inclusive Communities Project sued HUD in 2009, arguing that the method the agency used to calculate rent limited effectively steered Black households into areas that were "marked by conditions of slum and blight" (*The Inclusive Communities Project v. HUD*, 2011, p. 1). The main concern was that HUD's rent limits furthered the concentration of minority households in highly minority and/or lower opportunity neighborhoods. This case was settled and resulted in the implementation of zip code-based voucher rent limits in Dallas in 2011. HUD subsequently expanded the program to five other demonstration sites in 2012, and then to 24 sites in 2018.

This article uses a tenant-level panel of voucher households across the SAFMR demonstration sites to determine whether calculating rent limits at the zip code level improves neighborhood outcomes for minority households. Specifically, it looks at whether the SAFMR program reduces the number of minority voucher households living in minority concentrated nieghborhoods, increases the number of minority households living in higher opportunity neighborhoods, and decreases disparity in location outcomes between minority and nonminority voucher households. The article uses confidential tenant-level data across the six sites in the SAFMR demonstration program: the Chattanooga Housing Authority (Tennessee), the Housing Authority of the City of Laredo (Texas), the Housing Authority of the City of Long Beach (California), the Housing Authority of the County of Cook (Illinois), and the Town of Mamaroneck Public Housing Agency (New York). The models provide some evidence that a movement toward zip code-level rents improves location outcomes of Blacks and Hispanics in some sites. However, the SAFMR program on its own does not close the gap in the performance of neighborhoods that minority households access with their vouchers relative to nonminority voucher households.

#### **Vouchers, Race, and Locational Outcomes**

The voucher program is the largest demand-side rental subsidy program in the country, assisting nearly 3 million households. One benefit of a voucher is that the subsidy flows directly to low-income households, instead of indirectly to them through the production of hard units (Olsen, 2003). The second benefit of the voucher program is that it gives households the ability to move with their subsidy, which theoretically means they can choose their unit and neighborhood rather than having their subsidy tied to a specific property. The mobility component of the voucher program serves as a passive means to reduce segregation and the disparate impact it has on minorities (Basolo & Nguyen, 2005). Thus far the program has failed to achieve this secondary benefit. Minority voucher households have more difficulty using their vouchers than similar White households and, on average, live in higher poverty neighborhoods than White renters and even White voucher households.

When the voucher program was created in 1974 it emphasized mobility and aligned with a broader policy goal of reducing racial and economic segregation in the United States (Basolo & Nguyen, 2005). At a minimum, this program was meant to ensure that government rental support did not promote segregation, and at best it could be a tool to reduce segregation. This is exemplified in the 1976 court case Hills v. Gautreaux, which was a lawsuit against the Chicago Housing Authority (CHA) and HUD. The plaintiff argued that the siting of CHA public housing was steered to high-minority areas, thus furthering racial segregation. This case forced CHA to offer vouchers to public housing residents to deconcentrate racial segregation in its housing stock.

Gautreaux was meant to reduce racial segregation, but a secondary benefit of this program is that it enabled minority households to access high-performing neighborhoods. Evaluations of this program show that minority households that used their vouchers through Gautreaux to move to largely White suburbs subsequently had higher high school graduation rates and increased employment (Rosenbaum, 1995; Rubinowitz & Rosenbaum, 2000). Although Gautreaux provided evidence that neighborhoods matter for household outcomes, there were concerns about selection bias in the results, with those households that were already more likely to have positive outcomes being the ones who moved to the suburbs. As a result, in 1995, the federal government developed the Moving to Opportunity (MTO) program, which used a randomized control trial format to determine the impact of moving low-income households to higher opportunity areas.

Whereas Gautreaux aimed to reduce racial segregation in subsidized housing programs, MTO was based on reducing economic isolation. Because race and income are correlated, there are indirect racial desegregation implications for MTO, but that was not the primary goal of the program. Early evaluations of MTO found significant health and wellness benefits for those households that moved to neighborhoods with better amenities, but these studies also found few economic benefits (Ludwig et al., 2013). Later studies found that living in opportunity neighborhoods is associated with improvements in economic outcomes, particularly for the children of the families that moved (Chetty et al., 2016).

The Gautreaux and MTO programs are important because they show the potential power of vouchers if they allow households to access higher opportunity neighborhoods. These programs are not unique; for example, the city of Baltimore, Maryland, established a mobility program to make it easier for families with Housing Choice Vouchers to find housing in suburban higher opportunity neighborhoods. Gautreaux, MTO, and similar projects reflect the potential of the voucher program if it is combined with additional supports and specific desegregation mandates, compared with the outcomes that the average voucher household achieves through the program. They also highlight that the benefits of policy shifts can be lagged and/or accrue through the future outcomes of children. However, such programs are significant interventions that constitute more of an exception than the rule. The voucher program does not require households to move to racially or economically diverse areas, nor is the program, on its own, designed to provide additional support to ensure households can achieve that goal.

When a household is offered a voucher, they must find a unit on the private market where the owner will accept the subsidy. There are many barriers a household can face when using a voucher, one being the voucher rent limits set by HUD. Voucher households cannot use their subsidy to rent a unit above the voucher rent limit set by HUD, which therefore limits their choice set. Studies that look at voucher use rates find that in 1993 81% of households that were offered a voucher subsequently leased a unit with it (Kennedy & Finkel, 1994) whereas 69% did so in 2000 (Finkel & Buron, 2001), and that 48–62% of MTO program participants used their voucher (Katz, Kling, & Liebman, 2001; Shroder, 2002) whereas only 48% of households in properties where a projectbased rental subsidy ended used their voucher (Reina & Winter, 2018). Voucher use rates vary along multiple dimensions, one being the race of the head of household. Minority households using a voucher report discrimination based on race, even as far back as the Experimental Housing Assistance Program, which predated the Section 8 voucher program (Galvez, 2011; Popkin, 1999; President's Commission on Housing, 1982; Shroder, 2002). Even when controlling for all other

factors that may affect voucher use, Black (Finkel & Buron, 2001; Reina & Winter, 2018) and Hispanic (Reina & Winter, 2018) households have lower voucher use rates than similar White households do.

Black households that are able to use the voucher are more likely than White households to live in distressed tracts (Pendall, 2000). Prior to 2000, Black voucher households lived in higher poverty tracts than White voucher households did (Turner, 1998). As of 2000, only 8% of White voucher households lived in tracts with a poverty rate over 25%, whereas over 25% of Black and Hispanics lived in such tracts (Devine, 2003). A more recent study found that the average neighborhood poverty rate was higher for Whites than Blacks in 85% of the 315 Metropolitan Statistical Areas (MSAs) it analyzed (Galvez, 2011). Another study finds that even if Black households that use a voucher move to a lower poverty neighborhood, they still live in a lower poverty neighborhood than similar White households (Reina & Winter, 2018).

In sum, research shows that whereas Black voucher households live in higher performing areas than Black households without a voucher, these neighborhoods are still lower performing than those accessed by White voucher households. These studies highlight the racial inequality in the location outcomes of voucher households based on race.

#### Overview of the SAFMR Program

The SAFMR program is intended to both increase the number of neighborhoods a household can access with a voucher and improve the types of neighborhoods voucher households can access. HUD sets a maximum rent limit that can be charged for a unit that a household leases with a voucher. This rent limit was traditionally based on gross rent levels at the metropolitan level, with one rent level established per bedroom size for all units across the whole metropolitan area. Establishing rent limits at the metropolitan level has long been viewed as a barrier to households finding a unit with their voucher and accessing higher opportunity neighborhoods (Pendall, 2000). By calculating voucher rent limits at the zip code level, the voucher rent limit increases in higher opportunity neighborhoods where rents were previously above the metropolitan-based limit, thus increasing the choice set for voucher households (Galster, 2019; Reina et al., 2019).

The use of SAFMRs began in March 2011 in Dallas as a byproduct of a lawsuit from the Inclusive Communities Project. The organization argued that HUD's method for calculating voucher rent caps limited the type and quality of neighborhoods households could access through the program, thus furthering existing racial and economic segregation in the City of Dallas. HUD settled the lawsuit in 2009 and agreed to modify its rent limit calculations to occur at the zip code level, with the idea that this adjustment could reduce, rather than promote, segregation.

HUD expanded the demonstration to five other demonstration sites in 2012: the Chattanooga Housing Authority, the Housing Authority of the City of Laredo, the Housing Authority of the City of Long Beach, the Housing Authority of the County of Cook, and the Town of Mamaroneck Public Housing Agency. There were detailed criteria for selecting these public housing agencies (PHAs),<sup>2</sup> but it is clear that these PHAs represent different contexts, which could produce different outcomes from the program. The stated goals of the demonstration were to (a) improve voucher recipients' access to opportunity neighborhoods and (b) reduce the concentration of voucher recipients in lower cost neighborhoods (Kahn & Newton, 2013). Even though reducing racial segregation is not stated as a direct goal, we expect that this adjustment could have that effect.

Three main studies analyze the impact of zip code-level voucher rent limits on access to opportunity neighborhoods. All three studies find that voucher households in Dallas had improved location outcomes as a result of this program (Collinson & Ganong, 2018; Finkel et al., 2017; Reina et al., 2019). Post SAFMR implementation, voucher households in Dallas are found to live in neighborhoods with lower crime, poverty, and unemployment rates (Collinson & Ganong, 2018; Reina et al., 2019). The results in the other demonstration sites are less conclusive. There was a reduction in the share of voucher households living in the lowest quartile of neighborhood opportunity across all of the demonstration sites except Chattanooga (Reina et al., 2019). In

Chattanooga and Mamaroneck, households are more likely to live in areas with higher performing schools, and in Long Beach, households are more likely to live in a slightly lower poverty neighborhood.

That there is any upward movement in the share of households in higher opportunity neighborhoods within 2 years of the program, and a marginal but statistically significant improvement across specific neighborhood attributes in some of the sites, suggests that over time this policy could have positive impacts on neighborhood access. One clear gap across all of these analyses is whether zip code-level voucher rent limits, which were a product of fair housing litigation, specifically improve the location outcomes of minority households.

#### **Data and Methods**

This article uses a semiannual panel of voucher households in the six SAFMR demonstration sites to look at the impact of this policy on locational outcomes by race. The database includes householdlevel information on every voucher household in the state in which the SAFMR site is located, as well as any contiguous states. For example, Cook County is in the state of Illinois, so the database includes data on all voucher households in the state of Illinois, Indiana, and Wisconsin. The data are then subsetted to focus just on voucher households in the SAFMR sites for the sake of this analysis. These data include detailed household-level information, including the race of all householders, which is the primary factor considered in this analysis. It also includes detailed geographic data, including the nine-digit zip code and the census tract where each of these households lives, on a semiannual basis, including whether a household moved. These data are available from 2003 to 2015, but this analysis only uses the 2 years prior to the adoption of SAFMR rent limits and the 2 years after, to try to isolate the impact of this policy. The one exception is Dallas, where the 4 years after the adoption of the policy are analyzed because of multiple studies that show improvements within the first 2 years.

This article then uses the 2009–2013 American Community Survey (ACS) to determine the share of Black, Hispanic, and non-Hispanic White households in all of the tracts in each of the SAFMR sites. The article also uses the same neighborhood disadvantage index as Reina et al. (2019), which includes the following data: the poverty rate, unemployment rate, percentage of children living in households headed by single mothers, housing vacancy rate, percentage of fourth graders who are not proficient in math or reading, and violent crime rate. These six variables are standardized with mean zero and unity standard deviation and summed to construct a neighborhood quality indicator at the census tract level. The index is similar to the one used by Collinson and Ganong (2018), except it also includes the vacancy rate. All of the indicators represent one point in time, so we know that any changes in the indicators are a product of a household accessing a different neighborhood rather than the neighborhood itself changing. A higher value for any of these individual indicators suggests lower neighborhood performance in terms of economics, social, educational, and safety outcomes. However, the overall neighborhood disadvantage index value is the opposite, with a larger negative number indicating a higher opportunity neighborhood, and a larger positive number signaling a lower opportunity neighborhood. Areas with SAFMR rents above the traditional HUD rent limit perform better across each of these neighborhood metrics, and the overall disadvantage index, than do those below it.

When looking at the basic racial and ethnic descriptive statistics for the demonstration sites (see Table 1), it becomes clear that the demographic composition of voucher households in each of the sites is quite different. Nearly 85% of voucher households in Dallas are Black, whereas almost every voucher household in Laredo is Hispanic. Of all of the sites, Mamaroneck has the largest nonminority share of voucher households.

On the whole, voucher households tend to live in majority minority neighborhoods (see Appendix A). This is particularly true for Black voucher households. In 2012, the average Black voucher household lived in a tract that was 86% Black or Hispanic in Long Beach, 74% in Cook

Table 1. Race by demonstration site.

|                         | Year | Dallas,<br>TX | Cook County,<br>IL | Long Beach,<br>CA | Mamaroneck,<br>NY | Chattanooga,<br>TN | Laredo,<br>TX |
|-------------------------|------|---------------|--------------------|-------------------|-------------------|--------------------|---------------|
| Black households (%)    | 2010 | 84.51         | 81.20              | 52.14             | 32.39             | 77.90              | 0.14          |
|                         | 2012 | 84.10         | 82.86              | 52.12             | 32.01             | 79.69              | 0.14          |
|                         | 2014 | 84.10         | 83.03              | 51.46             | 31.25             | 80.69              | 0.07          |
| Hispanic households (%) | 2010 | 4.71          | 2.83               | 10.91             | 20.87             | 2.12               | 99.36         |
|                         | 2012 | 5.12          | 2.75               | 11.46             | 21.58             | 1.76               | 99.45         |
|                         | 2014 | 5.96          | 2.84               | 12.56             | 22.66             | 1.65               | 99.47         |
| Population total        | 2010 | 23,234        | 12,098             | 6,557             | 599               | 3,068              | 1,398         |
| ·                       | 2012 | 24,804        | 12,758             | 6,905             | 556               | 3,530              | 1,464         |
|                         | 2014 | 24,996        | 12,515             | 6,811             | 512               | 3,755              | 1,496         |

County, 69% in Dallas, 65% in Chattanooga, and 56% in Mamaroneck. During this time Hispanic households lived in tracts that were 84% minority in Long Beach, 62% minority in Dallas and Laredo, 52% in Cook County, 50% in Mamaroneck, and 45% in Chattanooga. Conversely, White voucher households lived in areas that were over 50% White in Mamaroneck, Chattanooga, and Cook County, 46% White in Dallas, 45% White in Laredo, and 26% White in Long Beach.

Appendix B shows the average performance of the neighborhoods where voucher households live by race and demonstration site. This table allows us to better understand the neighborhood context for each group prior to, and after, the policy shift. In the case of Dallas, 2010 is the point before zip code-level rents were introduced, whereas for all of the other sites it is 2012. Appendix B elucidates that there is large variation in the performance of the neighborhoods where voucher households live, by race and across the demonstration sites.

In 2010 in Dallas, the mean neighborhood poverty rate for a Black voucher household was 27%, which was 4 percentage points higher than the rate for a White voucher household, and 3 percentage points higher than the rate for a Hispanic household (see Appendix C). The composite neighborhood disadvantage index for Dallas shows that the average neighborhood quality for Black voucher households is much lower than that for both White and Hispanic voucher households. We can see that there is a significant improvement in neighborhood quality for Black voucher households after the SAFMR program is implemented, whereas there is a slight decrease in neighborhood quality for White and Hispanic voucher households.

Cook County presents the most striking gap between Black and White voucher household location outcomes. In 2012, the average Black voucher household in Cook County lived in a neighborhood that had a poverty rate that was 9 percentage points higher than the average neighborhood where a White voucher household lived. As in Dallas, Hispanic voucher households tended to live in higher performing neighborhoods than Blacks did, but ones that were not as high performing as those accessed by White voucher households. When looking at the neighborhood disadvantage index, we can see that Black households live in particularly low-opportunity neighborhoods in Cook County, whereas White households live in relatively high-opportunity areas, and Hispanic voucher households live in moderate opportunity neighborhoods.

In Long Beach all of the voucher households live in similarly low-performing neighborhoods regardless of race. Conversely, the average Black voucher household in Mamaroneck lived in a tract with half the poverty rate of a Black voucher household in Long Beach in 2012. Voucher households in Mamaroneck tended to live in relatively higher performing areas, but again the variation by race and ethnicity is similar to what we see in Dallas.

Out of all of the demonstration sites, the average voucher households in Chattanooga lived in some of the poorest performing tracks, and this is particularly true for Black voucher households. On average, a Black voucher household in Chattanooga lived in a tract with a 34% poverty rate. Interestingly, Hispanic voucher households in Laredo actually lived in higher poverty tracts, with an average tract poverty rate of 39%, but their overall neighborhood disadvantage score was not similarly high because these neighborhoods had lower unemployment rates.

There is wide variation in the performance of neighborhoods across the demonstration sites, but one clear theme emerges: Black voucher households live in neighborhoods that, on average, are poorer performing than those where White voucher households live. Also, Hispanic voucher households live, on average, in neighborhoods that perform better than those of Black voucher households, but ones that are still not as high performing as those of White voucher households. This variation in location outcomes by race highlights the potential importance of policies, like the SAFMR, that can improve the likelihood of a minority household accessing a higher opportunity neighborhood.

To examine whether SAFMRs improve access to opportunity neighborhoods for minority households, this article uses a pre/post model and focuses on the 2 years prior to and the 2 years after the intervention for minority households as follows:

$$Y_{it} = \alpha + \beta Post_{it} + \epsilon_{it}$$
 (1)

In Equation (1),  $Y_{it}$  represents the outcome of household i in year t. In this article there are two primary outcome measures: the share minority in the tract where household i lived in year t, and the neighborhood disadvantage index score for household i in year t. Post $_{it}$  is a dichotomous variable for whether the zip code voucher rent policy has been implemented for household i in year t, and  $\varepsilon_{it}$  is the error term. One benefit of the program could be that it at least improves neighborhood access for minority households. The goal of this model is to focus first on the within-race difference post-SAFMR implementation, so the sample is initially restricted to only Black voucher households, and then to just Hispanic voucher households. The model is applied to households across all of the sites together to see whether there is an overall programmatic effect. The model is then broken out by site because these sites, including their markets and household composition, are very different and therefore the program may have different effects in different areas.

Next, this article seeks to explore the impact of the SAFMR policy on Black and Hispanic households relative to all voucher households, using model 2:

$$Y_{it} = \alpha + \beta Post_{it} + \beta Black_i + \beta Post_{it} * Black_i + \beta Hispanic_i + \beta Post_{it} * Hispanic_i + \epsilon_{it}$$
 (2)

This model includes a categorical variable for whether household i is Black and another for whether household i is Hispanic, and interacts these variables with the post variable to measure the relative change in minority location outcomes. The sample in this model is not restricted, which means it allows us to view how Black and Hispanic households perform compared with all other voucher households.

#### **Findings**

Descriptively, it does not look like Black or Hispanic households are living in neighborhoods that are a lower share minority after zip code-based rents are implemented, but in some sites, it appears that White households are living in slightly higher minority neighborhoods. In addition, Appendix B provides descriptive evidence that Black households have improved location outcomes as a result of the SAFMR in every site but Chattanooga, where the average neighborhood disadvantage score actually increased after SAFMR rents were implemented. The outcome for Hispanic households is more nuanced, with the average neighborhood disadvantage score decreasing in Dallas and Cook County but improving slightly across the other demonstration sites.

Model 1 first tests the impact of zip code-based rent limits on the share of minority households in the tract where a Black of Hispanic voucher household lives. Across the demonstration sites, Black households are associated with living in neighborhoods that are a 0.33-percentage-point lower share minority in the post-policy period (see Table 2), which means the policy could have made a small impact on the segregation of Black voucher holders. This improvement is the highest

Table 2. Multivariate regression results for only Black households; dependent variable is share minority.

|              | All          | Chattanooga, TN | Cook County, IL | Dallas, TX   | Long Beach, CA | Mamaroneck, NY |
|--------------|--------------|-----------------|-----------------|--------------|----------------|----------------|
| Post         | - 0.00331*** | - 0.00547       | - 0.00199**     | - 0.00400*** | 0.000169       | 0.00222        |
|              | (0.000803)   | (0.00315)       | (0.000913)      | (0.00120)    | (0.000881)     | (0.00628)      |
| Observations | 342,510      | 20,033          | 72,857          | 223,970      | 24,429         | 1,210          |
| $R^2$        | 0.000        | 0.000           | 0.000           | 0.000        | 0.000          | 0.000          |
| Households   | 50,302       | 3,641           | 13,041          | 29,078       | 4,363          | 200            |

Note. Robust standard errors are given in parentheses.

Table 3. Multivariate regression results for only Hispanic households; dependent variable is share minority.

|              | All       | Cook County, IL | Dallas, TX | Laredo, TX | Long Beach, CA | Mamaroneck, NY |
|--------------|-----------|-----------------|------------|------------|----------------|----------------|
| Post         | - 0.00028 | 0.00704         | - 0.00049  | - 0.00109  | 0.000293       | - 0.00910      |
|              | (0.00208) | (0.00589)       | (0.00401)  | (0.00412)  | (0.00179)      | (0.00551)      |
| Observations | 33,267    | 2,442           | 13,827     | 10,194     | 5,528          | 840            |
| $R^2$        | 0.000     | 0.003           | 0.000      | 0.000      | 0.000          | 0.005          |
| Households   | 5,642     | 465             | 2,111      | 1,833      | 1,013          | 138            |

Note. Robust standard errors are given in parentheses.

Table 4. Multivariate regression results for only Black households; dependent variable is neighborhood index.

|              | All        | Chattanooga, TN | Cook County, IL | Dallas, TX | Long Beach, CA | Mamaroneck, NY |
|--------------|------------|-----------------|-----------------|------------|----------------|----------------|
| Post         | - 0.136*** | - 0.0750**      | - 0.0443***     | - 0.188*** | - 0.0427***    | - 0.0326       |
|              | (0.00759)  | (0.0319)        | (0.0126)        | (0.0106)   | (0.0143)       | (0.0422)       |
| Observations | 342,512    | 20,033          | 72,859          | 223,970    | 24,429         | 1,210          |
| $R^2$        | 0.004      | 0.001           | 0.001           | 0.007      | 0.001          | 0.002          |
| Households   | 50,303     | 3,641           | 13,042          | 29,078     | 4,363          | 200            |

Note. Robust standard errors are given in parentheses.

Table 5. Multivariate regression results for only Hispanic households; dependent variable is neighborhood index.

|              | All        | Cook County, IL | Dallas, TX | Laredo, TX | Long Beach, CA | Mamaroneck, NY |
|--------------|------------|-----------------|------------|------------|----------------|----------------|
| Post         | - 0.039*** | - 0.0102        | - 0.0704** | - 0.0263   | - 0.0213       | - 0.000313     |
|              | (0.0150)   | (0.0476)        | (0.0347)   | (0.0182)   | (0.0251)       | (0.0168)       |
| Observations | 33,267     | 2,442           | 13,827     | 10,194     | 5,528          | 840            |
| $R^2$        | 0.001      | 0.000           | 0.002      | 0.001      | 0.000          | 0.000          |
| Households   | 5,642      | 465             | 2,111      | 1,833      | 1,013          | 138            |

Note. Robust standard errors are given in parentheses.

in Dallas, where the post-policy period is associated with a 0.4-percentage-point lower share of minority households, but there is also a 0.2-percentage-point reduction in Cook County. There is no significant change in the share minority in the neighborhoods where Hispanic households live because of the policy (see Table 3).

Tables 4 and 5 show that Black and Hispanic voucher households after the SAFMR policy was implemented are associated with living in higher opportunity neighborhoods than were households of the same race prior to the SAFMR policy. In particular, Black households in Dallas are associated with a 0.188-percentage-point reduction in the neighborhood disadvantage index in the post-policy period. Similarly, the overall policy effect suggests an improvement in neighborhood quality across all SAFMR sites for Hispanic voucher households, although the magnitude of that relationship is smaller and only significant in Dallas when looking at the sitelevel results.

The results in Tables 2-5 show some important improvements in the exposure of Black and Hispanic voucher households to lower minority and higher opportunity neighborhoods as a result

<sup>\*\*</sup> p < .05; \*\*\* p < .01.

<sup>\*\*</sup> p < .05; \*\*\* p < .01.

<sup>\*</sup> p < .1; \*\* p < .05; \*\*\* p < .01.

<sup>\*\*</sup> p < .05; \*\*\* p < .01.

of the SAFMR policy. However, when looking at Appendix A, we can see that the magnitude of the reduction in exposure to high-minority neighborhoods associated with this policy is small relative to the overall level of exposure. For example, in Cook County, the average Black voucher household lived in a neighborhood that was 74% minority in 2012, and a therefore a 0.2-percentage-point reduction is relatively small. Similarly, the improvement in exposure to disadvantaged neighborhoods for Black households in Dallas is less than one tenth of one standard deviation in the distribution of the disadvantage index in Dallas.

Model 2 (see Tables 6–7) focuses on the performance of Black and Hispanic households relative to all voucher households. This model helps us understand relative exposure, and whether this policy adjustment reduces disparities in outcomes within the program based on race. As shown in Table 6, there is no relationship between the policy and a Black or Hispanic household living in neighborhoods with a lower share minority relative to all voucher households. When looking at the neighborhood disadvantage index (see Table 7), it appears that across all sites, Black households are associated with living in a less distressed neighborhood. Again, Dallas is the one site significantly associated with this outcome, with the average Black voucher household post policy in Dallas being associated with a neighborhood that is 0.110 percentage points less distressed relative to non-Black or Hispanic voucher households. Again, although this improvement is small, it

**Table 6.** Multivariate regression results of Black and Hispanic households compared with all other households; dependent variable is share minority.<sup>a</sup>

|               | All       | Cook County, IL | Dallas, TX | Long Beach, CA |
|---------------|-----------|-----------------|------------|----------------|
| Post          | - 0.00136 | - 0.00534***    | - 0.00199  | 0.00110        |
|               | (0.00109) | (0.00168)       | (0.00230)  | (0.000903)     |
| Black         | 0.0117    | 0.00672         | 0.0159     | - 0.0135       |
|               | (0.0141)  | (0.0124)        | (0.0185)   | (0.0130)       |
| Post*Black    | - 0.00195 | 0.00327         | - 0.00203  | - 0.000929     |
|               | (0.00135) | (0.00191)       | (0.00258)  | (0.00125)      |
| Hispanic      | 0.00289   | 0.0659          | - 0.00298  | 0.00689        |
| •             | (0.0129)  | (0.0836)        | (0.0138)   | (0.00493)      |
| Post*Hispanic | 0.00146   | 0.0131**        | 0.00237    | - 0.000779     |
|               | (0.00236) | (0.00614)       | (0.00468)  | (0.00198)      |
| Observations  | 440,018   | 88,005          | 265,871    | 47,049         |
| $R^2$         | 0.000     | 0.001           | 0.000      | 0.000          |
| Households    | 65,905    | 15,648          | 34,951     | 8,248          |

Note. Robust standard errors are given in parentheses.

**Table 7.** Multivariate regression results of Black and Hispanic households compared with all other households; dependent variable is neighborhood index.<sup>a</sup>

|               | All         | Cook County, IL | Dallas, TX  | Long Beach, CA |
|---------------|-------------|-----------------|-------------|----------------|
| Post          | - 0.0397*** | - 0.0174        | - 0.0777*** | - 0.00756      |
|               | (0.0105)    | (0.0111)        | (0.0209)    | (0.0126)       |
| Black         | - 0.155     | - 0.0970        | - 0.188     | 0.380          |
|               | (0.127)     | (0.0903)        | (0.164)     | (0.329)        |
| Post*Black    | - 0.0968*** | - 0.0269        | - 0.110***  | - 0.0351       |
|               | (0.0129)    | (0.0167)        | (0.0233)    | (0.0189)       |
| Hispanic      | 0.0267      | 0.110           | - 0.00415   | 0.0862         |
|               | (0.0948)    | (0.254)         | (0.102)     | (0.0459)       |
| Post*Hispanic | 0.00474     | 0.0154          | 0.0146      | - 0.0131       |
|               | (0.0182)    | (0.0484)        | (0.0396)    | (0.0278)       |
| Observations  | 440,020     | 88,007          | 265,871     | 47,049         |
| $R^2$         | 0.004       | 0.001           | 0.006       | 0.001          |
| Households    | 65,906      | 15,649          | 34,951      | 8,248          |

Note. Robust standard errors are given in parentheses.

<sup>&</sup>lt;sup>a</sup>This table does not include Laredo, Mamaroneck, or Chattanooga because of the limited sample size in those sites.

<sup>\*\*</sup> p < .05; \*\*\* p < .01.

<sup>&</sup>lt;sup>a</sup>This table does not include Laredo, Mamaroneck, or Chattanooga because of the limited sample size in those sites.

<sup>\*\*</sup> *p* < .05; \*\*\* *p* < .01.

represents a 10% reduction in the disparity of the mean neighborhood quality level between Black and White voucher households in Dallas, which is an important improvement. In addition, although Hispanic households in Dallas do not appear to make gains in neighborhood quality as shown in Table 7, the fact that they show gains in Table 5 suggests that Hispanic households are seeing gains but just not at the same rate as other households.

One limitation of this article is that the estimates provided are not causal, and the lack of a control group means there could be other factors, not controlled for here, affecting these results. Other articles that look at the SAFMR program develop control groups that provide a counterfactual to the policy, which theoretically allows for a clean and more precise estimate of the impact of zip code-level voucher rent limits. Those articles benefit from looking at the policy as a whole. This article focuses on the impact of the policy on subpopulations, and it is difficult to develop valid counterfactuals by race across all of the demonstration sites during 2010–2014. This does not negate the value of the models employed in this article, but highlights the need for future research that further tests these relationships.

#### **Discussion**

The movement to zip code-level voucher rent limits was initially an attempt to reduce racial disparities in the voucher program in Dallas. As the program expanded, this policy was couched in the context of improving access to opportunity neighborhoods for all voucher households. Considering the high level of variation in location outcomes in the voucher program by race, this article focuses on the original basis of the SAFMR program and examines whether it improves neighborhoods accessed by Black and Hispanic voucher households.

This article confirms what existing evidence has consistently shown: Black voucher households live in higher minority neighborhoods that, overall, are lower performing than those accessed by similar White voucher households. For example, Black voucher households in Cook County lived in neighborhoods that, on average, had a 9-percentage-point higher poverty rate than did White voucher households in 2012. In addition, Hispanic voucher households tend to live in higher performing neighborhoods than do similar Black households, but ones that are lower performing than those of White voucher households. This article shows that moving to zip code-level rent calculations slightly improves the types of neighborhoods Black voucher households access across all of the program demonstration sites, with respect to both their own race and the broader voucher population. These gains seem to be particularly evident in Dallas and less so in the other locations.

Overall, the improvements across all sites, and especially Dallas, are important, but relatively small compared with the gap in the performance of neighborhoods between White and minority voucher households. These findings are not surprising because the SAFMR policy is still new, and it will likely take time for the true impact of this policy shift to be realized. Second, as noted in Reina et al. (2019), many of the sites did not conduct wide-scale outreach about the program, whereas in Dallas the publicity from the court case, and active efforts by the Inclusive Communities Project, gave the policy more support. As a result, it is not a surprise that the best results were seen in Dallas. This, on its own, suggests that information and counseling, increased awareness, and other resources likely help policies aimed at reducing systemic racial barriers to access in the housing market.

Ultimately, vouchers and the SAFMR program represent passive approaches to reduce segregation. Even with housing counseling, voucher households can choose to live in a lower opportunity, or more racially or economically concentrated, area. In addition, even with higher rent limits, the types of units a household can access with the voucher are bounded by where rental units are located and available (Schwartz, McClure, & Taghavi, 2016), whether an owner will rent to a voucher household of any race, and broader discrimination in the rental market (Pendall, 2000). As a result, any improvements associated with SAFMRs in this article should be viewed as a success, particularly because this study looks at the early stage of the program and the program may continue to produce gains over time.

There is convincing evidence that neighborhoods matter, and that vouchers can enable some low-income households to access high-opportunity neighborhoods. A passive approach like moving toward zip code-level rents can improve the location outcomes of minority households but will not eliminate racial segregation or close the gaps in neighborhood attainment between minority and White households. This study shows that the SAFMR program is a step in the correct direction for reducing the differences in location outcomes in the voucher program based on race, but is far from a standalone solution. We cannot expect such programs to singlehandedly eliminate inequity in locational outcomes based on race that is a product of many other historical and current policies and practices. As a result, programs like zip code-based voucher rent limits should be seen as one tool that should be coupled with broader programs and mandates that truly reduce racial segregation in the United States.

#### **Notes**

- 1. The voucher program caps a tenant's rent payment at 30% of their income. In the event that a unit is above the HUD rent limit, the household is allowed to spend up to 40% of their income on the unit to cover the differential between the HUD rent limit and the tenant rent payment.
- 2. See Kahn and Newton (2013) for a detailed discussion of the PHA selection criteria, and Reina et al. (2019) for a more detailed discussion about each of the demonstration sites.

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No potential conflict of interest was reported by the author.

#### **Notes on Contributor**

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Appendix A. Share minority by site and year.

|                 | Year | Min. | Max. | Mean | SD   |
|-----------------|------|------|------|------|------|
| Chattanooga, TN |      |      |      |      |      |
| Black           | 2012 | 0.03 | 1.00 | 0.65 | 0.33 |
|                 | 2014 | 0.03 | 1.00 | 0.66 | 0.33 |
| Hispanic        | 2012 | 0.03 | 1.00 | 0.45 | 0.34 |
|                 | 2014 | 0.03 | 0.99 | 0.45 | 0.33 |
| White           | 2012 | 0.03 | 1.00 | 0.48 | 0.36 |
| Willie          | 2014 | 0.03 | 1.00 | 0.49 | 0.35 |
| 6 1 6           | 2014 | 0.03 | 1.00 | 0.15 | 0.55 |
| Cook County, IL |      |      |      |      |      |
| Black           | 2012 | 0.02 | 1.00 | 0.74 | 0.24 |
|                 | 2014 | 0.02 | 1.00 | 0.74 | 0.24 |
| Hispanic        | 2012 | 0.02 | 1.00 | 0.52 | 0.26 |
|                 | 2014 | 0.04 | 0.99 | 0.56 | 0.26 |
| White           | 2012 | 0.02 | 1.00 | 0.42 | 0.22 |
|                 | 2014 | 0.02 | 1.00 | 0.42 | 0.23 |
| Dallas, TX      |      |      |      |      |      |
| Black           | 2010 | 0.00 | 1.00 | 0.69 | 0.26 |
|                 | 2012 | 0.00 | 1.00 | 0.69 | 0.25 |
|                 | 2014 | 0.00 | 1.00 | 0.67 | 0.26 |
| Hispanic        | 2010 | 0.00 | 1.00 | 0.62 | 0.26 |
|                 | 2012 | 0.00 | 1.00 | 0.61 | 0.26 |
|                 | 2014 | 0.00 | 1.00 | 0.62 | 0.25 |
| White           | 2010 | 0.00 | 1.00 | 0.54 | 0.28 |
| vince           | 2012 | 0.00 | 1.00 | 0.56 | 0.27 |
|                 | 2014 | 0.00 | 1.00 | 0.58 | 0.26 |
| Lawada TV       | 20   | 0.00 |      | 0.50 | 0.20 |
| Laredo, TX      | 2012 | a    | a    | a    | a    |
| Black           | 2012 | a    | a    | a    | a    |
|                 | 2014 |      |      |      |      |
| Hispanic        | 2012 | 0.00 | 0.99 | 0.62 | 0.31 |
|                 | 2014 | 0.00 | 0.99 | 0.62 | 0.32 |
| White           | 2012 | 0.00 | 0.99 | 0.55 | 0.40 |
|                 | 2014 | 0.30 | 0.99 | 0.62 | 0.34 |
| Long Beach, CA  |      |      |      |      |      |
| Black           | 2012 | 0.24 | 0.99 | 0.86 | 0.13 |
|                 | 2014 | 0.24 | 0.99 | 0.86 | 0.13 |
| Hispanic        | 2012 | 0.24 | 0.99 | 0.84 | 0.15 |
| mspanie         | 2014 | 0.24 | 0.99 | 0.83 | 0.15 |
| White           | 2012 | 0.23 | 0.99 | 0.74 | 0.17 |
| Willia          | 2012 | 0.23 | 0.99 | 0.75 | 0.17 |
| Mamaroneck, NY  | 2014 | 0.23 | 0.77 | 0.75 | 0.17 |
| Black           | 2012 | 0.00 | 1.00 | 0.56 | 0.25 |
| DIACK           |      |      |      | 0.56 |      |
| Hispanis        | 2014 | 0.00 | 1.00 |      | 0.25 |
| Hispanic        | 2012 | 0.00 | 1.00 | 0.5  | 0.19 |
| 14/1 ·          | 2014 | 0.00 | 1.00 | 0.49 | 0.18 |
| White           | 2012 | 0.00 | 1.00 | 0.48 | 0.19 |
|                 | 2014 | 0.00 | 1.00 | 0.47 | 0.19 |

*Note.* SD = standard deviation.

<sup>&</sup>lt;sup>a</sup>These numbers were not provided because of the small sample size.



Appendix B. Neighborhood index by site and year.

|                 | Year | Min.             | Max.  | Mean   | SD   |
|-----------------|------|------------------|-------|--------|------|
| Chattanooga, TN |      |                  |       |        |      |
| Black           | 2012 | - 5.60           | 11.44 | 3.25   | 4.22 |
|                 | 2014 | - 5.60           | 11.44 | 3.32   | 4.23 |
| Hispanic        | 2012 | - 4.40           | 11.44 | 1.62   | 5.16 |
| ·               | 2014 | - 4.40           | 11.44 | 1.44   | 4.82 |
| White           | 2012 | - 4.40           | 11.44 | 1.49   | 4.82 |
|                 | 2014 | - 4.34           | 11.44 | 1.78   | 4.83 |
| Cook County, IL |      |                  |       |        |      |
| Black           | 2012 | - 5.45           | 13.40 | 2.08   | 3.31 |
|                 | 2014 | - 5.08           | 13.40 | 2.02   | 3.23 |
| Hispanic        | 2012 | - 5.00           | 9.86  | - 0.54 | 2.53 |
| •               | 2014 | - 5.00           | 9.86  | - 0.33 | 2.45 |
| White           | 2012 | - 6.06           | 9.86  | - 1.77 | 1.93 |
|                 | 2014 | - 6.06           | 13.40 | - 1.77 | 1.99 |
| Dallas, TX      |      |                  |       |        |      |
| Black           | 2010 | - 6.62           | 10.12 | 0.95   | 2.73 |
|                 | 2012 | - 6.36           | 10.12 | 0.88   | 2.76 |
|                 | 2014 | - 6.74           | 10.12 | 0.74   | 2.74 |
| Hispanic        | 2010 | - 5.23           | 6.27  | 0.06   | 2.21 |
| riispanic       | 2012 | - 5.65           | 6.27  | 0.20   | 2.39 |
|                 | 2014 | - 6.20           | 10.12 | 0.16   | 2.41 |
| White           | 2010 | - 6.28           | 10.12 | - 0.20 | 2.39 |
| Willice         | 2012 | - 6.28           | 10.12 | - 0.12 | 2.40 |
|                 | 2014 | - 6.28           | 7.76  | - 0.02 | 2.45 |
| Laredo, TX      |      |                  |       |        |      |
| Black           | 2012 | a                | a     | a      | a    |
| Diuck           | 2014 | a                | ā     | ā      | a    |
| Hispanic        | 2012 | - 3.08           | 5.72  | 1.15   | 1.69 |
| riispariic      | 2012 | - 3.08<br>- 3.08 | 5.72  | 1.07   | 1.73 |
| White           | 2012 | - 3.08<br>1.19   | 3.50  | 2.04   | 0.89 |
| wille           | 2012 | 0.44             | 3.50  | 1.91   | 1.29 |
|                 | 2014 | 0.44             | 5.50  | 1.51   | 1.29 |
| Long Beach, CA  | 2012 | 4 27             | 0.65  | 2.00   | 1.07 |
| Black           | 2012 | - 4.37           | 8.65  | 3.09   | 1.87 |
|                 | 2014 | - 4.37           | 8.65  | 3.05   | 1.88 |
| Hispanic        | 2012 | - 5.87           | 8.65  | 2.91   | 1.98 |
|                 | 2014 | - 5.87           | 8.65  | 2.88   | 1.99 |
| White           | 2012 | - 4.43           | 8.18  | 2.76   | 2.53 |
|                 | 2014 | - 4.43           | 8.18  | 2.77   | 2.50 |
| Mamaroneck, NY  |      |                  |       |        |      |
| Black           | 2012 | - 4.35           | 6.02  | - 0.67 | 2.62 |
|                 | 2014 | - 4.35           | 6.02  | - 0.77 | 2.59 |
| Hispanic        | 2012 | - 4.44           | 4.07  | - 2.02 | 1.49 |
|                 | 2014 | - 5.96           | 4.07  | - 2.13 | 1.47 |
| White           | 2012 | - 5.10           | 6.02  | - 2.70 | 1.40 |
|                 | 2014 | - 5.10           | 6.02  | - 2.67 | 1.39 |

*Note.* SD = standard deviation.

<sup>&</sup>lt;sup>a</sup>These numbers were not provided because of the small sample size.



Appendix C. Poverty rate by site and year.

|                         | Year | Min. | Max. | Mean | SD   |
|-------------------------|------|------|------|------|------|
| Chattanooga, TN         |      |      |      |      |      |
| Black                   | 2012 | 0.03 | 0.77 | 0.34 | 0.20 |
|                         | 2014 | 0.03 | 0.77 | 0.34 | 0.20 |
| Hispanic                | 2012 | 0.07 | 0.77 | 0.30 | 0.23 |
| '                       | 2014 | 0.08 | 0.77 | 0.28 | 0.22 |
| White                   | 2012 | 0.01 | 0.77 | 0.29 | 0.22 |
|                         | 2014 | 0.01 | 0.77 | 0.30 | 0.22 |
| Cook County, IL         |      |      |      |      |      |
| Black                   | 2012 | 0.01 | 0.68 | 0.20 | 0.11 |
| DIACK                   | 2012 | 0.00 | 0.69 | 0.19 | 0.11 |
| Hispanic                | 2014 | 0.00 | 0.50 | 0.14 | 0.10 |
| пізрапіс                |      |      |      |      |      |
| \A/I <sub>2</sub> : 4 - | 2014 | 0.02 | 0.42 | 0.14 | 0.08 |
| White                   | 2012 | 0.01 | 0.41 | 0.11 | 0.07 |
|                         | 2014 | 0.01 | 0.68 | 0.11 | 0.07 |
| Dallas, TX              |      |      |      |      |      |
| Black                   | 2010 | 0.00 | 0.62 | 0.27 | 0.13 |
|                         | 2012 | 0.00 | 0.62 | 0.27 | 0.14 |
|                         | 2014 | 0.00 | 0.62 | 0.26 | 0.14 |
| Hispanic                | 2010 | 0.01 | 0.58 | 0.24 | 0.13 |
| •                       | 2012 | 0.01 | 0.58 | 0.25 | 0.14 |
|                         | 2014 | 0.00 | 0.58 | 0.24 | 0.13 |
| White                   | 2010 | 0.01 | 0.61 | 0.23 | 0.14 |
| Willie                  | 2012 | 0.01 | 0.61 | 0.23 | 0.14 |
|                         | 2014 | 0.01 | 0.61 | 0.23 | 0.14 |
| Laredo, TX              |      |      |      |      |      |
| Black                   | 2012 | a    | a    | a    | a    |
| DIACK                   | 2012 | a    | ā    | a    | a    |
| 1 Para and a            |      |      |      |      |      |
| Hispanic                | 2012 | 0.09 | 0.59 | 0.39 | 0.12 |
|                         | 2014 | 0.09 | 0.59 | 0.38 | 0.13 |
| White                   | 2012 | 0.35 | 0.51 | 0.43 | 0.07 |
|                         | 2014 | 0.35 | 0.51 | 0.45 | 0.07 |
| Long Beach, CA          |      |      |      |      |      |
| Black                   | 2012 | 0.03 | 0.63 | 0.28 | 0.10 |
|                         | 2014 | 0.02 | 0.63 | 0.28 | 0.10 |
| Hispanic                | 2012 | 0.01 | 0.63 | 0.28 | 0.10 |
|                         | 2014 | 0.01 | 0.63 | 0.28 | 0.11 |
| White                   | 2012 | 0.01 | 0.56 | 0.28 | 0.11 |
| Willie                  | 2014 | 0.01 | 0.56 | 0.28 | 0.12 |
| Mamaroneck, NY          |      |      |      |      |      |
| Black                   | 2012 | 0.02 | 0.38 | 0.14 | 0.08 |
| DIdCK                   |      |      |      |      |      |
| 11                      | 2014 | 0.02 | 0.38 | 0.14 | 0.08 |
| Hispanic                | 2012 | 0.01 | 0.36 | 0.11 | 0.07 |
| 140 1                   | 2014 | 0.01 | 0.36 | 0.11 | 0.06 |
| White                   | 2012 | 0.01 | 0.38 | 0.08 | 0.06 |
|                         | 2014 | 0.02 | 0.38 | 0.08 | 0.06 |

*Note.* SD = standard deviation.

<sup>&</sup>lt;sup>a</sup>These numbers were not provided because of the small sample size.