HOUSING DISCRIMINATION AGAINST RACIAL AND ETHNIC MINORITIES 2012

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HOUSING DISCRIMINATION AGAINST RACIAL AND ETHNIC MINORITIES 2012

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Despite the generous contributions from these individuals and organizations, any errors and omissions that may remain in this report are, of course, our own. All views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders.

CONTENTS

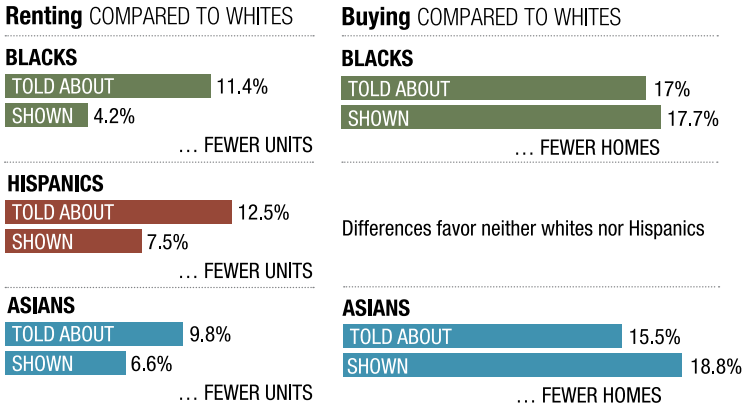
LIST OF EXHIBITS

EXECUTIVE SUMMARY

For much of the twentieth century, discrimination by private real estate agents and rental property owners helped establish and sustain stark patterns of housing and neighborhood inequality. Beginning in the late 1970s, the Department of Housing and Urban Development (HUD) has rigorously monitored trends in racial and ethnic discrimination in both rental and sales markets approximately once each decade through a series of nationwide paired-testing studies. This summary report presents findings from the fourth such study, which applied paired-testing methodology in 28 metropolitan areas to measure the incidence and forms of discrimination experienced by black, Hispanic, and Asian renters and homebuyers.[1]

When well-qualified minority homeseekers contact housing providers to inquire about recently advertised housing units, they generally are just as likely as equally qualified white homeseekers to get an appointment and learn about at least one available housing unit. However, when differences in treatment occur, white homeseekers are more likely to be favored than minorities. Most important, minority homeseekers are told about and shown fewer homes and apartments than whites (Exhibit ES-1).[2]

Exhibit ES-1: Minority Homeseekers Told About and Shown Fewer Housing Units



Although the most blatant forms of housing discrimination (refusing to meet with a minority homeseeker or provide information about any available units) have declined since the first national paired-testing study in 1977, the forms of discrimination that persist (providing information about fewer units) raise the costs of housing search for minorities and restrict their housing options. Looking forward, national fair housing policies must continue to adapt to address the patterns of discrimination and disparity that persist today.

[1] Based on standard U.S. Census Bureau practice, this report uses the term "Asian" to refer to all Asian and Asian American testers. In addition, the term "white" refers to non-Hispanic whites.

[2] All reported differences between minority and white treatment are statistically significant at the 0.90 level or higher. For specific tests of statistical significance, see the exhibits in Chapters IV and V.

There can be no question that the housing circumstances of whites and minorities differ substantially. Whites are more likely to own their homes, to occupy better quality homes and apartments, and to live in safer, more opportunity-rich neighborhoods. However, it is less obvious whether—or how much—these disparities result from current racial and ethnic discrimination in the housing market because whites and minorities differ systematically in employment, income, assets, and debts.

In this study… More than 8,000 tests were conducted in a nationally representative sample of 28 metropolitan areas. In each test, two trained individuals—one white and the other black, Hispanic, or Asian—contacted a housing provider to inquire about a housing unit randomly selected from recently advertised homes and apartments. The two testers in each pair were matched on gender and age, and both presented themselves as equally and unambiguously well-qualified to rent or buy the advertised unit. Each tester independently recorded the treatment he or she experienced, including information about all the homes or apartments recommended and shown.

Paired testing offers a uniquely effective tool for directly observing differential treatment of equally qualified homeseekers, essentially catching discrimination in the act

In a paired test, two people, one white and the other minority, pose as equally qualified homeseekers and inquire about available homes or apartments. Researchers have adapted the tool to systematically measure how often discrimination occurs across housing markets and what forms it takes.[3]

Despite its power, paired testing cannot capture all forms of housing discrimination that might occur during a housing search. For example, it does not encompass differences in advertising practices that may limit a homeseeker's knowledge about available housing options. It cannot measure differences in treatment that might occur after the initial inquiry—when homeseekers submit applications, seek mortgage financing, or negotiate lease terms. Moreover, the results presented here do not reflect the experience of the average or typical minority homeseeker, because testers presented themselves as unambiguously well-qualified for the advertised homes and apartments about

Understanding the numbers… Not every instance of white-favored treatment should be interpreted as systematic discrimination. In some tests, random factors may contribute to observed differences in treatment; in other tests, minorities may experience more favorable treatment than their white partners for systematic reasons. Therefore, we report the share of tests in which the white was favored over the minority, the share in which the minority was favored over the white, and the difference between the two. This difference—or net measure—provides a conservative, lower-bound estimate of systematic discrimination against minority homeseekers, because it not only subtracts random differences from the gross measure of white-favored treatment, but may also subtract some differences that reflect systematic reverse discrimination. Gross measures of discrimination receive less emphasis in this report than in past national studies because analysis over the past 25 years strongly suggests that they reflect a lot of random differences in treatment, and that net measures more accurately reflect the systematic disadvantages faced by minority homeseekers.

[3] This study focuses on differential treatment discrimination—when equally qualified homeseekers receive unequal treatment from housing providers. For methodological details, see Chapters II and III. Federal law also prohibits forms of treatment that may appear equal on their face but that have a disparate impact on minority homeseekers.

which they inquired.[4] Evidence from other research suggests that when testers pose as more marginally qualified homeseekers, more discrimination occurs (Hunter and Walker 1996). For all these reasons, results reported here probably understate the total level of discrimination that occurs in the marketplace.

People of color still face discrimination when they search for housing today

Each paired test in this study compares the treatment of whites and minorities at three critical steps in the search for housing:

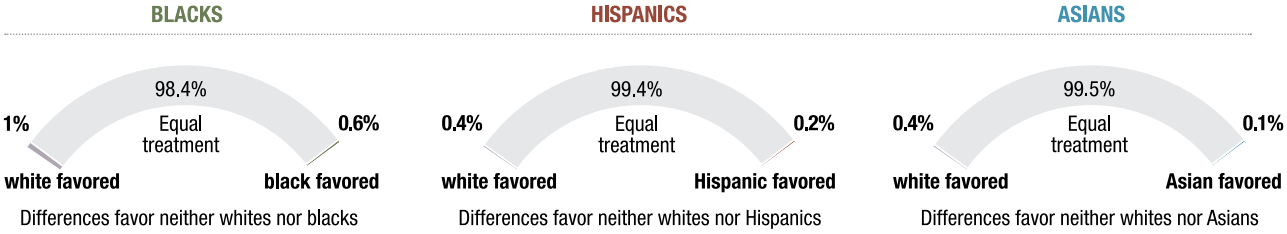
1. First, testers attempted (by telephone or e-mail) to **make appointments** for in-person visits.
2. If successful, they used the **in-person visit** to learn about available homes or apartments.
3. Finally, if told about at least one available housing unit, testers sought to **inspect homes or apartments**.

The discussion and exhibits that follow summarize the main findings at each of these three steps, first for renters and then for homebuyers.

Discrimination against minority renters. Minority renters who call to inquire about recently advertised homes or apartments are rarely denied appointments that their white counterparts are able to make. In the vast majority of tests, if one tester is able to make an appointment, then both are. The very small treatment differences favor neither whites nor minorities (Exhibit ES-2).

Exhibit ES-2: Call for Rental Appointment

MAKE AN APPOINTMENT Almost every time one tester can make an appointment, both can.



When renters meet in person with housing providers, they are almost always told about at least one available unit. However, Hispanic renters are slightly more likely than equally qualified whites to be told that no homes or apartments are available (1.8 percentage points). Moreover, in about half of all in-person visits, one tester is told about more available units than the other, with whites significantly

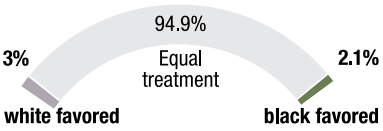
[4] All testers were assigned financial characteristics that qualified them for the housing units about which they were inquiring. Therefore, the assigned income levels varied widely, matching the variation in advertised rents and home prices in the sampled metropolitan areas. However, in most metropolitan areas, average incomes among black, Hispanic, and Asian households are lower than the average incomes assigned to testers.

more likely to be favored than minorities, as detailed in Exhibit ES-3. Black, Hispanic, and Asian renters are all told about fewer housing units than equally qualified white renters. Blacks and Hispanics are told about one fewer unit for every five in-person visits; Asians are told about one fewer unit for every six in-person visits.

Exhibit ES-3: In-Person Meeting with Rental Housing Provider

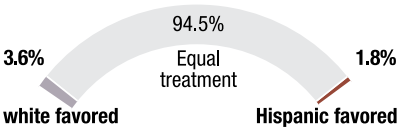
TOLD ABOUT AT LEAST ONE UNIT: In the vast majority of visits, both testers are told about at least one available unit.

BLACKS



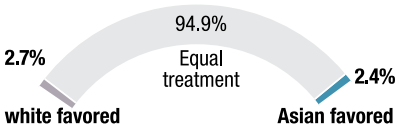
Differences favor neither whites nor blacks

HISPANICS



Hispanics are 1.8 points more likely to be told no units are available.

ASIANS

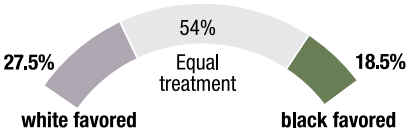


Differences favor neither whites nor Asians

LEARN ABOUT MORE AVAILABLE UNITS: In about half of in-person visits, one tester is told about more available units than the other.

BLACKS

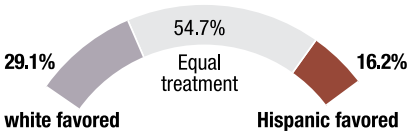
For every five in-person visits, blacks are told about one fewer unit (0.20 fewer units per visit).



Whites are 9 points more likely to be favored.

HISPANICS

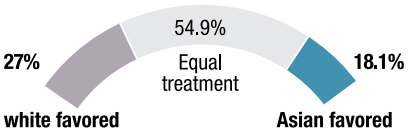
For every five in-person visits, Hispanics are told about one fewer unit (0.22 fewer units per visit).



Whites are 12.8 points more likely to be favored.

ASIANS

For every six in-person visits, Asians are told about one fewer unit (0.17 fewer units per visit).



Whites are 8.8 points more likely to be favored.

Numbers do not subtract to differences because of rounding

Finally, in about one-third of in-person visits, one tester is shown more units than his or her partner, with whites significantly more likely to be favored than minorities. As Exhibit ES-4 details, black, Hispanic, and Asian renters are all shown significantly fewer housing units than equally qualified whites. Blacks are shown about one fewer unit for every 25 visits; Hispanics are shown one fewer unit for every 14 visits; and Asians are shown one fewer unit for every 13 visits.

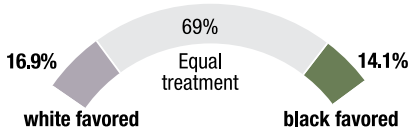
> **For example…** In one rental test, the white tester arrived first and asked to see a two-bedroom apartment. The agent showed him the available two-bedroom unit as well as a one-bedroom apartment and provided application information for both units. The Hispanic tester arrived two hours later at the same office, but was told that nothing was available.

Exhibit ES-4: Inspect Available Rental Units

SHOWN MORE AVAILABLE UNITS: In about one third of in-person visits, one tester is shown more units than the other.

BLACKS

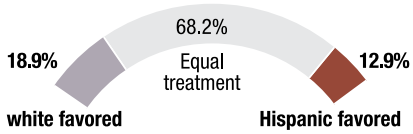
For every 25 in-person visits, blacks are shown 1 fewer unit (0.04 fewer units per visit).



Whites are 2.8 points more likely to be favored.

HISPANICS

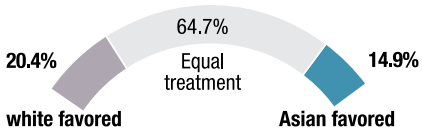
For every 14 in-person visits, Hispanics are shown 1 fewer unit (0.07 fewer units per visit).



Whites are 6 points more likely to be favored.

ASIANS

For every 13 in-person visits, Asians are shown 1 fewer unit (0.08 fewer units per visit).

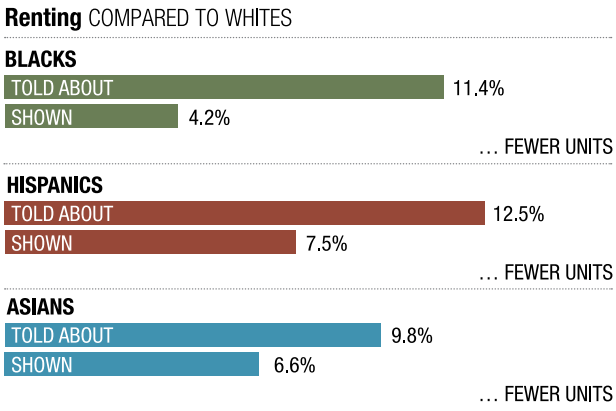


Whites are 5.5 points more likely to be favored.

Taking all three steps into account (ability to make an appointment, availability of units, and agents' willingness to show units), minority renters are told about and shown fewer homes and apartments than equally qualified whites (Exhibit ES-5).

- Black renters who contact agents about recently advertised housing units learn about 11.4 percent fewer available units than equally qualified whites and are shown 4.2 percent fewer units.
- Hispanic renters learn about 12.5 percent fewer available units than equally qualified whites and are shown 7.5 percent fewer units.
- Asian renters learn about 9.8 percent fewer available units than equally qualified whites and are shown 6.6 percent fewer units.

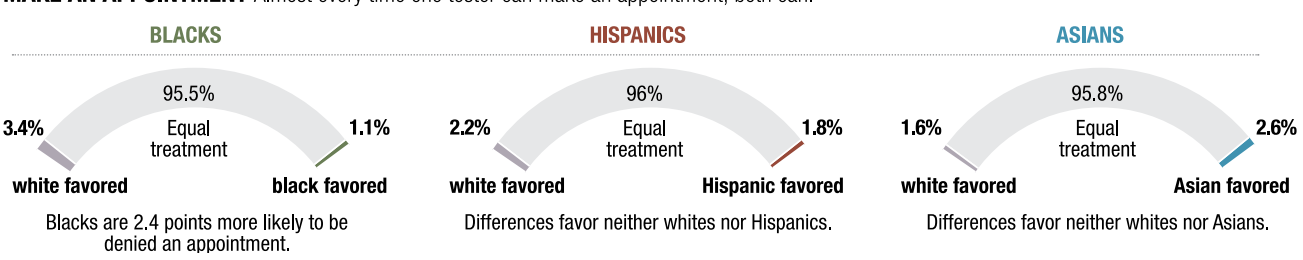
Exhibit ES-5: Minority Renters Told About and Shown Fewer Housing Units



Minority renters sometimes experience other forms of discriminatory treatment as well, relating to housing costs and quality and the helpfulness of the rental agent. These differences are less consistent and smaller in magnitude than the differences in numbers of units available and shown. Details will be found in Chapter IV.

Discrimination against minority homebuyers. Like renters, minority homebuyers are rarely denied appointments that their white counterparts are able to make (Exhibit ES-6). However, black homebuyers are slightly more likely than equally qualified whites to be denied an in-person appointment (2.4 percentage points).

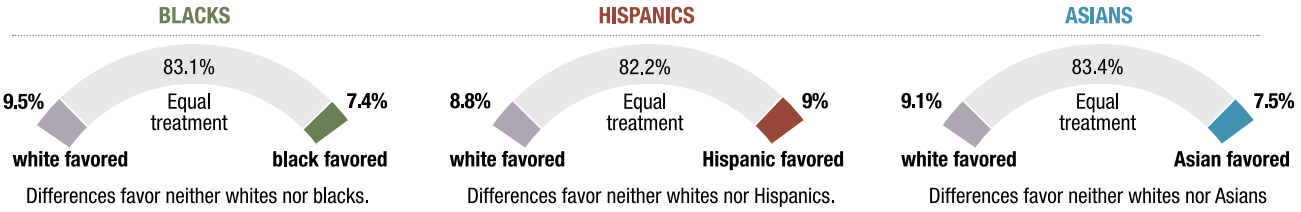
Exhibit ES-6: Call for Sales Appointment



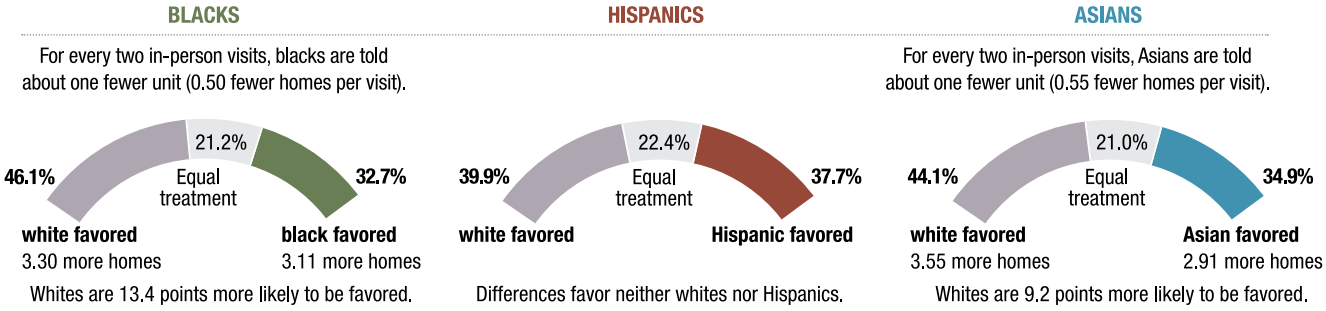
When homebuyers meet in person with housing providers, they are usually told about at least one available unit. However, agents frequently tell one tester about more available homes than the other, with whites significantly more likely to be favored than blacks and Asians, as illustrated in Exhibit ES-7. Consequently, for every two visits, black and Asian homebuyers learn about one fewer home than equally qualified whites.

Exhibit ES-7: In-Person Meeting with Sales Agent

TOLD ABOUT AT LEAST ONE UNIT: In the vast majority of visits, both testers are told about at least one available unit.



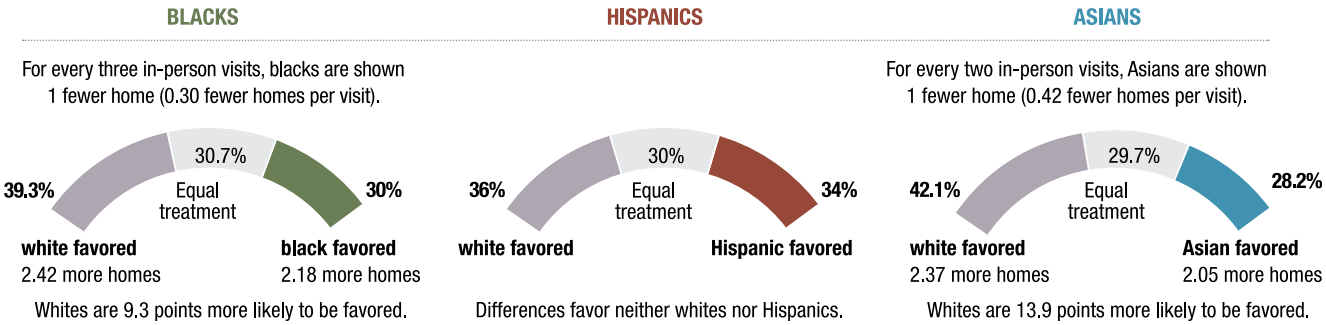
LEARN ABOUT MORE AVAILABLE HOMES: In most in-person visits, one tester is told about more available units than the other.



Finally, in about two-thirds of in-person visits, one tester is shown more units than his or her partner, with whites significantly more likely to be favored than blacks or Asians. As Exhibit ES-8 details, black and Asian renters are shown significantly fewer homes than equally qualified whites. Specifically, blacks are shown about one fewer home for every three in-person visits; Asians are shown one fewer home for every two in-person visits.

Exhibit ES-8: Inspect Available For-Sale Homes

SHOWN MORE AVAILABLE HOMES: In about two-thirds of in-person visits, one tester is shown more units than the other.

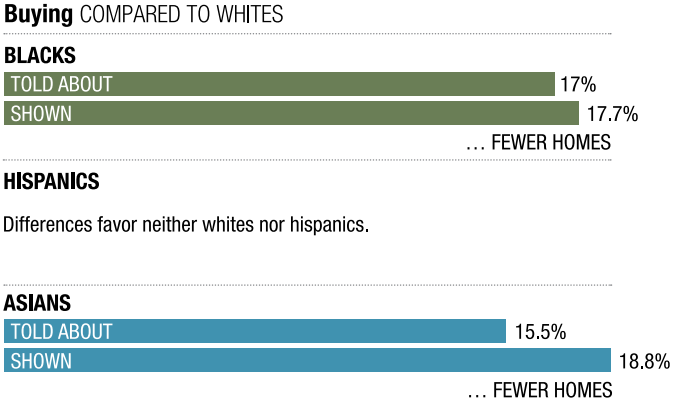


Taking all three steps into account (ability to make an appointment, availability of units, and agents' willingness to show units), black and Asian homebuyers are told about and shown fewer homes than equally qualified whites (Exhibit ES-9).

- Black homebuyers who contact agents about recently advertised homes for sale learn about 17.0 percent fewer available homes than equally qualified whites and are shown 17.7 percent fewer homes.
- Asian homebuyers learn about 15.5 percent fewer available homes than equally qualified whites and are shown 18.8 percent fewer homes.

For example… In one sales test, the black tester called and spoke with an agent who insisted that she must be prequalified in order to see homes. The agent refused to meet with the tester until she had talked to a lender. The white tester was not asked about prequalification over the phone and was able to make an appointment to meet with the agent.

Exhibit ES-9: Minority Homebuyers Told About and Shown Fewer Housing Units



Overall differences in treatment for Hispanic homebuyers are not statistically significant, and Hispanics are not recommended or shown a statistically different number of homes per inquiry than comparably qualified white homebuyers. This result extends across many forms of treatment and across the metropolitan areas where testing was conducted. As discussed further later, it also reflects a longer-term decline in discrimination against Hispanic homebuyers.

Most of the for-sale homes recommended and shown to testers of all races and ethnicities are located in majority-white neighborhoods. In many cases, however, one tester is recommended and shown homes in neighborhoods that have a higher percentage of white residents, on average, than his or her partner. Whites are significantly more likely than blacks or Asians to be shown these neighborhoods with higher percentages of whites; and, when they are, the neighborhoods whites see are about 17 percentage points higher in the percentage of white residents than those shown to equally qualified blacks or Asians. However, minorities are sometimes shown "whiter" neighborhoods than their partners; and, when they are, the neighborhoods they see are 14 to 15 percentage points higher in proportion of white residents than those shown to equally qualified whites. As a consequence, across all tests, the average racial composition of neighborhoods recommended to whites is only slightly higher in white percentage than the average for blacks and Asians—less than 2 percentage points more white. In other words, over multiple inquiries, the composition of neighborhoods recommended to minority homebuyers is very similar to the composition of those recommended to equally qualified whites.

Minority homebuyers sometimes experience other forms of discriminatory treatment as well, relating to housing costs and financing, housing quality, and the helpfulness of the sales agent. These differences are less consistent and smaller in magnitude than the differences in numbers of homes available and shown. For details, see Chapter IV.

Identifiability of minority homeseekers… When homeseekers call (or e-mail) to make an appointment, the housing provider might or might not identify their race or ethnicity. Even when homeseekers meet in person with housing providers, it is not certain that their race or ethnicity is accurately identified. In this study, a team of coders assessed the race/ethnicity of each tester based on reading the tester's name and listening to a recording of his or her speech—the information available to an agent over the phone. A parallel assessment, conducted by other members of the coding team, was based on name, speech, and a photograph—the information available to an agent during an in-person meeting. Each tester was assessed by three independent coders based on name and speech and by three independent coders based on name, speech, and appearance. Minorities whose ethnicity is more readily identifiable experience more discrimination than those who may be mistaken for whites. This is the first time such an assessment has been performed as part of a national paired-testing study.

Variations in discrimination patterns. In addition to estimating the overall incidence and severity of discrimination, a large-scale national testing study sheds light on important variations in discrimination, indicating what types of homeseekers are most disadvantaged, what types of agents discriminate most frequently, and where discrimination is most prevalent. This study finds that minority homeseekers whose ethnicity is more readily identifiable experience more discrimination than those who may be mistaken for whites. Specifically, black and Asian renters whose race is readily identifiable based on name and speech are significantly more likely to be denied an appointment than minorities perceived to be white. During an in-person visit, renters who are identifiably black, Hispanic, or Asian are shown fewer units than minorities who are perceived to be white. Similarly, homebuyers who are identifiably black or Asian face higher discrimination during the in-person visit than those who are perceived to be white.

The study does not support other widely held assumptions about when and where discrimination is most likely to occur. It does not find substantial differences in the incidence or severity of discrimination across metropolitan areas or regions of the country, suggesting that housing discrimination remains a national problem. It is neither more nor less severe in housing markets hit hardest by the Great Recession.[5]

What are the consequences of the discrimination documented here? When housing providers deny minority homeseekers information about some of the housing options offered to whites, the time and cost of minorities' housing search rise and their choices are constrained. A recent survey of homebuyers finds that the median search lasts 12 weeks, with 12 homes seen (National Association of Realtors 2011). A black or Asian homebuyer would have to search longer or choose from a narrower set of options. Unfortunately, little is known about patterns of search among renters, but spending time inquiring about more advertisements and visiting more properties could be burdensome, especially for those with low incomes or inflexible work schedules.

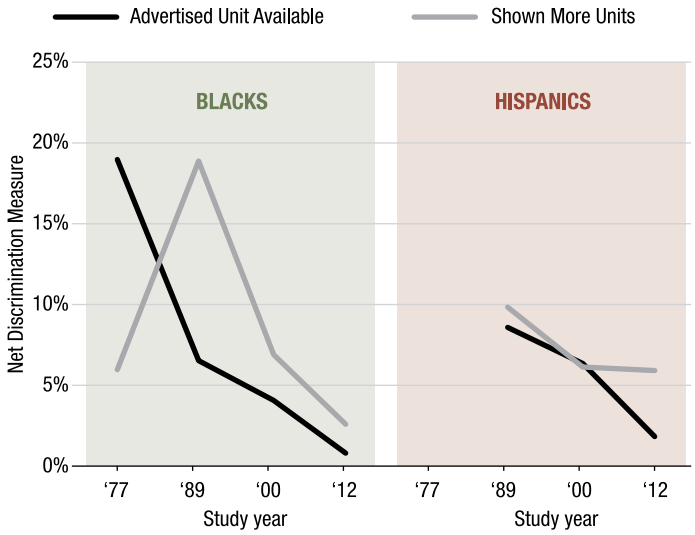
[5] For more details on analysis of variations in discrimination, see Chapter V.

The most blatant forms of discrimination have declined since passage of the 1968 Fair Housing Act

Due to changes in housing markets, sampling methods, and testing protocols, results from HUD's four decennial paired-testing studies cannot be precisely compared. But they do provide a qualitative picture of trends in the adverse treatment of minority homeseekers. The first national paired-testing study, launched in 1977, focused exclusively on discrimination against blacks (Wienk, et al. 1979). The 1989 Housing Discrimination Study measured discrimination against Hispanics as well as blacks (Turner, Struyk, and Yinger 1991). And the 2000 Housing Discrimination Study produced national estimates of discrimination against black, Hispanic, and Asian homeseekers (Turner and Ross 2003a, 2003b; Turner, et al. 2002).

Trends in rental discrimination. Exhibit ES-10 illustrates the long-term trends in two important net measures of discriminatory treatment for blacks and Hispanics: whether the agent told only the white tester that the advertised unit was available and whether the white tester was shown more units. In 1977, black renters were frequently denied access to advertised units that were available to equally qualified whites. This kind of "door slamming" discrimination had declined dramatically by 1989 and has continued to decline since. The net measure of discrimination for the number of units shown to black versus white renters actually increased between 1977 and 1989 (possibly because blacks were less likely to be denied advertised housing outright) but has declined since. Denial of advertised units to Hispanic renters has also dropped substantially since 1989, while discrimination on the number of units shown appears to have declined between 1989 and 2000, but not between 2000 and 2012.

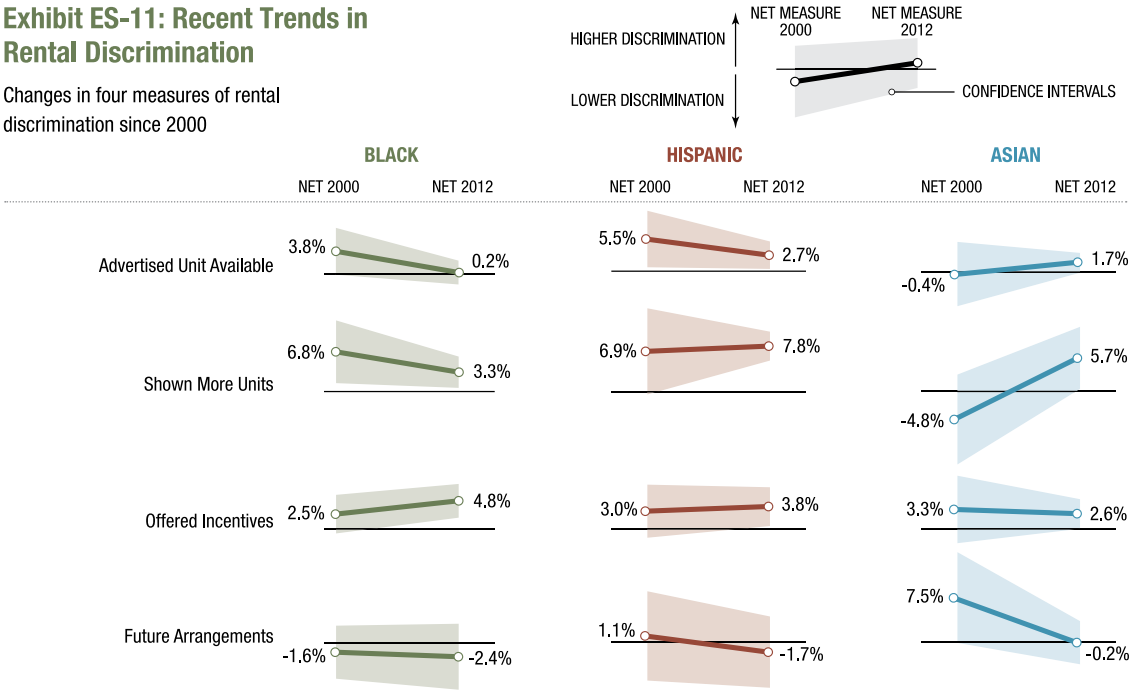
Exhibit ES-10: Long-Term Trends in Net Measures of Rental Discrimination



Focusing on more recent trends, Exhibit ES-11 reports net estimates of discrimination for four comparable treatment measures in 2000 and 2012. These trend lines are overlaid on the associated statistical confidence intervals, illustrating that for many measures, the intervals are too wide to conclude with confidence that significant changes have occurred. Black renters today appear less likely than a decade ago to be told that advertised units are unavailable. Asian renters are more likely than a decade ago to be shown fewer units, but they are less likely to experience adverse treatment when making future arrangements with the agent. Changes in other measures of rental discrimination are not statistically significant, so we cannot draw definitive conclusions about whether discrimination against minority renters has increased or decreased.

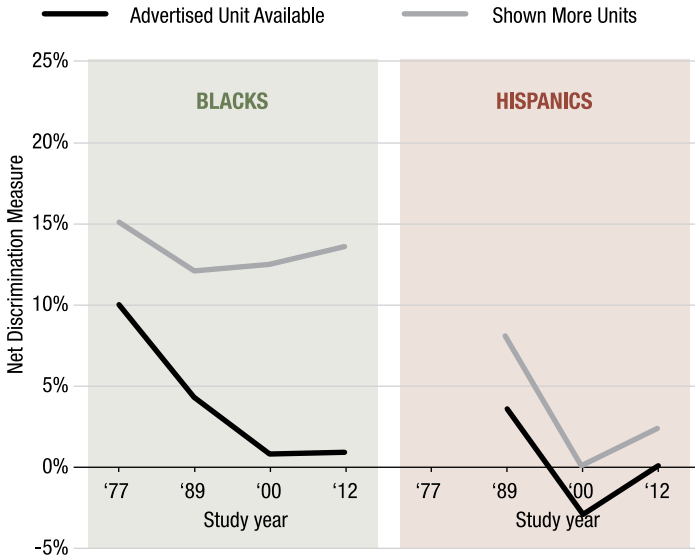
Exhibit ES-11: Recent Trends in Rental Discrimination

Changes in four measures of rental discrimination since 2000



Trends in sales discrimination. Exhibit ES-12 illustrates the long-term trends in two major net measures of discriminatory treatment for black and Hispanic homebuyers: whether the agent told only the white tester that the advertised unit was available and whether the white tester was shown more units. Like black renters, black homebuyers were frequently denied access to advertised homes in 1977. This form of discrimination had declined dramatically by 1989 and even more by 2000. The net measure of discrimination for the number of homes shown, however, does not

Exhibit ES-12: Long-Term Trends in Net Measures of Sales Discrimination

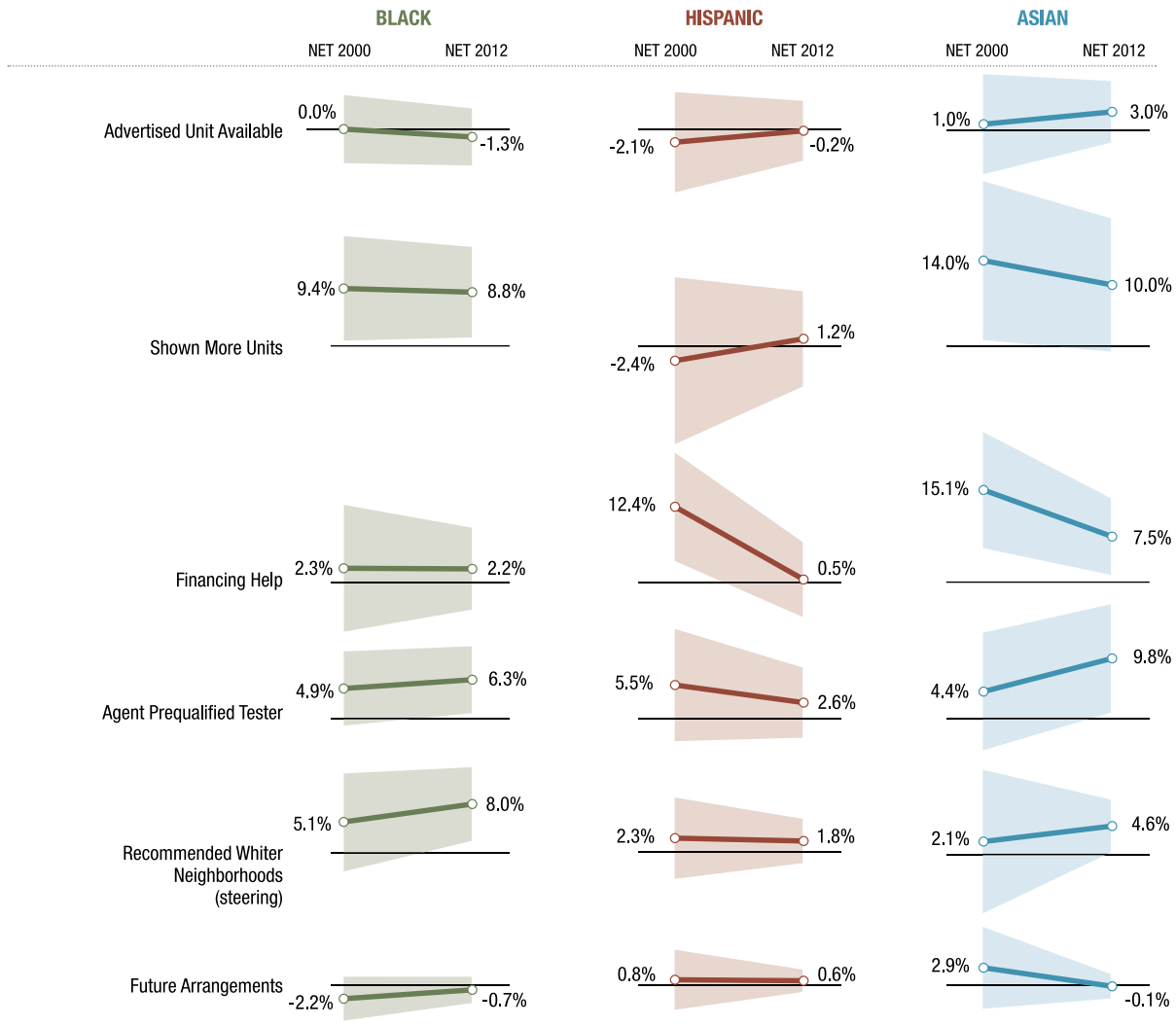


appear to have changed much over time. In contrast, adverse treatment of Hispanic homebuyers dropped substantially between 1989 and 2000 and remained low (too low to be statistically significant) through 2012.

Focusing on more recent trends in sales discrimination, we find less evidence of meaningful progress. Exhibit ES-13 reports net estimates of discrimination for six comparable treatment measures in 2000 and 2012. These trend lines are overlaid on the associated statistical confidence intervals, illustrating that for virtually all measures, the intervals are too wide to conclude with confidence that significant changes have occurred. The only statistically significant change is for Hispanics, who are less likely than a decade ago to be denied financing help compared to equally qualified white homebuyers.

Exhibit ES-13: Recent Trends in Sales Discrimination

Changes in six measures of rental discrimination since 2000



Taken together, these findings suggest that the blatant discrimination observed in the earliest paired-testing study (refusing to meet or provide information about any available units) is much less frequent today, but that other, less easily detectable forms of discrimination (providing information about fewer units) persist, limiting the information and options offered to minority homeseekers. The fact that blatant discrimination against well-qualified minority homeseekers is rare does not mean it never occurs or that more marginally qualified homeseekers do not face more frequent or severe barriers to housing choice.

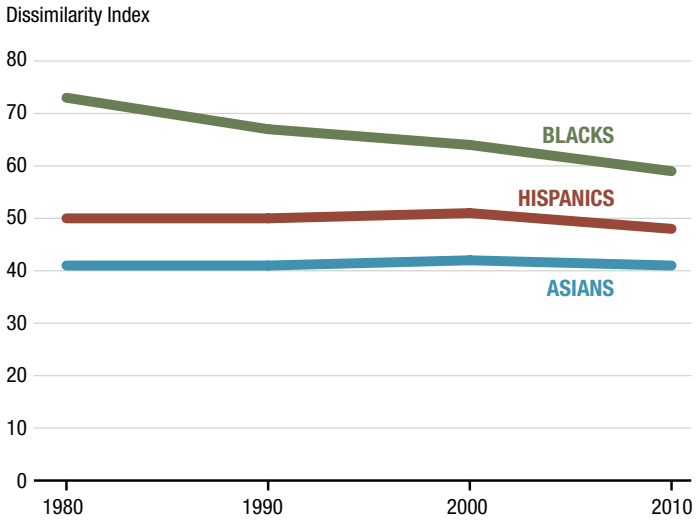
For example… One agent told a white tester: "I'm not prejudiced but I wouldn't recommend living in South Albuquerque...too many Hispanics. The further south you go the more you run into."

Fair housing policies must continue to adapt to address today's patterns of discrimination and disparity

The fair housing challenges facing the United States today extend beyond the discriminatory practices documented by this study. Beginning with the Great Migration of blacks from the rural south to northern and midwestern cities, discrimination by landlords and real estate agents blocked minorities from moving into white neighborhoods, and produced high levels of residential segregation in metropolitan areas across the country (Polikoff 2006). Too often, blacks and other minorities were excluded from neighborhoods with high-quality housing, schools, and other public services. Lenders have been less willing to invest in predominantly minority communities (Oliver and Shapiro 1997) or have offered predatory loans and loan terms that stripped wealth from minority homeowners rather than helping build wealth (HUD 2000; Calem, Gillen, and Wachter 2004; Engel and McCoy 2008). Today, even middle-class minority neighborhoods have lower house price appreciation, fewer neighborhood amenities, lower-performing schools, and higher crime than white neighborhoods with comparable income levels (Cashin 2004; Pattillo-McCoy 1999; Pattillo 2005). Rigorous research documents the high costs of racial and ethnic segregation—not just for individuals but for society as a whole (Carr and Kutty 2008; Hartman and Squires 2010).

Over the past three decades, blawwck-white segregation has declined steadily (although it remains high in many metropolitan areas) and immigration has transformed the country's population, bringing greater racial and ethnic diversity to the neighborhoods of both blacks and whites (Turner and McDade 2012a, b). Hispanics and Asians are considerably less segregated from whites than are blacks (Exhibit ES-14). Moreover, most whites live in more

Exhibit ES-14: Trends in Segregation of Whites from Blacks, Hispanics, and Asians



Source: John R. Logan and Brian Stults. 2011. "The Persistence of Segregation in the Metropolis: New Findings from the 2010 Census." Census Brief prepared for Project US2010. http://www.s4.brown.edu/vs2010.

diverse neighborhoods today than they did three decades ago, reflecting the combined effects of immigration, greater minority access to white neighborhoods, and gentrification of some minority neighborhoods.

Consistent with this trend, racial and ethnic prejudice is generally waning among Americans, and attitudes toward residential diversity are more open today—especially among young people. Most adults know and approve of the fact that federal law prohibits housing discrimination on the basis of race and ethnicity (Abravanel 2006). A declining share of the population expresses prejudice against blacks or distaste for black neighbors (Schumann et al. 1997; Krysan 2011). Recent surveys show a decline in the share of whites opposed to living in communities where half their neighbors are black (Krysan 2011). Trends in attitudes toward immigrants (and ethnic groups associated with immigration) are less clear. When immigration levels rise or high-profile immigration issues dominate the news, negative perceptions seem to rise (Lapinski et al. 1997; Espenshade and Belanger 1997).

Long-term trends in patterns of discrimination suggest that the attitudes and actions of rental and sales agents have changed over time, and that fair housing enforcement and public education are working. Despite the progress that has been achieved, fair housing enforcement and education are still needed to address the forms of discrimination that persist. Prejudice has by no means disappeared (see, for example, White 2012) and, as this latest paired-testing study documents, minorities still face significant barriers to housing search, even when they are well-qualified as renters or homebuyers.

Because the forms of discrimination that this study documents are very difficult for victims to detect, enforcement strategies should not rely primarily on individual complaints of suspected discrimination. HUD should encourage the local fair housing organizations it funds to conduct more proactive testing, especially in the sales market, where discrimination appears higher than in the rental market. Enforcement testing does not have to meet the statistical standards of research studies, but it should be thoughtfully designed and targeted and consistently implemented so that it detects discrimination that may be prevalent in particular neighborhoods, rental complexes, or companies. Proactive testing can reveal discriminatory practices that would otherwise go unpunished, and when housing providers know that testing is ongoing, they are more likely to comply with the law.

Local fair housing organizations should also expand and strengthen their relationships with Hispanic and Asian communities to address the discrimination experienced by all people of color. Historically, the fair housing movement has focused on discrimination against blacks. Although some local organizations have extended their scope in light of changing demographic realities, others have not yet done so.

In addition, more locally targeted research testing may be needed to pinpoint the types of neighborhoods, housing providers, or homeseekers where discrimination is most prevalent. In particular, minority homeseekers with lower incomes, less wealth, weaker English language fluency, or blemished credit may face higher levels of discrimination than documented in this study.

Research and enforcement testing differ… Because its goal is to measure the prevalence of discrimination across the market as a whole, research testing usually covers a representative sample of available homes and apartments, rather than targeting properties or communities where discrimination is suspected. In addition, to produce generalizable results, research testing requires a fairly large number of tests, covering many different housing providers, rather than multiple tests to clearly establish discrimination by a single provider. To generate results that can be aggregated across many tests, research protocols have to be rigidly consistent for every test, whereas the best enforcement protocols are flexible enough to respond to circumstances that arise in particular tests. Finally, research testing report forms require predefined, closed-ended responses that can be consistently compared across many tests, rather than detailed and nuanced narratives that convey exactly what happened in an individual test.

As attitudes and market practices evolve, policymakers and fair housing practitioners need reliable research not only on patterns of discrimination, but also on other factors that may contribute to residential segregation and disparities in neighborhood quality. Minorities still suffer from substantial disparities in neighborhood amenities and access to opportunity (Logan 2011) and the levels and forms of housing discrimination captured by this paired-testing study cannot fully explain current levels of residential segregation. Information gaps, stereotypes and fears, local regulatory policies, and disparities in purchasing power all work together to perpetuate segregation, even though many Americans—minority and white—say they want to live in more diverse neighborhoods (Ellen 2008; Farley, Fielding, and Krysan 1997). Meaningful reductions in neighborhood segregation and inequality can only be achieved if we tackle all these causal forces at the same time.

Enforcing existing fair housing protections remains essential. However, fair housing enforcement alone cannot reverse persistent patterns of segregation or undo the damage they cause. The evidence argues for a multipronged strategy that includes vigorous enforcement of anti-discrimination protections along with education—about the availability and desirability of diverse neighborhoods; local regulatory reforms and affordable housing development—to open up exclusive communities and preserve affordable options in gentrifying neighborhoods; neighborhood reinvestment—to equalize the quality of services, resources, and amenities in minority neighborhoods; and new incentives-to encourage and nurture stable diversity (Turner and Rawlings 2009). All these elements are required to achieve the fundamental goals of free and fair housing choice and healthy, opportunity-rich neighborhoods.

I. INTRODUCTION

This report presents findings from the fourth national study of housing discrimination sponsored by the U.S. Department of Housing and Urban Development (HUD). The study applied the paired-testing methodology in 28 metropolitan areas nationwide to directly measure the incidence and forms of discrimination experienced by black, Hispanic, and Asian[6] renters and homebuyers. It finds that when well-qualified minority homeseekers contact housing providers to inquire about recently advertised housing units, they generally are just as likely as equally qualified white homeseekers to get an appointment and learn about at least one available housing unit. However, when differences in treatment occur, white homeseekers are more likely to be favored than are minorities. Most important, minority homeseekers are told about and shown fewer homes and apartments than whites, raising the costs of housing search and limiting housing options.

Background

For much of the twentieth century, discrimination by private real estate agents, rental property owners, and lending institutions helped establish and sustain stark patterns of racial and ethnic segregation in neighborhoods across the county. When the federal Fair Housing Act was passed in 1968, black families were routinely—and explicitly—denied homes and apartments in white neighborhoods.

Since the late 1970s, HUD has rigorously monitored trends in the incidence of racial and ethnic discrimination in both rental and sales markets approximately once each decade through a series of nationwide paired-testing studies. Paired testing is a powerful tool for observing discrimination in action. In a paired test, two individuals—one a minority and the other white—pose as equally qualified homeseekers. Both testers are carefully trained to make the same inquiries, express the same preferences, and offer the same qualifications and needs From the perspective of the housing provider, the only difference between the two is their race or ethnicity, and they should therefore receive the same information and assistance. Systematic differences in treatment—telling a minority homeseeker that an apartment is no longer available when the white partner is told he could move in next month, for example—provide direct evidence of discrimination.

The first national paired-testing study, launched in 1977, focused on discrimination against blacks and found high levels of discrimination in both rental and sales markets (Wienk et al. 1979). At that time, it was not uncommon for black homeseekers to be told that no homes or apartments were available to them or to be denied an opportunity to meet with a rental or sales agent. The 1989 Housing Discrimination Study measured discrimination against Hispanics as well as blacks and again found high levels of discriminatory treatment in both rental and sales markets nationwide. That study concluded that overall levels of discrimination against black homeseekers had not changed significantly since 1977, although its forms were changing to become more subtle and less easily detectable (Turner, Struyk, and Yinger 1991).

[6] Based on standard Census and American Community Survey practice, and because not all of the participating Asian testers were Asian Americans, we use the nomenclature Asian when identifying this population in this report.

Roughly a decade later, the 2000 Housing Discrimination Study found statistically significant levels of discrimination against black, Hispanic, Asian, and Native American homeseekers (Turner and Ross 2003a, 2003b; Turner et al. 2002). That study was explicitly designed to measure change in discrimination and concluded that, between 1989 and 2000, the overall incidence of discrimination against blacks declined in both rental and sales markets nationwide. The incidence of discrimination against Hispanic homebuyers also declined, but no significant change occurred for Hispanic renters (Turner et al. 2002).[7] However, the overall reductions in sales discrimination during the 1990s masked underlying changes in patterns of discrimination.

Goals for the 2012 Housing Discrimination Study

The primary goal of the 2012 Housing Discrimination Study (HDS2012) is to produce current national estimates of discrimination against blacks, Hispanics, and Asians in rental and sales markets nationwide. In addition, it provides statistically valid estimates of rental market discrimination against blacks and Hispanics for a small number of major metropolitan areas (eight metro areas for black rental discrimination and eight metro areas for Hispanic rental discrimination). Although tracking trends in the incidence of discrimination is also important, HUD placed higher priority on accurately capturing current market practices than on precisely measuring change over time.

Achieving these goals was complicated by the fact that housing markets have changed substantially over the past decade. One important change has been the dramatic shift to using the Internet for advertising and initial information exchange. Technology now permits housing searches via cell phone, laptop, and home or work computers. Homeseekers may be able to gather more information about available rental and sales units without divulging their personal characteristics. At the same time, however, housing providers may be able to detect customer characteristics by screening phone messages, using Caller ID, or even employing real-time Web-based identity verification engines. Testing protocols must adapt to these technological changes, both to avoid detection and to capture differential treatment that might occur before in-person interactions. Therefore, HDS2012 modified the protocols used in previous national testing studies to include telephone and e-mail contacts by testers and to record differential treatment that may occur before in-person visits. In addition, the procedures for selecting random samples of rental and sales advertisements were modernized to take advantage of online sources and to mirror contemporary housing search behaviors more effectively.

In addition to these technological changes, the economic recession and the foreclosure crisis have dramatically affected both sales and rental markets nationwide. Slumping sales caused high backlogs in many markets, potentially pressuring real estate agents to move inventory, and bank-owned properties or foreclosure sales may have changed real estate marketing practices significantly in some communities. These unusual market conditions may have produced atypical patterns of treatment for minority homebuyers. However, because market conditions vary considerably across the country, analysis can explore how market conditions relate to the incidence or forms of discrimination. The HDS2012 ad sampling and testing protocols captured and included distressed sales and sales of bank-owned properties, when these properties were handled by real estate agents and advertised through conventional public sources. This study did not include properties for sale by owner, foreclosure auctions, or sales in which a bank marketed the property directly.

[7] Discrimination against Asians and Native Americans was not systematically measured before HDS2000, so trends over time cannot be assessed.

In some parts of the country, high unemployment might have contributed to very weak rental markets as well, with property owners eager to find tenants. But in many others, an increase in rental housing seekers due to foreclosures and barriers to mortgage lending appears to have produced very tight market conditions, requiring rapid-response rental inquiry protocols. HDS2012 sampling procedures and testing protocols were adapted to reflect variations in market conditions across the country, the continuously updated pool of online rental advertisements, and the need for rapid response to rental ads, especially in tight markets.

Strengths and Limitations of Paired Testing

The paired-testing methodology originated as a tool for fair housing enforcement, detecting and documenting individual instances of discrimination. Since the late 1970s, paired testing has also been used to rigorously measure the prevalence of discrimination across the housing market. When large numbers of consistent and comparable tests are conducted for a representative sample of housing units, they directly measure patterns of adverse treatment based on race or ethnicity.

Although research testing shares common origins with enforcement testing, it differs in important ways. Because its goal is to measure the prevalence of discrimination across the market as a whole, research testing usually covers a *representative sample* of available homes and apartments, rather than targeting properties or communities where discrimination is suspected. In addition, to produce *generalizable results,* research testing requires a fairly large number of tests covering many different housing providers, rather than multiple tests, to clearly establish discrimination by a single provider. To generate results that can be *aggregated* across many tests, research protocols have to be rigidly consistent for every test, whereas the best enforcement protocols are flexible enough to respond to circumstances that arise in particular tests. Finally, research testing report forms require predefined, closed-ended responses that can be compared consistently across many tests, rather than detailed and nuanced narratives that convey exactly what happened in an individual test.

Paired testing has tremendous power and potential, but the methodology also has limitations. For practical reasons, paired testing cannot be applied to some of the important stages in a rental or sales transaction. For example, third-party testing protocols cannot legitimately involve the formal submission of fraudulent information in a signed rental or loan application, so it is not possible to capture discrimination that might occur at the final stage of a rental or sales transaction. Also, discrimination against established tenants or homeowners (such as in lease renewals or property maintenance) cannot be captured through paired testing because the housing provider already knows the details of consumers' actual characteristics. As a consequence, the estimates of discrimination reported here do not capture all the forms of discriminatory treatment that minority homeseekers may experience, only those that occur during the initial inquiry and information gathering.

Moreover, the results presented here do not reflect the experience of the average or typical minority homeseeker, because testers presented themselves as unambiguously well-qualified for the homes and apartments about which they inquired. In most metropolitan areas, average incomes among black, Hispanic, and Asian households are lower than the average incomes assigned to testers. Evidence from other research on mortgage lending discrimination suggests that when testers pose as more marginally qualified homebuyers, differential treatment occurs more frequently (Hunter and Walker 1996). Therefore, results reported here probably understate the total level of discrimination that occurs in the marketplace.

Paired testing is explicitly designed to control for all relevant differences between testers so differences in treatment can be attributed to discrimination based on protected class. Nonetheless, random as well as systematic factors may contribute to observed differences, and some tester attributes or behaviors may not be fully controlled or observed. Therefore, not every instance of white-favored treatment should be interpreted as systematic discrimination. In some tests, random factors may contribute to observed differences in treatment; in other tests, minorities may experience more favorable treatment than their white partners for systematic reasons. Therefore, we report the share of tests in which the white was favored over the minority, the share in which the minority was favored over the white, and the difference between the two. This difference—or net measure—provides a conservative, lower-bound estimate of systematic discrimination against minority homeseekers, because it not only subtracts random differences from the gross measure of white-favored treatment, but may also subtract some differences that reflect systematic reverse discrimination. Gross measures of discrimination receive less emphasis in this report than in the prior national study, HDS2000. Analysis over the past 25 years strongly suggests that gross measures reflect a lot of random differences in treatment, and that net measures more accurately reflect the systematic disadvantages faced by minority homeseekers.

Critics of paired testing have raised ethical and legal objections, arguing that the methodology deceives or entraps research subjects, imposes costs (of interacting with a fictitious customer), and may invade the privacy rights of the person or office being tested (see Edley 1993). However, a convincing argument can be made that paired testing is often the only feasible strategy for detecting and measuring discrimination, and that the benefits far outweigh the drawbacks.[8] These studies provide no lure or incentive for sales or rental agents to act any differently from the way they would otherwise act. Moreover, responsible testing studies intentionally involve as limited an intrusion as possible, taking up the minimum amount of time necessary. They also involve responding to offers (for homes and apartments) that are publicly advertised and subject to laws or regulations barring discrimination (Fix and Struyk 1993).

Organization of Report

The remainder of this report details the methods and results of HDS2012. Chapter II describes the paired-testing protocols and the procedures implemented to manage the nationwide data collection effort and ensure quality control. Chapter III documents sampling and statistical methods. Chapter IV presents national estimates of discrimination against blacks, Hispanics, and Asians in both rental and sales markets. Chapter V presents and discusses additional study findings, including local estimates of discrimination against minority renters for a small number of major metropolitan areas, analysis of variations in levels of discrimination, and estimates of change in discrimination since HDS2000.

[8] In *Havens Realty Corp. v. Coleman* (1982), the Supreme Court held, "A tester who has been the object of a misrepresentation made unlawful… has suffered injury in precisely the form the statute was intended to guard against, and therefore has standing to maintain a damages claim.... That the tester may have approached the real estate agent fully expecting that he would receive false information, and without any intention of buying or renting a home, does not negate the fact of injury."

II. PAIRED TESTING PROTOCOLS AND FIELD MANAGEMENT

The paired-testing protocols for HDS2012 were designed to support research rather than enforcement. Differences between the two types of testing encompass the number of tests to conduct, the selection of properties to test, how testing protocols are used, and the type of data collected. Research testing requires completing a large number of tests that will support statistical analysis of the collected data. Tests are based on housing ads selected at random from publicly available ad sources; there is no attempt to test a particular housing provider or housing unit. In contrast, enforcement tests target housing providers suspected of discriminating against certain homeseekers. Fair housing organizations often initiate tests after receiving complaints of unfair treatment. If an initial test suggests a difference in treatment between paired testers, the organization may conduct additional tests of the same provider to confirm results and compile evidence of discrimination.

Tests conducted for research must produce consistent and comparable data that can be aggregated for analysis. Consequently, research testing protocols are inflexible; testers in all study sites must conduct tests in the same way. Enforcement protocols, in contrast, need to be flexible to respond to the circumstances of a particular case. Enforcement also collects more detailed, nuanced information on each test, whereas information collected for research comes from tester responses to mostly close-ended questions about their experience. The more highly structured, inflexible protocols of research testing allow analysts to control for differences in treatment between white and minority homeseekers and directly measure patterns of adverse treatment based on race and ethnicity.

The field implementation component of this study started with the protocols and processes used for HDS2000, modified to incorporate changes in rental and sales housing markets, and in housing search practices, over the past 10 years. Testing was managed centrally by a field director who oversaw Urban Institute (UI)- and field-based regional coordinators. UI contracted with local testing organizations, including fair housing groups and others capable of conducting this specialized work, in the study sites. See Appendix A for a list of participating organizations.

Local testing organizations recruited testers according to the types of tests a site was assigned to conduct. Their recruitment activities also were guided by information that UI provided on local community demographics. For example, a site conducting Asian/white tests would be provided recruitment targets for Asian subgroups based on census data for that metropolitan area. In a city with a significant number of Vietnamese and Laotian residents, an organization would attempt to recruit more testers from these groups than from other Asian subgroups. See Appendix B for a master list of Asian and Hispanic subgroups.[9] Organizations also attempted to ensure a reasonable distribution of testers by sex and age.

Minority and white testers were matched on age and gender. They were assigned income, assets, and debt levels to make both testers unambiguously *well qualified for the representative sample of advertised units* and to make the minority tester slightly better qualified. As a result of being assigned income that made testers well qualified relative to the income necessary to rent or buy a unit being tested, on average,

[9] Testers who identified as Hispanic and black but likely were perceived to be black participated as testers for black/white tests, changing their name if necessary.

white and Asian testers were assigned a slightly higher income than the average white or Asian renter and a slightly lower income than the average white or Asian homebuyer. Black and Hispanic testers were assigned a higher income than the average black or Hispanic renter or homebuyer.[10] Test partners also were assigned comparable family circumstances, job characteristics, education levels, and housing preferences. (Appendix C outlines how tester characteristics were developed for sales tests.) Testers contacted and visited rental or sales agents and systematically recorded the information and assistance they received about the advertised unit and other units, including location, rent or sales price, quality and condition, and other terms and conditions. Testers were not told who their test partner was; partners did not compare their experiences with one another.

Rental Testing Protocols

Protocols for rental tests were divided into eight steps. The first step in the process required making contact on each sampled advertisement before it could be assigned to testers. The advance contact confirmed details from an ad and collected additional information required to determine eligibility and assign tester characteristics. Second, a local test coordinator created a test assignment based on information collected from the sampled advertisement and the advance contact. Third, the coordinator met with each tester in the matched pair separately. During briefings, testers received and reviewed their assignment, reviewed test protocols, and discussed any questions or concerns with the coordinator.

Fourth, testers were assigned to visit the housing provider using one of two approaches: no appointment/drop-in, which was used when an advertisement provided information on location and office hours; or appointment, which was used when an advertisement provided insufficient information to allow a drop-in visit or the advance contact determined an appointment was necessary.[11] Testers were assigned a Google Voice number and a Gmail account, which they used to make appointments and to receive messages from housing providers. The use of Google Voice/Gmail helped streamline communication by allowing testers to use a phone number that was solely for use on the project and whose digital voicemail could be accessed online by test coordinators and/or transcribed to text. Because voicemail messages from housing providers appeared as a written record in the testers' assigned Gmail account and test coordinators received an e-mail alert when such messages were received, coordinators were able to monitor important and timely communication by forwarding messages received by tester accounts to a central e-mail account. When agents called to cancel or reschedule appointments, for example, test coordinators saw the message and alerted testers to take the appropriate next steps. Testers could make calls through the Google Voice system via a landline or their own cell phone (their Google number—not the number of the phone used to make the call—appeared on the housing provider's Caller ID). The appointment protocol directed testers to make contact by telephone unless an e-mail address was provided in an advertisement instead of a phone number. Appointment contacts were documented to allow analysis of treatment at this early stage of a test.

[10] For the rent tests, white testers' income was in the 59th percentile of actual white renters, black testers' income was in the 73rd percentile of actual black renters; Hispanic testers' income was in the 73rd percentile of actual Hispanic renters, and Asian testers' income was in the 54th percentile of actual Asian renters.

For the sales tests, white testers' income was in the 47th percentile, black testers' income was in the 60th percentile, Hispanic testers' income was in the 63rd percentile, and Asian testers' income was in the 46th percentile of actual homebuyers for the relevant racial or ethnic group.

[11] Testers sought to meet with a housing provider using the most efficient approach possible. About half of all rental tests were drop-ins. In 13 test sites, 75 percent or more of all rental tests were drop-ins.

Fifth, testers conducted test visits following standardized testing protocols designed to gather key information for assessing differential treatment. Testers began each test by asking about the advertised unit or, in the event the advertised unit was no longer available, about any other units similar to the advertised unit in size, price, and the date available.[12] Whether the advertised or similar units were available or not, testers always asked whether there were any other rental units that were within their price range, had at least the minimum number of bedrooms the testers' (assigned) household needed, and were available when needed. Under no circumstances were testers to agree to a credit check, which would disclose the fact that their income and other information differed from what they might have told the provider.

Sixth, testers completed report forms soon after finishing a test visit, to record information on the application process; whether and which utilities are included in the rent; the exact address of the unit; number of bedrooms; rent amount, amount of security deposit, and any other fees; the lease length; the date of availability; and any information about the tester gathered by the housing provider, such as income, employment, and family size. See Appendix D for all rental report forms.

Seventh, after testers completed all report forms, they attended a debriefing meeting with the test coordinator to clarify report forms, if necessary, and talk about any issues or concerns with the test. Debriefings were held in person with testers until coordinators were confident that a tester had mastered testing protocols and was comfortable with all the test report forms. After that, testers had the option of debriefing over the telephone.

The eighth and final step in the test process was documenting any follow-up contact with a housing provider. Testers completed a report form to record information on any e-mail or telephone calls from a housing provider as well as any follow-up contact a tester was instructed to initiate.

Although the field team had anticipated particular implementation challenges related to market changes since HDS2000, the team encountered two challenges during the testing period that previous national studies had not presented:

- Real estate agents/brokers: In a number of metropolitan areas, testers had a particularly difficult time making appointments and conducting site visits as a result of real estate agents/brokers who refused to make firm appointments or provide testers with a specific address at which to meet. For example, real estate agents/brokers would tell testers they would call them the morning of the appointment to confirm a time and a place to meet. This practice left the testers unsure about whether they would be conducting a site visit the next day. In the instances when the agent did call the tester back the next day, there was frequently a short time between the call and when the agent was available to meet. The test coordinator would then be forced to decide whether to send out the first tester on a site visit without knowing whether the second tester would receive an appointment. If the second tester could not obtain an appointment, the test would be incomplete.
- Management companies: In a number of areas, local testing organizations encountered management companies that owned many rental properties. Because it is common practice for the management companies to log visits by prospective tenants, it was a significant concern that testers who visited more than one property owned by the same company would be detected. Test coordinators had to keep careful records of which testers had previously visited properties owned by these large, multiproperty companies in order to avoid detection.

[12] Tests in which a housing unit was shown during an open house were assigned to ensure that testers visited at different times. If it was not possible for paired testers to visit at different times, the test would be deemed ineligible. In group showings, testers were instructed to adhere to the protocol, asking the provider the necessary questions even though the meeting was not one on one.

Sales Testing Protocols

Sales tests had the same eight components as rental tests, though protocol details differed for a number of steps. On sales tests, local testing organizations made advance contacts only for sampled advertisements that did not include information on the location, sales price, or number of bedrooms of the housing unit for sale. If the ad contained all the information necessary to make an assignment, no advance contact was required.

During briefings, testers were allowed to create notes that included their assigned financial information so they could respond to any questions about their income and debt in detail should a housing provider ask for such information or offer to do a back-of-the-envelope assessment of the price of home the tester could afford. Testers were instructed to include only information on their finances so they would not need to shield the notes from a housing provider.

All sales tests began with an appointment contact except in very rare cases where there was no contact information for a housing provider but enough information to visit a sales office. Unlike rental appointment contacts, testers were not to mention the advertised home when contacting a housing provider to make an appointment. Testers were instructed to say that they had seen ads from the provider's office and were interested in finding out what was available.

During in-person visits, testers were instructed to ask first about the advertised home they were provided in their test assignment and then to ask about any other homes that had the same number of bedrooms as the advertised home. Testers were not provided with a ceiling on what they could afford nor a date by which they needed to buy a home in order to respond to any options the housing provider suggested they consider. If asked about price, testers were instructed to say they were unsure of what they could afford.[13] They were not to select homes to view but instead were instructed to ask the housing provider for recommendations. They also were not to state a neighborhood preference, though if pushed on this question, they could offer a broad geographic area provided in their test assignment. Testers were available for an additional three hours beyond the initial site visit to view homes with the housing provider, though they were not to push the provider for additional time. This time could be spent during the first visit, if the provider had additional homes to show the tester, or could be spent during a second test visit.

Testers completed test report forms soon after finishing a test visit, whether the visit was for the initial or second meeting with a housing provider for a particular test. Reports recorded information on the exact address of the homes recommended by the housing provider, the number of bedrooms in each recommended home, asking price on all recommended homes, information on financing options, and any information about the tester gathered by the housing provider, such as income, debt, credit score, employment, and family size. See Appendix E for all sales report forms.[14] The debriefing and follow-up steps for sales tests were the same as those for rental tests.

[13] Testers were asked a variation of the question on affordability in approximately half of tests overall, though in some test sites it rarely arose. No detection concerns related to affordability or prequalification were brought to the attention of the regional coordinators, though the lack of prequalification presented an obstacle to scheduling appointments in some sites.

[14] Forms for advance contact, appointment, and follow-up contact are the same for rental and sales and are included in Appendix C.

The field team faced three challenges while completing sales tests that previous national studies had not encountered:

- Need for prequalification modification: When significant numbers of testers in a particular metropolitan area were repeatedly denied appointments by housing providers because they had not yet been prequalified, local testing organizations were granted permission to use a modified protocol. In total, nine sites ultimately used the prequalification modification, which allowed testers to tell housing providers over the phone that they had been prequalified for a particular dollar amount.[15] If the agent asked to see the prequalification letter during the course of the site visit, the testers were instructed to say they had forgotten the letter.
- Gas prices/geographic distances: Many metropolitan areas in which the study was conducted could take several hours to travel from the furthest points. If a tester was assigned to a test where the housing provider's office was a significant distance from the tester's home and/or the local testing organization's office, the tester spent multiple hours traveling to and from the first site visit. For sales tests that included second site visits, the total travel time could be considerable. The size of the distances that were traveled on tests coupled with the rise in gas prices during the testing period further challenged the entire project team to complete the required work with the available funds.
- Detection: In a number of metropolitan areas, local testing organizations encountered housing providers that used an online system to track clients and subscribe them to the Multiple Listing Service (MLS). Agents would use the e-mail address the tester had provided in order to register him or her on the site. If the agent discovered that the tester was already in the system, it indicated the tester had previously met with at least one other housing provider. In a few instances, the agent then confronted the tester about why the tester was meeting with multiple agents. In some project sites, the use of this online system was so extensive among housing providers that to avoid detection, test coordinators began assigning new e-mail addresses to testers for each subsequent sales test. This additional procedure increased the burden on test coordinators and testers, who had to memorize a new email address for every test they conducted.

Data Collection Oversight, Management, and Quality Control

Regional coordinators provided oversight for all testing activities by maintaining weekly contact with local test coordinators and reviewing test reports.[16] The weekly telephone and e-mail contacts between regional coordinators and local test coordinators allowed the field operations team to identify and correct any problems as quickly as possible. The contacts between regional coordinators and other field operations staff and the local testing groups were documented (dates of contact, issues discussed, problems identified, corrective actions required, outcome of corrective actions) to aid in transparency. In cases where problems did not improve, the regional coordinator responsible for the particular site increased supervision and, when necessary, visited the site to determine if a course correction was possible.

[15] The sites were Albuquerque, New Mexico; Atlanta, Georgia; Chicago, Illinois; Dallas, Texas; Ft. Worth, Texas; Greensboro, North Carolina; Miami, Florida; Richmond, Virginia; and Washington, DC. Analysis shows little change in the average difference in units shown to white and minority testers when tests using the modified prequalification procedure are excluded.

[16] Testing activities ran from midsummer 2011 to fall 2012.

The research team used CODE, the Web-based data entry and test management system, for HDS2012. CODE was originally designed and implemented by the Urban Institute for HDS2000 and the Disability Discrimination Study. CODE's integrated test assignment, data entry, and test management tools reduce data entry mistakes with built-in consistency checks and streamline data management, cleaning, analysis, and database delivery. UI's field operations staff continuously monitored data in CODE to assess tester adherence to reporting requirements and progress toward testing targets. The CODE system automatically assigned identification numbers for ads, testers, e-mail and/or telephone inquiries, in-person visits, and inspected units, reducing a major source of potential data-entry errors.

Testers completed electronic forms for previsit contacts, in-person visits, and any follow-up contact that occurred. Test coordinators reviewed tests to ensure that report forms were complete and accurate before approving tests and submitting them to the research team. Once tests were recorded in CODE as completed, regional coordinators reviewed files from their sites to identify any problems with data quality. CODE allowed regional coordinators to identify who entered information on report forms and when information was entered. This in turn allowed them to identify the rare tests that appeared suspicious and assess whether a test had been tampered with or fabricated.

One of the greatest challenges faced by the local testing organizations involved in the study was recruiting and retaining testers. Although most of the groups had prior testing experience and many had a testing program in place when HDS2012 began, all of them had to recruit additional testers in order to conduct the required number of tests. Most organizations also had to further diversify the age, race, and ethnicity of their test pools. Most testing organizations had to conduct outreach to groups and community leaders within the Hispanic and/or Asian communities.

Although organizations were generally very successful in recruiting large numbers of testers, many groups suffered a high level of tester attrition, forcing test coordinators to continue recruiting at the same time they were coordinating large numbers of tests. Both the research team and the local testing organizations anticipated some tester attrition either immediately following the tester training session, when testers learn just how detailed the protocols are, or after testers conducted their first practice test, when some discover that they are not comfortable assuming a set of assigned characteristics. However, the level of tester attrition that followed the testers' initial entry to the project was unexpectedly high.[17] As new testers were recruited to replace them, regional coordinators had to conduct ongoing webinar training sessions, often for multiple sites at one time. Some local testing organizations suffered such high tester attrition during the testing period that they averaged one training session a month.

Another challenge was the change in either the executive director or on-site project manager position in one-third of the local testing organizations. Most of these staff changes came as a surprise. The transitions were challenging for both the UI field staff and local testing staff, and in some cases they contributed to unexpected delays in test completion. The loss of test coordinators and advance contact staff meant that regional coordinators had to devote significant time to training testing staff while continuing to fulfill their other critical roles, providing vital feedback to active test coordinators and enforcing multiple quality control measures. Ultimately, the UI field team determined that several testing organizations did

[17] Many organizations attributed high tester attrition to the level of underemployment among many testers. When these testers received offers of more permanent employment, they gave up their work as HDS testers.

not have the capacity to complete the required number of tests according to the protocols. The UI field team either identified other local organizations to take over the work in those sites or increased the scope of work of organizations working in other HDS sites to manage the completion of the failed sites' tests.[18]

[18] Other testing organizations required additional technical and personnel support to complete their work. For field staff members who struggled with particular protocols, report forms, or test management, regional coordinators conducted additional one-on-one or small-group webinars on specific subjects and helped relay best practices of high-performing sites. In some cases, the UI team provided help by connecting one local testing organization to another. For example, if an organization was nearly finished with testing but had no testers remaining from a particular demographic, another group identified capable testers who were available to travel. This strategy was used in several sites. Additionally, the UI field team deployed local test coordinators who had successfully completed tests in their own sites to other locations. One test coordinator helped close out three different sites in two states. Another dedicated tester was trained as a test coordinator for the purpose of traveling to another site and ultimately spent more than six months away from home. Highly capable test coordinators and advance callers also helped sites in other metropolitan areas complete work, but did so by working remotely. They made test assignments via the online CODE system and briefed and debriefed testers via telephone or Web conference. The field staff members who were willing to travel to additional sites and who provided remote support to numerous other testing organizations were vital to the successful completion of the project.

III. SAMPLING AND ANALYSIS METHODS

This section documents the sampling and analysis plan. We first review the study objectives, since these are the primary drivers of the research design. We then discuss the three-step, probability-based sampling plan that was implemented for rental and sales testing. The third, fourth, and fifth sections are devoted to metro site selection, sampling of neighborhoods, and electronic selection of the rental and sales ads for testing. We next present targeted and actual numbers of tests. We discuss the post-data collection processing of test data for use in our analyses. We conclude with subsections that discuss our analysis plan, including summary measures, screening, statistical tests, and finally the multivariate analysis of the correlates of differential treatment.

Study Objectives

The study objectives call for conducting a national paired-testing study of sufficient scope to produce

- Statistically valid and precise national estimates of discrimination experienced by blacks, Hispanics, and Asians relative to whites who seek rental and sales housing.
- Statistically valid and precise estimates of rental discrimination (relative to whites) for the eight largest Hispanic and eight largest black metropolitan areas.
- An analytic exploration of sales *steering*, which is the practice of real estate agents guiding minority homeseekers away from homes in integrated or white neighborhoods by offering homes in minority neighborhoods.
- Statistically valid national estimates of change in rental and sales discrimination to continue documentation of the HDS series.

Before presenting our detailed approach to sampling sites, we should point out the trade-off between sampling for good *current* national estimates versus sampling to get the best estimate of *change over time*. In HDS2000, our initial sample of metro areas for black-white and Hispanic-Anglo testing retained the sites used in the 1989 sample to enhance the precision of estimated change-over-time measures. A subsequent wave of testing in HDS2000 added new metro areas to yield more precise point-in-time national estimates. A primary objective of HDS2000 was to obtain good trends estimates. Examining the 1989 to 2000 change in discrimination was meaningful in the sense that homeseeker behavior had not changed substantially during the interim. That is not the case for HDS2012, as reflected in the study objectives listed above. For the current study, it is more important to obtain good estimates of current national levels of rental and sales discrimination. This is quite reasonable given the dramatic changes in technology, market practices, and market conditions that have occurred over the past decade.

Accordingly, we drew a new sample of metropolitan testing sites based on data from the 2008 American Communities Survey (ACS) to reflect the current distribution of black, Hispanic, and Asian households. This approach produces less precise estimates of national changes over time but more accurate estimates of current patterns of discrimination.

Sample of Metropolitan Areas

Ideally, the HDS2012 would employ three independent samples of metropolitan sites, with each tailored to a specific minority being tested. Unfortunately, this was not practicable for cost and logistic reasons because it would maximize the distinct number of sites within which testing would occur. Thus, our sampling approach focused on an "integration strategy" that would employ a probability sample of ***28 distinct metropolitan areas*** rather than (28 x 3) = 84 sites. Under this strategy, minority-specific testing would occur for one, two, or all three minority groups in a given metropolitan area based on a sampling process that assigns minority testing groups to sites. In this subsection we discuss how this was accomplished.

We begin our discussion by describing the necessary restriction of metropolitan areas within which testing could be conducted. This involves a concept of ***population coverage***. Ideally, the HDS2012 metropolitan site sampling would achieve 100 percent "coverage" of all metropolitan areas in the United States. But if testing was conducted in a metro area that was too small, the risk of detection would be unacceptably high. On the other hand, excluding metropolitan areas from the possibility of testing reduces the coverage of metropolitan sites and introduces the risk of ***noncoverage bias*** *in the resulting discrimination estimates*. So a proper balance must be achieved—to reduce the risk of detection by eliminating metropolitan sites from testing, yet retain sufficient numbers of metropolitan areas to avert the risk of noncoverage bias.

We analyzed the housing market distribution across metropolitan areas based on total household estimates from the 2008 ACS. The smallest 159 metro areas (out of 298 in the United States) featured total household counts of fewer than 145,000. These 159 metros represented only about 10 percent of black, 9 percent of Hispanic, and less than 7 percent of Asian households. We excluded these areas from HDS2012 testing. Their exclusion would have negligible impact on estimates of discrimination because of the small amounts of the minority populations they represent. We also excluded other metropolitan sites depending on the racial or ethnic group being tested. The results were as follows:

- For black testing, we retained metro areas representing *88 percent coverage* of all black households in the United States.
- For Asians, excluding 213 sites (the original 159 plus 54) achieved an overall coverage of *90 percent* of Asian rental households.
- A similar exclusion for Hispanic sites achieved *88 percent* coverage.

These coverage levels are reasonable and reduce the disclosure risk associated with sampling sites for testing a racial or ethnic group when in fact few if any members of that group live in the metro area.

The 28 metropolitan sites used in HDS2012 testing represent three separate samples:

- 26 distinct metro sites for black testing.
- 26 distinct sites for Hispanic testing.
- 23 distinct sites for Asian testing.

The first three rows of Exhibit III-1 summarize the sample site integrated design. The same sites are used for both rental and sales testing for each minority group.

Exhibit III-1: Summary of HDS2012 Integrated Sampling Plan

Design feature	Approach used
Total number of distinct testing sites	**28**
Number of sites for black testing	26
Number of sites for Hispanic testing	26
Number of sites for Asian testing	23
Subset of sites for metro-specific results	
Black/white	8
Hispanic/Anglo	8
Total number of tests	
Black/white	**2,999**
Hispanic/Anglo	**2,998**
Asian/white	**2,248**

A primary study objective called for separate rental discrimination estimates for the eight largest black rental metro areas and the eight largest Hispanic rental metro areas. We identified these sites by first ranking metro areas from largest to smallest according to the numbers of renter households using 2008 ACS data. We did this separately for black, Hispanic, and Asian renter households to examine commonalities. Twelve metro areas were identified that collectively include the

- Eight metro areas with the highest number of black renter households.
- Eight metro areas with the highest number of Hispanic renter households.
- Two metro areas with the highest number of Asian renter households.

These 12 metro areas account for 37 percent of black renters, 46 percent of Hispanic renters, and 41 percent of Asian renters in the United States. Clearly, there was a natural overlap in minority household distributions across the United States. We designated these 12 areas as *self-representing* for one, two, or all three minority groups. We then sampled 16 additional *non-self-representing* sites via stratified probability sampling (discussed below) to achieve 28 total distinct sites for testing (Exhibit III-2).

Exhibit III-2: Distribution of 28 Distinct Sites by Racial/Ethnic Testing and Self-Representing Status for the HDS Sample

	Self-representing for at least one group	Non-self-representing	Total
Black testing	8	18	26
Hispanic testing	8	18	26
Asian testing	4	19	23
Distinct sites	**12**	**16**	**28**

For the HDS, the term *certainty site* denotes the metro areas within which testing was conducted with certainty for *at least one* racial or ethnic minority. Exhibit III-3 illustrates how the 12 certainty sites were integrated for racial/ethnic testing. The leftmost column shows the testing groups included *with certainty* for a given metro area. Black, Hispanic, and Asian testing was conducted with certainty in four large metro areas: New York, Los Angeles, Chicago, and Houston. The remaining 12 sites were designated as having one or two racial/ethnic groups for testing, although there was a chance that testing could have been conducted for two or all three groups, as shown in the rightmost two columns of Exhibit III-3.

Exhibit III-3: HDS Certainty Metro Sites by Minority Testing Configuration

Testing	Site		
Black, Hispanic, Asian	New York-Northeastern NJ		
	Los Angeles-Long Beach, CA		
	Chicago-Gary-Lake, IL		
	Houston-Brazoria, TX		
Hispanic and black	Atlanta, GA	*Potential Asian sites*	
	Washington, DC/MD/VA		
	Philadelphia, PA/NJ		
	Detroit, MI		
Hispanic only	Dallas-Fort Worth, TX		*Potential black sites*
	Riverside-San Bernardino, CA		
	San Diego, CA		
	Miami-Hialeah, FL		

The eight metro areas with the largest black and Hispanic renter populations are listed in Exhibit III-4. To meet the second study objective, separate estimates of black and Hispanic rental discrimination were required (see Exhibit III-4 column headings). Taken together, the two columns identify 12 distinct metro areas (as indicated by the bold lettering on the left of each metro site). Separate rental discrimination estimates for rental housing were provided for these sites. Note that this includes Atlanta, the only metro area where HDS2000 found levels of black/white rental discrimination significantly above the national average.

Exhibit III-4: Self-Representing Metropolitan Areas

Top 8 Metro Areas in Rental Housing by Race or Ethnicity	
Black (non-Hispanic)	**Hispanic**
A New York-Northeastern NJ	E Los Angeles-Long Beach, CA
B Chicago-Gary-Lake, IL	A New York-Northeastern NJ
C Atlanta, GA	H Houston-Brazoria, TX
D Washington, DC/MD/VA	**W** Miami-Hialeah, FL
E Los Angeles-Long Beach, CA	B Chicago-Gary-Lake, IL
F Philadelphia, PA/NJ	**X** Riverside-San Bernardino, CA
G Detroit, MI	**Y** Dallas-Fort Worth, TX
H Houston-Brazoria, TX	**Z** San Diego, CA

Source: 2008 American Community Survey.

The remaining non-self-representing sites were selected via stratified sampling with probabilities proportional to racial/ethnic-specific rental housing. Sampling strata were formed by assembling sites into groups according to the dominant black/Hispanic/Asian population distributions.

To see how non-certainty sites were selected, consider Exhibit III-5. The table shows the number of sites selected in each of eight strata (rows) and the percentages of black, Hispanic, and Asian rental households that fall into each stratum.[19] The top four rows represent the 12 certainty strata, while the bottom four rows depict the *non-certainty strata*.

Exhibit III-5: Sampling Strata for the 2012 HDS

	Number of sites	% black rental households	% Asian rental households	% Hispanic rental households
Black, Hispanic, Asian	3	19%	30%	31%
Top black & Hispanic	1	3%	2%	5%
Top black	4	16%	8%	4%
Top Hispanic	4	5%	6%	14%
Large black stratum	25	29%	9%	9%
Large Hispanic stratum	23	7%	13%	26%
Large Asian stratum	25	9%	32%	12%
Residual–black	54	13%	–	–
Total	**139**	**100%**	**100%**	**100%**

Note: Percentages are normed.

Recall that a certainty site required that at least *one* of three racial/ethnic minorities be tested with certainty. In Exhibit III-5, testing on *all three minority groups* was performed in four sites: the three sites in the first row, labeled "Black, Hispanic, Asian," and the single site in the second row, labeled "Top black & Hispanic."

For the eight distinct "certainty" sites represented by the next two rows (i.e., the third and fourth rows) labeled "Top black" and "Top Hispanic," respectively, we drew a subsample of sites to determine which would be used for testing two or all three minority groups. Similarly, 18 sites were sampled from the bottom four strata (rows).

[19] This table does not show the metro sites in the United States that were excluded from selection using a minimum threshold of 145,000 households and other criteria; collectively the excluded areas represent the smallest metro areas in the nation and account for only 12–14 percent of black, Hispanic, and Asian rental housing.

Exhibit III-6 shows the results of the site sampling effort. The columns present the number of sampled sites by sampling stratum for black, Hispanic, and Asian testing. For instance, the large black stratum contains 25 metro areas (as seen in Exhibit III-5), which are characterized by large numbers (and percentages) of black rental households (relative to those of Hispanics and Asians). Seven sites were selected for black rental and sales testing; these seven were sampled with probabilities proportional to black rental housing. From these seven, five were then subselected for Asian testing and six were subselected for Hispanic testing. The Asian and Hispanic subsamples were selected independently with probabilities proportional to their respective race/ethnic group rental housing and inversely proportional to the initial selection probability of the seven black sites. This approach yielded sites for Asian and Hispanic testing that are selected with probabilities proportional to their respective race/ethnic group. Mathematically, metro site (i) for this stratum had the following selection probabilities by race/ethnic group:

$$\text{Site selection probability for black testing} = 7 \times m(i)/M = 7 \times p(i),$$

where $m(i)$ represents the number of black rental households in metro area i and M represents the total black rental households in the stratum. Given that seven black sites were selected with probabilities proportional to black rental housing, subsamples of sites for Asian and Hispanic testing (from the seven selected black sites) were then subselected using *conditional probabilities* as follows:

$$\text{Conditional site selection probability for Asian testing} = 5 \times a(i)/[A \times 7 \times p(i)], \text{ and}$$

$$\text{Conditional site selection probability for Hispanic testing} = 6 \times d(i)/[D \times 7 \times p(i)],$$

where $a(i)$, A, $d(i)$, and D represent analogous quantities for Asian and Hispanics, respectively.

Exhibit III-6: Number of Sites Sampled by Stratum and Race/Ethnic Group

	Black site allocation	Asian site allocation	Hispanic site allocation	Distinct sites
Black, Hispanic, Asian	3	3	3	3
Top black & Hispanic	1	1	1	1
Top black	4	3	4	4
Top Hispanic	3	3	4	4
Large black stratum	7	5	6	7
Large Hispanic stratum	4	4	4	4
Large Asian stratum	3	4	4	4
Residual–black	1	–	–	1
Total	**26**	**23**	**26**	**28**

Thus, Asian sites are sampled with overall probabilities proportional to Asian rental housing, and Hispanic sites are similarly sampled proportionally to Hispanic rental housing:

$$\text{Overall site selection probability for Asian testing} = (5/7) \times a(i)/A, \text{ and}$$

$$\text{Overall site selection probability for Hispanic testing} = (6/7) \times d(i)/D.$$

The basic strategy for the integrated sample of sites was that of approaching as closely as possible a sample of black, Hispanic, and Asian sites whose selection probabilities are proportional to their respective race/ethnic groups' rental households counts. The process described above was repeated for each non-certainty sampling stratum in Exhibit III-6.

The stratum name signifies the racial or ethnic group that started the sequenced sampling. For instance, the "large Asian stratum" contains 25 metro areas with predominant percentages of Asian rental households (relative to those of Hispanics and blacks). Four sites were selected with probabilities proportional to Asian rental households for Asian and Hispanic testing, while three of these four sites were subsampled for black testing.

Sampled Sites and Targeted Tests

Exhibit III-7 lists actual sites selected into the HDS2012 and their corresponding targeted numbers of tests by test type (rental and sales) and race/ethnic group. Roughly 4,900 rental and 3,400 sales tests were targeted across the 28 distinct sites. The 12 sites for which separate metro estimates of rental discrimination were needed were each assigned a target of 135 rental tests. All other sites were assigned 44 to 46 rental tests for blacks and Hispanics and 46 to 47 rental tests for Asians (except the three largest metro areas and the large minority metro, which were assigned 60). This totaled about 1,880 rental tests each for blacks and Hispanics, and 1,121 for Asians.

For sales testing there was no need to provide separate estimates of discrimination for specific metro areas, so the tests were spread more evenly across the sample of sites to increase statistical precision. Forty-three sales tests were assigned to each metro area for blacks and Hispanics, and 49 were assigned to each Asian site. This totaled about 1,120 sales tests each for blacks, Hispanics, and Asians.

Actual Tests Conducted

Exhibit III-8 tabulates the in-person paired tests that have been completed by site, race/ethnicity, and test type. In addition to those tests listed, we conducted a number of "partial tests" in which one tester was not able to get an appointment to see the home. In some sites, groups conducted fewer in-person tests than they had been asked to complete, for two reasons. First, Boston fell substantially short of its target number of tests, owing to market conditions and other operational challenges. This resulted in a small reduction in statistical precision but a negligible impact on the study's ability to detect discrimination. Second, when only one tester was able to make an appointment for an in-person visit, groups submitted "partial tests" if they completed data entry for both testers for the appointment contact phase of the test. These partial tests are central to the analysis of differential ability to get an appointment, even though they provide no information about differential treatment during the in-person visit.

A comparison of Exhibits III-7 (targeted) and III-8 (actual) reveals a very successful field operation. Actual tests completed were within 6 percent of targets for both rental and sales tests for three racial/ethnic groups, with only one exception. Hispanic sales tests came within 9 percent of the target. Moreover, within-site field performance (by tenure and racial/ethnic group) was successful in the vast majority of sites.

Exhibit III-7: Site Selections and Target Numbers of Tests by Sampling Stratum

		RENTAL TESTS			SALES TESTS			Total rental	Total sales	Total all tests
Stratum	**Site**	**Black**	**Hispanic**	**Asian**	**Black**	**Hispanic**	**Asian**			
Largest MSAs	5600: New York-Northeastern NJ	135	135	60	43	43	49	330	135	465
	1600: Chicago-Gary-Lake, IL	135	135	60	43	43	49	330	135	465
	4480: Los Angeles-Long Beach, CA	135	135	60	43	43	49	330	135	465
Large black	8840: Washington, DC/MD/VA	135	46	46	43	43	49	227	135	362
	6160: Philadelphia, PA/NJ	135	46	46	43	43	49	227	135	362
	520: Atlanta, GA	135	46	46	43	43	49	227	135	362
	2160: Detroit, MI	135	46	–	43	43	–	181	86	267
Large minority	3360: Houston-Brazoria, TX	135	135	60	43	43	49	330	135	465
Large Hispanic	5000: Miami-Hialeah, FL	47	135	–	43	43	–	182	86	268
	6780: Riverside-San Bernardino, CA	47	135	47	43	43	49	229	135	364
	1920: Dallas-Fort Worth, TX	47	135	47	43	43	49	229	135	364
	7320: San Diego, CA	–	135	47	–	43	49	182	92	274
Black	5605: Newark, NJ	44	44	46	43	43	49	134	135	269
	8280: Tampa-St. Petersburg-Clearwater, FL	44	44	46	43	43	49	134	135	269
	3760: Kansas City, MO-KS	44	44	46	43	43	49	134	135	269
	3120: Greensboro-Winston Salem-High Point, NC	44	44	–	43	43	–	88	86	174
	1680: Cleveland, OH	44	44	46	43	43	49	134	135	269
	720: Baltimore, MD	44	44	46	43	43	49	134	135	269
	6760: Richmond-Petersburg, VA	44	–	–	43	–	–	44	43	87
Hispanic	4482: Orange County, CA	44	44	46	43	43	49	134	135	269
	7240: San Antonio, TX	44	44	46	43	43	49	134	135	269
	1921: Fort Worth-Arlington, TX	44	44	46	43	43	49	134	135	269
	200: Albuquerque, NM	44	44	46	43	43	49	134	135	269
Asian	7400: San Jose, CA	–	44	47	–	43	49	91	92	183
	1120: Boston, MA	44	44	47	43	43	49	135	135	270
	7600: Seattle-Everett, WA	44	44	47	43	43	49	135	135	270
	5604: Middlesex-Somerset-Hunterdon, NJ	44	44	47	43	43	49	135	135	270
Small black	1760: Columbia, SC	44	–	–	43	–	–	44	43	87
	Total tests	**1,881**	**1,880**	**1,121**	**1,118**	**1,118**	**1,127**	**4,882**	**3,363**	**8,245**

Exhibit III-8: In-Person Paired Tests Conducted by Site, Race-Ethnic Group and Test Type
Actual Number of Tests

		RENTAL TESTS			SALES TESTS			Total rental	Total sales	Total all tests
Stratum	**Site**	**Black**	**Hispanic**	**Asian**	**Black**	**Hispanic**	**Asian**			
Largest MSAs	New York-Northeastern NJ	135	139	70	54	42	49	344	145	**489**
	Chicago-Gary-Lake, IL	118	108	44	35	39	39	270	113	**383**
	Los Angeles-Long Beach, CA	160	135	60	43	44	52	355	139	**494**
Large black	Washington, DC/MD/VA	134	69	46	38	40	45	249	123	**372**
	Philadelphia, PA/NJ	133	45	40	39	43	41	218	123	**341**
	Atlanta, GA	135	48	48	51	39	51	231	141	**372**
	Detroit, MI	137	50	–	37	31	–	187	68	**255**
Large minority	Houston-Brazoria, TX	134	134	62	43	43	51	330	137	**467**
Large Hispanic	Miami-Hialeah, FL	49	134	–	40	43	–	183	83	**266**
	Riverside-San Bernardino, CA	49	135	48	43	42	49	232	134	**366**
	Dallas-Fort Worth, TX	58	135	47	43	43	49	240	135	**375**
	San Diego, CA	–	131	48	40	–	46	179	86	**265**
Black	Newark, NJ	43	46	46	47	44	48	135	139	**274**
	Tampa-St. Petersburg-Clearwater, FL	46	46	43	46	37	46	135	129	**264**
	Kansas City, MO-KS	44	43	47	42	43	47	134	132	**266**
	Greensboro-Winston Salem-High Point, NC	42	50	–	41	43	–	92	84	**176**
	Cleveland, OH	44	45	46	46	47	51	135	144	**279**
	Baltimore, MD	51	45	50	53	43	49	146	145	**291**
	Richmond-Petersburg, VA	45	–	–	41	–	–	45	41	**86**
Hispanic	Orange County, CA	44	44	46	43	43	49	134	135	**269**
	San Antonio, TX	44	44	49	43	46	48	137	137	**274**
	Fort Worth-Arlington, TX	44	44	46	43	43	49	134	135	**269**
	Albuquerque, NM	47	44	48	41	43	47	139	131	**270**
Asian	San Jose, CA	–	44	47	–	43	50	91	93	**184**
	Boston, MA	22	9	16	12	12	9	47	33	**80**
	Seattle-Everett, WA	44	43	47	41	39	47	134	127	**261**
	Middlesex-Somerset-Hunterdon, NJ	46	44	48	43	43	48	138	134	**272**
Small black	Columbia, SC	44	–	–	43	–	–	44	43	**87**
	Total tests	**1,892**	**1,854**	**1,092**	**1,131**	**1,018**	**1,060**	**4,838**	**3,209**	**8,047**

Sampling Available Housing

The approach used to sample rental and sales ads for testing was developed with the following two objectives:

- To draw random samples of ads from sources commonly used by rental housing seekers and homebuyers.
- To develop an efficient sampling mechanism that automates the selection and processing of ads as much as possible.

An important aspect of ad sampling involved identifying the appropriate frame from which to draw the sample. Since HDS2000 was conducted, Internet advertising has become increasingly widespread in both rental and sales markets, and the use of print sources has substantially declined. Large ad-accumulation Web sites for both rental and sales are available throughout most metropolitan areas across the country. However, the specific advertising portals differ for sales and rental markets. That is, a portal for sales may not be appropriate for rental housing, and vice versa. Thus, different websites were used to draw rental and sales ads.

Our sampling approach electronically harvested sales and rental ad listings from the Web. Quality control (QC) operations, eligibility determination, and final allocation of sample to local test coordinators were conducted by computer program before issuing ads to the field.

The general overview of the framework was as follows:

- Electronic harvesting of ads.
- QC and purging of ineligible ads.
- Geographic sampling of ads in proportion to rental housing (for rental tests) and home mortgage activity (for sales testing) by ZIP Code.
- Release of ads to test coordinators for review and assignment to testers.

Electronic harvesting was conducted using separate e-mail queries for each site. The ZIP Code-based queries were performed on several websites and continuously generated ads during the testing field period. The harvested ads were parsed and stored in database tables for further processing and sampling. Well over 2 million ads were harvested over the course of the testing period.

The sales ad sampling process used real estate sites' capabilities to issue daily e-mail notifications of new listings based on user-specified searches. We identified several major Web sources of real estate sales ads that covered all or parts of the United States. Each website provided access to listings found in the MLS.

The websites allowed users to create e-mail notifications based on predefined real estate searches. The e-mail alerts were set to generate daily updates of new listings. Although the search criteria for each site varied, we employed standard search criteria common to all sites (e.g., ZIP Code, upper and lower bounds on listing price).

To control the number of ads received in any single e-mail, we confined searches by geography based on a sample of ZIP Codes rather than harvesting ads from the entire metropolitan area. In this way the number of ad returned was sufficient for weekly testing.

Sales ads were harvested from major Internet ad sources according to the following process:

1. Ad Harvesting and Quality Control

A. E-mail accounts were set up for a specific MSA/ZIP Code (or groups of ZIP Codes) cohort.

B. E-mail alert notification requests were established at selected real estate Web portals; these sources were rotated weekly to randomize the order of the ads being sampled for testing. The e-mail alerts were sent to the corresponding e-mail account.

C. Using a Web application, ads were harvested from the e-mail accounts and the text was parsed into specific pieces of information (address, price, number of bedrooms, etc.) and stored in a database table.

D. QC was performed by computer program to remove ineligible ads (e.g., remove duplicates, short sales, listings outside the desired price range).

2. Sampling Ads and Assignment to Local Test Coordinators

A. Eligible ads were sorted via a randomly generated number that was assigned when the ad was harvested.

B. Ads were assigned to test coordinators for further review, processing, and assignment.

C. As needed, additional websites were added to augment the ads from the major Web sources. Many of these sites were suggested by the local testing organizations.

The approach for rental units sampling was the same as the approach for sales, with a few modifications. We used Craigslist for each metropolitan area, supplementing with additional websites in some areas.

Our ad sampling approach generated a sample of ads that was spread geographically according to the distributions of rental housing for rental testing and housing purchases (via counts of home mortgages) for sales testing. The sampling process employed a two-stage approach. First, two large and independent random samples of ZIP Codes (10,000 each) were generated according to the percentage distributions of rental housing (for rental tests) and home mortgages (for sales tests). These samples essentially represent samples of ZIP Codes selected with probabilities proportional to size. The pools of rental and sales ZIP Codes were then randomized and assigned weekly (as needed) to generate ad samples. Once a randomly sampled ZIP Code was selected for a week of field testing, the corresponding ads harvested during that week were pooled and randomly sampled for possible assignment to the field. Ideally, 10 ads per ZIP Code were sampled, and the first "eligible" ad encountered in the pool of 10 randomly sampled was released to the test coordinators for processing and testing.[20]

To allocate the ads for sales, we used the 2009 HMDA data on volume of home purchase loans by census tract. For rental ads, we used the ZIP Code-level counts of rental housing from the 2009 ACS, which were the most recent data available. A crosswalk from tract to ZIP Codes available from the U.S. Postal Service (and released via HUDUSER) was used to create the ZIP Code sampling frame for each site.

[20] Some or all of the 10 ads for a given sampled ZIP Code could be deemed ineligible by the test coordinator if, for instance, a duplicate ad was not caught by the computer program or if the realtor (sales) or landlord (rental) had recently been tested using another property.

A key ad sampling design feature in our approach involved the sampling of fresh ad listings, since this mimics the actual behavior of homeseekers. Fresh/new listings tend to garner more interest from both agents and homeseekers. To the extent possible, we sampled from the freshest ads available. This required continuous ad harvesting and updating for all ZIP Codes in a metro site. After an initial harvest to establish existing inventory at the start of the field process, new listings (i.e., ads that had not previously been published) were continuously harvested. As new listings appeared in our daily or weekly harvesting cycle, they were given selection priority for use in testing. If the number of new ads exceeded the number needed for testing, then a subset would be randomly sampled. When the volume of new listings fell short of the number needed for testing, the balance would be drawn randomly from the preexisting inventory.

Midway through the testing field period, we assessed each metro site to examine whether the sampling of ads generated any "geographic holes," defined as neighborhoods or communities that were not covered by the ad sampling. Holes could occur if all or most of the rental or sale homes in a community are not advertised through the population Web venues. Our spatial mapping analysis suggested that geographic holes were not a problem.

Analysis Weights

The framework we adopted to generate statistically valid estimates is that of classical finite population sampling. However, the finite population used to invoke this theory is neither the housing nor rental ad. It is the collection of metro areas in the United States. Thus, our framework adopts probability sampling of metro sites in order to use finite population sampling theory to make inference to all metro areas in the nation. Paired-testing data are used to develop estimates of discrimination *in each site*. The sites were then combined using the stratum weights to provide statistically valid national estimates of discrimination. This basic logic drives how the paired-test level data were weighted.

Viewed from this perspective, two weighting tasks were addressed:

- Weighting of paired tests to develop valid estimates of metro-level discrimination.
- Weighting of sites to combine them into a national estimate.

All tests within a metro area were assigned the same individual weight.

Sampling of sales and rental ads within a metro area is a complex venture because of the eligibility and disclosure-avoidance rules that must be implemented. For instance, tracking multiple appearances of ads, landlords, and/or real estate agents in different ad frames over continuous harvesting and sampling of ads was neither feasible nor necessary. Instead, random samples of available ads were drawn subject to the eligibility rules necessary to avert disclosure and retain relevance (e.g., room rentals are not eligible).

Sales and rental ads were sampled in a way that geographically reflected rental and sales housing within a site by first sampling ZIP Codes with probability proportionate to size (pps) and then sampling an ad within the selected ZIP Code for a paired test. This approximately mimics a common equal probability sample design under a two-stage sample with pps and a fixed sample size drawn from the first-stage sampling unit. We therefore decided to weight tests equally within each site both for the national estimates and when metro-specific analyses were conducted. That is, the analysis of tests within sites is unweighted.

Weighting *across sites* was based on the site selection probabilities. Sites were selected with known selection probabilities. Under finite population sampling theory, a sampling weight equal to the reciprocal of the selection probability will produce statistically valid national estimates of rental and sales discrimination. However, because of inevitable variation in numbers of tests across sites, we employed poststratification so the weight of tests reflects the geographic distribution of rental and sales housing across sampling strata. Thus, poststratification aligned the data to known minority-specific rental and sales home distributions across sampling strata.

Our strategy for weighting to create national estimates is that metro-level estimates of discrimination can be developed using the paired tests conducted in each site. Sites represent either themselves (certainty site, also called a self-representing stratum) or a (non-certainty) sampling stratum. A national estimate can be developed by applying the stratum weight associated with each respective site to its corresponding site estimate:

$$\hat{y}=\sum_h W_h y_h \qquad (1)$$

where $\hat{y}$ denotes the national estimate, h indexes the sampling strata, W_h represents the sampling stratum weights, and y_h represents the estimate of discrimination for sampling stratum h. Note that the estimate of discrimination for sampling stratum h may contain the paired tests of one site (e.g., certainty site), or those of several sites.

Poststratification adjustments were created for the six domains that comprise HDS: the cross-classification of minority group (black, Hispanic, Asian) by housing tenure (renter, owner). Exhibit III-9 contains the control proportions for each sampling stratum by race or ethnic group and test type.

Exhibit III-9: Stratum Weights for HDS Analysis

		SALES			RENTAL		
		Stratum weights by group			Stratum weights by group		
Stratum	**Sites**	**Black**	**Hispanic**	**Asian**	**Black**	**Hispanic**	**Asian**
Largest MSAs	5600: New York-Northeastern NJ	4.4%	3.0%	5.4%	9.4%	13.0%	12.6%
	1600: Chicago-Gary-Lake, IL	5.3%	6.0%	5.0%	5.6%	4.1%	3.9%
	4480: Los Angeles-Long Beach, CA	2.7%	10.4%	9.2%	3.7%	13.9%	13.6%
Large black	8840: Washington, DC/MD/VA	7.0%	2.3%	11.0%	4.3%	1.7%	7.6%
	6160: Philadelphia, PA/NJ	3.9%	1.0%		3.5%	1.0%	
	520: Atlanta, GA	7.7%	1.3%		4.7%	1.4%	
	2160: Detroit, MI	3.5%	0.6%		3.3%	0.4%	
Large minority	3360: Houston-Brazoria, TX	2.8%	5.4%	2.7%	3.0%	4.6%	1.9%
Large Hispanic	5000: Miami-Hialeah, FL	5.1%	5.9%		4.9%	4.1%	
	6780: Riverside-San Bernardino, CA		5.9%	7.5%		3.4%	6.1%
	1920: Dallas-Fort Worth, TX		3.3%			3.3%	
	7320: San Diego, CA		2.4%			2.7%	
Black	5605: Newark, NJ	30.2%	10.1%	10.5%	29.2%	8.8%	9.0%
	8280: Tampa-St. Petersburg-Clearwater, FL						
	3760: Kansas City, MO-KS						
	1680: Cleveland, OH						
	720: Baltimore, MD						
	3120: Greensboro-Winston Salem-High Point, NC						
	6760: Richmond-Petersburg, VA						
Hispanic	4482: Orange County, CA	7.4%	31.0%	15.2%	7.1%	25.6%	13.4%
	7240: San Antonio, TX						
	1921: Fort Worth-Arlington, TX						
	200: Albuquerque, NM						
Asian	7400: San Jose, CA		11.3%	33.4%		12.0%	32.0%
	1120: Boston, MA	6.8%			8.5%		
	7600: Seattle-Everett, WA						
	5604: Middlesex-Somerset-Hunterdon, NJ						
Small black	1760: Columbia, SC	13.1%			12.8%		
	Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Implicitly, the final analytic weight for any given national analysis will be the product of the three components:

- The within-site ad weight.
- The site sampling weight.
- A post-stratification adjustment.

But since the paired tests are approximately self-weighting *within a site* (by design), the only weight adjustment that was necessary is poststratification.

Operationally, we calculated test-level analytic weights separately for each outcome analysis because the number of tests available for a specific outcome could vary due to missing data and/or using a subset of the data. For example, "able to make an appointment" would have many more tests than "number of homes shown" because the latter analysis uses only a subset of the former tests. We first took the total number of sites within a stratum and gave the site an equal share of the stratum weight. If a stratum weight has a value of *W* and was represented by three sites, then the sets of tests from each site in that stratum were allocated a weight of *W*/3. Then the paired-test analytic weights were calculated separately within each site for a given outcome. The end result is that (1) each site in a stratum contributes an equal share to the stratum weight, and (2) each paired test within a site contributes equal shares of weight to its constituent site total.[21]

Measuring Differential Treatment

One strength of paired testing is that it provides a detailed picture of the forms discrimination takes, not just a single "yes or no" answer. This is important because forms of discrimination have changed over time and patterns of discrimination differ across protected classes. For example, outright refusal to make units available to blacks was common in 1977 but rare by 2000. Geographic steering increased between 1989 and 2000 for black homebuyers, but not for Hispanics. And in 2000, Hispanic homebuyers were particularly likely to experience inferior assistance and advice about financing. Understanding these specifics is essential for effective fair housing enforcement, public education efforts, and training of housing providers. In addition, however, it is important to report to the public understandable summary measures that capture the overall incidence of differential treatment and reveal trends over time. Therefore, we report both "headline" measures of discrimination and more detailed indicators of the various forms that discrimination might take.

In the remainder of this subsection, we first discuss the issues of using gross and net measures of discrimination and explain our approach. We then describe a new strategy for summarizing the findings across many treatment indicators into headline measures of discrimination, followed by a description of our approach to analyzing geographic steering for sales tests. Finally, we discuss our approach to the analysis of differences.

As in previous discrimination studies, we report both gross and net measures of differential treatment for each element of treatment being analyzed.

[21] For some of our analyses, it was necessary to smooth the weights within a stratum by assigning average weights to all tests in the stratum. This occurred, for example, in the tests for the stratum containing Boston, because of the small number of tests conducted there. This smoothing reduced extreme weight variability and stabilized stratum estimates, ensuring that the tests from a single site would not be weighted heavily relative to tests from other sites in the stratum.

Gross measures represent the share of all tests in which the white homeseeker is favored over the minority tester. Some tests yield the opposite result (for at least some indicators), with the minority favored over the white tester. Therefore, we report the incidence of favored treatment for both the white and minority testers. Although gross measures of differential treatment are easily understandable, we believe that they generally overstate the frequency of systematic discrimination because nondiscriminatory random events are responsible for some portion of observed treatment.

We also report *net measures* of discrimination, defined as the proportion of white-favored treatment minus the proportion of minority-favored treatment, along with corresponding measures of statistical significance. For a given measure, the net measure provides a direct estimate of the degree of disadvantage in the rental or sales markets for minorities compared with whites. In general, the net measure provides a *lower-bound estimate* of systematic discrimination in favor of whites. To the extent that minorities are systematically favored over whites in some share of housing inquiries (reverse discrimination), the net measure will understate the incidence of discrimination against minorities.

For those outcomes of a test that can be measured in amounts (e.g., number of recommended units and rent), we report the average amount for the white and minority tester and then report the net difference in the average amounts as a measure of the severity of discrimination. Because the difference is measured over a common set of tests, it provides a meaningful measure of the average degree of differential treatment of minorities relative to whites.

Gross measures of adverse treatment of minority homeseekers receive less emphasis in this report than in past national studies, because analyses over the past 25 years strongly suggest that they include substantial random differences in treatment, and that net measures more accurately reflect the systematic disadvantages faced by minority homeseekers. One important source of evidence on this issue is the small sample of three-part tests conducted as part of HDS2000. In these tests (conducted in two metropolitan areas), the in-person visit by a white tester was followed by two minority visits or the visit by a minority tester was followed by two white visits, all following the same protocols. Comparing the treatment of the two same-race testers provides a direct estimate of random (not race- or ethnicity-based) differential treatment. This exploratory triad testing effort suggested that most, if not all minority-favored treatment is random; it provides no convincing evidence that minority-favored treatment systematically exceeds differences in the treatment of same-race testers (see Turner and Ross 2003a).

For HDS2012, we adopted a new approach to summarize the findings across the many treatment indicators. We report seven key measures that we believe together provide a rounded picture of both the incidence and the severity of differential treatment over the natural course of a test. We then combine these into two overall measures that we believe concisely summarize the findings across the various stages of the test.

The seven summary measures represent treatment milestones in the sequence of events that comprise a paired test. They are best explained by discussing them in the context of a test:

1. For each test, we first measure whether both testers of a pair were able to obtain an appointment with an agent or meet with an agent (in the case of drop-ins). Summary measure #1 reports *differential denial of in-person meeting.*

2. For tests in which both testers obtained appointments, we then measure whether both were told that a unit is available. Summary measure #2 reports *differential denial of available units.*
3. For tests in which both testers obtained appointments, we also measure the average number of units recommended. Summary measure #3 reports *differential number of units recommended*.
4. For tests where units were available to both testers, we then measure the number of units inspected. Summary measure #4 reports the *differential number of units shown.*
5. For those tests where units were available for both testers, we created an index of agent helpfulness based on four individual items, with some elements of the index differing for rentals and sales.[22] For these measures we add 1 to the index if a tester has a positive outcome on an item. Summary measure #5 reports the *differences between testers in agent helpfulness*.
6. For those tests where units were available for both testers, we also report the average rent or price for the recommended units for each tester. Summary measure #6 reports the *differential rent or sales price.*
7. For sales tests where units were available to both testers, we measure the severity of racial steering, based on a comparison of the average percentage of non-Hispanic whites in the census tracts where the white and minority testers are shown homes. Summary measure #7 (for sales tests only) reports *differential neighborhood racial/ethnic composition*.

The first two of these measures highlight the frequency with which agents deny minority homeseekers access to available housing units, while the remaining measures reflect the *severity* of differential treatment experienced by minority homeseekers who gain access.[23] The net measures for the number of units available, the number of units shown, the agent helpfulness index, rents and prices, and neighborhood racial/ethnic composition provide solid and continuous measures of the severity of differential treatment. An agent who tells a customer about more available units is likely to be taking the prospective renter or buyer more seriously. For a given agent, a larger difference in the number of units shown to the white and minority testers should reflect the level of investment the agent is willing to make. Similarly, an agent who favors one tester on cost and multiple customer service items is giving that tester an advantage in the renting or home buying process.

This sequence of measures provides an easily understandable description of differential treatment in today's housing markets that no single measure can communicate. It follows the natural sequence of the interaction between homeseeker and housing provider, which is appealing for ease in conveying the findings and allows reliance on data for the inspections, cost, and encouragement elements measured for only those cases where an actual unit was available.[24]

We combine key elements of these seven measures into two overall summary measures: the overall average number of homes recommended to a tester and the overall average number of homes inspected by a tester. We estimate these summary measures by combining information on whether testers got an

[22] For rental tests, we add one point to the index for each of the following: tester told about more available units, tester told rent is negotiable, tester given application to fill out or take home, and agent made arrangements for future contact. For sales tests, we include agent volunteered to help find financing, agent offered to prequalify tester, length of visit longer by more than an hour, and agent made arrangements for future contact.

[23] The Urban Institute implemented a similar, sequential approach to summarize results from its employment discrimination studies.

[24] This same sequential approach is applied to the detailed (gross and net) measures for the individual elements of each test. That is, availability measures are reported only for tests in which both testers were able to meet with an agent; and inspections, cost, and encouragement outcomes are presented for the subsample of tests in which both testers were told that at least one unit was available.

appointment with the average number of units recommended or shown *for all those who met with an agent*. Specifically, the summary measure of the average number of units recommended to a tester of a given race is calculated as:

> Overall average units recommended = (proportion of tests that lead to meeting an agent) x (average number of units recommended to testers who meet an agent)

The summary measure of the average number of units shown to a tester of a given race is calculated as:

> Overall average units inspected = (proportion of tests that lead to meeting an agent) x (average number of units shown to testers who meet an agent)

These statistics combine the incidences of differential rates of getting appointments, being told units are available, and being shown units with the severity measures of the average number of number of units available and shown. We report both the levels of these summary measures for white and minority testers and the percentage difference in the averages between white and minority testers.

In addition to the two overall summary measures, we report a composite measure of differential access combining the incidences of (1) differential ability to gain an appointment, (2) differential number of units recommended, and (3) differential number of units shown. The composite measure is defined for all tests in which the appointment outcome was measured, or both testers met with an agent. A test is coded as white tester-favored if the white tester was favored on appointments, units recommended, or units shown without his or her minority teammate being favored on any of these measures. The test is coded as minority tester-favored if the minority tester is favored on any of the three measures without the white teammate being preferred. All other eligible tests are coded as equal treatment.[25]

To examine *geographic steering in home sales*, we compared the census tracts where the homes recommended or shown to white testers are located with the tracts recommended or shown to their minority partners. This required capturing and coding census geography of unit locations. The measures of steering are based on (1) a comparison of the number of tracts seen, (2) a comparison of the average characteristics of the tracts for units recommended or shown to the white and minority testers, and (3) whether comments made by agents tend to reinforce segregation. Our basic approach follows the work of Galster and Godfrey (2005) analyzing the data from HDS2000. We use the tract as the definition of neighborhood.

Both racial/ethnic and class steering are examined in the comparison of tract characteristics. We base the analysis of racial/ethnic steering on a comparison of the racial composition of census tracts where homes were recommended or shown to the white and minority testers. If the white tester is shown homes in neighborhoods with a higher average percentage of non-Hispanic whites than the homes shown the minority tester, this counts as a segregation-reinforcing instance of differential treatment. If the reverse occurs, the test is coded as integration reinforcing. The difference in the average tract percentage of whites between testers must be at least 5 percentage points to count as differential treatment. We report the net measures of differential treatment in steering, as well as the gross differences in treatment that underlie them. To measure the severity of racial/ethnic steering, we calculate an average tract racial composition for the white and minority testers, taking the average of the tract percentage white of tracts recommended

[25] This composite incidence measure is similar in construction to the measures of "consistent white-favored treatment" featured in HDS2000. Note that tests in some treatment favors the white and some favors the minority are classified as neither "white favored" nor "minority favored," making this a conservative measure of overall adverse treatment.

or shown for each test and then averaging over all tests. The difference in these overall averages provides a measure of how often whites are recommended and shown homes that are in whiter neighborhoods.

Class steering is defined similarly, using a comparison of the average socioeconomic characteristics of neighborhoods shown to the white and minority testers. The indicators include the tract-level homeownership rate, percentage nonpoor, and the median home value. For each measure, we coded whether the average over the homes recommended or shown favors the white or minority tester. Differences in the homeownership rate and percentage nonpoor must be at least 5 percentage points and the difference in home values must be at least 10 percent to count as preferred treatment. For each measure, we report averages across all tests for white and minority testers, the net difference between the averages, and then test whether the net difference is significantly different from zero.

The final steering analysis compares agent comments about neighborhoods that were made to white and minority testers to assess whether the comments reinforce segregation. We define each neighborhood as white, minority, or mixed. A neighborhood is categorized as non-Hispanic white if it has at least 90 percent non-Hispanic whites, and minority if it has at least 50 percent minority.

We label a test as reinforcing segregation if we see any of the following:

- Positive comments to the white tester about white neighborhoods.
- Negative comments to the white tester about minority neighborhoods.
- Negative comments to the minority tester about white neighborhoods.
- Positive comments to the minority tester about minority neighborhoods.

Without seeing any of the following:

- Negative comments to the white tester about white neighborhoods.
- Positive comments to the white tester about minority neighborhoods.
- Positive comments to the minority tester about white neighborhoods.
- Negative comments to the minority tester about minority neighborhoods.

We label a test as favoring integration if we see comments only in the second group, but not the first. The net incidence of tests favoring integration is given by the difference in the share of tests favoring segregation minus the share favoring integration.

Measures of the percent white and homeownership rate are from the 2010 census. Measures of percentage nonpoor and home values come from the 2006–10 ACS.

Our approach to the analysis of paired-testing data is designed to maximize insight into both the incidence and severity of differential treatment by housing providers by featuring the following:

- Tabular analyses showing overall favorable treatment for whites and minorities as well as the net estimates of adverse treatment (which is their difference).
- Significance levels associated with a two-sided test of hypothesis of "no adverse net treatment."
- Multivariate analysis of whether and how environmental and personal factors might influence aspects of discrimination.

Our tabular analyses feature estimates of gross and net adverse treatment from a paired-testing paradigm, drawing upon the formulation illustrated in Exhibit III-10. This formulation applies for outcomes that can be categorized as "yes" or "no" for each tester (e.g., told apartment available, told incentives are available). In this exhibit:

P_{11} = proportion of tests with "yes" for white tester and "yes" for minority tester
P_{10} = proportion of tests with "yes" for white tester and "no" for minority tester
P_{01} = proportion of tests with "no" for white tester and "yes" for minority tester
P_{00} = proportion of tests with "no" for white tester and "no" for minority tester
P_{1+} = proportion of tests with "yes" for white tester
P_{0+} = proportion of tests with "no" for white tester
P_{+1} = proportion of tests with "yes" for minority tester
P_{+0} = proportion of tests with "no" for minority tester

Exhibit III-10: Formulation of Gross and Net Adverse Treatment in a Paired Testing Design

	MINORITY TESTER		
White tester	**Favorable**	**Unfavorable**	**Total**
Favorable	P11	P10	**P1+**
Unfavorable	P01	P00	**P0+**
Total	**P+1**	**P+0**	**1.0**
	Gross white-favored treatment = P10		
	Net white-favored treatment = P10 - P01		

These indicators are reorganized in tabular form in Exhibit III-11. The exhibit is a slight modification of the format used in the HDS2000 Final Report. Each row reports the shares of tests in which both testers receive favorable treatment, the shares in which only the white and only the minority tester receives favorable treatment, the net difference in favored treatment, and the standard error of the net difference (SE_{net}). As before, separate tables are devoted to black, Hispanic, and Asian treatment.

Exhibit III-11: Illustration of Tabular Analyses of Adverse Treatment in Rental Housing Seeking Among Blacks

	A	B	C	D = B - C	Std error
Outcome (partial list)	**Both testers**	**White**	**Black**	**Net difference**	
Tester(s) told units available	P11	**P1+**	**P+1**	P10 - P01	SE_{net}
Tester(s) shown a unit	P11	**P1+**	**P+1**	P10 - P01	SE_{net}
Tester(s) offered an incentive	P11	**P1+**	**P+1**	P10 - P01	SE_{net}

* *Net difference* entries are flagged with asterisks indicating instances of two-sided statistical significance tests at the 0.01, 0.05 and 0.10 levels

We use two approaches to describe preference on continuous outcomes, such as the number of homes recommended or rent amount. First, we report the proportions of tests for which the white tester is preferred and for which the minority tester is preferred, the net difference in the proportions, and the standard error of the net difference. For most of our outcomes defined in dollars (e.g., rent, incentives, or home price), we first calculate the average of the measure (e.g., average rent) across available units or recommended homes. We label testers as preferred if they have a lower cost by at least 5 percent and compare the proportion of time the white and minority testers are preferred. The difference in these proportions provides a net measure of the incidence of differential treatment in the measure of cost.

Second, we calculate the average over all tests of the test-level measure (e.g., average rent across units available) for white testers, minority testers, the net difference in the averages, and the standard error of the net difference. This approach summarizes the severity of the different treatment observed. Examples of each approach are shown for the outcome "number of inspections" in Exhibit III-12. Note that the "Both testers" column is blank because the measure is defined based on a comparison of the values reported by the two testers. In this exhibit:

N_w = number units shown to the white tester on a test
N_b = number of units shown to black tester on the same test
$P_{Nw>Nb}$ = proportion of tests with white tester shown more units than black tester
$P_{Nw<Nb}$ = proportion of tests with minority tester shown more units than white tester
$Avg(N_w)$ = average number of units shown to white testers
$Avg(N_b)$ = average number of units shown to black testers

Exhibit III-12: Illustration of Tabular Analyses of Adverse Treatment for Number of Inspections of Rental Housing

	A	B	C	D = B - C	Std error
Outcome	**Both testers**	**White**	**Black**	**Net difference**	
Tester shown more units		$P_{Nw>Nb}$	$P_{Nw<Nb}$	$P_{Nw>Nb} - P_{Nw>Nb}$	SE_{net}
# of units shown		$Avg(N_w)$	$Avg(N_b)$	$Avg(N_w) - Avg(N_b)$	SE_{net}

Net difference entries will be flagged with asterisks indicating instances of two-sided statistical significance tests at the 0.01, 0.05 and 0.10 levels.

Tables are provided at the national level for sales and rental for blacks, Hispanics, and Asians, as well as for rentals in eight large metro areas for blacks and Hispanics.

For the national estimates, it is critical to adjust significance levels to account for the reduction of statistical precision associated with the complex sample design (i.e., use of clustered, two-stage sampling). For each outcome, we calculate the net difference between the white and minority tester, weighted to account for each site's representation in the national population. We then use robust clustered standard errors and *t*-tests to conduct a two-sided test of net adverse treatment.[26] The degrees of freedom are based on the number of sites included in the analysis following the indication by Angrist and Pischke (2008) that the *p*-values should be based on the number of clusters.

For estimates that combine the estimated probability of an appointment and the average number of units, we use the standard error of the average number of units.

For the metro-level estimates for rentals, we calculate significance levels for the discrete outcomes (e.g., unit was available) using the sign test. This statistical test uses only the tests where treatment is different for a given outcome and calculates the probability that we see as many whites favored relative to the number of minority favored as we do if the treatment was equal. For a continuous outcome such as the number of inspections and amount of incentives, we use robust standard errors (not clustered) and a *t*-test to conduct two-sided tests of net adverse treatment.[27]

[26] The use of clustered standard errors accounts for the potential similarity of test results within site that was expected among tests in a common housing market and with a common pool of testers. This approach conservatively overlooks the stratification of the sample (i.e., assumes that sites were selected randomly from one large "stratum"). We chose this approach to achieve more stable estimates of standard errors due to the limited degrees of freedom afforded if stratification was taken into account.

[27] We ignore clustering in the within-metro calculations, because of the limited number of tests in each metro area and the complexity of adjusting for clustering of tests undertaken by both the white and minority testers.

Multivariate Analyses of Variations in Differential Treatment

In this section, we describe the multivariate analyses used to examine variations in levels of discrimination. The goal is to examine how adverse treatment of each minority group varies with such factors as the condition of the local housing market, agency characteristics, neighborhood characteristics, and homeseeker characteristics.

We measure adverse treatment as the difference in the number of units shown to white and minority testers.[28] The average net difference is a summary measure for this study and indicates the severity of discrimination. If there is notable variation in discrimination, we expect it would show up in this measure.[29]

We use ordinary least squares regression to estimate the relationship between the difference in units shown and the characteristics of tests, testers, agency, neighborhood, and housing market. Separate models are estimated by race/ethnicity for rentals and sales. Estimates are weighted to account for each stratum's representation in the national population, and we follow our general practice of reporting standard errors clustered by site. The models are based on tests in which both teammates met with an agent and values for all the independent variables were complete.

The estimated coefficients from these models reflect the expected change in the net measure of discrimination associated with a one-unit change in the predictor. For example, consider the coefficient of "female testers." The coefficient indicates how much higher or lower the net measure of discrimination against minorities is for female homeseekers than for male homeseekers. In other words, a coefficient of 0.2 for "female testers" means that the net difference in the average number of units shown to whites and minorities is 0.20 units higher for women than for men. As before, the reported standard errors and asterisks indicate whether a reported difference is statistically significant.

For many tests, some of the characteristics of the agent differ for the white and minority testers. For example, sometimes a white tester meets with an Hispanic agent while his or her minority partner meets with a non-Hispanic agent. To assess the effects of agent or agency characteristics on levels of discrimination, we are most interested in comparing tests in which both testers faced a particular type of agent with tests in which neither tester did so. For example, we want to compare tests where both testers met with an Hispanic agent with those where neither tester met with an Hispanic agent.

To address this, we treat three sets of characteristics as follows:

1. Characteristics that apply to both testers are included in the model. For example, we include an indicator that testers are female. We also directly include measures that describe the team, such as minority tester was born in the United States.
2. For discrete (yes/no) characteristics that apply to only one tester, we include indicators that both testers have the characteristic, only the minority tester has the characteristic, and only the white tester has the characteristic. We report the coefficient on both testers have the characteristic, which estimates the difference in the net number of inspections between tests where both have the characteristic and where neither has the characteristic.

[28] As part of the analysis of the effects of perceived race/ethnicity, we also estimated models of differential ability to make an appointment.

[29] We explored models of the number of units recommended and found results fairly similar to those for models of number of units shown.

3. For continuous characteristics that differ across testers (i.e., tester age), we include the value for the white tester and the difference in the values between white and minority testers. The coefficient on the white tester indicates the effect of a change in the characteristics (e.g., age) for both testers.

We estimate three sets of regression models: a full specification, a model of the effects of perceived race/ethnicity, and a model of the effects of housing market conditions. These are described below.

Full specification. The independent variables in this model include test characteristics, tester characteristics, agency characteristics, tract characteristics, and an indicator for each metro area in which testing was conducted. Most of the measures are indicators, defined as 1 if a test has a given characteristic and 0 if it does not. Exceptions include the measures of age and income, the maximum number of persons seen by the two testers, tract per capita income, and tract percentage white. In listing the measures included in the model, we indicate with an asterisk those measures defined 1 only if both testers met the condition. For these measures, the model also includes separate indicators for the "white tester only" and for "minority tester only."

Models include the following variables:

Test characteristics:

White tester went first
Both testers went in the afternoon*
Month of test

Tester characteristics:

Assigned child—both testers were assigned as having children
Assigned marriage—both tester were assigned to be married
Female—both testers were female
Minority tester born in the United States
Log of white assigned income
Both employed*
Both experienced testers*
Age of white tester
Difference in age of testers

Agency characteristics:

Faced same agent
Maximum number of people seen by the two testers (proxy for size of agency)
Both met black agent*
Both met Hispanic agent*
Both met Asian agent*
Both met agent of "other" or unknown race*
Both met female agent*

Characteristics of the tract of the advertised unit:

> Per capita income ($10,000s)
> Percent white/10
> In addition, we experimented with including median home value, percent homeowners, poverty rate, and the percentages of blacks and Hispanics in the tract.

Metro-level characteristics:

> Indicator for each metropolitan area—these indicators are included to ensure that the relationships do not simply reflect differences across markets.

Models of perceived race/ethnicity. In a second set of models, we examine how net differences in *whether an appointment was made* and *number of units shown* vary with the *perceived* race or ethnicity of the minority tester. Appointment requests were mostly made by phone, so any differential treatment would have to result from impressions based on the name or speech patterns of the tester. Units were shown in person, so any differential treatment would result from a combination of the name, speech, and physical appearance of the tester.

For this analysis, we created two separate measures of perceived race. The first measure was based on the perceptions of three coders as to each tester's race/ethnicity after hearing an audio recording and seeing the tester's name. A second measure was based on the perceptions of three coders after seeing the tester's name, hearing an audio recording, and seeing a photograph of the tester. Photographs and audio recordings of testers were submitted to UI by local test coordinators. For each measure, permitted codes were black, Hispanic, Asian, non-Hispanic white, and don't know. The perceived race/ethnicity of a tester is measured as the proportion of the three coders who chose each category (e.g., proportion who believed the tester was black, etc.).

We use parallel regression models to test whether (1) the difference in appointments made for white and minority testers varies with the perceived race/ethnicity of the minority tester based on speech and name; and (2) the difference in number of units shown to minority and white testers varies with the perceived race/ethnicity based on speech, name, and photograph. In other words, do minority homeseekers whose race or ethnicity is more identifiable face higher levels of discrimination (relative to whites) than minority homeseekers who are less identifiable. We include metro area indicators in each regression to control for any relationship between perceived race/ethnicity and the metropolitan area. These models differ from other multivariate analysis in that data from all three sets of tests (black, Hispanic, and Asian) are pooled. The coefficients measure the difference between the level of discrimination experienced by homeseekers who are perceived to be a given race or ethnicity (e.g., perceived black) and those who are perceived to be white.

Models of the influence of the housing market conditions. The goal of this analysis is to assess whether discriminatory treatment is more common in areas in which the housing market is tighter (or looser). We include an indicator of the condition of the housing market in a model of differential treatment and control for a subset of the variables from our full specification.

For rentals, we measured the condition of the housing market using:

> Vacancy rate for rentals = (units for rent)/(occupied units + units for rent + units for sale), based on data from the 2010 ACS.

For sales, we experimented with four measures of housing market condition:

Vacancy rate for sales = (units for sale)/(occupied units + units for rent + units for sale) based on data from the 2010 ACS.

Serious delinquency rate (mortgages 90+ days delinquent and mortgages in foreclosure), first quarter 2012, using data from foreclosure-response.org.

Percentage change in home prices/100, third quarter 2006 to first quarter 2012, calculated from the Federal Housing Finance Agency House Price Index.

An indicator for six of our sites—Tampa, Miami, Riverside, Cleveland, Detroit, and Atlanta—identified by a cluster analysis as relatively troubled markets. The measures used in defining the clusters were the homeowner vacancy rate, severe delinquency rate, real estate owned rate, and change in home prices between third quarter 2006 and first quarter 2012. The analysis to define the clusters was conducted using data the 366 Metropolitan Statistical Areas for the United States.

The regression model includes those variables from the full specification that are the same for both testers. That is, white tester went first, month of test, assigned child, assigned marriage, female, minority tester born in United States, log of white assigned income, both faced same agent, tract per capita income, and tract percent white. We did not include the indicators for each metropolitan area in this analysis because its inclusion would cause the metropolitan area variables to drop out of the model.

The two chapters that follow present the results of the analyses described here. Chapter IV presents current estimates of the incidence and forms of discrimination against minority renters and homebuyers. Chapter V presents findings regarding variations in discrimination, including change over time, differences between metropolitan markets, differences based on testers' racial or ethnic identifiability, and other variations in tester, agency, or neighborhood characteristics.

IV. INCIDENCE OF DISCRIMINATION

This chapter presents current estimates of the incidence and forms of discrimination against black, Hispanic, and Asian homeseekers in rental and sales markets nationwide. When well-qualified minority homeseekers contact housing providers to inquire about recently advertised housing units, they generally are just as likely as equally qualified white homeseekers to get an appointment and learn about at least one available housing unit. However, when differences in treatment occur, white homeseekers are more likely to be favored than are minorities. Most important, minority homeseekers learn about and inspect fewer homes and apartments than whites, raising the costs of housing search and constraining their choices.[30]

Rental Market Discrimination

Exhibit IV-1 summarizes the most important forms of treatment at each of three steps in the rental housing inquiry:

1. Is the homeseeker able to make an appointment to meet with an agent?

   If so,

2. Is the homeseeker told that at least one unit is available?
   - How many units are available?
3. If units are available,
   - What rent is quoted?
   - Is the homeseeker shown available units?
   - How many units are shown?
   - How helpful is the agent?

Minority renters who call to inquire about recently advertised homes or apartments are rarely denied appointments that their white counterparts are able to make. And when renters meet in person with housing providers, they are almost always told about at least one available unit. However, Hispanic renters are slightly (but significantly) more likely than equally qualified whites to be told that no homes or apartments are available. Moreover, in about half of all in-person visits, one tester is told about more available units than the other, with whites significantly more likely to be favored than minorities. And in about a third of tests, one tester is shown more units than the other, with whites again significantly more likely to be favored than minorities. Overall, minority renters are told about and shown significantly fewer available housing units than comparably qualified whites. Agents also quote slightly higher rents to blacks and Hispanics than to whites.

[30] Throughout this chapter, discussion focuses on findings that are statistically significant, which are highlighted by bold font in the tables.

Exhibit IV-1: Summary Measures of Discrimination Against Minority Renters

Rental	White	Black	Diff.	White	Hispanic	Diff.	White	Asian	Diff.
Only one tester able to make appointment?	1.0%	0.6%	0.4%	0.4%	0.2%	0.2%	0.4%	0.1%	0.4%
If able to meet with an agent:									
Only one tester told units available?	3.0%	2.1%	0.9%	3.6%	1.8%	1.8%**	2.7%	2.4%	0.3%
Told about more available units?	**27.5%**	**18.5%**	**9.0%*** **	**29.1%**	**16.2%**	**12.8%*** **	**27.0%**	**18.1%**	**8.8%****
Avg number of units available (per visit)	**1.83**	**1.63**	**0.20*** **	**1.82**	**1.60**	**-0.22*** **	**1.79**	**1.63**	**0.17*** **
If available units recommended:									
Average rent	**$1,122**	**$1,126**	**-$4***	**$1,291**	**$1,297**	**-$6*** **	**$1,391**	**$1,389**	**$2**
Level of agent helpfulness	1.47	1.50	-0.03	1.43	1.41	0.02	1.46	1.47	-0.01
Shown more units?	**16.9%**	**14.1%**	**2.8%****	**18.9%**	**12.9%**	**6.0%*** **	**20.4%**	**14.9%**	**5.5%****
Avg number of units shown (per visit)	**1.28**	**1.23**	**0.04****	**1.40**	**1.33**	**0.07*** **	**1.44**	**1.36**	**0.08****
Overall favored on access and availability	**28.4%**	**19.6%**	**8.7%*** **	**28.9%**	**18.9%**	**10.1%*** **	**32.0%**	**22.6%**	**9.5%*** **
Overall average number of units available	**1.75**	**1.55**	**0.20*** **	**1.76**	**1.54**	**0.21*** **	**1.73**	**1.56**	**0.17*** **
Overall average number of units shown	**1.19**	**1.14**	**0.06****	**1.33**	**1.23**	**0.10*** **	**1.36**	**1.27**	**0.09****

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

The bottom panel of Exhibit IV-1 presents overall measures of differential treatment for renters, taking into account all three steps in the housing inquiry (the ability to make an appointment, availability of units, and agents' willingness to show units). White renters experience more favorable treatment than equally well-qualified blacks in 28.4 percent of inquiries, compared to 19.6 percent in which blacks are favored. Consequently, black renters learn about 11.4 percent fewer available units than equally qualified whites (0.20 fewer per inquiry on average) and are shown 4.2 percent fewer units (0.06 fewer per inquiry). White renters experience more favorable treatment than Hispanics in 28.9 percent of inquiries, compared to 18.9 percent in which Hispanics are favored. So Hispanic renters learn about 12.5 percent fewer available units than equally qualified whites (0.21 fewer per inquiry on average) and are shown 7.5 percent fewer (0.10 fewer per inquiry). Finally, white renters experience more favorable treatment than Asians in 32.0 percent of inquiries, compared to 22.6 percent in which Asians are favored. So Asian renters learn about 9.8 percent fewer available units than equally qualified whites (0.17 fewer per inquiry on average) and are shown 6.6 percent fewer (0.09 fewer per inquiry). The remainder of this section provides more details about the treatment of black, Hispanic, and Asian renters in turn. This discussion focuses on the forms of treatment where white-favored treatment significantly exceeds minority-favored treatment, because this constitutes the clearest evidence of systematic discrimination.[31]

[31] Because paired testing produces many indicators of differential treatment, there is a risk that some measures might be statistically significant as the random result of having so many measures. Therefore, we applied the sign test to 20 separate indicators of favorable or unfavorable treatment by rental housing providers. These tests suggest that the overall results for black and Hispanic renters (with 14 of 20 measures favoring whites) are unlikely to occur by chance (one-tailed $p = 0.058$). The results for Asian renters (7 of 19 measures favoring whites) could have occurred by chance (one-tailed $p = 0.916$). It is worth noting, however, that the specific items that favor the white and Asian teammates do not appear to have occurred randomly. Instead, the items that favor the white teammate are related to appointments and number of units told about and shown, while the items that favor the Asian teammate are primarily related to costs and willingness to negotiate. We also tested for the possibility that atypical levels of discrimination in one or more sampled metro areas might unduly influence the overall national estimates, and concluded that the national results reported here are *not* sensitive to any individual metro's results.

Black Renters

About half of advertisements for available rental units invite homeseekers to drop in. Whites and blacks are equally likely to be able to arrange a meeting with an agent, through an in-person appointment or dropping in on the agency.[32] (See Exhibit IV-2.) Moreover, when both white and black members of a tester pair meet with an agent in person, they are equally likely to be told that at least one unit is available. However, almost half the time, one tester is told about at least one more unit than his or her partner, with whites 9.0 percentage points more likely than comparable blacks to be told about more available units. Over all tests, blacks learn about 0.2 fewer available units per visit than whites. (Among tests in which the white tester is told about more available units, the difference in the number of units averages 1.68 units; among tests in which the black tester is told about more available units, the difference averages 1.40 units.) This means that, over five in-person visits to rental agents, a black homeseeker would learn about one fewer available unit than a comparable white.

For example…The white tester arrived in the morning, and asked if he could see the one-bedroom units that they had available. He was shown the two one-bedroom units that would be available by his move-in date, and was also shown a two-bedroom unit that the agent said she wanted to show him so he could see what a larger apartment was like as well. The black tester arrived that afternoon and asked about one-bedroom units. He was shown both available one-bedroom units but not the two-bedroom unit.

Exhibit IV-2: Information and Availability Indicators for White and Black Renters

Rental market treatment measure	Both	White	Black	Difference	Std error of difference	N
Tester(s) able to make an appointment	94.6%	1.0%	0.6%	0.4%	0.4%	2,009
If able to meet with an agent:						
Tester(s) told any units available	95.0%	3.0%	2.1%	0.9%	0.7%	1,813
One tester told about more units than partner		**27.5%**	**18.5%**	**9.0%*** **	2.4%	1,813
Avg number of units available (per visit)		**1.83**	**1.63**	**0.20*** **	0.05	1,813

Note: Numbers do not subtract to differences because of rounding. *** difference is statistically significant at the 0.01 level.

[32] The estimates of differential treatment at this initial stage understate the true rate at which testers were unable to obtain appointments. Although both members of each tester pair were instructed to make repeated attempts (by telephone or e-mail) to obtain an appointment, some attempts may have been abandoned by the second tester when the first was unsuccessful, due to strong financial incentives to complete in-person visits. These aborted tests were dropped from the analysis entirely and, because the order of the testing was randomized, should have no effect on the net measure of discriminatory denial.

When both white and black members of a tester pair are told about available units, they are equally likely to be shown at least one unit (Exhibit IV-3). However, in almost a third of these tests, one tester is shown more units than the other; in these cases, whites are 2.8 percentage points more likely than blacks to be favored. As a result, whites are shown 0.04 more units than blacks on average. (Among tests in which the white tester is shown more available units, the difference in the number of units shown averages 1.27 units; among tests in which the black tester is shown more available units, the difference averages 1.22 units.) This means that over 25 visits to agents where units are available, a black homeseeker would be shown one fewer available unit than a comparable white. In addition, blacks are shown units with more housing quality problems than equally qualified white homeseekers—0.05 more problem conditions per unit on average.[33]

Exhibit IV-3: Inspections and Unit Problem Indicators for White and Black Renters

Rental market treatment measure	Both	White	Black	Difference	Std error of difference	N
If available units recommended:						
Tester(s) able to inspect any units	88.7%	4.3%	3.4%	0.9%	1.1%	1,710
One tester inspected more units than partner		**16.9%**	**14.1%**	**2.8%****	1.2%	1,710
Average number of units inspected (per visit)		**1.28**	**1.23**	**0.04****	0.02	1,710
If units shown:						
Tester(s) saw at least one unit without any problems	83.6%	8.1%	5.6%	2.5%	1.6%	1,540
One tester saw more problems per unit than partner		**9.5%**	**12.9%**	**-3.3%***	1.8%	1,537
Average number of problems per unit		**0.15**	**0.20**	**-0.05****	0.03	1,537

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level.

When both white and black members of a tester pair are told about available units, whites are more likely than blacks to be offered a lower rent than their partners (Exhibit IV-4). Among tests in which the white tester is quoted a lower rent, the difference averages $122 a month, while among tests in which the black tester is quoted a lower rent, the difference averages $129 a month. Across all tests, the difference in rent is small—only $4 lower a month on average for whites. For many other financial indicators, we find no significant difference in the treatment of whites and blacks. However, whites are significantly more likely than blacks to be told about rent incentives and more likely to be told that up-front fees and security deposit or surety bond amounts are negotiable. These differences may give whites more bargaining power in negotiations over the costs of lease-up. Finally, when all the fees, deposits, and incentives are considered together with rent, the total first-year cost differs for comparable white and black homeseekers in about 4 of every 10 tests; and, when they differ, whites are 7.6 percentage points more likely than equally qualified blacks to be offered a lower total first-year cost. However, the difference in average first-year costs is small and not statistically different from zero.[34]

[33] The nature of this testing makes it difficult to distinguish between a tester who saw a unit without problem conditions and a tester who saw a unit that had problem conditions but did not notice them. We do not think this challenge inherently favors either the white or the minority tester.

[34] Among tests in which the white tester is quoted a yearly net cost, the difference averages $1,685. Among tests in which the black tester is quoted a lower yearly net cost, the difference averages $1,736.

Exhibit IV-4: Financial Indicators for White and Black Renters

Rental market treatment measure	Both	White	Black	Difference	Std error of difference	N
If available units recommended:						
Average rent for any unit		**$1,122**	**$1,126**	**-$4***	$2	1,709
Tester(s) told higher rent than partner		**10.7%**	**13.2%**	**-2.5%***	1.3%	1,709
Tester(s) told that rent is negotiable	5.1%	10.9%	7.1%	3.9%	2.3%	1,709
Tester(s) offered month-to-month	1.8%	7.0%	8.0%	-1.0%	1.1%	1,709
Tester(s) offered two-year lease	3.5%	7.4%	10.3%	-2.9%	2.3%	1,709
Tester(s) told fees required for any unit	80.7%	5.3%	5.7%	-0.4%	1.2%	1,710
One tester told higher fees than partner		19.7%	22.9%	-3.2%	2.0%	1,679
Average fees for any unit		$147	$155	-$8	$8	1,679
Tester(s) told fees negotiable	5.1%	**10.1%**	**6.5%**	**3.5%****	1.7%	1,710
Tester(s) told payment required at move-in	45.2%	13.9%	11.4%	2.5%	3.1%	1,710
Average payments at move-in		$764	$786	-$22	$44	1,685
Tester(s) told payments negotiable	1.8%	7.5%	5.8%	1.7%	1.1%	1,710
Tester(s) told about incentives	24.9%	**12.9%**	**8.1%**	**4.8%*****	1.4%	1,710
Average yearly incentives		$228	$282	-$54	$66	1,642
Tester(s) told security deposit required	99.9%	0.0%	0.0%	0.0%	0.0%	1,710
Tester(s) given choice between sec. deposit & bond	1.0%	1.0%	1.1%	-0.1%	0.5%	1,710
Tester(s) told deposit or bond negotiable	10.4%	**14.0%**	**8.7%**	**5.3%*****	1.8%	1,710
Average sec. deposit for any unit		$811	$842	-$31	$19	1,423
Tester(s) told higher yearly net cost		**16.8%**	**24.4%**	**-7.6%*****	2.7%	1,363
Average yearly net cost		$14,848	$14,898	-$50	$110	1,363

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level, *** at the 0.01 level.

Most comments, questions, and information provided to blacks and whites do not differ significantly, and overall levels of agent helpfulness to whites and blacks are not significantly different. However, blacks are more likely than comparable white homeseekers to receive comments or questions about their credit standing, while whites are more likely than blacks to receive remarks about race or ethnicity. Specifically, blacks are 3.0 percentage points more likely than whites to receive comments or questions about their credit standing. And whites are 1.1 percentage points more likely than blacks to receive remarks about issues of race or ethnicity. In the vast majority of tests, neither the white nor the black receives these types of comments, questions, or remarks.

Exhibit IV-5: Comments and Helpfulness Indicators for White and Black Renters

Rental market treatment measure	Both	White	Black	Difference	Std error of difference	N
If available units recommended:						
Tester(s) told comment on fair housing	0.2%	1.8%	1.8%	0.0%	0.6%	1,710
Tester(s) told application must be completed	87.5%	5.1%	5.7%	-0.5%	1.8%	1,710
Tester(s) told credit check must be completed	59.8%	13.8%	15.6%	-1.8%	1.8%	1,710
Tester(s) told background check must be done	22.3%	16.4%	16.8%	-0.4%	2.3%	1,710
Tester(s) told comments on credit standing	1.6%	**4.2%**	**7.2%**	**-3.0%****	1.3%	1,710
Tester(s) told comments on rent history	3.1%	10.7%	11.3%	-0.6%	2.3%	1,710
Tester(s) told remarks about race/ethnicity	0.1%	**1.8%**	**0.7%**	**1.1%****	0.5%	1,710
Tester(s) provided listings, floor plan, brochure, etc.	75.0%	7.3%	7.6%	-0.4%	1.9%	1,710
Tester(s) provided more total items		29.5%	33.7%	-4.2%	2.7%	1,710
Tester(s) told arrangement for contact	63.0%	13.2%	15.6%	-2.4%	2.7%	1,710
Tester(s) told positive remark	27.7%	21.0%	19.5%	1.5%	2.4%	1,710
Tester(s) told more positive remarks		28.3%	30.1%	-1.8%	3.2%	1,708
Tester(s) told negative remark	0.3%	3.4%	2.3%	1.0%	0.8%	1,710
Tester(s) told more negative remarks		3.4%	2.3%	1.1%	0.8%	1,708
Tester(s) received agent follow-up	9.1%	11.0%	10.5%	0.6%	2.1%	1,695
Average overall helpfulness score		1.47	1.50	-0.03	0.05	1,710

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level.

Hispanic Renters

For example…The white tester arrived first and asked to see a two-bedroom apartment. The agent showed him the available two-bedroom unit as well as a one-bedroom apartment. The tester got application information for both units. The Hispanic tester arrived two hours later at the same office, but was told that nothing was available.

Whites and Hispanics are equally likely to be able to arrange a meeting with an agent, through an in-person appointment or dropping in on the agency (Exhibit IV-6). When both white and Hispanic members of a tester pair meet with an agent in person, most are told that units are available. However, when only one is told about available units, whites are 1.8 percentage points more likely than comparably qualified Hispanics to be favored. In addition, in almost half the visits, one tester is told about at least one more unit than his or her partner, with whites 12.8 percentage points more likely than comparable Hispanics to be told about more available units. As a consequence, whites learn about more available units than Hispanics—0.22 more units per visit on average. (Among tests in which the white tester is told about more available units, the difference in the number of units averages 1.54 units; among tests in which the Hispanic tester is told about more available units, the difference averages 1.43 units.) So, over five in-person visits to rental agents, a Hispanic homeseeker would learn about one fewer available unit than a comparable white.

Exhibit IV-6: Information and Availability Indicators for White and Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	Std error of difference	N
Tester(s) able to make an appointment	96.1%	0.4%	0.2%	0.2%	0.3%	1,986
If able to meet with an agent:						
Tester(s) told any units available	94.6%	**3.6%**	**1.8%**	**1.8%****	0.8%	1,775
One tester told about more units than partner		**29.1%**	**16.2%**	**12.8%*****	1.6%	1,775
Avg number of units available (per visit)		**1.82**	**1.60**	**0.22*****	0.04	1,775

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level, *** at the 0.01 level.

When both white and Hispanic members of a tester pair are told about available units, they are equally likely to be shown at least one unit (Exhibit IV-7). In almost a third of these tests, one tester is shown more units than the other, with whites 6 percentage points more likely than Hispanics to be favored. As a result, whites are shown 0.07 more units per test than Hispanics. (Among tests in which the white tester is shown more available units, the difference in the number of units shown averages 1.29 units; among tests in which the Hispanic tester is shown more available units, the difference averages 1.32 units.) In other words, over 14 visits to agents where units are available, a Hispanic homeseeker would be shown one fewer available unit than a comparable white. The quality of units shown to white and Hispanic homeseekers does not differ significantly.

Exhibit IV-7: Inspections and Unit Problem Indicators for White and Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	Std error of difference	N
If available units recommended:						
Tester(s) able to inspect any units	91.7%	3.1%	2.7%	0.3%	0.7%	1,654
One tester inspected more units than partner		**18.9%**	**12.9%**	**6.0%*****	1.0%	1,654
Average number of units inspected (per visit)		**1.40**	**1.33**	**0.07*****	0.02	1,654
If units shown:						
Tester(s) saw at least one unit without any problems	86.7%	5.0%	5.4%	-0.3%	1.4%	1,493
One tester saw more problems per unit than partner		10.6%	9.4%	1.3%	1.9%	1,489
Average number of problems per unit		0.17	0.15	0.02	0.03	1,489

Note: Numbers do not subtract to differences because of rounding. *** difference is statistically significant at the 0.01 level.

When both white and Hispanic members of a tester pair are told about available units, whites are more likely than Hispanics to be offered a lower rent than their partners (Exhibit IV-8). Among tests in which the white tester is quoted a lower rent, the difference averages $183 a month. Among tests in which the Hispanic tester is quoted a lower rent, the difference averages $172 a month. Across all tests, the difference in rent is small—only $6 a month less on average. Most other financial indicators show no significant difference in the treatment of Hispanics and whites. However, whites are more likely to be informed about rent incentives and more likely to be told that security deposit or bond requirements are negotiable, possibly giving them more bargaining power in lease negotiations. Whites are also more likely to be told about payments required at move-in. When all the fees, deposits, and incentives are considered together with rent, whites are offered lower annual net costs than Hispanics—$101 lower on average.[35]

[35] Among tests in which the white tester is quoted a lower annual net cost, the difference averages $2,213 a month. Among tests in which the Hispanic tester is quoted a lower net cost, the difference averages $2,112 a month.

Exhibit IV-8: Financial Indicators for White and Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	Std error of difference	N
If available units recommended:						
Average rent for any unit		**$1,291**	**$1,297**	**-$6*** **	$2	1,653
Tester(s) told higher rent than partner		**8.1%**	**10.9%**	**-2.8%** **	1.1%	1,653
Tester(s) told that rent is negotiable	4.2%	7.3%	6.2%	1.1%	1.3%	1,653
Tester(s) offered month-to-month	4.1%	4.0%	5.3%	-1.3%	1.2%	1,653
Tester(s) offered two-year lease	4.0%	5.1%	8.2%	-3.1%	2.5%	1,653
Tester(s) told fees required for any unit	83.9%	4.7%	4.6%	0.1%	1.0%	1,654
One tester told higher fees than partner		20.5%	20.3%	0.3%	1.6%	1,626
Average fees for any unit		$146	$154	-$9	$11	1,626
Tester(s) told fees negotiable	3.9%	5.5%	4.8%	0.8%	0.6%	1,654
Tester(s) told payment required at move-in	43.9%	**13.8%**	**10.2%**	**3.6%***	2.0%	1,654
Average payments at move-in		$832	$828	$4	$34	1,634
Tester(s) told payments negotiable	1.1%	5.7%	4.7%	1.0%	1.1%	1,654
Tester(s) told about incentives	23.6%	**10.8%**	**7.0%**	**3.8%** **	1.6%	1,654
Average yearly incentives		$245	$234	$11	$31	1,611
Tester(s) told security deposit required	99.9%	0.0%	0.0%	0.0%	0.0%	1,654
Tester(s) given choice between sec. deposit & bond	0.7%	1.1%	1.2%	-0.1%	0.5%	1,654
Tester(s) told deposit or bond negotiable	7.8%	**11.3%**	**5.4%**	**5.9%*** **	1.7%	1,654
Average sec. deposit for any unit		$867	$866	$1	$9	1,414
Tester(s) told higher yearly net cost		16.5%	20.2%	-3.6%	2.8%	1,369
Average yearly net cost		**$17,168**	**$17,269**	**-$101*** **	$35	1,369

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

Almost none of the comments, questions, and information provided to Hispanics and whites differ significantly (Exhibit IV-9). However, whites are 3.3 percentage points more likely than Hispanics to receive follow-up contact from agents they visited.

Exhibit IV-9: Comments and Helpfulness Indicators for White and Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	Std error of difference	N
If available units recommended:						
Tester(s) told comment on fair housing	0.2%	1.8%	0.8%	1.0%	0.6%	1,654
Tester(s) told application must be completed	89.9%	4.4%	3.9%	0.5%	0.8%	1,654
Tester(s) told credit check must be completed	70.4%	10.3%	11.3%	-1.0%	2.3%	1,654
Tester(s) told background check must be done	20.0%	16.3%	14.3%	2.0%	3.6%	1,654
Tester(s) told comments on credit standing	2.2%	5.8%	7.0%	-1.1%	1.7%	1,654
Tester(s) told comments on rent history	3.1%	11.5%	11.4%	0.1%	2.0%	1,654
Tester(s) told remarks about race/ethnicity	0.3%	1.0%	2.1%	-1.1%	0.8%	1,654
Tester(s) provided listings, floor plan, brochure, etc.	76.1%	5.6%	6.3%	-0.7%	0.8%	1,654
Tester(s) provided more total items		30.2%	28.8%	1.5%	2.7%	1,654
Tester(s) told arrangement for contact	66.2%	12.7%	14.4%	-1.7%	3.0%	1,654
Tester(s) told positive remark	30.5%	18.0%	18.7%	-0.7%	1.7%	1,654
Tester(s) told more positive remarks		27.9%	28.6%	-0.7%	2.4%	1,651
Tester(s) told negative remark	0.1%	3.5%	3.0%	0.6%	0.8%	1,654
Tester(s) told more negative remarks		3.5%	3.1%	0.5%	0.8%	1,651
Tester(s) received agent follow-up	10.6%	**11.2%**	**7.9%**	**3.3%***	1.6%	1,638
Average overall helpfulness score		1.43	1.41	0.02	0.05	1,654

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level.

Asian Renters

Whites and Asians are equally likely to be able to arrange a meeting with an agent, through an in-person appointment or dropping in on the agency (Exhibit IV-10). When both white and Asian members of a tester pair meet with an agent in person, they are equally likely to be told that at least one unit is available. However, almost half the time, one tester is told about at least one more unit than his or her partner, with whites 8.8 percentage points more likely than comparable Asians to be told about more available units. As a consequence, whites learn about more available units than Asians—0.17 more units per visit on average. (Among tests in which the white tester is told about more available units, the difference in the number of units averages 1.56 units; among tests in which the Asian tester is told about more available units, the difference averages 1.40 units.) So, over six in-person visits to rental agents, an Asian homeseeker would learn about one fewer available unit than a comparable white.

For example…The Asian tester saw the agent first and asked about the advertised two-bedroom unit. She was told that unit was available and was able to inspect it, but no other two-bedroom units were available. The white tester saw the advertised two-bedroom unit and was also told about four more two-bedroom units that were available in other locations.

Exhibit IV-10: Information and Availability Indicators for White and Asian Renters

Rental market treatment measure	Both	White	Asian	Difference	Std error of difference	N
Tester(s) able to make an appointment	96.0%	0.4%	0.1%	0.4%	0.4%	1,150
If able to meet with an agent:						
Tester(s) told any units available	94.9%	2.7%	2.4%	0.3%	0.8%	1,037
One tester told about more units than partner		**27.0%**	**18.1%**	**8.8%****	3.3%	1,037
Avg number of units available (per visit)		**1.79**	**1.63**	**0.17*****	0.05	1,037

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level, *** at the 0.01 level.

When both white and Asian members of a tester pair are told about available units, they are equally likely to be shown at least one unit (Exhibit IV-11). In about a third of these tests, one tester is shown more units than the other, with whites 5.5 percentage points more likely to be favored. As a result, whites are shown 0.08 more units per test than Asians. (Among tests in which the white tester is shown more available units, the difference in the number of units shown averages 1.30 units; among tests in which the Hispanic tester is shown more available units, the difference averages 1.22 units.) In other words, over 13 visits to agents where units are available, an Asian homeseeker would be shown one fewer available unit than a comparable white. The quality of units shown to white and Asian homeseekers does not differ significantly.

Exhibit IV-11: Inspections and Unit Problem Indicators for White and Asian Renters

Rental market treatment measure	Both	White	Asian	Difference	Std error of difference	N
If available units recommended:						
Tester(s) able to inspect any units	92.1%	3.8%	2.3%	1.5%	1.1%	968
One tester inspected more units than partner		**20.4%**	**14.9%**	**5.5%****	2.3%	968
Average number of units inspected (per visit)		**1.44**	**1.36**	**0.08****	0.03	968
If units shown:						
Tester(s) saw at least one unit without any problems	87.5%	3.9%	6.5%	-2.7%	1.9%	883
One tester saw more problems per unit than partner		10.5%	8.7%	1.8%	1.9%	879
Average number of problems per unit		0.14	0.12	0.02	0.02	879

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level.

Few financial indicators show significant differences in treatment (Exhibit IV-12). However, whites are more likely to be informed about rent incentives and more likely to be told that security deposit or bond requirements are negotiable. This may give whites more power in leasing negotiations.

Exhibit IV-12: Financial Indicators for White and Asian Renters

Rental market treatment measure	Both	White	Asian	Difference	Std error of difference	N
If available units recommended:						
Average rent for any unit		$1,391	$1,389	$2	$5	967
Tester(s) told higher rent than partner		9.2%	9.3%	-0.1%	1.4%	967
Tester(s) told that rent is negotiable	5.1%	7.4%	8.2%	-0.8%	1.9%	967
Tester(s) offered month-to-month	3.3%	3.7%	7.7%	-4.0%	2.5%	967
Tester(s) offered two-year lease	3.6%	7.1%	7.1%	0.0%	2.8%	967
Tester(s) told fees required for any unit	82.3%	5.3%	5.5%	-0.3%	2.1%	968
One tester told higher fees than partner		17.9%	23.4%	-5.6%	3.2%	957
Average fees for any unit		$203	$220	-$17	$11	957
Tester(s) told fees negotiable	3.8%	6.5%	6.8%	-0.3%	1.8%	968
Tester(s) told payment required at move-in	41.6%	13.6%	12.4%	1.2%	4.7%	968
Average payments at move-in		$796	$779	$17	$68	955
Tester(s) told payments negotiable	1.7%	3.9%	6.2%	-2.3%	1.7%	968
Tester(s) told about incentives	22.5%	**11.2%**	**8.6%**	**2.6%****	1.2%	968
Average yearly incentives		$264	$329	-$65	$69	941
Tester(s) told security deposit required	99.7%	0.0%	0.2%	-0.2%	0.2%	968
Tester(s) given choice between sec. deposit & bond	1.4%	1.3%	1.1%	0.3%	0.3%	968
Tester(s) told deposit or bond negotiable	8.6%	**11.4%**	**6.5%**	**4.9%****	2.0%	968
Average sec. deposit for any unit		$954	$948	$6	$11	817
Testers told higher yearly net cost	61.8%	20.7%	17.5%	3.3%	4.4%	795
Average yearly net cost		$18,092	$18,010	$82	$122	795

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.05 level.

Most comments, questions, and information provided to Asians and whites do not differ significantly, nor do overall levels of agent helpfulness (Exhibit IV-13). However, differences in treatment are statistically significant for a few items. Whites are 5.2 percentage points more likely to be told that an application must be submitted and 3.8 points more likely to be told that a credit check will be required. Asians are 3.4 percentage points more likely than whites to be provided listings, floor plans, and brochures, and 5.2 percentage points more likely than their white partners to be given more total items by the agent.

Exhibit IV-13: Comments and Helpfulness Indicators for White and Asian Renters

Rental market treatment measure	Both	White	Asian	Difference	Std error of difference	N
If available units recommended:						
Tester(s) told comment on fair housing	0.5%	1.3%	1.0%	0.3%	0.4%	968
Tester(s) told application must be completed	85.1%	**8.7%**	**3.5%**	**5.2%****	1.9%	968
Tester(s) told credit check must be completed	65.4%	**13.6%**	**9.8%**	**3.8%***	1.8%	968
Tester(s) told background check must be done	14.7%	13.2%	13.7%	-0.5%	4.1%	968
Tester(s) told comments on credit standing	1.5%	6.4%	8.6%	-2.2%	1.5%	968
Tester(s) told comments on rent history	3.7%	10.9%	14.4%	-3.5%	2.3%	968
Tester(s) told remarks about race/ethnicity	0.0%	1.3%	3.2%	-1.9%	1.4%	968
Tester(s) provided listings, floor plan, brochure, etc.	74.6%	**4.2%**	**7.5%**	**-3.4%****	1.2%	968
Tester(s) provided more total items		**26.1%**	**31.3%**	**-5.2%***	2.9%	968
Tester(s) told arrangement for contact	70.2%	12.6%	12.8%	-0.2%	1.8%	968
Tester(s) told positive remark	25.3%	19.5%	21.9%	-2.5%	3.1%	968
Tester(s) told more positive remarks		27.4%	32.1%	-4.7%	3.4%	966
Tester(s) told negative remark	0.6%	2.6%	2.6%	0.0%	0.9%	968
Tester(s) told more negative remarks		2.6%	2.6%	0.0%	0.9%	966
Tester(s) received agent follow-up	11.3%	12.3%	9.8%	2.5%	2.2%	964
Average overall helpfulness score		1.46	1.47	-0.01	0.06	968

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level.

Sales Market Discrimination

Exhibit IV-14 summarizes the most important forms of treatment at each of three steps in a homebuyer's inquiry:

1. Is the homebuyer able to make an appointment to meet with an agent?

   If so,

2. Is the homebuyer told that at least one unit is available?
3. How many homes are available?
   - If homes are available,
   - What price is quoted?
   - How helpful is the agent?
   - Is the homeseeker shown available units?
   - How many homes are shown?
   - What is the racial/ethnic composition of the tracts where homes are shown?

Like renters, minority homebuyers are rarely denied appointments that their white counterparts are able to make. However, black homebuyers are slightly (but significantly) more likely than equally qualified whites to be denied an in-person appointment. When homebuyers meet in person with housing providers, they are usually told about at least one available unit. However, agents frequently tell one tester about more available homes than the other, with whites significantly more likely to be favored than blacks or Asians. And black and Asian homebuyers are shown significantly fewer homes than equally qualified whites. Agents offer black and Asian homebuyers less information and assistance than equally qualified whites, and recommend and show them fewer available homes. Differences in treatment between Hispanic and white homebuyers are not statistically significant.

Exhibit IV-14: Summary Measures of Discrimination Against Minority Homebuyers

	White	Black	Diff.	White	Hispanic	Diff.	White	Asian	Diff.
Only one tester able to make appointment?	3.4%	1.1%	2.4%**	2.2%	1.8%	0.4%	1.6%	2.6%	-1.0%
If able to meet with an agent:									
Only one tester told units available?	9.5%	7.4%	2.1%	8.8%	9.0%	-0.2%	9.1%	7.5%	1.6%
Told about more available homes?	**46.1%**	**32.7%**	**13.4%*** **	39.9%	37.7%	2.3%	44.1%	34.9%	9.2%
Average number of units available	**3.40**	**2.90**	**0.50*** **	3.04	2.76	0.28	**3.36**	**2.81**	**0.55***
If available homes recommended:									
Quoted a higher price	27.8%	33.1%	-5.3%	27.0%	28.6%	-1.6%	28.9%	31.5%	-2.6%
Average price	$288,017	$292,029	-$4,012	$306,693	$312,313	-$5,621	$378,219	$380,412	-$2,193
Level of agent helpfulness	2.58	2.46	0.12	2.59	2.50	0.08	**2.80**	**2.60**	**.21*** **
Shown more units?	**39.3%**	**30.0%**	**9.3%****	36.0%	34.0%	2.0%	**42.1%**	**28.2%**	**13.9%****
Average number of units shown	**2.16**	**1.87**	**0.30****	2.15	2.06	0.10	**2.31**	**1.89**	**0.42*** **
Shown homes in whiter n'hoods?	**20.5%**	**15.5%**	**5.0%***	25.8%	20.8%	5.1%	**25.4%**	**19.5%**	**5.9%****
Average neighborhood % white	**66.1%**	**64.3%**	**1.8%****	53.5%	53.9%	0.4%	**59.2%**	**58.0%**	**1.2%***
Overall favored on access and availability	**40.7%**	**30.9%**	**9.8%****	39.0%	32.6%	6.4%	**44.0%**	**33.1%**	**11.0%***
Overall avg number of units available	**3.12**	**2.59**	**0.53*** **	2.89	2.61	0.28	**3.16**	**2.67**	**0.49***
Overall avg number of units shown	**1.75**	**1.44**	**0.32****	1.75	1.67	0.08	**1.92**	**1.56**	**0.36****

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

Taking into account all three steps in the housing inquiry (ability to make an appointment, availability of homes, and agents' willingness to show homes), black and Asian homebuyers are told about and shown fewer homes than equally qualified whites, as shown in the bottom panel of Exhibit IV-14. Specifically, white homebuyers experience more favorable treatment than equally well-qualified blacks in 40.7 percent of inquiries, compared with 30.9 percent in which blacks are favored. Consequently, black homebuyers who contact agents about recently advertised homes for sale learn about 17.0 percent fewer available homes than equally qualified whites (0.53 fewer per inquiry on average) and are shown 17.7 percent fewer (0.32 fewer per inquiry). White homebuyers experience more favorable treatment than Asians in 44.0 percent of inquiries, compared to 33.1 percent in which Asians are favored. So Asian homebuyers

learn about 15.5 percent fewer available homes than equally qualified whites (0.49 fewer per inquiry on average) and are shown 18.8 percent fewer (0.36 fewer per inquiry). Overall differences in treatment for Hispanic and white homebuyers are not statistically significant, and Hispanics are not recommended or shown a statistically different number of homes per inquiry than comparably qualified white homebuyers.

Most homes shown to testers are located in majority-white neighborhoods. In many cases, one tester is recommended homes in neighborhoods that are whiter, on average, than his or her partner. Whites are significantly more likely than minorities to be recommended these whiter neighborhoods, particularly compared with blacks. However, minorities are sometimes shown whiter neighborhoods than their partners. Across all tests, differences in the average racial composition of neighborhoods recommended to minorities and whites are very small and not statistically significant. In other words, over multiple inquiries, the composition of neighborhoods recommended to minority homebuyers is very similar to the composition of those recommended to equally qualified whites.

The remainder of this section provides more details about the treatment of black, Hispanic, and Asian homebuyers in turn. This discussion focuses on the forms of treatment where white-favored treatment significantly exceeds minority-favored treatment, because this constitutes the clearest evidence of systematic discrimination.[36]

Black Homebuyers

For the vast majority of advertised homes, if one tester is able to make an appointment (by phone or e-mail) to meet with an agent in person, the other is as well. In the small share of cases where differences occur, blacks are 2.4 percentage points more likely than comparable whites to be denied an appointment (Exhibit IV-15).

For example…The black tester called and spoke with an agent who insisted that she must be prequalified in order to see homes. He refused to meet with her until she had talked to a lender. The white tester was not asked about prequalification over the phone, and made an appointment to meet with the agent.

When both white and black members of a tester pair meet with a sales agent in person, they are equally likely to be told that something is available and to have at least one home recommended by the agent. However, in 8 of every 10 tests, more homes are recommended to one tester than the other, and in these cases, whites are 13.4 percentage points more likely than comparable black homebuyers to be favored. These differences mean that on average, whites learn about 0.50 more available homes per test. (Among tests in which the white tester is told about more homes, the difference in the number of homes averages 3.30; among tests in which the black tester is told about more homes, the difference averages 3.11.) This means that for every two visits to a sales agent, a black homebuyer learns about one fewer available home than an equally qualified white homebuyer.

[36] Because paired testing produces many indicators of differential treatment, there is a risk that some measures might be statistically significant as the random result of having so many measures. Therefore, we applied the sign test to 15 separate indicators of favorable or unfavorable treatment by sales agents. These tests suggest that the overall results for black and Asian homebuyers (with 12 of 15 and 11 of 15 measures favoring whites) are unlikely to occur by chance (one-tailed $p = .0175$ for blacks and $p = 0.059$ for Asians). The results for Hispanic homebuyers (9 of 15 measures favoring whites) could have occurred by chance (one-tailed $p = 0.304$). We also tested for the possibility that atypical levels of discrimination in one or more sampled metro areas might unduly influence the overall national estimates, and concluded that the national results reported here are *not* sensitive to any individual metro's results.

Exhibit IV-15: Information and Availability Indicators for White and Black Homebuyers

Sales market treatment measure	Both	White	Black	Difference	Std error of difference	N
Tester(s) able to make an appointment	88.3%	**3.4%**	**1.1%**	**2.4%****	0.9%	1,244
If able to meet with an agent:						
Tester(s) told any homes available	78.9%	9.5%	7.4%	2.1%	1.4%	1,072
One tester told about more homes than partner		**46.1%**	**32.7%**	**13.4%*****	3.4%	1,072
Avg number of homes available (per visit)		**3.40**	**2.90**	**0.50*****	0.15	1,072

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.05 level, *** at the 0.01 level.

When both white and black members of a tester pair receive recommendations about available homes, they are equally likely to be shown at least one home (see exhibit IV-16). However, in almost three-quarters of these tests, one tester is shown more units than the other, and whites are 9.3 percentage points more likely than blacks to be favored. On average, whites are shown 0.30 more units per test than equally qualified blacks. (Among tests in which the white tester is shown more homes, the difference in the number of homes averages 2.42 homes; among tests in which the black tester is shown more homes, the difference averages 2.18 homes.) This means that for every three visits in which at least some available homes are recommended, blacks inspect one fewer home than comparable white homeseekers. In addition, blacks are more likely than comparable whites to be shown homes with one or more physical deficiencies.[37]

Exhibit IV-16: Inspections and Unit Problems Indicators for White and Black Homebuyers

Sales market treatment measure	Both	White	Black	Difference	Std error of difference	N
If available homes recommended:						
Tester(s) able to inspect any homes	55.1%	13.2%	13.7%	-0.5%	2.8%	800
One tester inspected more homes than partner		**39.3%**	**30.0%**	**9.3%****	3.7%	800
Avg number of homes inspected (per visit)		**2.16**	**1.87**	**0.30****	0.12	800
If units shown:						
Tester(s) saw at least one home without any problems	93.6%	**4.8%**	**1.2%**	**3.6%****	1.7%	452
One tester saw more problems per home than partner		**24.8%**	**14.1%**	**10.7%*****	3.8%	449
Average number of problems per home		0.18	0.15	0.03	0.03	449

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level, *** at the 0.01 level.

When both white and black members of a tester pair receive recommendations, the prices for the homes recommended do not differ significantly (Exhibit IV-17). And most other financial indicators show no significant treatment differences. However, agents are more likely to ask blacks whether they are prequalified and to request information about their credit. In contrast, agents more often offer whites help with prequalification and suggest a home price for which they could qualify.

[37] The nature of this testing makes it difficult to distinguish between a tester who saw a home with physical deficiencies and a tester who saw a home that had physical deficiencies but did not notice them. We do not think this challenge inherently favors either the white or the minority tester.

Exhibit IV-17: Financial Indicators for White and Black Homebuyers

Sales market treatment measure	Both	White	Black	Difference	Std error of difference	N
If available homes recommended:						
One tester told higher home prices		27.8%	33.1%	-5.3%	4.4%	797
Avg home price		$288,017	$292,029	-$4,012	$3,585	797
Tester(s) asked about prequalification	75.1%	**7.5%**	**13.2%**	**-5.7%****	2.5%	800
Tester(s) asked for information on debts	3.5%	9.6%	10.4%	-0.8%	1.8%	800
Tester(s) asked for information on credit	8.3%	**13.1%**	**18.5%**	**-5.4%****	2.6%	800
Tester(s) told not qualified	0.0%	0.1%	0.5%	-0.4%	0.3%	800
Tester(s) offered financing help	45.6%	18.9%	16.7%	2.2%	3.3%	800
Tester(s) told about finance options	17.1%	16.7%	19.4%	-2.7%	3.0%	800
Tester(s) offered prequalification	3.5%	**14.2%**	**7.9%**	**6.3%****	2.6%	800
Tester(s) told suggested home price	12.0%	**23.0%**	**12.5%**	**10.5%*****	2.9%	800
Tester(s) told a mortgage amount	0.7%	7.2%	7.6%	-0.5%	2.2%	800
Tester(s) told interest rate	5.8%	19.9%	15.2%	4.7%	3.0%	800
Tester(s) told down payment	9.0%	21.3%	16.3%	5.0%	3.5%	800
Tester(s) told about personal finance	33.5%	18.8%	26.9%	-8.1%	4.8%	800

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

Overall levels of agent helpfulness do not differ significantly for whites and blacks, nor do most comments. However, agents spend more time with white homeseekers than with equally qualified blacks—11 minutes longer on average. Interestingly, whites are more likely than blacks to hear comments from agents about fair housing protections or requirements, about race or ethnicity, and about noise problems.

Exhibit IV-18: Comments and Helpfulness Indicators for White and Black Homebuyers

Sales market treatment measure	Both	White	Black	Difference	Std error of difference	N
If able to meet with an agent:						
Tester(s) told arrangement for contact	92.4%	3.4%	4.2%	-0.7%	1.1%	1,072
One tester received more time with agent		**23.5%**	**15.8%**	**7.7%*** **	2.6%	1,042
Average time spent with agent (minutes)		**115**	**104**	**11*** **	4	1,042
Tester(s) received agent follow-up	30.1%	21.8%	17.2%	4.6%	3.6%	1,072
If available homes recommended:						
Tester(s) told comment on fair housing	0.4%	**5.5%**	**1.9%**	**3.6%*** **	1.2%	800
Tester(s) told remarks about race/ethnicity	0.0%	**3.0%**	**1.2%**	**1.8%***	1.1%	800
Tester(s) told positive comments about noise	7.4%	15.5%	17.8%	-2.3%	3.4%	800
Tester(s) told negative comments about noise	0.7%	**6.7%**	**3.5%**	**3.1%***	1.7%	800
Tester(s) told positive comments about safety	3.4%	10.1%	12.3%	-2.2%	2.6%	800
Tester(s) told negative comments about safety	0.1%	0.9%	0.6%	0.3%	0.5%	800
Tester(s) told positive comments about schools	9.7%	17.1%	15.0%	2.1%	3.6%	800
Tester(s) told negative comments about schools	0.0%	1.7%	1.1%	0.7%	0.7%	800
Tester(s) told positive comments about investment	3.1%	14.4%	12.7%	1.7%	2.8%	800
Tester(s) told negative comments about investment	0.2%	3.2%	3.9%	-0.7%	1.3%	800
Tester(s) told positive comments about services	3.8%	11.7%	11.9%	-0.3%	3.0%	800
Tester(s) told negative comments about services	0.0%	0.6%	0.6%	0.0%	0.4%	800
Tester(s) referred to another agent	0.6%	6.3%	4.9%	1.4%	2.5%	800
Tester(s) asked to sign documents	6.9%	13.9%	10.0%	3.9%	2.9%	800
Average overall helpfulness score		2.58	2.46	0.12	0.07	800

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, *** at the 0.01 level.

The census tracts of recommended and inspected homes are, on average, about two-thirds white, with high homeownership rates and low poverty rates.[38] In more than half the tests, the tracts where one tester is recommended and shown homes are whiter on average than where the other tester is recommended and shown homes (Exhibit IV-19). In these cases, whites are 8.0 percentage points more likely than their black partners to be recommended homes in whiter neighborhoods and 5.0 percentage points more likely to be shown homes in whiter neighborhoods. Overall, whites are recommended and shown homes in slightly whiter neighborhoods than blacks, with an average difference under 2 percentage points. (Among tests in which the white tester is recommended homes in whiter neighborhoods, the neighborhoods are 16.4 percentage points whiter; when the black tester is recommended homes in whiter neighborhoods, the difference averages 13.9 percentage points.)[39] Other characteristics of neighborhoods recommended and shown to whites and blacks do not differ significantly. However, whites hear more positive comments about white neighborhoods and more negative comments about minority neighborhoods than do blacks, potentially steering them away from mixed or minority neighborhoods.

[38] The advertised units that triggered each paired test are located in tracts similar to those recommended and shown to testers.

[39] Differences for tests in which one tester was ***shown*** homes in whiter neighborhoods are similar.

Exhibit IV-19: Steering Indicators for White and Black Homebuyers

Sales market treatment measure	White	Black	Difference	Std error of difference	N
If available homes recommended:					
Homes in whiter tracts	**24.8%**	**16.8%**	**8.0%****	2.9%	784
Avg tract percent white	**66.1%**	**64.3%**	**1.8%****	0.8%	784
Homes in tracts w/higher homeownership	24.3%	25.6%	-1.3%	2.9%	784
Avg tract homeownership	70.9%	71.2%	-0.3%	0.5%	784
Homes in tracts w/higher home prices	40.6%	39.0%	1.5%	3.2%	784
Avg tract median home price	$308,826	$306,104	$2,722	$2,308	784
Homes in tracts w/lower poverty	9.1%	8.2%	0.9%	2.6%	784
Avg tract percent nonpoor	91.5%	91.3%	0.2%	0.2%	784
Comments about homes in more tracts	34.3%	26.2%	8.1%	5.0%	793
Avg number positive comments re: white neighborhoods	**0.14**	**0.10**	**0.04****	0.01	793
Avg number positive comments re: minority neighborhoods	0.25	0.23	0.02	0.06	793
Avg number negative comments re: white neighborhoods	0.02	0.02	0.00	0.02	793
Avg number negative comments re: minority neighborhoods	0.06	0.02	0.04**	0.02	793
Share of comments favoring segregation and integration	12.2%	9.2%	3.1%	2.3%	793
If homes shown:					
Homes in whiter tracts	**20.5%**	**15.5%**	**5.0%***	2.7%	441
Avg tract percent white	**67.3%**	**65.8%**	**1.4%*****	0.5%	441
Homes in tracts w/higher homeownership	23.0%	28.9%	-5.9%	6.1%	441
Avg tract homeownership	69.8%	71.0%	-1.2%	1.3%	441
Homes in tracts w/higher home prices	37.0%	42.4%	-5.4%	6.3%	441
Avg tract median home price	$300,255	$302,618	-$2,363	$7,717	441
Homes in tracts w/lower poverty	8.6%	7.1%	1.5%	2.6%	441
Avg tract percent nonpoor	91.7%	91.5%	0.3%	0.3%	441

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

Hispanic Homebuyers

For the vast majority of advertised homes, if one tester is able to make an appointment (by phone or e-mail) to meet with an agent in person, the other is as well. And the very small share of cases where differences occur do not favor either whites or Hispanics (see Exhibit IV-20).

When both white and Hispanic members of a tester pair meet with a sales agent in person, they are equally likely to be told that something is available and to have at least one home recommended by the agent. In about 8 of every 10 tests, more homes are recommended to one tester than the other, but these differences do not systematically favor either group.[40] And on average, agents recommend the same number of homes to both white and Hispanic testers.

[40] When whites are recommended more homes, the difference averages 3.33 units; when Hispanics are recommended more homes, the difference averages 2.78 units.

Exhibit IV-20: Information and Availability Indicators for White and Hispanic Homebuyers

Sales market treatment measures	Both	White	Hispanic	Difference	Std error of difference	N
Tester(s) able to make an appointment	92.8%	2.2%	1.8%	0.4%	0.9%	1,193
If able to meet with an agent:						
Tester(s) told any homes available	76.7%	8.8%	9.0%	-0.2%	2.9%	1,043
One tester told about more homes than partner		39.9%	37.7%	2.3%	4.6%	1,043
Avg number of homes available (per visit)		3.04	2.76	0.28	0.22	1,043

Notes: Numbers do not subtract to differences because of rounding. No differences are statistically significant.

When both white and Hispanic members of a tester pair receive recommendations, both are equally likely to be shown homes, with no significant difference in the number shown per test (Exhibit IV-21).[41]

Exhibit IV-21: Inspections and Unit Problems Indicators for White and Hispanic Homebuyers

Sales market treatment measures	Both	White	Hispanic	Difference	Std error of difference	N
If available homes recommended:						
Tester(s) able to inspect any homes	62.5%	10.5%	13.4%	-2.9%	3.1%	737
One tester inspected more homes than partner		36.0%	34.0%	2.0%	4.0%	737
Avg number of homes inspected (per visit)		2.15	2.06	0.10	0.14	737
If units shown:						
Tester(s) saw at least one home without any problems	94.5%	2.6%	1.8%	0.9%	1.6%	440
One tester saw more problems per home than partner		18.8%	21.0%	-2.2%	3.1%	438
Average number of problems per home		0.15	0.19	-0.04	0.05	438

Notes: Numbers do not subtract to differences because of rounding. No differences are statistically significant.

The prices for the homes recommended to white and Hispanic homebuyers do not differ significantly (Exhibit IV-22). Also, the only statistically significant difference in treatment with respect to financing is that Hispanics are more likely than whites to be asked about their credit.

[41] When whites are shown more homes, the difference averages is 2.51 units; when Hispanics are shown more homes, the difference averages 2.37 units.

Exhibit IV-22: Financial Indicators for White and Hispanic Homebuyers

Sales market treatment measure	Both	White	Hispanic	Difference	Std error of difference	N
If available homes recommended:						
One tester told higher home prices		27.0%	28.6%	-1.6%	6.2%	739
Average home price		$306,693	$312,313	-$5,621	$7,217	739
Tester(s) asked about prequalification	78.0%	9.4%	8.7%	0.7%	2.6%	737
Tester(s) asked for information on debts	4.9%	9.5%	16.4%	-6.8%	4.4%	737
Tester(s) asked for information on credit	9.9%	**14.2%**	**21.0%**	**-6.8%***	3.3%	737
Tester(s) told not qualified	0.0%	0.6%	0.3%	0.3%	0.4%	737
Tester(s) offered financing help	47.7%	16.0%	15.5%	0.5%	3.0%	737
Tester(s) told about finance options	17.4%	20.7%	17.5%	3.2%	2.8%	737
Tester(s) offered prequalification	3.1%	11.7%	9.1%	2.6%	2.8%	737
Tester(s) told suggested home price	11.5%	17.1%	15.8%	1.3%	4.3%	737
Tester(s) told a mortgage amount	2.0%	7.5%	7.5%	0.0%	1.9%	737
Tester(s) told interest rate	9.8%	16.7%	16.9%	-0.2%	3.3%	737
Tester(s) told down payment	14.6%	18.9%	16.5%	2.3%	3.5%	737
Tester(s) told about personal finance	41.5%	19.6%	20.0%	-0.4%	3.1%	737

Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level.

Overall levels of agent helpfulness to white and Hispanic homebuyers are generally similar (Exhibit IV-23). However, agents are 6.2 percentage points more likely to make follow-up contact with whites than with Hispanics and 7.0 percentage points more likely to make positive comments about housing as an investment.

Exhibit IV-23: Comments and Helpfulness Indicators for White and Hispanic Homebuyers

Sales market treatment measure	Both	White	Hispanic	Difference	Std error of difference	N
If able to meet with an agent:						
Tester(s) told arrangement for contact	94.0%	3.3%	2.6%	0.6%	0.9%	1,043
One tester received more time with agent		18.7%	20.7%	-2.0%	5.0%	974
Average time spent with agent (minutes)		116	120	-4	7	974
Tester(s) received agent follow-up	34.8%	**21.4%**	**15.2%**	**6.2%****	2.4%	1,043
If available homes recommended:						
Tester(s) told comment on fair housing	0.2%	3.8%	3.2%	0.6%	0.7%	737
Tester(s) told remarks about race/ethnicity	0.1%	2.7%	1.8%	0.8%	1.0%	737
Tester(s) told positive comments about noise	11.7%	16.8%	20.2%	-3.3%	4.1%	737
Tester(s) told negative comments about noise	1.4%	6.0%	4.8%	1.3%	1.4%	737
Tester(s) told positive comments about safety	6.0%	10.9%	15.6%	-4.6%	4.2%	737
Tester(s) told negative comments about safety	0.0%	1.0%	0.5%	0.5%	0.5%	737
Tester(s) told positive comments about schools	10.0%	14.2%	17.4%	-3.3%	3.1%	737
Tester(s) told negative comments about schools	0.0%	1.3%	0.4%	1.0%	0.6%	737
Tester(s) told positive comments about investment	5.7%	**16.5%**	**9.4%**	**7.0%*****	2.3%	737
Tester(s) told negative comments about investment	0.1%	3.3%	2.1%	1.2%	1.4%	737
Tester(s) told positive comments about services	6.5%	13.3%	13.9%	-0.6%	4.6%	737
Tester(s) told negative comments about services	0.0%	0.7%	0.4%	0.4%	0.5%	737
Tester(s) referred to another agent	0.3%	6.2%	5.5%	0.7%	1.5%	737
Tester(s) asked to sign documents	5.4%	11.0%	9.0%	1.9%	1.9%	737
Average overall helpfulness score		2.59	2.50	0.08	0.07	737

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level, *** at the 0.01 level.

The census tracts for homes recommended and shown to white and Hispanic testers are, on average, about 55 percent white, with high homeownership rates and low poverty rates.[42] The neighborhoods where Hispanics are recommended and shown homes do not differ significantly in any respect from the neighborhoods where whites are recommended and shown homes (Exhibit IV-24).

[42] The advertised units that triggered each paired test are located in tracts similar to those recommended and shown to testers. These tract characteristics differ slightly from those in the black/white tests because of differences in the metropolitan areas where black/white and Hispanic/white testing was conducted.

Exhibit IV-24: Steering Indicators for White and Hispanic Homebuyers

Sales market treatment measure	White	Hispanic	Difference	Std error of difference	N
If available homes recommended:					
Homes in whiter tracts	22.6%	20.8%	1.8%	1.8%	727
Avg tract percent white	53.5%	53.9%	-0.4%	0.4%	727
Homes in tracts w/higher homeownership	24.4%	25.6%	-1.3%	2.7%	727
Avg tract homeownership	67.2%	67.2%	0.0%	0.5%	727
Homes in tracts w/higher home prices	41.3%	37.0%	4.3%	3.7%	727
Avg tract median home price	$349,322	$349,490	-$168	$2,377	727
Homes in tracts w/lower poverty	9.5%	10.0%	-0.5%	2.0%	727
Avg tract percent nonpoor	90.4%	90.3%	0.1%	0.2%	727
Comments about homes in more tracts	34.6%	27.8%	6.8%	5.2%	732
Avg number positive comments re: white neighborhoods	0.05	0.06	-0.02	0.03	732
Avg number positive comments re: minority neighborhoods	0.49	0.44	0.06	0.12	732
Avg number negative comments re: white neighborhoods	0.01	0.00	-0.00	0.00	732
Avg number negative comments re: minority neighborhoods	0.07	0.07	-0.01	0.02	732
Share of comments favoring segregation and integration	11.7%	13.6%	-1.9%	2.1%	732
If homes shown:					
Homes in whiter tracts	25.8%	20.8%	5.1%	3.1%	432
Avg tract percent white	56.1%	55.8%	0.2%	0.5%	432
Homes in tracts w/higher homeownership	24.8%	25.5%	-0.7%	3.7%	432
Avg tract homeownership	69.0%	68.6%	0.4%	0.6%	432
Homes in tracts w/higher home prices	39.3%	39.4%	-0.1%	3.7%	432
Avg tract median home price	$350,232	$353,620	-$3,388	$3,542	432
Homes in tracts w/ lower poverty	11.4%	10.8%	0.6%	2.9%	432
Avg tract percent nonpoor	90.8%	90.6%	0.3%	0.2%	432

Notes: Numbers do not subtract to differences because of rounding. No differences are statistically significant.

Asian Homebuyers

For the vast majority of advertised homes, if one tester is able to make an appointment (by phone or e-mail) to meet with an agent in person, the other is as well. Also, the very small share of cases where differences occur do not favor either whites or Asians (see Exhibit IV-25).

When both white and Asian members of a tester pair meet with a sales agent in person, they are equally likely to be told that something is available and to have at least one home recommended by the agent. In 8 of every 10 tests, more homes are recommended to one tester than the other, though these differences do not systematically favor either group. On average, whites learn about 0.55 more available homes per test. (When whites are told about more available homes, the difference in the number of homes averages 3.55; among tests in which Asians are told about more homes, the difference averages 2.91.)

Exhibit IV-25: Information and Availability Indicators for White and Asian Homebuyers

Sales market treatment measure	Both	White	Asian	Difference	Std error of difference	N
Tester(s) able to make an appointment	92.2%	1.6%	2.6%	-1.0%	1.6%	1,170
If able to meet with an agent:						
Tester(s) told any homes available	79.5%	9.1%	7.5%	1.6%	2.3%	1,047
One tester told about more homes than partner		44.1%	34.9%	9.2%	5.8%	1,047
Avg number of homes available (per visit)		**3.36**	**2.81**	**0.55***	0.30	1,047

Notes: Numbers do not subtract to differences because of rounding. No differences are statistically significant.

When whites and Asians are told that homes are available, they are equally likely to be shown at least one home (Exhibit IV-26). However, when one tester is shown more units than the other, whites are 13.9 percentage points more likely than to be favored than Asians. Overall, whites are shown 0.42 more units per test than equally qualified Asians. (When whites are favored, they are able to inspect an average of 2.37 more homes; when Asians are favored, they inspect an average of 2.05 more homes.) This means that for every two visits in which at least some available homes are recommended, Asians inspect one fewer home than a comparable white homeseeker. The quality of units shown to whites and Asians does not differ significantly.

For example…When the white tester, who went first, asked about the advertised home, he was told that it was available. He viewed the home along with six other homes, and his site visit lasted three hours total. The Asian tester went the next day, was told that the advertised home was available, and inspected it. However, he was only recommended three additional homes to view, and his site visit lasted only two hours.

Exhibit IV-26: Inspections and Unit Problems Indicators for White and Asian Homebuyers

Sales market treatment measure	Both	White	Asian	Difference	Std error of difference	N
If available homes recommended:						
Tester(s) able to inspect any homes	62.0%	11.4%	12.0%	-0.6%	4.3%	799
One tester inspected more homes than partner		**42.1%**	**28.2%**	**13.9%****	5.4%	799
Average number of homes inspected (per visit)		**2.31**	**1.89**	**0.42*****	0.13	799
If units shown:						
Tester(s) saw at least one home without any problems	97.1%	1.5%	0.8%	0.7%	0.8%	471
One tester saw more problems per home than partner		20.8%	15.0%	5.8%	4.3%	470
Average number of problems per home		0.15	0.14	0.01	0.04	470

Note: Numbers do not subtract to differences because of rounding. ** difference is statistically significant at the 0.05 level, *** at the 0.01 level.

When both white and Asian members of a tester pair receive recommendations, the prices for the homes recommended do not differ significantly (Exhibit IV-27). However, agents are 7.5 percentage points more likely to offer whites help with financing and 9.8 percentage points more likely to offer to prequalify the tester. They are also more likely to discuss financing options, interest rates, and personal finances and to suggest an affordable price point and mortgage amount to whites.

Exhibit IV-27: Financial Indicators for White and Asian Homebuyers

Sales market treatment measure	Both	White	Asian	Difference	Std error of difference	N
If available homes recommended:						
One tester told higher home prices		28.9%	31.5%	-2.6%	2.8%	803
Average home price		$378,219	$380,412	-$2,193	$5,316	803
Tester(s) asked about prequalification	81.6%	7.3%	7.1%	0.2%	2.2%	799
Tester(s) asked for information on debts	9.7%	14.4%	14.1%	0.3%	3.9%	799
Tester(s) asked for information on credit	15.3%	17.9%	16.6%	1.3%	3.5%	799
Tester(s) told not qualified	0.0%	0.5%	0.3%	0.2%	0.4%	799
Tester(s) offered financing help	54.7%	**18.7%**	**11.1%**	**7.5%****	3.0%	799
Tester(s) told about finance options	15.7%	**24.8%**	**14.7%**	**10.1%*****	3.0%	799
Tester(s) offered prequalification	8.3%	**17.8%**	**8.0%**	**9.8%****	4.3%	799
Tester(s) told suggested home price	14.9%	**22.4%**	**15.6%**	**6.8%***	3.9%	799
Tester(s) told a mortgage amount	2.5%	**15.0%**	**6.8%**	**8.2%*****	2.8%	799
Tester(s) told interest rate	11.5%	**20.6%**	**11.6%**	**9.0%*****	3.2%	799
Tester(s) told down payment	17.8%	21.0%	15.0%	6.0%	4.0%	799
Tester(s) told about personal finance	37.2%	**25.2%**	**15.7%**	**9.5%*****	3.0%	799

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

Agents offer white homebuyers significantly more help than equally qualified Asians (Exhibit IV-28). In particular, whites are 12.1 percentage points more likely than Asians to receive follow-up contact from agents. In addition, whites are more likely than Asians to receive both positive and negative comments about noise and negative comments about schools and investments, while Asians are more likely to receive positive comments about safety. Receiving these types of comments does not unambiguously reflect either favorable or unfavorable treatment, since one can imagine circumstances in which such comments are genuinely helpful as well as circumstances in which they are discouraging or disparaging.

Exhibit IV-28: Comments and Helpfulness Indicators for White and Asian Homebuyers

Sales market treatment measure	Both	White	Asian	Difference	Std error of difference	N
If able to meet with an agent:						
Tester(s) told arrangement for contact	93.0%	3.4%	3.5%	-0.1%	1.0%	1,047
One tester received more time with agent		20.2%	19.5%	0.7%	2.7%	1,018
Average time spent with agent (minutes)		115	111	4	4	1,018
Tester(s) received agent follow-up	32.8%	**25.0%**	**12.9%**	**12.1%****	4.3%	1,047
If available homes recommended:						
Tester(s) told comment on fair housing	0.6%	5.3%	2.0%	3.3%	2.1%	799
Tester(s) told remarks about race/ethnicity	0.3%	4.7%	3.9%	0.9%	1.6%	799
Tester(s) told positive comments about noise	11.9%	**17.0%**	**23.5%**	**-6.5%***	3.2%	799
Tester(s) told negative comments about noise	1.1%	**9.1%**	**4.6%**	**4.5%****	2.0%	799
Tester(s) told positive comments about safety	4.6%	**11.5%**	**25.0%**	**-13.5%*****	4.3%	799
Tester(s) told negative comments about safety	0.1%	1.2%	1.1%	0.1%	0.5%	799
Tester(s) told positive comments about schools	13.8%	16.8%	20.1%	-3.2%	3.4%	799
Tester(s) told negative comments about schools	0.0%	**2.2%**	**0.8%**	**1.4%***	0.7%	799
Tester(s) told positive comments about investment	4.2%	13.2%	15.5%	-2.3%	4.0%	799
Tester(s) told negative comments about investment	0.6%	**5.3%**	**3.3%**	**2.0%***	1.2%	799
Tester(s) told positive comments about services	4.2%	15.9%	15.3%	0.5%	3.3%	799
Tester(s) told negative comments about services	0.0%	0.7%	0.6%	0.1%	0.4%	799
Tester(s) referred to another agent	0.5%	3.5%	4.4%	-0.9%	1.0%	799
Tester(s) asked to sign documents	4.6%	10.3%	11.2%	-0.9%	1.8%	799
Average overall helpfulness score		**2.80**	**2.59**	**0.21*****	0.07	799

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

The census tracts where recommended and inspected homes are located are, on average, about 60 percent white, with high homeownership rates and low poverty rates.[43] In three-quarters of the tests, the tracts where one tester is recommended and shown homes are whiter on average than where the other tester is recommended and shown homes. In these cases, whites are 4.6 percentage points more likely than their Asian partners to be recommended homes in whiter neighborhoods, and 5.9 percentage points more likely to be shown homes in whiter neighborhoods. Overall, however, the average racial composition of tracts recommended differs by only 1.2 percentage points, and the average for tracts shown does not differ significantly. (Among tests in which the white tester is recommended homes in whiter neighborhoods, the neighborhoods are 17.0 percentage points whiter; where the Asian tester is recommended homes in whiter neighborhoods, the difference averages 15.4 percentage points.)[44] Whites are also more likely than Asians to be shown homes in neighborhoods with higher home prices, although the average difference in neighborhood home prices is not statistically significant. Finally, whites are more likely than Asians to hear negative comments about minority neighborhoods.

[43] The advertised units that triggered each paired test are located in tracts similar to those recommended and shown to testers.

[44] The difference for tests in which one tester was shown homes in whiter neighborhoods is quite similar.

Exhibit IV-29: Steering Indicators for White and Asian Homebuyers

Sales market treatment measures	White	Asian	Difference	Std error of difference	N
If available homes recommended:					
Homes in whiter tracts	**25.6%**	**21.0%**	**4.6%****	2.1%	785
Avg tract percent white	**59.2%**	**58.0%**	**1.2%***	0.6%	785
Homes in tracts w/higher homeownership	25.0%	29.0%	-4.0%	2.5%	785
Avg tract homeownership	68.2%	68.6%	-0.4%	0.6%	785
Homes in tracts w/higher home prices	42.5%	39.8%	2.7%	3.7%	785
Avg tract median home price	$427,689	$420,727	$6,962	$4,271	785
Homes in tracts w/lower poverty	10.5%	9.1%	1.5%	1.5%	785
Avg tract percent nonpoor	92.1%	92.0%	0.1%	0.2%	785
Comments about homes in more tracts	36.5%	32.0%	4.5%	4.7%	787
Avg number positive comments re: white neighborhoods	0.07	0.13	-0.06	0.08	787
Avg number positive comments re: minority neighborhoods	0.48	0.37	0.11	0.07	787
Avg number negative comments re: white neighborhoods	0.01	0.00	0.00	0.00	787
Avg number negative comments re: minority neighborhoods	**0.10**	**0.05**	**0.05***	0.03	787
Share of comments favoring segregation and integration	14.3%	11.5%	2.7%	2.3%	787
If homes shown:					
Homes in whiter tracts	**25.4%**	**19.5%**	**5.9%****	2.6%	463
Avg tract percent white	58.8%	57.5%	1.3%	0.9%	463
Homes in tracts w/higher homeownership	30.6%	24.5%	6.1%	6.7%	463
Avg tract homeownership	70.8%	69.5%	1.3%	1.0%	463
Homes in tracts w/higher home prices	**45.4%**	**35.6%**	**9.9%***	5.4%	463
Avg tract median home price	$444,261	$435,718	$8,543	$5,360	463
Homes in tracts w/lower poverty	11.4%	8.6%	2.7%	2.2%	463
Avg tract percent nonpoor	92.8%	92.4%	0.4%	0.3%	463

Note: Numbers do not subtract to differences because of rounding. * difference is statistically significant at the 0.10 level, ** at the 0.05 level.

V. VARIATIONS IN DISCRIMINATION

This chapter explores four questions about the estimates of discrimination presented in Chapter IV. First, it assesses how levels of discrimination have changed since the last national housing discrimination study, HDS2000. Second, it presents local estimates of discrimination against black and Hispanic renters for selected metropolitan areas and tests for potential differences in levels of both rental and sales discrimination based on metropolitan housing market conditions. Third, it asks whether homeseekers who are identifiably black, Hispanic, or Asian are more likely to experience discrimination than those who may be mistaken for whites. Finally, it explores potential variations in the incidence of discrimination that might help inform future fair housing enforcement and public education efforts.[45]

Change in Discrimination Over Time

Estimates of change in discrimination since the last national paired-testing study (HDS2000) must be interpreted with great caution for several reasons. First, housing markets have changed dramatically in the decade since HDS2000 was conducted, and many aspects of the paired-testing methodology were modified in the current study to better measure patterns of discrimination in today's markets.[46] Even if the study procedures from 2000 were repeated in 2012, market conditions, advertising and search mechanisms, and housing provider incentives differ so substantially that comparisons of findings across studies would be complicated to interpret. Finally, because the statistical confidence intervals for most measures of change are quite wide, there is a high likelihood that some policy-relevant differences exist but are not statistically significant.

Given that caution, we present comparisons for selected measures of treatment, assessing the margin of error for changes in the net measures of differential treatment.[47] These comparisons suggest that changes in discrimination over the past decade are generally small but because almost none are statistically significant, we cannot draw definitive conclusions about whether discrimination has increased or decreased over the last decade.

Among renters, blacks today appear less likely than a decade ago to be told that advertised units are unavailable compared to equally qualified whites (Exhibit V-1). Asian renters are more likely than a decade ago to be told that advertised units are unavailable, but they are less likely to experience adverse treatment when making future arrangements with the agent. Note that the increases for Asians are relative to very low rates of discrimination measured in the 2000 study. Among homebuyers, the only statistically significant change is for Hispanics, who are less likely to be denied financing help than a decade ago (Exhibit V-2).

[45] Throughout this chapter, discussion focuses on findings that are statistically significant, which are highlighted by bold font in the tables.

[46] For example, in HDS2000, Asian/white testing took place in 11 metropolitan areas that together accounted for 77 percent of the total Asian population living in metropolitan areas. In HDS2010, 23 metropolitan areas were sampled as part of an integrated design to represent over 90 percent of the population.

[47] We approximated the confidence intervals for HDS2000 using the Phase 1 public-use files for blacks and Hispanics and using all data for Asian. The calculation approach accounts for statistical clustering of data within sites, essentially following the approach used for HDS2010. The resulting confidence intervals are larger than those relied on in the original study.

Exhibit V-1: Comparable Measures of Discriminatory Treatment for Renters, HDS2000 and HDS2012

		HDS2000			HDS2012			Change in net	Margin of error
		% white	% min	Net	% white	% min	Net		
Black	Advertised unit available	11.9	8.1	3.8%	4.7	4.5	0.2%	**-3.6%**	**±4.4%***
	Inspected more units	22.9	16.2	6.8%	18.3	15.0	3.3%	-3.5%	±5.9%
	Offered incentives	9.6	7.0	2.5%	12.9	8.1	4.8%	2.3%	±4.4%
	Future arrangements	14.9	16.5	-1.6%	13.2	15.6	-2.4%	-0.8%	±7.2%
Hispanic	Advertised unit available	11.3	5.7	5.5%	5.3	2.5	2.7%	-2.8%	±5.3%
	Inspected more units	22.1	15.2	6.9%	21.2	13.4	7.8%	0.9%	±7.6%
	Offered incentives	10.0	6.9	3.0%	10.8	7.0	3.8%	0.8%	±5.6%
	Future arrangements	18.2	17.0	1.1%	12.7	14.4	-1.7%	-2.8%	±9.7%
Asian	Advertised unit available	7.2	7.6	-0.4%	5.1	3.4	1.7%	2.1%	±5.6%
	Inspected more units	12.9	17.7	-4.8%	21.7	16.0	5.7%	**10.5%**	**±9.3%****
	Offered incentives	9.1	5.8	3.3%	11.2	8.6	2.6%	-0.7%	±6.1%
	Future arrangements	20.0	12.5	7.5%	12.6	12.8	-0.2%	**-7.7%**	**±8.5%***

Notes: Margin of error is for 95 percent confidence level. * difference is statistically significant at the 0.10 level, ** at the 0.05 level.

Exhibit V-2: Comparable Measures of Discriminatory Treatment for Homebuyers, HDS2000 and HDS2012

		HDS2000			HDS2012			Change in net	Margin of error
		% white	% min	Net	% white	% min	Net		
Black	Advertised unit available	15.0%	15.0%	0.0%	12.8%	14.1%	-1.3%	-1.3%	±7.2%
	Inspected more units	42.0%	32.6%	9.4%	36.9%	28.1%	8.8%	-0.6%	±11.3%
	Financing help	19.6%	17.3%	2.3%	18.9%	16.7%	2.2%	0.0%	±12.2%
	Agent pre-qual'd tester	19.1%	14.2%	4.9%	14.2%	7.9%	6.3%	1.4%	±8.1%
	Agent recomm. whiter neighborhoods	17.3%	12.2%	5.1%	24.8%	16.8%	8.0%	4.3%	±9.9%
	Future arrangements	6.0%	8.2%	-2.2%	3.4%	4.2%	-0.7%	2.9%	±4.2%
Hispanic	Advertised unit available	12.7%	14.8%	-2.1%	13.0%	13.2%	-0.2%	1.9%	±9.4%
	Inspected more units	36.1%	38.5%	-2.4%	33.6%	32.4%	1.2%	3.6%	±15.5%
	Financing help	24.3%	12.0%	12.4%	16.0%	15.5%	0.5%	**-11.9%**	**±10.7%****
	Agent pre-qual'd tester	20.4%	14.9%	5.5%	11.7%	9.1%	2.6%	-2.9%	±10.7%
	Agent recomm. whiter neighborhoods	17.1%	14.8%	2.3%	22.6%	20.8%	1.8%	-0.5%	±7.5%
	Future arrangements	6.2%	5.4%	0.8%	3.3%	2.6%	0.6%	-0.2%	±5.1%
Asian	Advertised unit available	15.6%	14.6%	1.0%	15.2%	12.1%	3.0%	2.0%	±9.5%
	Inspected more units	45.7%	31.7%	14.0%	37.6%	27.7%	10.0%	-4.1%	±16.9%
	Financing help	28.5%	13.5%	15.1%	18.7%	11.1%	7.5%	-7.5%	±11.3%
	Agent pre-qual'd tester	22.8%	18.4%	4.4%	17.8%	8.0%	9.8%	5.4%	±13.0%
	Agent recomm. whiter neighborhoods	18.4%	16.3%	2.1%	25.6%	21.0%	4.6%	2.5%	±12.3%
	Future arrangements	11.7%	8.7%	2.9%	3.4%	3.5%	-0.1%	-3.1%	±6.8%

Notes: Margin of error is for 95 percent confidence level. ** difference is statistically significant at the 0.05 level.

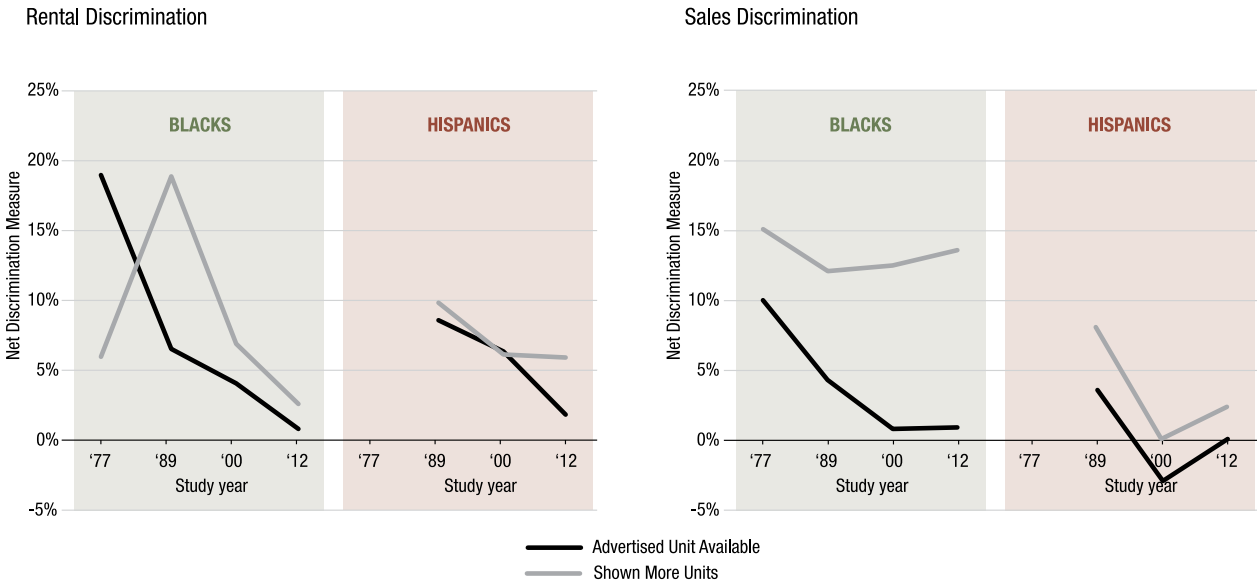
What can one conclude about longer-term trends in discrimination, drawing from findings from the 1977 and 1989 discrimination studies? Although changes in market conditions, housing search processes, sampling procedures, and testing protocols make precise comparisons impossible, we can draw some broad *qualitative* conclusions about patterns of change in discrimination against black and Hispanic homeseekers.[48]

[48] HDS2000 was the first study that measured discrimination against Asian homeseekers, so it is not possible to assess longer term trends.

In 1977, black renters were frequently denied access to advertised units (Exhibit V-3); this type of discrimination had declined dramatically by 1989 and has continued to decline since. Discrimination concerning the number of units shown to black renters actually increased between 1977 and 1989 (possibly because they were less likely to be denied advertised housing outright), but it has declined since. Denial of advertised units to Hispanic renters has also dropped substantially since 1989. Discrimination on the number of units shown also appears to have declined between 1989 and 2000, but not between 2000 and 2012.

Like black renters, black homebuyers were frequently denied access to advertised units in 1977. This form of discrimination had declined dramatically by 1989 and even more by 2000. Discrimination with the number of homes shown, however, does not appear to have changed much over time. In contrast, adverse treatment of Hispanic homebuyers dropped substantially between 1989 and 2000 and remains at very low levels today.

Exhibit V-3: Longer-Term Trends in Discriminatory Treatment of Blacks and Hispanics



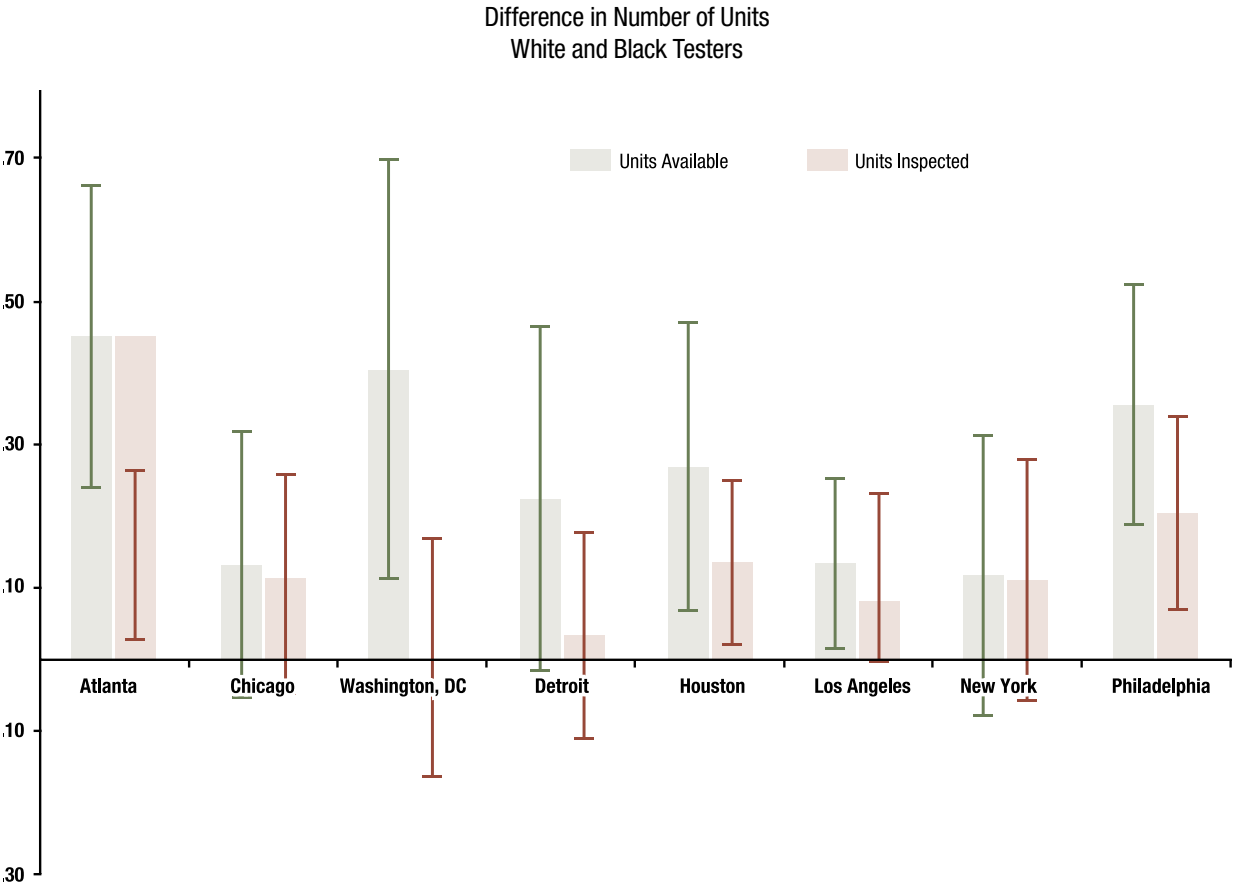
Taken together, these findings suggest that the most blatant forms of "door slamming" discrimination observed in the earliest paired-testing study are much less frequent today, but that other, less easily detectable forms of discrimination persist, limiting the information and options offered to minority homeseekers.

Metropolitan Estimates of Discrimination and Tests for the Influence of Housing Market Conditions

In eight large metropolitan areas, the number of black and Hispanic rental tests was expanded to make it possible to report local estimates of discrimination. Overall, local estimates mirror the national results reported in Chapter IV, although the smaller sample sizes mean that the local estimates have less power to detect significant differences. Appendix D presents complete results for each of these metros. Here we focus on the two overall measures of discrimination: differences in the number of units available and shown to minority and white homeseekers.

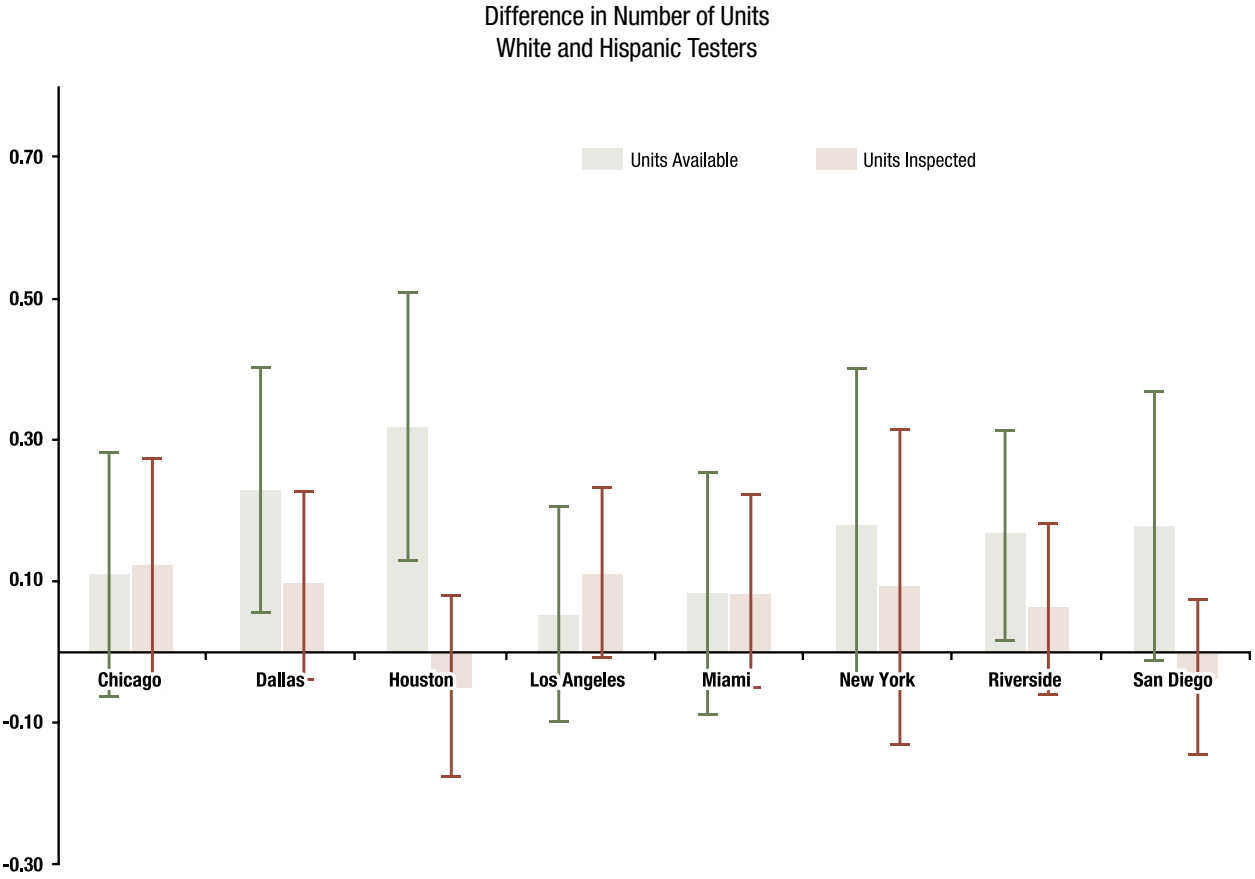
Rental agents tell blacks about fewer available units than equally qualified whites in all eight metro areas for which local estimates were computed. In five metro areas (Atlanta, Washington, Houston, Los Angeles, and Philadelphia), the differences between whites and blacks in number of units available are statistically significant. In Atlanta and Philadelphia, the differences are substantially *above* the national average (of 0.2 units per inquiry). In seven of the eight metros, agents also show blacks fewer units than equally qualified whites (Washington, DC, is the only exception). These differences are statistically significant in Atlanta, Houston, and Philadelphia, with the estimate for Philadelphia above the national average (of 0.06 units per inquiry).

Exhibit V-4: Metropolitan Estimates of Discrimination Against Black Renters



In each of the eight metro areas where local estimates were computed for Hispanic/white tests, rental agents tell Hispanics about fewer available units than equally qualified whites. In three of the areas (Dallas, Houston, and Riverside), the differences between whites and Hispanics in number of units available are not statistically significant. In six of the eight metros, agents show Hispanics fewer units than equally qualified whites, but none of these differences are statistically significant. In no sites are the estimated differences significantly above the average national difference (of 0.21 units per inquiry). In Houston, the difference in units shown is below the national average (of 0.10 units per inquiry).

Exhibit V-5: Metropolitan Estimates of Discrimination Against Hispanic Renters



To test the hypothesis that discrimination against minority homeseekers might be influenced by housing market conditions, we used regression analysis to test for potential effects of several metropolitan market indicators on differences between whites and minorities in the number of housing units shown. We used data from all 28 sites for this analysis. For rental market discrimination, we tested for variations based on metro-area rental vacancy rates. For sales market discrimination, we tested for variations based on (1) metro-area homeowner vacancy rates in 2012; (2) percent change in median house prices since the peak of the housing boom (mid-2006); and (3) the share of mortgages that were seriously delinquent as of the first quarter of 2012.[49] These models were separately estimated for blacks, Hispanics, and Asian, and results are reported in Exhibit V-6.

For each model, this exhibit reports the change in the difference in number of units shown to whites and minorities associated with a one-unit increase in the measure listed in the left-hand column. For example, the coefficient 0.0013 in the first row indicates that a one-unit increase in the vacancy rate (e.g., from 1 to 2 percent) is associated with a 0.0013 increase in the difference in the number of units shown to white and black testers. This tiny difference is not statistically significant, as indicated by the lack of an asterisk and that the estimated coefficient is far less than twice the reported standard error.

The only statistically significant result reflects higher levels of discrimination against Asian homebuyers in metropolitan markets that experienced *rising* house prices during the recession and recovery. Given the absence of any pattern of meaningful relationships, it does not seem sensible to give this isolated finding much weight. Overall, therefore, we find no compelling evidence that metropolitan-wide housing market conditions significantly influence the incidence of discrimination against minority homeseekers.

Exhibit V-6: Metropolitan Housing Market Conditions and Levels of Differential Treatment Estimates From Alternative Regression Models of the Difference in Number of Units Shown

Market measure	BLACK		HISPANIC		ASIAN	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Rental tests						
Metro area rental vacancy rate (percent)	0.0013	0.023	0.0088	0.019	0.0254	0.0332
N		1,806		1,769		1,032
Sales tests						
Model 1:						
% change in metro area median housing price/100	-0.650	0.477	-0.141	0.223	**1.124**	**0.515****
Model 2:						
Homeowner sales vacancy rate (percent)	0.329	0.226	-0.046	23.372	0.158	0.237
Model 3:						
Serious delinquency rate (percent)	0.0280	0.0319	-0.060	0.025	0.0534	0.0468
N		1,068		1,036		1,038

Notes: For each model, the table reports the coefficient on a market measure from a regression model of white-minority difference in number of units shown. The model also includes controls for test, tester, agency, and tract characteristics that are the same for both testers and the month of the test. The model does not control for the metropolitan area. Price change is measured between third quarter of 2006 and first quarter of 2012; vacancy rates are measured in 2012, and serious delinquency rate is measured in the first quarter of 2010. The analysis is based on tests in which both testers met an agent. ** difference is statistically significant at the 0.05 level.

[49] We also experimented with a cluster analysis using all three of these market indicators to identify the most distressed sales markets in our study sample (Atlanta, Cleveland, Detroit, Miami, Riverside, and Tampa). Levels of discrimination did not differ significantly by whether a site was among the most distressed.

Identifiability of Minority Homeseekers

When homeseekers call (or e-mail) to make an appointment, the housing provider might or might not accurately identify their race or ethnicity. Even when homeseekers meet in person with housing providers, it is not certain that their race or ethnicity is accurately identified. In HDS2012, a team of coders (Urban Institute employees who did not know any of the testers) assessed the race/ethnicity of each tester based on reading the tester's name and listening to a recording of his or her speech—the information available to an agent over the phone. A parallel assessment was conducted (by other members of the coding team) based on name, speech, and a photograph—the information available to an agent during an in-person meeting. Each tester was assessed by three independent coders based on name and speech and by three independent coders based on name, speech, and appearance. As a result, it is possible to explore whether minorities who are identifiable are more likely to experience discrimination.[50]

The race or ethnicity of most HDS2012 testers is identifiable based only on their names and their speech (Exhibit V-7). Roughly two-thirds of minority testers are correctly identified, with Asian testers the least and Hispanic testers the most identifiable. More than 90 percent of white testers are correctly identified based on name and speech. Minorities who are misidentified based on name and speech are most often classified as white. Testers in all racial/ethnic groups are more identifiable in person, but even so, a significant share of Hispanics and Asians are misidentified (again, Exhibit V-7). Asians who are misidentified based on name, speech, and appearance are equally likely to be classified as black, Hispanic, or white.

Exhibit V-7: Racial/Ethnic Identifiability of Testers

	ACTUAL RACE AND ETHNICITY OF TESTERS			
	Black	**Hispanic**	**Asian**	**White**
Perceived race and ethnicity based on name and speech				
Black	65.7%	2.9%	5.2%	4.8%
Hispanic	1.4%	76.7%	6.7%	2.9%
Asian	2.8%	1.8%	61.7%	0.9%
White	28.1%	17.9%	23.6%	90.9%
Don't know	2.0%	0.7%	2.9%	0.5%
Perceived race and ethnicity based on name, speech, and photograph				
Black	97.7%	1.3%	7.0%	0.5%
Hispanic	0.5%	86.2%	6.8%	0.9%
Asian	0.6%	1.3%	81.2%	0.0%
White	1.1%	10.1%	3.4%	97.4%
Don't know	0.1%	1.1%	1.7%	1.2%

[50] This is the first time such an assessment has been performed as part of a national paired-testing study.

At the telephone or e-mail inquiry stage, renters who are identifiably black or Asian are significantly more likely to experience adverse treatment (relative to whites) than minorities who are perceived to be white. Specifically, Exhibit V-8 reports how disparities at the appointment stage and for number of units shown to whites and minorities differ when the minority tester is perceived to be black, Hispanic, or Asian (as indicated in the left-hand column) than when the minority tester is perceived as white. For example, the coefficient 0.014 in the first row indicates that testers who are perceived as black face a 1.4 percentage point higher rate of net adverse treatment at the appointment stage than testers who are perceived as white. This difference is statistically significant at the 10 percent level as indicated by the single asterisk.

Black and Asian renters whose race is identifiable based on name and speech are significantly more likely to experience discrimination at the appointment stage than those perceived to be white. For minority homebuyers, racial/ethnic identifiability has no statistically significant effect at the appointment stage. During the in-person visit, renters who are identifiably black, Hispanic, or Asian are shown fewer units relative to their white counterparts than minorities who are perceived to be white. Similarly, homebuyers who are identifiably black or Asian face higher discrimination during the in-person visit than minorities who are perceived to be white.

Exhibit V-8: Racial/Ethnic Identifiability and Levels of Differential Treatment

	RENTALS		SALES	
	Coef.	**Std. error**	**Coef.**	**Std. error**
	Models of difference in whether received appointment			
Perceived race and ethnicity based on name and speech				
Black	0.014	0.008*	0.012	0.024
Hispanic	0.009	0.006	-0.004	0.028
Asian	0.011	0.006*	-0.009	0.022
Don't know	-0.020	0.024	0.078	0.093
Constant	-0.003	0.004	0.002	0.017
N		4,839		3,393
R-squared		0.021		0.018
	Models of difference in number of units shown			
Perceived race and ethnicity based on name, speech, and photograph				
Black	0.180	0.083**	0.981	0.558*
Hispanic	0.256	0.097**	0.775	0.539
Asian	0.172	0.086*	1.048	0.543*
Don't know	0.235	0.287	0.693	0.993
Constant	-0.122	0.081	-0.617	0.515
N		4,584		3,109
R-squared		0.009		0.040

Notes: Model also controls for site. Perceived race and ethnicity based on the three independent evaluations. Samples include tests for which at least two evaluators indicated that the white tester was white.
* difference is statistically significant at the 0.10 level, ** at the 0.05 level.

Multivariate Analysis of Variations in Discrimination

National and metropolitan estimates provide evidence of the persistence of discrimination in rental and sales markets, but questions remain about the circumstances in which discrimination may be more or less likely. If analysis suggests that discrimination is more likely for particular types of homeseekers or housing providers, enforcement and education efforts could be more effectively targeted. Therefore, we explored the potential contributions of customer characteristics, agent attributes, and neighborhood composition to differences in the number of housing units shown to whites and minorities. Few consistent or compelling patterns emerge.[51]

Exhibit V-9 presents results from a regression model testing for variations in levels of rental market discrimination based on characteristics of tests, testers, rental agencies, and location of the advertised unit. More specifically, this analysis assesses the extent to which differences in the number of housing units shown to equally qualified minorities and whites vary systematically. The exhibit reports how disparities (between white and minority testers) in the number of units shown varies with presence of the characteristic (or a higher value of the characteristic) indicated in the left-hand column. For example, the coefficient of -0.085 on "female tester" indicates that discrimination with respect to the number of units shown is on average 0.085 units lower for women than for men. The coefficient of 0.099 on "both met Hispanic agent" indicates that when both testers meet an Hispanic agent, differential treatment is higher by 0.099 units than when both testers meet a white agent. Finally, a $10,000 increase in per capita income is associated with a .005 unit increase in discrimination. None of these estimates are statistically significant, as indicated by the lack of an asterisk.

Few coefficients in Exhibit V-9 are statistically significant, and no consistent patterns emerge. Black renters face significantly higher levels of discrimination if they are male or visit larger housing providers. Hispanic renters face higher levels of discrimination if they are higher income or meet with a female agent. Asians face higher levels of discrimination if they meet a black agent or if they meet a different agent than their white counterpart. No relationships are observed between the racial/ethnic or socioeconomic composition of census tracts where advertised units are located and levels of discrimination.

The estimated effects of race of agent do not provide support for the hypothesis that minority agents give preferred treatment to homeseekers of their **own** race or ethnicity. For example, while there is marginally significant evidence that black agents discriminate more than white agents against Asians, there is no evidence that they are less likely to discriminate against black homeseekers. In addition, the analysis provides no evidence that Hispanic agents are less likely to discriminate against Hispanics or that Asian agents are less likely to discriminate against Asians.[52]

[51] Given the large number of potential relationships tested and the small number of statistically significant results, it would be misleading to place great weight on individual coefficients that are significant.

[52] Across all rental tests, testers identified 50 percent of agents as white, 16 percent as black, 23 percent as Hispanic, 4 percent as Asian, and 6 percent as "don't know" or "other."

Exhibit V-9: Sources of Variation in Discrimination Against Renters
Regression Models of the Difference in Number of Units Shown

	BLACK			HISPANIC			ASIAN		
	Coef.	Std. error		Coef.	Std. error		Coef.	Std. error	
Test characteristics									
Afternoon tests	0.028	0.094		-0.017	0.114		0.098	0.135	
White tester went first	-0.027	0.040		0.015	0.041		**0.160**	0.081	*
Tester characteristics									
Assigned child	-0.030	0.055		0.130	0.100		-0.089	0.064	
Assigned marriage	0.057	0.046		-0.018	0.054		0.083	0.135	
Female	**-0.082**	0.044	*	-0.049	0.048		0.018	0.062	
Minority tester born in U.S.	0.135	0.090		-0.057	0.039		0.087	0.090	
Log (white assigned income)	-0.016	0.071		**0.160**	0.053	***	-0.015	0.091	
Both employed	-0.039	0.048		-0.049	0.050		-0.061	0.129	
Both experienced testers	0.097	0.103		-0.042	0.134		0.127	0.174	
Age	-0.001	0.002		0.004	0.002		-0.005	0.004	
Agency characteristics									
Same agent	0.007	0.047		-0.072	0.057		**-0.204**	0.073	***
Max # people seen	**0.109**	0.059	*	-0.004	0.032		-0.064	0.059	
Both met black agent	0.009	0.098		0.017	0.140		**0.190**	0.089	**
Both met Hisp. agent	0.107	0.067		-0.025	0.080		-0.095	0.107	
Both met Asian agent	0.259	0.302		-0.013	0.095		0.047	0.091	
Both met female agent	0.001	0.055		**0.127**	0.051	**	0.002	0.057	
Tract characteristics									
Per capita income ($10,000)	0.004	0.009		0.002	0.014		-0.001	0.014	
% white/10	0.002	0.011		-0.005	0.021		0.004	0.019	
Constant	-0.131	0.660		**-1.400**	0.448	***	0.348	0.885	
N		1,732			1,666			991	
R-squared		0.066			0.083			0.112	

Notes: The table reports coefficients from a regression model (by race/ethnicity) of the difference in number of units shown to the white and minority testers. The model independent variables are those listed in the table, as well as controls for metropolitan area, calendar month, indicators that a characteristic only applies to one tester, and differences in age between the testers. Analysis based on rental tests in which both testers met an agent. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

In the sales market, we find more factors associated with variations in discrimination against blacks, but not against Asian or Hispanics (Exhibit V-10). Again, this analysis focuses on differences between minorities and whites in the number of homes shown. Black homebuyers face significantly higher levels of discrimination if they are childless or male.[53] They face higher levels of discrimination from large agencies (a finding that also applies for black renters). Finally, discrimination against black homebuyers is *lower* when the advertised home is located in a whiter neighborhood. In other words, black homebuyers are more likely to be shown at least as many homes as an equally qualified white when inquiring about homes in predominantly white neighborhoods. Asian testers face higher levels of discrimination when they meet with female agents. The lack of consistent patterns across these results makes it difficult to draw conclusions with relevance for fair housing policy or practice.

Unfortunately, the data provide only weak evidence on whether the race or ethnicity of the agent affects the degree of discrimination. As discussed in Chapter III, our primary interest is in comparing tests in which both teammates met with an agent of the same race or ethnicity. In the sales market, black and Asian agents are rare: testers met with a black agent in only 5 percent of the tests and with an Asian agent in only 3.5 percent of the tests. (In contrast, testers met with an Hispanic agent in 10 percent of the tests.) This translates into very few tests in which both teammates met with a black agent (72 sales tests over the three racial/ethnic groups) or an Asian agent (44 sales tests). (In contrast, both teammates met with an Hispanic agent in 161 tests).[54] Because of this, the precision of the estimated effects of meeting a black or Asian sales agent are quite low, and we cannot draw reliable conclusions. Although it is possible that black homebuyers may experience lower levels of discrimination from black agents, these effects may well reflect differences in the particular circumstances (e.g., metro area) in which the relatively small number of tests took place.

[53] In addition, for the black and Hispanic tests, discrimination is higher for tester pairs in which both testers are employed outside their roles as testers. This is counter to the expectation that employed persons, who might be viewed as having stronger "soft skills," would face less discrimination.

[54] We include an indicator of tests with Asian agents in the regression model to ensure that the reference group was white agents, but do not report the results in the text.

Exhibit V-10: Sources of Variation in Discrimination Against Homebuyers Regression Models of Difference in Number of Units Shown

	BLACK			HISPANIC			ASIAN		
	Coef.	Std. error		Coef.	Std. error		Coef.	Std. error	
Test characteristics									
Afternoon tests	-0.223	0.240		-0.005	0.225		-0.207	0.224	
White tester went first	-0.129	0.108		**0.366**	0.179	*	-0.061	0.121	
Tester characteristics									
Assigned child	**-0.538**	0.191	***	0.259	0.213		0.013	0.243	
Assigned marriage	-0.039	0.221		-0.182	0.291		0.190	0.239	
Female	**-0.502**	0.253	*	-0.094	0.383		0.339	0.303	
Minority tester born in U.S.	0.481	0.309		-0.068	0.376		0.291	0.321	
Log (white assigned income)	0.165	0.175		0.108	0.186		0.009	0.169	
Both employed	**0.632**	0.287	**	**0.784**	0.322	**	0.238	0.346	
Both experienced testers	-0.386	0.259		-0.412	0.379		**-0.930**	0.253	***
Age	-0.005	0.012		-0.006	0.019		0.026	0.017	
Agency characteristics									
Same agent	-0.076	0.274		0.069	0.238		-0.106	0.171	
Max # people seen	**0.486**	0.194	**	-0.083	0.153		0.093	0.148	
Both met black agent	**-0.580**	0.326	*	-0.424	0.543		-0.359	0.342	
Both met Hisp agent	0.266	0.501		-0.136	0.313		0.067	0.568	
Both met female agent	0.148	0.195		0.159	0.171		**0.623**	0.205	***
Tract characteristics									
Per capita income ($10,000)	0.024	0.026		0.022	0.035		-0.031	0.037	
% white/10	-0.067	0.041		0.063	0.066		-0.073	0.063	
Constant	-1.412	1.258		-2.116	2.111		-0.540	1.736	
N	1,062			1,030			1,023		
R-squared	0.1743			0.113			0.1464		

Notes: The table reports coefficients from a regression model (by race/ethnicity) of the difference in number of units shown to the white and minority testers. The model independent variables are those listed in the table, as well. The analysis is based on sales tests in which both testers met an agent. * difference is statistically significant at the 0.10 level, ** at the 0.05 level, *** at the 0.01 level.

APPENDIX A: HDS2012 LOCAL TESTING ORGANIZATIONS

The following organizations were contracted to conduct paired tests for HDS2012:

Test Site	Organization
Albuquerque, NM	United South Broadway Corporation
Atlanta, GA	Metro Fair Housing Services, Inc.
Baltimore, MD	Baltimore Neighborhoods, Inc.
Boston, MA	Metropolitan Boston Housing Partnership The Fair Housing Center of Greater Boston
Chicago-Gary-Lake, IL	HOPE Fair Housing Center South Suburban Housing Center
Cleveland, OH	Housing Research & Advocacy Center
Columbia, SC	South Carolina Appleseed Legal Justice Center
Dallas, TX	North Texas Fair Housing Center
Detroit, MI	Fair Housing Center of Metropolitan Detroit
Fort Worth-Arlington, TX	North Texas Fair Housing Center
Greensboro-Winston Salem-Highpoint, NC	Greensboro Housing Coalition
Houston-Brazoria, TX	Greater Houston Fair Housing Center
Kansas City, MO-KS	Urban League of Kansas
Los Angeles-Long Beach, CA	Housing Rights Center
Miami-Hialeah, FL	Housing Opportunities Project for Excellence, Inc. (HOPE, Inc.)
Middlesex-Somerset-Hunterdon, NJ	New Jersey Citizen Action
Newark, NJ	Fair Housing Council of Northern New Jersey New Jersey Citizen Action
New York, NY	Fair Housing Justice Center, Inc.
Orange County, CA	Fair Housing Foundation
Philadelphia, PA/NJ	Fair Housing Rights Center in Southeastern Pennsylvania
Richmond-Petersburg, VA	Housing Opportunities Made Equal of Virginia, Inc. (HOME)
Riverside-San Bernardino, CA	Fair Housing Council of Riverside County, Inc.
San Antonio, TX	Fair Housing Council of Greater San Antonio
San Diego, CA	Fair Housing Foundation Fair Housing Council of San Diego
San Jose, CA	Project Sentinel
Seattle-Everett, WA	Fair Housing Center of Washington
Tampa-St. Petersburg-Clearwater, FL	Fair Housing Continuum, Inc.
Washington, DC/MD/VA	Equal Rights Center

APPENDIX B: MASTER LIST OF ASIAN AND HISPANIC SUBGROUPS

Each local testing organization was provided local demographic data on Asian and Hispanic subgroups represented in their testing area. The data were used to guide tester recruitment efforts. These lists indicate the subgroups from which local lists were drawn.

Asian Subgroups:

Asian American

Asian Indian

Bangladeshi

Cambodian

Chinese

Filipino

Hmong

Indonesian

Japanese

Korean

Lankan

Laotian

Malaysian

Melanesian

Micronesian

Native Hawaiian

Pacific Islander

Pakistani

Polynesian

Taiwanese

Vietnamese

Hispanic Subgroups:

Central American (Costa Rican, Guatemalan, Honduran, Nicaraguan, Panamanian, Salvadorian and other Central American

Cuban

Dominican

Mexican

Puerto Rican

South American (Argentinean, Bolivian, Chilean, Colombian, Ecuadorian, Paraguayan, Peruvian, Uruguayan, Venezuelan, and other South American)

Spanish

All other Hispanic or Latino groups

APPENDIX C: ASSIGNED FINANCIAL CHARACTERISTICS EXAMPLE – SALES

Address	700 Park View Drive, Washington, DC 20010
Number of Bedrooms	3
Home price	$101,970
Type of home	Single Family
Phone	(202)123-4567
Name of Agent/Company/Complex	Associates Realty
Test Released	Yes
Transaction Type	Sales
Household Composition	Married Couple, 2 Children (Different Genders)

Home price is entered into the calculator.

Testers' finances are calculated based on their assigned household composition.

	Minority	White
Total Monthly Income for Household	$2,691	$2,530
Total Gross Annual Income of Household	$32,288	$30,355
Tester Annual Income	$19,824	$18,776
Tester Monthly Income	$1,652	$1,565
Spouse Annual Income	$12,464	$11,579
Spouse Monthly Income	$1,039	$965
Checking Account Balance	$2,870	$2,533
Savings Account Balance	$20,289	$19,772
Balance owed on debt to creditor 1	$899	$750
Monthly payment of debt to creditor 1	$108	$90
Creditor 1 - type of account	Car loan	Car loan
Balance owed on debt to creditor 2	$0	$0
Monthly payment of debt to creditor 2	$0	$0
Creditor 2 - type of account	N/A	N/A
Balance owed on debt to creditor 3	$187	$181
Monthly payment of debt to creditor 3	$23	$22
Creditor 3 - type of account	Credit Card	Credit Card
Balance owed on debt to creditor 4	$131	$105
Monthly payment of debt to creditor 4	$16	$13
Creditor 4 - type of account	Credit Card	Credit Card
Balance owed on debt to creditor 5	$0	$0
Monthly payment of debt to creditor 5	$0	$0
Creditor 5 - type of account	N/A	N/A
FICO score	704	696
FICO score (spouse)	704	699
Amount of Current Rent	$646	$637
Total balance owed on all debts	$1217	$1036
Total monthly payments on all debts	$147	$125
Total Assets	$23,159	$22,305

Monthly household income is calculated as approximately 5-times the monthly mortgage payment on a 30-year fixed loan at current interest rates.

Spouse income is assigned as 37.5% to 45% of testers' income.

Checking account balance is assigned 11% to 12% of total cash assets. Savings account balance makes up the remainder.

Testers are assigned similar loan characteristics (credit card, auto loan, department store loan).

FICO score is assigned as 700 to 705 for the minority tester and 695 to 700 for the white tester.

Current monthly rent is calculated as approximately 25% of assigned monthly income.

Total assets are calculated so that testers can always afford to make a 20% down payment on the home.

Steps in Setting up Parameters:

1. Get sales price of advertised unit.
2. Get assigned marital status of tester.
3. Get race of tester.
4. Select parameters from database based on site, race, marital status, and housing price.

Steps in Creating the Financial Characteristics of Testers:

1. Calculate down payment amount by multiplying the home sales price by the down payment percentage.
2. Calculate loan amount by subtracting the down payment amount from the sales price.
3. Calculate monthly property taxes by multiplying the housing sales price by the property tax rate and divide by 12.
4. Calculate monthly mortgage payment based on the advertised unit sale price, the interest rate parameter, and a constant payment schedule for 360 months.
5. Calculate monthly housing expense by adding the monthly mortgage payment and the monthly property tax payment.
6. Calculate cash asset requirement by multiplying loan amount by the closing cost percentage and adding that to the down payment amount
7. Calculate monthly income.by dividing the total monthly expenses by a random number between the Front End Ratio Minimum and Front End Ratio Maximum. Calculate annual income by multiplying monthly income by 12.
8. Calculate the current monthly rent using the rental test calculations for the tester's monthly income.
9. Calculate monthly non-housing credit payments by multiplying monthly income by a random number between the minimum back end ratio and the maximum back end ratio and subtracting it from the total monthly expenses.
10. Calculate tester's share of annual income. If single, tester gets assigned the total amount of annual income. If married, the annual income is multiplied by a random number between the "Spouse Income Share Minimum" and "Spouse Income Share Maximum". This number is assigned to the tester. The tester's monthly income is the tester's share of the annual income divided by 12.
11. Calculate spouse's share of annual income. If single, these amounts are set to 0. If married, the tester's annual income is subtracted from the total annual income and this number is assigned to the spouse. The spouse's monthly income is the spouse's share of the annual income divided by 12.
12. Calculate total credit balance by dividing the "Non Housing Payments" by the "Interest Rate Non Housing" parameter.
13. Calculate cash assets by multiplying the tester's asset required by a random number between the "Required Cash Assets Percent Minimum" and "Required Cash Assets Percent Minimum" parameters.
14. Calculate checking account balance by multiplying the tester's total assets by a random number between the "Check Balance Minimum" and the "Check Balance Maximum" parameters.
15. Calculate savings account balance by subtracting the checking balance amount from the total assets.

16. Assign credit score by selecting a random number between the “Credit Score Minimum” and the “Credit Score Maximum” parameters. If married, do the same calculation for the spouse.
17. Assign car loan one by multiplying the “Total Credit Balance” by a random number between the “Car Loan 1 Share Minimum” and “Car Loan 1 Share Maximum” parameters. Create the car loan payment by multiplying the “Non Housing Payments” by the same random number.

APPENDIX D: RENTER FORMS

ADVANCE CONTACT FORM

(UPDATE FORM FOR EACH CONTACT ATTEMPTED)

Control # ___ ___ - ___ ___ - ___ ___ ___ ___ - 1

Person attempting contact

Type of contact ☐ Phone ☐ E-Mail ☐ Text Message

If telephone contact, complete below:

Phone Number(s): (_____)
(_____)

If e-mail contact, complete below:

Sender's Name: _____
Sender E-mail Address:
Recipient Name: _____
Recipient E-mail Address:

Day of the Week: _____

Date ___ ___ / ___ ___ / ___ ___ Time ____ : ____ ☐ AM ☐ PM

If contact was made by telephone, complete below:

1. With whom did you speak? : _____

2. Were you able to obtain housing information during this advance call? ☐ Yes ☐ No

   2a. If No, why not?

   ☐ Told to Call Back Later
   ☐ Housing provider could not be reached
   ☐ Telephone number was incorrect
   ☐ No Answer
   ☐ Telephone Number No Longer in Service
   ☐ Other (Specify):

If contact was made by e-mail, complete below:

3. Did the e-mail response provide you with housing information? ☐ Yes ☐ No

3a. If No, why not?

- ☐ Invalid e-mail address
- ☐ Automatic reply explaining someone would contact me later
- ☐ Automatic reply explaining recipient is away from e-mail, on vacation, etc.
- ☐ No reply
- ☐ Told to call agent
- ☐ Asked for more information
- ☐ Other (Specify): _____)

If contact was made by either phone or email, continue:

4. Housing Information *(enter one type of unit [i.e., bedroom size] per line):*

Address of Apartment/House	# of Bedrooms	Price	Date Available MM/DD/YY	Advertised Unit?
a.				☐ Yes ☐ No
b.				☐ Yes ☐ No
c.				☐ Yes ☐ No
d.				☐ Yes ☐ No
e.				☐ Yes ☐ No

5. What are the office hours?

6. Is it possible to drop in to speak with an agent about the available housing?
   ☐ Yes (you may drop in) ☐ No (you must have an appointment)

7. Verify the address to be visited:

8. Is this the final advance contact? ☐ Yes ☐ No

9. Based on the results of the advance contact, is the housing ineligible for any reason? ☐ Yes ☐ No
9a. If Yes, please specify a reason for ineligibility:

RENTAL TESTS
☐ Share situation
☐ Single Room Occupancy
☐ Apartment locator service
☐ Sublet
☐ Temporary/short-term rental
☐ Public/subsidized housing development
☐ No unit is available for rent
☐Owner does not have more than 4 units

SALES TESTS
☐ For sale by owner
☐ Exceeds price range for MSA
☐ Multi-unit structure for sale
☐ Seasonal/vacation housing
☐ Unimproved lot (housing is yet to be constructed)
☐ Housing that is uninhabitable
☐ New mobile home for sale through dealership
☐ Sale of mobile home but not the land parcel on which it is located
☐ Short Sale
☐ Foreclosure Property
☐ Contact information (name of agent or agency and phone number/e-mail address) for the *listing* agent or agency is not directly accessible after attempting to access that information through the links provided on the TAF
☐ An electronic contact form was the only method found for responding to the ad after attempting to access listing agent/agency contact information through the links provided on the TAF

RENTAL AND SALES TESTS
☐ Housing provider could not be reached after several attempts
☐ Telephone number no longer in service
☐ Telephone number was incorrect
☐ E-mail address was invalid (when the e-mail address was the only contact information listed)
☐ Automatic reply to advance e-mail contact explaining recipient is away from e-mail, on vacation, etc. (only when agent is not expected to return in a reasonable amount of time to conduct the test).
☐ Outside of target area for MSA
☐ Located on Indian land (e.g., reservations, Rancherias, etc).
☐Housing for older persons
☐Same race/tenure test already conducted at this housing provider in the same week
☐Other reasons as determined by the Director of Field Operations (e.g., detection issues, conflicts with enforcement activities, etc.)
☐ Other (Specify):

10. Based on the source of the advertisement, the wording of the advertisement, and/or information obtained from a rental agent during the advance contact, please check the most appropriate response:

10a. The rental advertisement refers to a specific rental unit that is available by this housing provider.
☐ Yes ☐ No

10b. The advertisement contains wording that clearly indicates the availability of a "type" of rental unit rather than a specific rental unit (e.g., "Studios and One Bedroom Apartments Available!!"). ☐ Yes ☐ No

10c. The advertisement only contains general rental housing availability (e.g., "We have units available").
☐ Yes ☐ No

10d. I am not sure whether the rental advertisement refers to a specific rental unit or whether it refers to a "type" of rental housing that is generally available through this housing provider. ☐ Yes ☐ No

10e. Other (specify)

11. The exact address of the available housing unit is available in the advertisement and/or from the housing provider. ☐ Yes ☐ No

12. General Comments:

13. This form is complete. ☐ Yes ☐ No

HOUSING DISCRIMINATION STUDY
Assignment Form - RENTAL

SITE:_____

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

Type of Approach: Drop In Appointment

Date of Visit (mm/dd/yy): __/__/__

TEST SITE

1. Name of Test Site (Agent/Company/Complex, if known):
_____

2. Site Address:_____ _____
(number and street) (unit #)
_____ __ __ __ __ __ __ __
(city) (state) (zip)

3. Telephone number of test site:

First phone number: (___) ___ – ____
Second phone number: (___) ___ – ____

Source of Information on Test Site

Advertisement:
Name of Source: _____
Date of Publication: _____
Text of Ad:
_____
_____
_____

Type of Housing to be Requested

Number of Bedrooms to Request: ___
Minimum number of Bedrooms Willing to Accept: ___
Type of Unit: _____
Monthly Rent: _____

Household Composition:

Single Adult
Single Female Adult, 1 child
Married Couple, No Children
Married Couple, 1 child
Married Couple, 2 children (same gender)
Married Couple, 2 children (different gender)
Married Couple, 3 children

Rent maximum: $_____ per month

Area Preference

If you are pressed by the agent, you may state that you are looking in: _____

Remember: You are always open to considering any areas recommended by the agent!

Reason for moving:

Lived at current apartment long enough, ready for change
Have to move while landlord is remodeling
Landlord wants to rent to family member/friend
Owner selling building; want to start looking now
Ad sounded like something would be interested in
Would like to be settled before school starts
Living with family member/friend; want own place
Renting from relative/friend; want own place
Currently subletting; tenant moving back
Have recently relocated to the area
No reason, just would like a new place

Other places visited: Just started looking

ASSIGNED CHARACTERISTICS

Tester Name: _____
Tester Address: _____ _____
(number and street) (unit #)
_____ __ __ __ __ __ __ __
(city) (state) (zip)

Voice Mail Number Assigned to Tester: (___) ___ – ____
E-mail Address Assigned to Tester: _____

INFORMATION ON TESTER AND TESTER'S HOUSEHOLD

Tester's Race: _____
National Origin: _____
Tester's Gender: M / F
Tester's Age: _____

Household Income	Gross Monthly Income	Gross Annual Income
Tester		
Spouse		
Total for Household		

Other Persons in Household	Relationship	Name	Sex	Age
1.				
2.				
3.				
4.				

EMPLOYMENT INFORMATION

Tester's current occupation:_____
Name of Tester's current employer:_____
First line of tester's employer's address:_____
Second line of tester's employer's address:_____
Length of employment at current job:_____

Name of spouse's current employer:_____
First line of spouse's employer's address:_____
Second line of spouse's employer's address: _____
Spouse's length of employment at current job:_____

Credit Standing: Excellent, no late payments

CURRENT HOUSING SITUATION

Type of current housing: Rent
Amount of Current Rent: $_____
Years at Current Residence: _____

Type of Rental Agreement at Current Residence: Month-to-Month / Lease

History of rent payment at current residence: Always on time
Other characteristics: Non-smoking, no pets

Tester owns a car? : Yes / No

Directions to test site:

_____
_____
_____
_____
_____
_____
_____
_____

INSTRUCTIONS FOR HDS CONTACTS FOR APPOINTMENTS - RENTAL

INSTRUCTIONS:

Please contact the housing provider listed in the advertisement and request an appointment to meet with someone to discuss the rental housing that was advertised. You should always contact the housing provider by telephone unless there is only an e-mail address listed, in which case you should contact the housing provider via e-mail. You need not make your appointment with any particular agent.

If you are contacting a housing provider via telephone:

- Place the call to the housing provider using your Google Voice number.

To make a call with Google Voice:

1. Log in to Google Voice at voice.google.com
2. In the upper right-hand corner, click the green Call button, which will prompt a box to appear.
3. Type in the number you wish to call, and choose the forwarding phone you'd like to call with from the drop down menu.
4. Click Connect. Google will now call the forwarding phone you selected in Step 3.
5. Pick up the call when it rings. Google will connect you with the number you typed in Step 3.
6. Talk!

To make a call with Google Voice from one of your Google Voice forwarding phones:

1. Choose one of your Google Voice forwarding phones, and dial your Google Voice number.
2. When the voicemail begins, hit *
3. Enter voicemail pin, and follow the voice instructions to make an outgoing call by pressing 2
4. Dial the number you wish to call.
5. Google Voice will connect you.

- Call up to twice without leaving a message. On the third attempt, leave a brief message. Let the housing provider know that you would like to meet to discuss the rental housing that was advertised for rent. Provide your Google Voice number and ask the housing provider to call you back and let you know whether it might be possible to obtain an appointment on your assigned day and time (indicated above).
- If you reach the housing provider (or if the housing provider returns your call), express interest in and ask for an appointment to view the advertised rental housing (defined as the particular unit in the ad (if applicable) and one or more units that are comparable in number of bedrooms and price). If the agent informs you that the advertised unit and other units with the same number of bedrooms and comparable in price are no longer available, you will ask if there are any OTHER rental units that:
    1. have at least the minimum of bedrooms for your household;
    2. are within your price range; and
    3. are available when you need it (within one week of your assigned date).
- If possible, avoid having an extended or lengthy conversation about rental housing options, your qualifications, or your housing needs over the phone. If necessary, you can always say that you are pressed for time and that you would prefer to discuss these details when you visit the office.
- Always thank the person you speak with for their assistance and ask for their name if it has not been provided by the end of your call.

If you are contacting a housing provider via e-mail:

- Use only the e-mail address assigned to you for use on HDS tests.

- Use the text or language that has been provided to you by your Test Coordinator, and inquire about making an appointment to view the advertised rental housing (defined as the particular unit in the ad, if applicable) on your assigned day and time (indicated above) and one or more units that are comparable in number of bedrooms and price.
- If the agent informs you that the advertised unit and other units with the same number of bedrooms and comparable in price are no longer available, you will ask if there are any OTHER rental units that:
    1. have at least the minimum of bedrooms for your household;
    2. are within your price range; and
    3. are available when you need it (within one week of your assigned date).

For both telephone and e-mail contact:

- If you are able to make an appointment, please remember to obtain in writing the exact date and time of your appointment along with the name of the person who will be meeting with you (if applicable). Also, make sure you have the exact address and directions to the rental office.
- Record every contact you make on the Appointment Contact Form as part of your effort to obtain an appointment.

INSTRUCTIONS FOR ALL HDS SITE VISITS - RENTAL

INSTRUCTIONS:

- If you made an appointment prior to this visit, please ask to speak to the person with whom you made the appointment. If you are dropping in without an appointment on this site visit, please ask to speak with a rental agent.
- You will express interest in and ask to view the advertised unit (defined as the particular unit in the ad (if applicable) and any units that are comparable in number of bedrooms and price). If the agent informs you that the advertised unit and other units with the same bedroom size at a comparable price are no longer available, you will express interest in and ask to view any other units that:
    1. have at least the minimum number of bedrooms for your household;
    2. are within your price range; and
    3. are available when you need it (within one week of your assigned date).
- Please remember to obtain information about the exact address (including apartment #), number of bedrooms, amount of rent, security deposit, other fees, lease length, which utilities are included and the dates of availability for any homes or apartments suggested by the agent.
- If you are told about any homes or apartments that meet your needs, please ask about the application process, find out what amount of money, if any, would need to accompany a completed application, and whether a credit check is conducted.
- Do not ask for or complete a rental application. If the agent offers you an application, you should agree to take it with you.
- Lastly, if by the end of your visit the agent has not volunteered his or her name, please ask for it.

APPOINTMENT CONTACT FORM

*(**ALL** CONTACTS WITH AGENT MADE **PRIOR** TO ANY SITE VISIT SHOULD BE RECORDED ON AN APPOINTMENT CONTACT FORM. FILL OUT ONE FORM FOR **EACH CONTACT** ATTEMPTED BY TESTER OR RECEIVED FROM AGENT.)*

Control # ___ ___ - ___ ___ - ___ ___ ___ ___ - 1
Tester ID # ___ ___ **-**

Type of contact ☐ Phone ☐ E-Mail ☐ Text Message

Day of the Week Contact was Attempted: _____
Date ___ ___ / ___ ___ / ___ ___ Time ____ : ____ ☐ AM ☐ PM

If contact by telephone, complete below:

Call was Initiated by ☐ Tester ☐ Agent

Caller Name:

Caller Phone Number: (_____) _____

Call Recipient Name: _____

Call Recipient Phone Number: (_____)

If contact by e-mail, complete below:

E-mail was Sent by ☐ Tester ☐ Agent

Sender Name: _____

Sender E-mail Address: _____

Recipient Name:_____

Recipient E-mail Address:

If contact by text message, complete below:

Text Message Sender Name:

Text Message Sender Phone Number: (_____) _____

Text Message Recipient Name: _____

Text Message Recipient Phone Number: (_____)

For agent initiated e-mail, complete below:

1. Was this e-mail a response to a previous message? ☐ Yes ☐ No

2. If yes, did you receive this e-mail within 24 hours of the previous message? ☐ Yes ☐ No
3. What was the purpose of the agent's message?
   - ☐ Confirm appointment time
   - ☐ Cancel appointment and reschedule
   - ☐ Cancelled appointment, but did not reschedule
   - ☐ Other (specify)

For tester initiated telephone call, complete below:

4. Was the appointment call completed? ☐ Yes ☐ No

4a. If appointment call was NOT completed, why not?
   - ☐ Left message on voicemail, pager, etc.
   - ☐ Left message with person
   - ☐ Told to call back later
   - ☐ No answer
   - ☐ Wrong number
   - ☐ Telephone number no longer in service
   - ☐ Test terminated by Test Coordinator
   - ☐ Other (specify)

(If an Appointment Call is not completed, a site visit cannot be conducted.)

For agent initiated telephone call, complete below:

5. Call was received by ☐ Tester ☐ Test coordinator

6. What was the purpose of the agent's call?
   - ☐ Confirm appointment time
   - ☐ Cancel appointment or reschedule
   - ☐ Canceled appointment, but did not reschedule
   - ☐ Other (specify)

For agent initiated text message, complete below:

7. What was the purpose of the agent's text message?
   - ☐ Confirm appointment time
   - ☐ Cancel appointment or reschedule
   - ☐ Canceled appointment, but did not reschedule

☐ Other (specify)

If contact was made, continue:

8. Did you make an appointment or site visit arrangements? ☐ Yes ☐ No

9. If appointment or site visit arrangements were NOT made, why not?
   ☐ Told no appointment was necessary to visit
   ☐ Agent will not make an appointment
   ☐ No housing is available
   ☐ Test terminated by Test Coordinator
   ☐ Other (specify)

If an appointment or site visit arrangement was made, continue:

10. When is your site visit scheduled for?
    Day of the Week
    Date ___ ___ / ___ ___ /
    Time _____ : _____ ☐ AM ☐ PM

11. Name of person you have arranged to meet:

12. Location to meet (agent's office, address of specific home, other):

13. Additional information: _____

14. This form is complete: ☐ Yes ☐ No

HOUSING DISCRIMINATION STUDY
SITE VISIT REPORT FORM - RENTAL

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

1. Name of Test Site (Agent/Company/Complex, if known):
_____

2. Address: _____
_____ (number and street)
(unit #)
_____ __ __ __ __ __ __ __ __ __
(city) (state) (zip)

3. Type of Visit: Drop In Appointment

4. Date and Time of Site Visit:
Date (month/day/year): __ __/__ __/__ __ Day of Week:
_____
Appointment Time: __ __:__ __ AM PM

5. Time began (office arrival):__ __:__ __ AM PM

Time greeted by staff/agent (if applicable):__ __:__ __ AM PM
Time began meeting with agent (if applicable):__ __:__ __ AM PM
Time ended (departure): __ __:__ __ AM PM

6. Information on persons with whom you had contact during your visit
[check responses where appropriate]:

Name/ Position	Race/Ethnicity (check one entry) **W**=White **B**=Black **H**=Hispanic **A**=Asian/ Pacific Islander **I**=American Indian **O**=Other **DK**=Don't Know							Gender		Age Group				Primary Person Who Provided Info
	W	**B**	**H**	**A**	**I**	**O**	**DK**	**M**	**F**	**18-30**	**31-45**	**46-65**	**65 +**	
1. Name:_____ Position: _____														
2. Name:_____ Position: _____														

3. Name:_____ Position: _____														
4. Name:_____ Position: _____														
5. Name:_____ Position: _____														

7. Were you able to meet with an agent to discuss housing options?
   Yes
   No

7a. If No, why not?

_____

(If you were not able to meet with an agent, then this form is complete. Do not continue.)

8. Did the agent speak with you in:
   English only
   Another language only (*specify*): _____
   A mix of English and another language (*specify*):
   _____

9. Did you switch from speaking English to speaking another language?
   Yes
   No

10. Did you meet with the agent:
    Individually (i.e., one-on-one)
    In a group (i.e., with at least one other homeseeker)

11. How many "advertised (assigned)" housing units were you told were available? _____ units
    [*"Advertised" housing has the assigned number of bedrooms for your household, is in your price range, and is available when you need it. "Advertised" housing also includes housing that was not explicitly mentioned in the ad.*]

12. Whether you asked or the agent offered, were you told that any "other" housing was available? [*"Other" housing has **at least** the minimum number of bedrooms for your household, is in your price range, and is available when you need it. "Other" housing also includes housing with a greater number of bedrooms than the advertised (assigned) unit.*]

Yes
No

12a. If Yes, how many "other" housing units that **meet your needs** were you told were available? _____ Units

13.How many **TOTAL** rental housing units did the agent **tell you** were available:
_____ Rental Units.

14. If no units were available, were you offered to be placed on a waiting list?
Yes

No

15. How many **TOTAL** rental units did you **inspect** that **meet your needs**? _____ Rental Units. (Model units inspected may be included in this total if they represent a unit that meets your needs.)

16. During your visit, did the agent comment on or make reference to any of the following: Fair Housing Laws, Equal Housing Opportunity, Open Housing Ordinance, or Anti-discrimination Laws?
Yes
No

16a. If Yes, what was the comment or reference?

_____

_____

17. Did the agent tell you that an application form of some kind must be completed before renting a unit?
Yes
No

18. Did the agent ask you to complete an application during your visit or give you an application to take with you?
Yes
No

19. Did the agent tell you that a credit check was part of the application process?
Yes
No

20. Did the agent tell you that a criminal background check was part of the application process?
Yes

No

21. Complete the grid below regarding any of your qualifications to rent that were requested by the agent. *(check only one per line)*

Qualification	I volunteered	Agent Requested	Exchanged in earlier contact	Agent did not obtain
a. Your marital status				
b. Your family size				
c. Your or spouse's income				
d. Your or spouse's occupation				
e. Your or spouse's length of employment				
f. Your credit standing				
g. Your rent history				
h. Your address/phone number				
i. Other:				

22. Any agent comments on tester's qualifications to rent?

_____

_____

23. Did the agent make any remarks about race or ethnicity that were not associated with the building(s) or neighborhood(s) in which the available rental housing was located?

Yes

No

23a. If Yes, record agent's comment:

_____

_____

24. Did the agent provide you with any of the following items THAT YOU DID NOT ASK FOR? (check all that apply)

☐ Business Card
☐ Brochure
☐ Listings
☐ Floor Plan
☐ Rental/Lease Agreement
☐ Gift
☐ Food or beverage
☐ Other (specify):

25. What arrangements were made regarding future contact between you and the agent? (check all that apply)
    ☐The agent said that he/she would contact you
    ☐ The agent invited you to call him/her
    ☐ Future arrangements were not made
    ☐ Other *(specify)*:

_____

26. This form is complete:
    Yes
    No

27. When was this report completed?
    Date (month/day/year): ____/____/____ Day of Week
_____ Time __ __:__ __ ☐ AM ☐ PM

AVAILABLE RENTAL UNIT

*Complete one form for each unit that you were told about and that met your needs (housing has **at least** the minimum number of bedrooms for your household, is in your price range, and is available when you need it)*

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

SEQUENCE #: ___ of ___

1. Address:

_____ _____
(street name and number) (unit)

_____ __ __ __ __ __ __ __
(city) (state) (zip code)

1a. Type of Building

Apartment Building - 4 or Fewer Units
Apartment Building - 5 to 50 Units
Apartment Building - 51 or More Units
Single-Family Home
Mobile Home

Basic Information

2. Is this the advertised (assigned) unit? (i.e., same number of bedrooms as assigned)

Yes
No
Not sure

3. Did you inspect a unit today?

Yes
No

4. What did you inspect?

Actual available unit
Model similar to actual available unit
Other unit similar to the actual available unit
Nothing

5. Date Available __ __ / __ __ / __ __

6. How much is the rent? $_____ / month

7. Did the agent inform you that the rent was negotiable?

Yes
No

7a. If Yes, please describe: _____

8. Number of bedrooms _____

9. Number of bathrooms _____

10. Length of Lease? [check all that apply]
- Month-to-month
- Three month
- Six month
- One year
- Two year
- Other (specify): _____

11. Did the unit have any of the following INTERIOR physical conditions? [check all that apply]
- Broken plaster or peeling paint
- Discoloration of a floor, wall or ceiling due to water leakage
- Exposed wiring

12. Did the building's EXTERIOR have any of the following physical conditions? [check all that apply]
- Sagging roof
- Broken window
- Boarded up windows

Fees

13. Were you told about any fees that would be required AT THE TIME OF APPLICATION?
- Yes
- No

13a. Specify any fees that you were told would be required AT THE TIME OF APPLICATION.

Name of Fee *(e.g., Credit Check, Cleaning Fee, Application Processing fee, etc.)*	Amount of Fee
_____	$
_____	$
_____	$
_____	$

14. Enter the TOTAL AMOUNT (in dollars) of the fees you were told would be required at the time of application: $_____

15. Did the agent inform you that any of the fees listed above were in any way negotiable?
Yes
No

15a. If Yes, please describe: _____

Security Deposit/Surety Bond

16. Is a security deposit and/or surety bond required?
Yes
No
Agent did not know

16a. If Yes, how much is it?

Security Deposit $_____
Surety Bond $_____

17. Did the agent inform you that any part of the security deposit was negotiable?
Yes
No

17a. If Yes, please describe: _____

18. Did the agent inform you that any part of the surety bond was negotiable?
Yes
No

18a. If Yes, please describe: _____

19. Did the agent provide you with a choice between a security deposit and a surety bond?
Yes
No

Move-in Payments

20. Were you told about any payments that would be required AT THE TIME OF MOVE IN?
Yes
No

20a. Specify any payments that you were told would be required AT THE TIME OF MOVE IN.

Name of Payment *(e.g., First and Last Month's Rent)* Amount of Payment

_____ $
_____ $
_____ $

21. Enter the TOTAL AMOUNT (in dollars) of the payments you were told would be required at the time of move in: $_____

22. Did the agent inform you that any of the payments listed above were in any way negotiable?
Yes
No

22a. If Yes, please describe: _____

Financial Incentives/Specials

23. Did the agent inform you that you might be able to take advantage of any financial incentives or specials if you decided to apply for and rent this unit?
Yes
No

Type of Incentive/Special	Value	Monthly/Annual	# of Months
1.			
2.			
3.			
4.			
TOTAL VALUE OF INCENTIVES/SPECIALS			

24. Did the agent make any of the following comments about the building and/or surrounding neighborhood?

a. Noise
Quiet
Noisy
No comment

b. Safety
Safe / low crime
Dangerous / high crime
No comment

c. Schools

Good

Poor

No comment

d. Maintenance / Services

Good Services / Amenities

Poor Services / Amenities

No comment

e. Race or Ethnicity

Yes

No

If Yes, please record what the agent said:

_____

_____

25. This form is complete. ☐ Yes ☐ No

HOUSING DISCRIMINATION STUDY
RENTAL NARRATIVE

Control # __ __ - __ __ - __ __ __ __ - 1
Tester ID Number: ___ ___ -

Narrative:

Preparer of Test Narrative:

I prepared this test narrative which is, to the best of my recollection, a true and accurate account of the events that took place during a test in which I participated.

Today's Date: ___ ___ / ___ ___ /
Day of Week:
Time: ___ ___ : ___ ___ ☐ a.m. ☐ p.m.

FOLLOW-UP CONTACT FORM

X *COMPLETE AT LEAST ONE FORM FOR EACH TEST*
X *DO NOT USE THIS FORM TO RECORD APPOINTMENT CONTACT*
X *TESTER: NOTIFY TEST COORDINATOR OF ANY CONTACT AND FORWARD MATERIALS RECEIVED*

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

SEQUENCE #: _____ of _____

1. Was there any follow-up contact?
   Yes (If Yes, complete rest of form)
   No

2. Date and time of contact:
   Day of the Week:
   Date __ __ / ___ ___ / ___ ___
   Time __ __ : __ __ AM PM

3. Type of Contact
   Telephone call / voicemail message to tester's cell phone
   Voicemail message retrieved by Local Test Coordinator
   Postal mail
   E-mail
   Text Message
   Other (Specify): _____

4. Name of person making contact: _____
5. Name of agency (if given): _____
6. What was the stated purpose of the contact? *[check all that apply]*
   Agent wanted to see if tester is still interested in purchase/rental
   Agent wanted to recommend a lender to the tester
   Agent wanted to let tester know about more housing
   Agent wanted to get more information from tester
   Agent wanted to thank tester
   Other (specify): _____
7. Describe any materials received:

   _____

8. This form is complete. ☐ Yes ☐ No

APPENDIX E: SALES FORMS

HOUSING DISCRIMINATION STUDY
Assignment Form - SALES

SITE:_____

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

Type of Approach: Drop In Appointment

Date of Visit (mm/dd/yy): __/__/__

TEST SITE

1. Name of Test Site (Agent/Company/Complex, if known):
_____

2. Site Address:_____ _____
(number and street) (unit #)
_____ __ __ __ __ __ __ __
(city) (state) (zip)

3. Telephone number of test site:

First phone number: (___) ___ – ____
Second phone number: (___) ___ – ____

Source of Information on Test Site

Advertisement:
Name of Source: _____
Date of Publication: _____
Text of Ad:
_____
_____
_____

Type of Housing to be Requested

Number of Bedrooms to Request: ___
Minimum number of Bedrooms Willing to Accept: ___
Type of home: _____
Home Price: _____

Household Composition:

Single Adult
Single Female Adult, 1 child
Married Couple, No Children
Married Couple, 1 child
Married Couple, 2 children (same gender)
Married Couple, 2 children (different gender)
Married Couple, 3 children

Rent maximum: $_____ per month

Area Preference

If you are pressed by the agent, you may state that you are looking in: _____

Reason for moving:

Tired of renting; would like a place of my own
Seems like a good time to buy
Been renting for a long time; owning seems good.
Would like the tax benefits of homeownership
Always wanted to own but never took the time
Would like the freedom to decorate my own home
Buying our/my first home
Ready for the responsibility of homeownership
Have recently relocated to the area

Other places visited: Just started looking

ASSIGNED CHARACTERISTICS

Tester Name: _____
Tester Address: _____ _____
(number and street) (unit #)
_____ __ __ __ __ __ __ __ __
(city) (state) (zip)
Voice Mail Number Assigned to Tester: (___) ___ – ____
E-mail Address Assigned to Tester: _____

INFORMATION ON TESTER AND TESTER'S HOUSEHOLD

Tester's Race: _____
National Origin: _____
Tester's Gender: M / F
Tester's Age: _____
FICO Score:_____
Spouse's FICO Score:_____

Household Income	Gross Monthly Income	Gross Annual Income
Tester		
Spouse		
Total for Household		

Reason tester can afford the downpayment:

I've been saving quite a while
My/our parents are helping me/us
I inherited money from a relative
I/we had equity in a previously owned home

Other Persons in Household	Relationship	Name	Sex	Age
1.				
2.				
3.				
4.				

EMPLOYMENT INFORMATION

Tester's Current Occupation:_____
Name of Tester's Current Employer:_____
First line of tester's employer's address:_____
Second line of tester's Employer's address:_____
Length of employment at current job:_____
Tester's Previous Occupation:_____
Name of Tester's Previous Employer:_____
First line of tester's previous employer's address:_____
Second line of tester's previous employer's address:_____
Length of employment at previous job:_____
Name of spouse's current employer:_____
First line of spouse's employer's address:_____

Second line of spouse's employer's address: _____
Spouse's length of employment at current job:_____
Name of spouse's previous employer:_____
First line of spouse's previous employer's address:_____
Second line of spouse's previous employer's address: _____
Spouse's length of employment at previous job:_____

Household Assets

Financial Institution	Balance
1.	$
2.	$
3.	$
4.	$

Household Debts

Creditors			
Name	**Type of Account**	**Monthly Payment**	**Balance Owed**
1.		$	$
2.		$	$
3.		$	$
4.		$	$
5.		$	$
6.		$	$

Credit Standing: Excellent, no late payments

CURRENT HOUSING SITUATION

Type of current housing: Rent
Amount of current rent: $_____
Years at Current Residence: _____
Type of Rental Agreement at Current Residence: Month-to-Month / Lease

History of rent payment at current residence: Always on time
Other characteristics: Non-smoking, no pets

Tester owns a car? : Yes / No
Directions to test site:

IN _____

IN _____

Please contact the housing provider listed in the advertisement to request an appointment to meet with someone to discuss buying a home. You will use the assigned method of communication (telephone or e-mail) listed on your Test Assignment Form to contact the housing provider for an appointment. You need not make your appointment with any particular agent.

If you are contacting a housing provider via telephone:

Place the call to the housing provider using your Google Voice number.
To make a call with Google Voice:

1. Log in to Google Voice at voice.google.com
2. In the upper right-hand corner, click the green Call button, which will prompt a box to appear.
3. Type in the number you wish to call, and choose the forwarding phone you'd like to call with from the drop down menu.
4. Click Connect. Google will now call the forwarding phone you selected in Step 3.
5. Pick up the call when it rings. Google will connect you with the number you typed in Step 3.
6. Talk!

To make a call with Google Voice from one of your Google Voice forwarding phones:

1. Choose one of your Google Voice forwarding phones, and dial your Google Voice number.
2. When the voicemail begins, hit *
3. Enter voicemail pin, and follow the voice instructions to make an outgoing call by pressing 2
4. Dial the number you wish to call.
5. Google Voice will connect you.

- **Do not mention the advertised home for sale during your telephone conversation.** If asked why you are calling this real estate company, you may say that you have seen homes listed by their company (without mentioning the specific advertisement).
- If you are able to speak to an agent, convey interest in buying a home, but try to avoid a long or extended conversation about specific homes or your qualifications over the phone. If necessary, you can always say that you are pressed for time and would prefer to discuss the details when you arrive for your appointment.

- Make the appointment for the date and time frame specified in the instructions (listed above).
- If you are able to make an appointment, please remember to obtain the exact date and time of your appointment along with the name of the person who will be meeting with you. Also, make sure you have the exact address and directions to the sales office.
- If the agent tells you that you must bring certain documents along with you to the real estate office (e.g., tax statements, payroll stubs, etc.), you should simply tell the agent that you will try to pull some information together and bring it with you to the meeting without promising that you will arrive with all of the documents that the agent requested. Obviously, you will not bring any documents with you to the meeting, but you should be prepared to provide detailed information from your test assignment form concerning your income, debts, assets, credit history, and FICO score (which you will list on your "cheat sheet").
- If the agent asks you about Pre-Qualification, follow the guidance given below:
    - If an agent asks whether anyone has "pre-qualified" you or helped you figure out what you can afford, you should indicate that you have not met with anyone to discuss your financial qualifications.
    - If a real estate sales agent recommends that you **meet with a mortgage broker or financing specialist while in the sales office**, you should be agreeable to that arrangement (although you will not authorize a credit check or provide your social security number or date of birth **under any circumstances**). **Do not** agree to visit a lender or mortgage broker **prior** to meeting with the agent.
    - If the agent tells you that you must first **talk with a lender prior to visiting the real estate office**, please tell the agent that you appreciate the suggestion but that you would still like to meet with the agent to find out what the company might have to offer. Do not refuse to meet with a lender. Instead, simply indicate that you would first like to meet with the real estate agent. If the agent is still unwilling to make an appointment, please thank the agent and notify the Test Coordinator immediately to obtain further instructions.
- Thank the agent you speak with for the information or assistance and ask for the agent's name if it has not been provided during your conversation.
- When making appointment calls, be persistent. In the event that you do not reach an agent on your first attempt, try calling at different times of the day. Both testers must get a response within 24 hours to conduct the test. After 3 unsuccessful attempts to reach a housing provider, leave a short message with your Google Voice number stating that you are trying to arrange a meeting to discuss homes for sale for a particular day and time (indicated above) and notify your Test Coordinator.

If you are contacting a housing provider via e-mail:

- Use only the e-mail address assigned to you for use on HDS tests.
- Use the text or language that has been provided to you by your Test Coordinator, and inquire about making an appointment to view available homes for sale. **Do not mention the advertised home for sale.**
- Make the appointment for the date and time frame specified in the instructions (listed above).
- If the agent tells you that you must bring certain documents along with you to the real estate office (e.g., tax statements, payroll stubs, etc.), you should simply tell the agent that you will try to pull some information together and bring it with you to the meeting without promising that you will arrive with all of the documents that the agent requested. Obviously, you will not bring any documents with you to the meeting, but you should be prepared to provide detailed information from your test assignment form concerning your income, debts, assets, credit history, and FICO score (which you will list on your "cheat sheet").
- If the agent asks you about Pre-Qualification, follow the guidance given below:
    - If an agent asks whether anyone has "pre-qualified" you or helped you figure out what you can afford, you should indicate that you have not met with anyone to discuss your financial qualifications.
    - If a real estate sales agent recommends that you **meet with a mortgage broker or financing specialist while in the sales office**, you should be agreeable to that arrangement (although you will not authorize a credit check or provide your social

security number or date of birth **under any circumstances**). **Do not** agree to visit a lender or mortgage broker **prior** to meeting with the agent.

- If the agent tells you that you must first **talk with a lender prior to visiting the real estate office**, please tell the agent that you appreciate the suggestion but that you would still like to meet with the agent to find out what the company might have to offer. Do not refuse to meet with a lender. Instead, simply indicate that you would first like to meet with the real estate agent. If the agent is still unwilling to make an appointment, please thank the agent and notify the Test Coordinator immediately to obtain further instructions.

For both telephone and e-mail contact:

- If you are able to make an appointment, please remember to obtain in writing the exact date and time of your appointment along with the name of the person who will be meeting with you (if applicable). Also, make sure you have the exact address and directions to the sales office.
- Record every contact you make on the Appointment Contact Form as part of your effort to obtain an appointment.

INSTRUCTIONS FOR ALL HDS SITE VISITS - SALES

INSTRUCTIONS:

- If you made an appointment prior to this visit, please ask to speak with the person with whom you have the appointment. If you made a "general" appointment (i.e., you do not have a set appointment with a particular agent), you will ask to speak with any available sales agent. If you are dropping in without an appointment on this site visit, please ask to speak with a sales agent.
- Express interest in and ask to view the home that was advertised for sale. Ask the agent to recommend other homes that have the same number of bedrooms as the advertised home.
- Express interest in and ask to view any homes that are recommended by the agent provided that they have the same number of bedrooms as the advertised home or at least the minimum number of bedrooms for your household.
- After viewing the advertised home, be prepared to spend up to three (3) additional hours viewing other recommended homes for sale. These additional homes may be inspected during your initial site visit or on one subsequent site visit that you arrange with the real estate agent.
- If, in response to your request that the agent recommend some homes to view, the agent presents you with a long list of homes available for sale, please ask the agent to recommend homes to show you so that you can begin to get an idea of what is available. If the agent refuses to pick out any homes on the list and insists that you make the selections, please tell the agent that you would like to take the list of homes with you so that you can spend some time looking it over. NEVER select the homes to view.
- Please remember to obtain information about the exact address (including the unit number, if applicable) of each property that is recommended by the agent, the number of bedrooms, current asking price, and the type of home, if this information is not provided by the end of your visit.
- If an agent asks whether anyone has "pre-qualified" you or helped you figure out what you can afford, you should indicate that you have not met with anyone to discuss your financial qualifications. If the agent offers to assist you to figure out your price range, or if he/she recommends that you speak with a lender, mortgage broker, or someone else to be "pre-qualified", please provide any requested information about your income, debts, assets, etc. exactly as it appears on your assignment form.
- Remember that you are allowed to speak with a mortgage broker or real estate financing specialist based in the real estate office you are visiting. You also may speak via telephone with a mortgage broker or real estate financing specialist while you are meeting with the real estate agent. If an agent, at any point, tells you that you must make arrangements to go to

another location to visit a lender or financing specialist of some kind, you should thank the agent for this advice but politely decline to do so at this time.

- Do not, UNDER ANY CIRCUMSTANCES, provide your date of birth, social security number, or authorize anyone to conduct a credit check. If anyone asks about your credit standing or requests that a credit check be conducted, offer to characterize your credit as it appears on your assignment form. If you are provided with an estimated price range or with an estimated mortgage amount for which you might qualify, please remember to include this information in your notes.
- If you are provided more detailed information about financing options, be sure to write down the information that is offered (e.g., type of financing, interest rates, down payment requirements, etc.). Also, if the agent refers you to a lender or mortgage broker for further assistance with financing, please remember to include this information in your notes.
- Lastly, thank the agent for the information and if by the end of your visit the agent has not volunteered his or her name, please ask for it.

HOUSING DISCRIMINATION STUDY
SITE VISIT REPORT FORM - SALES

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

1. Location of Office:
   Firm Name *(if applicable)*: _____
   Office/Room Number: _____
   Firm Address: _____
   (number and street) (unit #)
   _____ __ __ __ __ __ __ __
   (city) (state) (zip)

2. Date and Time of meeting:
   Date (month/day/year): __ __/__ __/__ __ Day of Week:
   _____
   Appointment Time: __ __:__ __ ☐ AM ☐ PM

3. Time began (office arrival):__ __:__ __ AM PM

   Time greeted by staff/agent (if applicable):__ __:__ __ AM PM
   Time began meeting with agent (if applicable):__ __:__ __ AM PM
   Time ended (departure):__ __:__ __ AM PM

4. Is this your second meeting?
   ☐ Yes
   ☐ No

5. Information on persons with whom you had contact during your visit [check responses where appropriate]:

Name	Race/Ethnicity (check one entry)							Gender		Age Group				Primary Person Who Provided Info
	W=White **B**=Black **H**=Hispanic **A**=Asian/ Pacific Islander **I**=American Indian **O**=Other **DK**=Don't Know													
Position	**W**	**B**	**H**	**A**	**I**	**O**	**DK**	**M**	**F**	**18-30**	**31-45**	**46-65**	**65 +**	
1. Name:_____ Position: _____														☐
2. Name:_____														☐

Position: _____														
3. Name:_____ Position: _____														☐
4. Name:_____ Position: _____														☐

6. Were you able to meet with an agent today to discuss housing options?
   - ☐ Yes
   - ☐ No

6a. If Yes, where did you meet?
   - ☐ Agent's office
   - ☐ Somewhere else

6b. If No, why not?

7. Did the agent decline to meet with you today?
   - ☐ Yes
   - ☐ No

7a. If yes, why?

_____

_____

(If you were not able to meet with an agent, then this form is complete. Do not continue.)

8. Did the agent speak with you in:

   English only

   Another language only (*specify*): _____

   A mix of English and another language (*specify*):

   _____

9. Did you switch from speaking English to speaking another language?

   Yes

   No

10. When you asked about the availability of the advertised home, what were you told? [Check only ONE box]
    - ☐ Home is available
    - ☐ Home is not available

- ☐ The agent did not know the status of the house.
- ☐ Home available but agent recommended that I not consider it
- ☐ Something else *(specify)*:

_____

11. Did the agent recommend any other homes than the advertised home?
    - ☐ Yes
    - ☐ No
    - ☐ Agent did not know

11a. If Yes, how many "other" homes did the agent recommend? ____Homes

12. How many TOTAL homes were recommended to you, including the advertised home?_____ Add units from Questions 10 [if you answered "Home is available"] and 11a.

13. How many TOTAL homes did you inspect? _____

14. How many homes did the agent offer for your review in a listing or other format (i.e., these homes were NOT SPECIFICALLY RECOMMENDED)? _____ Homes

15. During your visit, did the agent comment on or make reference to any of the following: Fair Housing Laws, Equal Housing Opportunity, Open Housing Ordinance, or Anti-discrimination Law?
    - ☐ Yes
    - ☐ No

15a. If yes, what was the comment or reference?

_____

16. At any time during your visit, did the agent refer you to another real estate agent for assistance in buying a home?
    - ☐ Yes
    - ☐ No

16a. If Yes, did this other agent work for the same real estate agency?
    - ☐ Yes
    - ☐ No

16b. If you were referred, and the agent worked for the same agency, using the numbers from question 5, enter the number of the person to whom you were referred: [enter line #]

17. Was the agent's role described to you as being one of the following:
    - ☐ Buyer's agent
    - ☐ Seller's agent
    - ☐ Dual agent
    - ☐ Did not disclose

18. Were you *asked* to sign any agreements or documents?
    - ☐ Yes
    - ☐ No

18a. If Yes, please specify each below:

	Document Name	Purpose	Did you sign?
1.			☐ Yes ☐ No
2.			☐ Yes ☐ No
3.			☐ Yes ☐ No
4.			☐ Yes ☐ No

19. Did the agent ask if you had already visited a lender or been pre-qualified for financing?
    - ☐ Yes
    - ☐ No

20. Did the agent REFUSE to provide any services unless you were pre-qualified by a lender (and agent did not offer a way for you to be prequalified during the site visit)?
    - ☐ Yes
    - ☐ No

20a. If yes, check all that apply:

- ☐ Agent could not tell me about the advertised home
- ☐ Agent could not recommend any homes to me
- ☐ Agent could not provide me with any listings
- ☐ Agent could not show me any homes
- ☐ Agent would show me only the advertised home but no other homes
- ☐ Agent would not make a second site visit appointment with me

21. Complete the grid below regarding any of your qualifications to purchase a house that were requested by the agent at any point. *(check only one per line)*

Qualification	I	Agent	Obtained	Agent did

	volunteered	Requested	earlier	not obtain
a. Your marital status				
b. Your family size				
c. Your or spouse's income				
d. Your or spouse's occupation				
e. Your or spouse's length of employment				
f. Your savings/assets (e.g. funds available for downpayment, closing costs, etc.)				
g. Your debts				
h. Credit Standing				
i. Reason for moving				
j. Geographic preference				
k. Your address/phone number				
l. Your current housing situation (rent/own)				
m. Other:				

22. Did the agent tell you that you were not qualified to be a homebuyer at this time?
    - ☐ Yes
    - ☐ No

23. Did the agent volunteer to help you find financing or recommend a mortgage company, lender or broker?
    - ☐ Yes
    - ☐ No

24. Did the agent discuss the type of financing that might be available to you?
    - ☐ Yes
    - ☐ No

25. During the visit, did anyone pre-qualify you or calculate for an estimated home price or loan amount for which you could qualify using your specific financial information (income, debts, and assets)?
    - ☐ Yes
    - ☐ No

26. Home Price:
    Did the agent suggest a home price or price range for which you might qualify?
    - ☐ Yes

☐ No

26a. If Yes, what was the home price or price range? (If entering price instead of price range, enter in the highest box.)

$ _____ (lowest) $ _____ (highest)

27. Loan/Mortgage Amount:
Did the agent suggest a mortgage amount ($ borrowed) or range for which you might qualify?

☐ Yes

☐ No

27a. If Yes, what was the total loan amount range?

$ _____ (lowest) $ _____ (highest)

28. Interest Rates:
Did the agent mention interest rates for mortgage loans?

☐ Yes

☐ No

28a. If Yes, what were the interest rates mentioned?
_____% (lowest) _____% (highest)

29. Monthly Payments:
Did the agent mention monthly payments for a mortgage loan?
☐ Yes
☐ No

29a. If Yes, what were the monthly payments?
$ _____ (lowest) $ _____ (highest)

30. Downpayment:
Did the agent mention the likely downpayment on a house?
☐ Yes
☐ No

31a. If Yes, what was the downpayment amount or percentage?
Downpayment Amount: $ _____ (lowest) $ _____ (highest)
Downpayment Percent: _____% (lowest) _____% (highest)

32. Did the agent discuss any of the following with you? [check all that apply]
☐ Paying down debts
☐ Debt consolidation
☐ Downpayment assistance (gift, special program)
☐ Co-signer
☐ Seller assistance
☐ Pre-qualification letter

32a. For any items discussed, please describe what you were told:

_____

_____

33. Did the agent discuss or make any comments about specific neighborhoods or geographic areas that were not associated with any recommended homes? (If yes, fill out a Neighborhood Information Form.)
☐ Yes
☐ No

34. Did the agent make any remarks about race or ethnicity that were not associated with any particular homes or neighborhoods?

☐ Yes
☐ No

34a. If Yes, please record what the agent said:

_____

_____

35. Did the agent provide you with any of the following items THAT YOU DID NOT ASK FOR? (check all that apply)

☐ Business Card
☐ Brochure
☐ Listings
☐ Homebuying guide/video
☐ Financing Information
☐ Financing Worksheet
☐ Mortgage Calculator
☐ Gift
☐ Food or beverage
☐ Other (specify): _____

36. What arrangements were made regarding future contact between you and the agent? [*check all that apply*]

☐ The agent said that he/she would contact you
☐ The agent invited you to call him/her
☐ Arrangements for future contact were not made
☐ Other *(specify)*:

_____

37. When was this report completed?

Date (month/day/year): ____/____/____ Day of Week

_____

Time __ __:__ __ ☐ AM ☐ PM

38. This form is complete. ☐ Yes ☐ No

RECOMMENDED HOME

(Complete one form for each home recommended and/or inspected)

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

SEQUENCE #: ___ of ___

1. Full Address of Home

_____ _____
(street name and number) (unit)

_____ __ __ __ __ __ __ __
(city) (state) (zip code)

2. Basic Information

a. Is this the advertised home?
Yes
No

b. How many bedrooms were in the home? _____

c. What was the current asking price? $_____

d. Did you inspect the home?
Yes
No (skip to question 6)

3. What type of building is it?
Single-family detached
Duplex
Rowhouse or Townhouse
Multi-family structure
Mobile Home

4. Did the unit have any of the following INTERIOR physical conditions? [check all that apply]
Broken plaster or peeling paint
Discoloration of a floor, wall or ceiling due to water leakage
Exposed wiring

5. Did the unit have any of the following EXTERIOR physical conditions? [check all that apply]
Sagging roof
Broken window
Boarded up windows

6. Did the agent make any of the following comments about the surrounding neighborhood?

a. Noise
Quiet
Noisy
No comment

b. Safety
Safe/low crime
Dangerous/high crime
No comment

c. Schools
Good
Poor
No comment

d. Investment
Rising values/good investment
Flat values/not much appreciation
Declining values/depreciation
No comment

e. Public Services
Good Services/amenities
Poor/unreliable services
No comment

f. Race or ethnicity?
Yes
No

If Yes, please record what the agent said about race or ethnicity:

_____
_____
_____
_____
_____

7. This form is complete. ☐ Yes ☐ No

NEIGHBORHOOD INFORMATION

Complete one form for each neighborhood that the agent discussed with you other than those surrounding recommended and/or inspected homes.

CONTROL #: __ __ - __ __ - __ __ __ __ - 1 **TESTER ID NUMBER: __ __ - __ __ __**

1. Name of Area: _____

2. This area is a:
   - County
   - Town or City
   - School District
   - Neighborhood
   - Don't know
   - Other

3. Did the agent make any of the following comments about the neighborhood?

   a. *Noise*
      - Quiet
      - Noisy
      - No comment

   b. *Safety*
      - Safe/low crime
      - Dangerous/high crime
      - No comment

   c. *Schools*
      - Good
      - Poor
      - No comment

   d. *Investment*
      - Rising values/good investment
      - Flat values/not much appreciation
      - Declining values/depreciation
      - No comment

   e. *Public Services*
      - Good services/amenities

Poor/unreliable services
No comment

f. Race or Ethnicity?
Yes
No

If **Yes**, please record what the agent said: _____

_____

_____

4. This form is complete. ☐ Yes ☐ No

HOUSING DISCRIMINATION STUDY
SALES NARRATIVE

Control # __ __ - __ __ - __ __ __ __ - 1
Tester ID Number: ___ ___ -

Site Visit Number: ☐ 1 ☐ 2

Narrative:

Preparer of Test Narrative:

I prepared this test narrative which is, to the best of my recollection, a true and accurate account of the events that took place during a test in which I participated.

Today's Date: __ __ / __ __ /
Day of Week:
Time: __ __ : __ __ ☐ a.m. ☐ p.m.

APPENDIX F: METRO-SPECIFIC RENTAL ESTIMATES

This appendix presents current estimates of the incidence and forms of rental discrimination experienced by blacks and Hispanics in selected metropolitan markets where large samples of paired tests were conducted. For each metropolitan market, we provide a complete set of treatment indicators, discussing those where the incidence and severity of treatment differs between whites and minorities. The results are ordered by metropolitan market. This section solely deals with the variation in experiences upon meeting with an agent, as there was no significant difference in any metropolitan market in the ability to make an appointment over the phone.

Atlanta

Black Renters. When both black and white members of a tester pair meet with an agent in person, whites are 5.4 percentage points more likely to be told any unit is available. Moreover, in 62 percent of tests one partner was told about more units than the other, with whites 27.9 percentage points more likely to be told about at least one more unit than comparable blacks. Over all the tests, blacks learn about .46 fewer available units per visit than whites, meaning that over just two in-person visits to rental agents, a black homeseeker would learn about approximately one fewer available unit than a comparable white.

If both white and black members of a tester pair are told about available units, the black homeseeker is still 7.5 percentage points less likely than the white to be shown at least one unit. However, the average number of units shown to blacks and whites does not differ significantly When both testers inspect at least one unit, whites report .23 more problems, on average, with inspected units. Furthermore, in almost one-quarter of tests, one tester saw more problems than the other, and in these cases whites are 19 percentage points more likely to have seen more problems, while blacks are 15.2 percentage points more likely to have seen at least one home without any problems.

For many financial indicators, we find no significant difference in the treatment of whites and blacks. However, blacks are significantly more likely than whites to be offered a month-to-month lease, while whites are more likely than blacks to be told about higher fees and have payment required at move in. However, the difference in average net costs is small and not statistically different from zero.

Most comments, questions, and information provided to blacks and whites do not differ significantly, and overall levels of agent helpfulness to whites and blacks are not significantly different. Additionally, in the one-quarter of tests that an agent followed up with only one tester, the agent is 9.2 percentage points more likely to follow up with just the white tester. However, blacks are more likely than comparable white homeseekers to receive comments or questions about their credit standing and rent history.

Chicago

Black Renters. Rental unit availability and inspection measures do not differ significantly for black and white testers in the Chicago MSA. However, black testers on average see more problems, are more likely to see more problems, and are less likely to see at least one home with no problems, than their white counterparts. Most comments, questions, and information provided to blacks and whites are not significantly different, though blacks are more likely to be told a credit check must be completed than whites are, and whites are 9 percentage points more likely than blacks to receive a follow up from the rental agent.

However, blacks are more likely than whites to be told that fees are required for a particular unit and to be quoted higher fees for a unit, while required payments at move-in are $200 greater for blacks than for whites. Overall, average first year net cost is $350 higher for black homeseekers than for whites. Furthermore, in the over 45 percent of cases in which one homeseeker faces a higher net cost than the other, whites are favored over blacks by almost 25 percentage points.

Hispanic Renters. There is no significant difference in the rates at which Hispanic and white testers in Chicago are informed about or inspect available units. Though average differences in costs and financial components of the rental minimally favor whites, these differences are not statistically significant, except for the $131 in higher payments, on average, required of Hispanics at move-in.

Most comments, questions, and information provided to Hispanics and whites were not significantly different, though Hispanics report a higher likelihood of hearing comments on their credit standing. Additionally, agents are more likely to make arrangements for future contact with whites than with Hispanics, though agents actually follow-up with Hispanics and whites at an equal rate.

Dallas

Hispanic Renters. When both white and Hispanic members of a tester pair meet with an agent in person, they are equally likely to be told that at least one unit is available. However, in the 56.2 percent of cases that one tester is told about at least one more unit than his or her partner, whites are 19.2 percentage points more likely than Hispanics to learn about more units. As a result, whites find out about .23 more units overall than Hispanics do, on average. The average number of units inspected does not significantly differ between whites and Hispanics, though Hispanic testers are marginally more likely than white testers to view any units at all. Whites are also more likely to see more problems with inspected units than Hispanics, and less likely to see at least one home without any problems.

Most financial indicators show no significant difference for Hispanics and whites. Hispanic testers are more likely than whites to be told higher fees for any unit, though they are also more likely to be told fees are negotiable, and to be offered a two year lease. There is significant variation in comments received and information provided by homeseekers, with whites less likely than Hispanics to be told a background check is required, and more likely than

Hispanics to receive comments on rent history, be provided with more items by the rental agent, and have arrangements made for future contact (though agents are equally likely to follow up with Hispanics and whites). White homeseekers are also more likely than Hispanic homeseekers to receive a positive remark from the agent, and more likely to receive more positive remarks than their Hispanic counterpart. Finally, rental agents are more helpful to whites, on average, than to Hispanics.

Detroit

Black Renters. When whites and blacks in Detroit are both able to meet with an agent, 16.9 percent of the time one tester is told a unit is available while their partner is told it is not, with whites 7.3 percentage points more likely than comparable blacks to be favored. Moreover, when one tester is told about more units than his or her partner (which occurs 58 percent of the time), whites are 14.5 percentage points more likely to be favored. This results in whites learning about .22 more units, on average, than comparable black homeseekers. However, amongst pairs that both learn about an available unit, there is no statistical difference in the number of units inspected, and amongst pairs that both inspect units, there is no statistical difference in the number of problems encountered.

There is neither a statistical difference in average rent quoted to the testers, nor in average payment required at move in. On average, however, blacks are quoted $52 more in fees and informed of a security deposit that is $94 larger than those quoted to comparable whites. As a result, in the 66 percent of cases in which one homeseeker is quoted a higher net cost than the other, whites are favored over blacks by 19 percentage points. Moreover, white homeseekers report an average first year net cost that is $257 less than comparable black homeseekers do.

Comments, questions, and information provided to blacks and whites are not significantly different, though when the agent only follows up with one tester, he or she favors the white homeseeker by 12.5 percentage points over the black homeseeker.

Houston

Black Renters. Houstonian blacks and whites are equally likely to be told any unit is available, but in 48 percent of tests one homeseeker is told about more units than the other. In those cases, white homeseekers are favored by 17.1 percentage points over black homeseekers, and on average whites are told about .26 more units per visit than comparable blacks. Similarly, when both white and black members of a tester pair are told about available units, they are equally likely to be shown at least one unit, but whites are shown .12 units more overall than comparable blacks, on average. Moreover, when both testers inspected at least one unit, the black tester is more likely to see more problems than his or her white partner, and less likely to see at least one unit without any problems. Consequently, blacks see .21 more problems per unit, on average, than whites do.

The average rent and overall yearly net costs quoted to black and white testers are not statistically different, but there is some variation in other financial discussions. Blacks are more likely than whites to be offered both month-to-month rental contracts and two year leases, but whites are more likely than blacks to be told that fees and deposit or bond requirements are negotiable. Additionally, in the 49.1 percent of cases in which only one homeseeker is told a credit check is required, agents are 37.1 percentage points more likely to make that request of the black partner than of the white partner. Moreover, in the 57.8 percent of tests in which only one tester is told a background check is required, agents are 42.2 percentage points more likely to require the check from the black homeseeker than the white homeseeker.

Though we do not find a statistical difference in most other individual variables pertaining to comments, questions, and information provided to the testers, blacks report receiving more positive remarks than comparable whites. At the same time, whites are more likely to receive a follow-up from the rental agent, and whites rate the agent as being more helpful, on average, than blacks do.

Hispanic Renters. Hispanic renters in Houston are 18.6 percentage points less likely than whites to be told about more units, and are told about .33 fewer units overall, on average, than whites. The Hispanics face generally higher average costs than white homeseekers, including $14 more in monthly rent, $32 more in average payments required at move-in, and $221 more in average first year net costs. Furthermore, when one partner is told about higher net costs than the other (which occurs 39 percent of the time), Hispanics are 16.5 percentage points more likely than their white partners to have higher net costs. Hispanic testers are also over 45 percentage points more likely to be offered a two year lease than their white counterparts.

Though there are only minimal differences in variables pertaining to information given, there is significant variation in the percentage of Hispanics and the percentage of whites who hear certain comments and remarks. Agents are more likely to make comments about Hispanic testers' credit standing, tell Hispanics a credit check is required, and tell Hispanics a background check must be completed than they are to make any of these comments to whites. At the same time, Hispanics are more likely than whites to report receiving any positive remarks from the agent, and more likely to report receiving more positive remarks from the agent than their partner. Finally, rental agents are more likely to follow-up with white homeseekers than with Hispanics.

Los Angeles

Black Renters. Testers in Los Angeles are equally likely to be told any unit was available, but in 26.3 percent of tests one partner is told about more units than the other. In those cases, white homeseekers are favored by 7.5 percentage points, and on average whites are told about .13 more units overall than comparable blacks. Similarly, when both white and black members of a tester pair are told about available units, they are equally likely to be shown at least one unit, but whites are shown .09 units more than comparable blacks, on average. Additionally, in the 22 percent of cases that one tester sees more units than the other, whites are favored over blacks

by 9.4 percentage points. There is no statistical difference in the number of problems seen in units inspected by the testers, however.

Though there is no statistical difference in average rent and fees that testers are informed of, we find significant differences in other financial indicators. Whites are more likely than blacks to be told that rent is negotiable, to be offered a two year lease, and to be told about financial incentives, while blacks are more likely than whites to be told that payments are required at move-in. The average security deposit is $39 higher for blacks than for comparable whites, and the average payment required at move in is $267 higher for blacks than for whites, while the average incentives offered to whites are $79 higher than the average incentive offered to blacks. As a result, the average first year net cost to blacks is $406 greater than it is for comparable whites, and blacks are 16 percentage points more likely than their white partners to be told about higher net costs.

Although financial offers generally favor white testers over black testers, agents are rated as more helpful, on average, by blacks than by whites. Additionally, whites are more likely than blacks to be told a background check is required, and also more likely to receive comments on their credit standing and rent history. At the same time, in the 30.2% of instances in which the agent made arrangements for future contact with one tester and not the other, he or she did so with the black tester 20.2 percentage points more frequently than with the white tester, though there is no statistical difference in the actual follow-up rate.

Hispanic Renters. Angeleno Hispanics are less likely than comparable whites to be told about more units than their partner, but this does not result in Hispanics learning about a significantly different number of units. When both testers are told a unit is available, whites are more likely than Hispanics to inspect more units (though Hispanics and whites are equally likely to inspect any units), and see .13 more units overall, on average than comparable Hispanics. Hispanics also see .09 more problems per unit, on average, than their white counterparts.

There are only minimal statistical differences in reported experiences in other areas. Hispanics are more likely than whites to be told about higher average first year net costs than their partners, while whites are more likely than Hispanics to be told that payments required at move-in and the security/surety bond is negotiable. Agents are more likely to make arrangements for future contact with Hispanic homeseekers than with whites, though there is no statistical difference in the actual follow-up rate, and Hispanics rate their rental agent as more helpful, on average, than whites do.

Miami

Hispanic Renters. There are no significant differences in unit availability and inspections for white and Hispanic homeseekers in Miami, though whites see .15 more problems in inspected units, on average, than Hispanics, and are also more likely to see more problems than their Hispanic partner and less likely to see at least one home without any problems.

Most financial indicators favor neither Hispanic nor white testers, though agents are more likely to offer whites a two-year lease and tell whites that payments required at move-in

and security deposits or surety bonds are negotiable. Agents are also more likely to tell Hispanics than whites that a background check must be completed, and provide Hispanics with informational materials. At the same time, whites are likely to hear comments on their rent history and remarks about race or ethnicity than Hispanics, and rental agents are more helpful to whites, on average, than to Hispanics.

New York

Black Renters. Homeseekers encounter minimal variation in their experiences with the New York rental market. There is no significant difference in the number of units blacks and whites either learn about or inspect, nor in the financial variables.

Other indicators do favor blacks or whites, but with no consistent pattern. White homeseekers are more likely than black homeseekers to be told that a background check must be done and hear comments on rent history. Whites also receive fewer total items from the agents, and are less likely to be offered a month-to-month lease than blacks. Black testers encounter .1 more problems, on average, than their white counterparts, and are less likely than whites to be told that payments required at move-in were negotiable.

Hispanic Renters. White testers in New York are more likely to have been told about more units than their Hispanic partners, though this did not result whites either being told about a significantly different number of units or inspecting a different number of units, on average. Aside from two other indicators—agents are more likely to make remarks about race/ethnicity, and less likely to make arrangements for future contact with Hispanics than with whites—there are no other significant differences in variables observed in this study.

Philadelphia

Black Renters. Black and white Philadelphians are equally likely to be told at least one unit is available, but in 40.6 percent of tests one homeseeker is told about more units than the other. In those cases, white homeseekers are favored by 18 percentage points over black homeseekers, and on average whites are told about .35 more units per visit than comparable blacks (the equivalent of one fewer unit over three visits). Similarly, when white and black partners are both told about available units, they are equally likely to be shown at least one unit, but whites are shown .21 units overall more than blacks, on average. Additionally, in the 28.7 percent of cases that one tester sees more units than the other, whites are favored by 13.1 percentage points over blacks. There is no statistical difference in the average number of problems seen in units inspected by the testers, however.

Average costs faced by white and black homeseekers do not differ significantly for most types of payments, though on average blacks are informed of $425 higher payments required at move-in, and $115 higher security deposits, than comparable whites are. Moreover, the average net cost quoted to black testers was $480 higher, on average, than the net cost quoted whites, and blacks are over 25 percentage points more likely to be a quoted a higher average net cost than their partner. Across all categories of costs (including average rent, fees, security deposit,

and move-in costs), whites are more likely than blacks to be told that the quoted amount was negotiable.

Comments made by agents frequently differ by race, but with no consistent pattern. Whites are more likely than blacks to be told a background check needed to be done and hear remarks made about race or ethnicity, while blacks are more likely than whites to hear comments about their credit standing and rent history. Agents are more likely to arrange for future contact with black testers than with white testers, but there is no significant difference in the actual follow-up rate with either partner.

Riverside

Hispanic Renters. When both white and Hispanic members of a tester pair meet with an agent in person, they are equally likely to be told that at least one unit is available. However, in the 48 percent of instances in which one homeseeker is told about at least one more unit than his or her partner, whites are 11.2 percentage points more likely to learn about more units, and learn about .17 more units, on average, than Hispanics do. However, there is no significant difference in the average number of units inspected, the likelihood of one tester inspecting more units than the other, or the number of problems encountered per unit.

Though the average rent quoted by the agents is approximately equal for Hispanics and whites, other financial indicators vary by race. When one partner is told higher fees for any unit than the other, which occurs in 32.5 percent of cases, Hispanics are 14.1 percentage points more likely to be told about higher fees than whites are. Hispanics face fees that are $31 higher, on average, than comparable whites, though they are also 8.8 percentage points more likely to be told fees are negotiable for any unit. Similarly, when only one partner is told payment is required at move-in, which occurs 48.6 percent of the time, Hispanics are 31 percentage points more likely than whites to hear about the required payment, and are told of move-in payments $344 higher, on average, than those told to comparable whites. Ultimately, Hispanic homeseekers are quoted average first year net costs that are $574 higher than those quoted white homeseekers, and when one tester is quoted higher average costs than the other (which occurs more than half of the time), Hispanics are 35.8 percentage points more likely than whites to be told higher average costs.

Most comments, questions, and information provided to blacks and whites do not differ significantly, and overall levels of agent helpfulness to whites and blacks are approximately equal. However, Hispanics are more likely than whites to receive positive remarks from the agent, and in the 42.5 percent of the time that one partner reports more positive remarks than the other, Hispanic homeseekers are 17.7 percentage points more likely to report more positive remarks than their white partner. Additionally, agents are less likely to tell white homeseekers than Hispanic homeseekers that a background check must be completed, and more likely to make arrangements for future contact with Hispanics than with whites (though there was no statistical difference in the rate at which the agent followed-up with the testers).

San Diego

Hispanic Renters. Hispanics and whites in San Diego are equally likely to be told any unit is available, but whites learn about .18 more units per visit than Hispanics. This difference does not carry over into the average number of units inspected, but Hispanics are more likely to see more problems than their white counterpart, and less likely to see at least one home with no problems. Hispanic testers see .16 more problems per inspection, on average, than comparable white testers.

Though the difference in average rent quoted to whites and blacks is not statistically different from zero, Hispanic testers are more likely to be offered a two-year lease than white testers. Whites are also quoted average fees that are $30 higher than those quoted Hispanics, though Hispanics are told about security deposit requirements that are $51 higher, on average, than those told to whites. The average first year net costs to Hispanics are $238 greater than the average first year net costs to whites.

There is no statistical difference in the types of information given testers, or in most requirements. However, agents are more likely to comment on the credit standing of Hispanic homeseekers than white homeseekers, and also more likely to make comments about Hispanics' rent history. Overall, Hispanics are more likely than whites to report receiving positive remarks from the agent, and in instances when testers reported different quantities of positive remarks, Hispanics are 24.8 percentage points more likely than whites to report having received more positive comments. Finally, agents are more likely to follow up with Hispanic homeseekers than with white homeseekers.

Washington, DC

Black Renters. In the Washington, DC, MSA, whites and blacks are equally likely to be told that a unit is available, and in the 54 percent of cases in which one tester is told about more units than the other, there is no statistical difference in whether the white tester or black tester was favored. Over all tests, however, whites learn about .41 units more than blacks. When both testers are told about a unit, one tester ends up inspecting more units than the other 45 percent of the time, but neither blacks nor whites are favored. Though there is no statistical difference in the number of problems seen when both testers inspected a unit, blacks are 9.2 percentage points more likely to see at least one home without problems.

Most comments, questions, and information provided to blacks and whites are not significantly different, though when one tester is provided more total items (which occurs in 74 percent of cases), blacks are almost 17 percentage points more likely to be favored. Although the average rent does not statistically differ for whites and blacks, the average payment due at move-in is $262 less for whites than for blacks. Furthermore, when only one tester is told about incentives, whites are 12.5 percentage points more likely to be favored, and on average receive $168 more in incentives than blacks. As a result, the average first year net cost is $402 less for white renters than for black renters. Furthermore, in the 40 percent of cases in which one

homeseeker faces a higher net cost than the other, whites are favored over blacks by 20.2 percentage points.

Atlanta: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	98.5%	0.0%	0.0%	0.0%	1.000	137
If able to meet with an agent:						
Tester(s) told any units available	93.0%	6.2%	0.8%	5.4%	1.000	129
One tester told about more units than partner		45.0%	17.1%	27.9%***	0.000	129
Avg number of units available (per visit)		2.12	1.66	0.46***	0.000	129
If available units recommended:						
Tester(s) able to inspect any units	87.5%	8.3%	0.8%	7.5%**	0.012	120
One tester inspected more units than partner		18.3%	10.8%	7.5%	0.175	120
Average number of units inspected (per visit)		1.21	1.11	0.10	0.109	120
Average rent for any unit		$829	$823	$6	0.301	120
Tester(s) told that rent is negotiable	3.3%	8.3%	7.5%	0.8%	1.000	120
Tester(s) offered month-to-month	1.7%	0.0%	5.0%	-5.0%**	0.031	120
Tester(s) offered two-year lease	4.2%	9.2%	3.3%	5.8%	0.118	120
Tester(s) told fees required for any unit	92.5%	4.2%	1.7%	2.5%	0.453	120
One tester told higher fees than partner		31.9%	18.1%	13.8%**	0.027	116
Average fees for any unit		$142	$133	$9	0.342	116
Tester(s) told fees negotiable	3.3%	9.2%	14.2%	-5.0%	0.345	120
Tester(s) told payment required at move-in	78.3%	15.0%	5.8%	9.2%**	0.043	120
Average payments at move-in		$736	$673	$63	0.120	119
Tester(s) told payments negotiable	10.8%	20.8%	15.0%	5.8%	0.360	120
Tester(s) told about incentives	32.5%	15.8%	14.2%	1.7%	0.868	120
Average yearly incentives		$175	$202	-$28	0.436	116
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	120
Tester(s) given choice between sec. deposit & bond	0.8%	0.0%	3.3%	-3.3%	0.125	120
Tester(s) told deposit or bond negotiable	26.7%	25.8%	15.0%	10.8%*	0.085	120
Average sec. deposit for any unit		$317	$305	$12	0.354	79
Tester(s) told higher yearly net cost		28.2%	20.5%	7.7%	0.418	78
Average yearly net cost		$11,169	$11,076	$92	0.424	78
Tester(s) told comment on fair housing	0.0%	1.7%	2.5%	-0.8%	1.000	120
Tester(s) told application must be completed	96.7%	1.7%	0.8%	0.8%	1.000	120
Tester(s) told credit check must be completed	64.2%	15.8%	16.7%	-0.8%	1.000	120
Tester(s) told background check must be done	35.8%	15.0%	22.5%	-7.5%	0.233	120
Tester(s) told comments on credit standing	1.7%	0.8%	7.5%	-6.7%**	0.021	120
Tester(s) told comments on rent history	5.8%	2.5%	14.2%	-11.7%***	0.003	120
Tester(s) told remarks about race/ethnicity	0.0%	0.0%	0.0%	0.0%	1.000	120
Tester(s) provided listings, floor plan, brochure, etc.	91.7%	0.8%	4.2%	-3.3%	0.219	120
Tester(s) provided more total items		34.2%	40.8%	-6.7%	0.461	120
Tester(s) told arrangement for contact	84.2%	8.3%	5.8%	2.5%	0.629	120
Tester(s) told positive remark	27.5%	25.8%	16.7%	9.2%	0.161	120
Tester(s) told more positive remarks		34.2%	29.2%	5.0%	0.567	120
Tester(s) told negative remark	0.0%	2.5%	3.3%	-0.8%	1.000	120
Tester(s) told more negative remarks		2.5%	3.3%	-0.8%	1.000	120
Tester(s) received agent follow-up	6.7%	17.6%	8.4%	9.2%*	0.050	119
Average overall helpfulness score		1.63	1.68	-0.04	0.651	120
If units shown:						
Tester(s) saw at least one unit without any problems	79.0%	1.0%	16.2%	-15.2%***	0.000	105
One tester saw more problems per unit than partner		21.9%	2.9%	19%***	0.000	105
Average number of problems per unit		0.29	0.06	0.23***	0.000	105

Chicago: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	86.0%	0.7%	0.0%	0.7%	1.000	143
If able to meet with an agent:						
Tester(s) told any units available	95.3%	2.8%	1.9%	0.9%	1.000	107
One tester told about more units than partner		24.3%	14.0%	10.3%	0.117	107
Avg number of units available (per visit)		1.64	1.50	0.14	0.208	107
If available units recommended:						
Tester(s) able to inspect any units	94.2%	1.9%	1.9%	0.0%	1.000	103
One tester inspected more units than partner		21.4%	14.6%	6.8%	0.324	103
Average number of units inspected (per visit)		1.34	1.26	0.08	0.368	103
Average rent for any unit		$1,188	$1,191	-$3	0.808	101
Tester(s) told that rent is negotiable	5.0%	6.9%	10.9%	-4.0%	0.481	101
Tester(s) offered month-to-month	1.0%	1.0%	2.0%	-1.0%	1.000	101
Tester(s) offered two-year lease	1.0%	4.0%	5.0%	-1.0%	1.000	101
Tester(s) told fees required for any unit	64.1%	4.9%	16.5%	-11.7%*	0.064	103
One tester told higher fees than partner		17.2%	32.3%	-15.2%**	0.044	99
Average fees for any unit		$86	$96	-$10	0.494	99
Tester(s) told fees negotiable	2.9%	5.8%	6.8%	-1.0%	1.000	103
Tester(s) told payment required at move-in	39.8%	4.9%	19.4%	-14.6%**	0.019	103
Average payments at move-in		$435	$634	-$200***	0.002	97
Tester(s) told payments negotiable	0.0%	9.7%	5.8%	3.9%	0.454	103
Tester(s) told about incentives	9.7%	11.7%	7.8%	3.9%	0.383	103
Average yearly incentives		$65	$58	$7	0.774	90
Tester(s) told security deposit required	98.1%	0.0%	0.0%	0.0%	0.500	103
Tester(s) given choice between sec. deposit & bond	0.0%	0.0%	0.0%	0.0%	1.000	103
Tester(s) told deposit or bond negotiable	2.9%	9.7%	6.8%	2.9%	0.629	103
Average sec. deposit for any unit		$1,105	$1,148	-$43	0.211	63
Tester(s) told higher yearly net cost		10.5%	35.1%	-24.6%***	0.009	57
Average yearly net cost		$15,762	$16,113	-$351*	0.065	57
Tester(s) told comment on fair housing	0.0%	1.0%	0.0%	1.0%	1.000	103
Tester(s) told application must be completed	79.6%	5.8%	10.7%	-4.9%	0.332	103
Tester(s) told credit check must be completed	60.2%	11.7%	22.3%	-10.7%*	0.090	103
Tester(s) told background check must be done	20.4%	15.5%	25.2%	-9.7%	0.164	103
Tester(s) told comments on credit standing	2.9%	6.8%	8.7%	-1.9%	0.804	103
Tester(s) told comments on rent history	1.0%	12.6%	6.8%	5.8%	0.263	103
Tester(s) told remarks about race/ethnicity	0.0%	1.0%	1.9%	-1.0%	1.000	103
Tester(s) provided listings, floor plan, brochure, etc.	57.3%	10.7%	12.6%	-1.9%	0.839	103
Tester(s) provided more total items		22.3%	34.0%	-11.7%	0.148	103
Tester(s) told arrangement for contact	67.0%	12.6%	20.4%	-7.8%	0.229	103
Tester(s) told positive remark	31.1%	16.5%	18.4%	-1.9%	1.000	103
Tester(s) told more positive remarks		26.7%	33.7%	-6.9%	0.443	101
Tester(s) told negative remark	1.9%	2.9%	1.9%	1.0%	1.000	103
Tester(s) told more negative remarks		3.0%	2.0%	1.0%	1.000	101
Tester(s) received agent follow-up	5.0%	17.0%	8.0%	9.0%*	0.076	100
Average overall helpfulness score		1.35	1.51	-0.17	0.132	103
If units shown:						
Tester(s) saw at least one unit without any problems	79.4%	13.4%	4.1%	9.3%**	0.019	97
One tester saw more problems per unit than partner		6.3%	21.1%	-14.7%***	0.009	95
Average number of problems per unit		0.10	0.23	-0.13*	0.056	95

Chicago: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	72.3%	0.6%	0.0%	0.6%	1.000	173
If able to meet with an agent:						
Tester(s) told any units available	99.0%	1.0%	0.0%	1.0%	1.000	100
One tester told about more units than partner		20.0%	22.0%	-2.0%	0.878	100
Avg number of units available (per visit)		1.90	1.76	0.14	0.252	100
If available units recommended:						
Tester(s) able to inspect any units	94.8%	4.1%	0.0%	4.1%	0.125	97
One tester inspected more units than partner		21.6%	12.4%	9.3%	0.163	97
Average number of units inspected (per visit)		1.58	1.45	0.12	0.227	97
Average rent for any unit		$1,275	$1,275	$0	0.976	98
Tester(s) told that rent is negotiable	3.1%	8.2%	6.1%	2.0%	0.791	98
Tester(s) offered month-to-month	0.0%	2.0%	0.0%	2.0%	0.500	98
Tester(s) offered two-year lease	1.0%	5.1%	5.1%	0.0%	1.000	98
Tester(s) told fees required for any unit	72.2%	14.4%	6.2%	8.2%	0.115	97
One tester told higher fees than partner		25.8%	21.6%	4.1%	0.659	97
Average fees for any unit		$118	$130	-$12	0.705	97
Tester(s) told fees negotiable	2.1%	7.2%	5.2%	2.1%	0.774	97
Tester(s) told payment required at move-in	22.7%	14.4%	17.5%	-3.1%	0.720	97
Average payments at move-in		$165	$296	-$131**	0.016	93
Tester(s) told payments negotiable	2.1%	2.1%	5.2%	-3.1%	0.453	97
Tester(s) told about incentives	8.2%	9.3%	6.2%	3.1%	0.607	97
Average yearly incentives		$107	$247	-$140	0.327	91
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	97
Tester(s) given choice between sec. deposit & bond	2.1%	1.0%	1.0%	0.0%	1.000	97
Tester(s) told deposit or bond negotiable	0.0%	5.2%	5.2%	0.0%	1.000	97
Average sec. deposit for any unit		$1,200	$1,219	-$19	0.632	59
Tester(s) told higher yearly net cost		11.8%	17.6%	-5.9%	0.607	51
Average yearly net cost		$16,614	$16,755	-$141	0.491	51
Tester(s) told comment on fair housing	1.0%	0.0%	0.0%	0.0%	1.000	97
Tester(s) told application must be completed	86.6%	4.1%	6.2%	-2.1%	0.754	97
Tester(s) told credit check must be completed	68.0%	9.3%	17.5%	-8.2%	0.169	97
Tester(s) told background check must be done	18.6%	19.6%	14.4%	5.2%	0.487	97
Tester(s) told comments on credit standing	1.0%	4.1%	15.5%	-11.3%**	0.019	97
Tester(s) told comments on rent history	3.1%	9.3%	18.6%	-9.3%	0.122	97
Tester(s) told remarks about race/ethnicity	0.0%	1.0%	5.2%	-4.1%	0.219	97
Tester(s) provided listings, floor plan, brochure, etc.	50.5%	12.4%	18.6%	-6.2%	0.362	97
Tester(s) provided more total items		27.8%	40.2%	-12.4%	0.175	97
Tester(s) told arrangement for contact	52.6%	27.8%	9.3%	18.6%***	0.004	97
Tester(s) told positive remark	19.6%	16.5%	14.4%	2.1%	0.856	97
Tester(s) told more positive remarks		25.8%	19.6%	6.2%	0.451	97
Tester(s) told negative remark	0.0%	6.2%	1.0%	5.2%	0.125	97
Tester(s) told more negative remarks		6.2%	1.0%	5.2%	0.125	97
Tester(s) received agent follow-up	5.2%	15.6%	13.5%	2.1%	0.851	96
Average overall helpfulness score		1.31	1.22	0.09	0.343	97
If units shown:						
Tester(s) saw at least one unit without any problems	88.3%	4.3%	4.3%	0.0%	1.000	94
One tester saw more problems per unit than partner		7.5%	10.8%	-3.2%	0.629	93
Average number of problems per unit		0.11	0.13	-0.02	0.653	93

Dallas: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	100.0%	0.0%	0.0%	0.0%	1.000	135
If able to meet with an agent:						
Tester(s) told any units available	93.8%	3.8%	2.3%	1.5%	1.000	130
One tester told about more units than partner		37.7%	18.5%	19.2%***	0.005	130
Avg number of units available (per visit)		1.76	1.53	0.23**	0.011	130
If available units recommended:						
Tester(s) able to inspect any units	86.9%	0.0%	4.1%	-4.1%*	0.063	122
One tester inspected more units than partner		19.7%	14.8%	4.9%	0.441	122
Average number of units inspected (per visit)		1.25	1.17	0.08	0.205	122
Average rent for any unit		$877	$873	$4	0.585	122
Tester(s) told that rent is negotiable	0.8%	4.9%	5.7%	-0.8%	1.000	122
Tester(s) offered month-to-month	0.0%	5.7%	10.7%	-4.9%	0.263	122
Tester(s) offered two-year lease	0.8%	2.5%	9.8%	-7.4%**	0.035	122
Tester(s) told fees required for any unit	88.5%	4.1%	4.1%	0.0%	1.000	122
One tester told higher fees than partner		14.9%	28.9%	-14.0%**	0.040	121
Average fees for any unit		$123	$134	-$11	0.119	121
Tester(s) told fees negotiable	1.6%	1.6%	7.4%	-5.7%*	0.065	122
Tester(s) told payment required at move-in	27.0%	23.0%	13.9%	9.0%	0.135	122
Average payments at move-in		$342	$262	$79	0.105	120
Tester(s) told payments negotiable	0.0%	3.3%	3.3%	0.0%	1.000	122
Tester(s) told about incentives	32.0%	19.7%	11.5%	8.2%	0.143	122
Average yearly incentives		$257	$196	$61	0.194	119
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	122
Tester(s) given choice between sec. deposit & bond	2.5%	4.1%	0.8%	3.3%	0.219	122
Tester(s) told deposit or bond negotiable	9.0%	4.9%	13.9%	-9.0%**	0.035	122
Average sec. deposit for any unit		$270	$268	$2	0.842	83
Tester(s) told higher yearly net cost		29.8%	21.4%	8.3%	0.360	84
Average yearly net cost		$11,042	$10,953	$89	0.478	84
Tester(s) told comment on fair housing	0.0%	1.6%	0.0%	1.6%	0.500	122
Tester(s) told application must be completed	92.6%	4.1%	3.3%	0.8%	1.000	122
Tester(s) told credit check must be completed	54.9%	18.0%	25.4%	-7.4%	0.272	122
Tester(s) told background check must be done	29.5%	18.0%	31.1%	-13.1%*	0.052	122
Tester(s) told comments on credit standing	0.0%	7.4%	2.5%	4.9%	0.146	122
Tester(s) told comments on rent history	7.4%	36.1%	10.7%	25.4%***	0.000	122
Tester(s) told remarks about race/ethnicity	0.0%	0.0%	0.0%	0.0%	1.000	122
Tester(s) provided listings, floor plan, brochure, etc.	94.3%	4.9%	0.0%	4.9%**	0.031	122
Tester(s) provided more total items		48.4%	18.9%	29.5%***	0.000	122
Tester(s) told arrangement for contact	69.7%	23.0%	6.6%	16.4%***	0.001	122
Tester(s) told positive remark	44.3%	20.5%	6.6%	13.9%***	0.005	122
Tester(s) told more positive remarks		41.0%	13.9%	27.0%***	0.000	122
Tester(s) told negative remark	0.8%	1.6%	2.5%	-0.8%	1.000	122
Tester(s) told more negative remarks		1.6%	2.5%	-0.8%	1.000	122
Tester(s) received agent follow-up	11.5%	9.0%	12.3%	-3.3%	0.557	122
Average overall helpfulness score		1.47	1.29	0.18**	0.037	122
If units shown:						
Tester(s) saw at least one unit without any problems	89.6%	0.9%	7.5%	-6.6%**	0.039	106
One tester saw more problems per unit than partner		12.3%	4.7%	7.5%*	0.096	106
Average number of problems per unit		0.20	0.09	0.11**	0.016	106

Detroit: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	99.3%	0.0%	0.0%	0.0%	1.000	138
If able to meet with an agent:						
Tester(s) told any units available	83.1%	12.1%	4.8%	7.3%	1.000	124
One tester told about more units than partner		36.3%	21.8%	14.5%**	0.044	124
Avg number of units available (per visit)		1.77	1.55	0.23*	0.072	124
If available units recommended:						
Tester(s) able to inspect any units	80.8%	5.8%	6.7%	-1.0%	1.000	104
One tester inspected more units than partner		13.5%	15.4%	-1.9%	0.856	104
Average number of units inspected (per visit)		1.03	1.05	-0.02	0.815	104
Average rent for any unit		$665	$664	$1	0.916	105
Tester(s) told that rent is negotiable	1.0%	12.4%	7.6%	4.8%	0.383	105
Tester(s) offered month-to-month	1.9%	2.9%	2.9%	0.0%	1.000	105
Tester(s) offered two-year lease	1.0%	7.6%	1.9%	5.7%	0.109	105
Tester(s) told fees required for any unit	76.0%	8.7%	10.6%	-1.9%	0.824	104
One tester told higher fees than partner		28.0%	31.0%	-3.0%	0.795	100
Average fees for any unit		$51	$103	-$52***	0.009	100
Tester(s) told fees negotiable	5.8%	18.3%	11.5%	6.7%	0.281	104
Tester(s) told payment required at move-in	52.9%	13.5%	22.1%	-8.7%	0.188	104
Average payments at move-in		$428	$455	-$27	0.526	98
Tester(s) told payments negotiable	5.8%	10.6%	19.2%	-8.7%	0.150	104
Tester(s) told about incentives	25.0%	19.2%	11.5%	7.7%	0.215	104
Average yearly incentives		$162	$263	-$101	0.425	92
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	104
Tester(s) given choice between sec. deposit & bond	0.0%	1.0%	0.0%	1.0%	1.000	104
Tester(s) told deposit or bond negotiable	13.5%	26.0%	20.2%	5.8%	0.471	104
Average sec. deposit for any unit		$338	$432	-$94***	0.000	92
Tester(s) told higher yearly net cost		22.4%	43.4%	-21.1%**	0.033	76
Average yearly net cost		$8,641	$8,898	-$257**	0.025	76
Tester(s) told comment on fair housing	0.0%	2.9%	4.8%	-1.9%	0.727	104
Tester(s) told application must be completed	85.6%	9.6%	4.8%	4.8%	0.302	104
Tester(s) told credit check must be completed	54.8%	18.3%	20.2%	-1.9%	0.875	104
Tester(s) told background check must be done	18.3%	9.6%	18.3%	-8.7%	0.136	104
Tester(s) told comments on credit standing	1.0%	2.9%	1.9%	1.0%	1.000	104
Tester(s) told comments on rent history	3.8%	8.7%	4.8%	3.8%	0.424	104
Tester(s) told remarks about race/ethnicity	0.0%	1.9%	1.0%	1.0%	1.000	104
Tester(s) provided listings, floor plan, brochure, etc.	83.7%	8.7%	6.7%	1.9%	0.804	104
Tester(s) provided more total items		36.5%	30.8%	5.8%	0.550	104
Tester(s) told arrangement for contact	76.9%	12.5%	9.6%	2.9%	0.678	104
Tester(s) told positive remark	30.8%	25.0%	18.3%	6.7%	0.371	104
Tester(s) told more positive remarks		30.8%	30.8%	0.0%	1.000	104
Tester(s) told negative remark	0.0%	1.9%	1.9%	0.0%	1.000	104
Tester(s) told more negative remarks		1.9%	1.9%	0.0%	1.000	104
Tester(s) received agent follow-up	1.9%	17.3%	4.8%	12.5%**	0.011	104
Average overall helpfulness score		1.62	1.62	0.00	1.000	104
If units shown:						
Tester(s) saw at least one unit without any problems	89.3%	6.0%	2.4%	3.6%	0.453	84
One tester saw more problems per unit than partner		6.0%	9.5%	-3.6%	0.581	84
Average number of problems per unit		0.08	0.14	-0.06	0.271	84

Houston: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	97.1%	0.7%	0.0%	0.7%	1.000	138
If able to meet with an agent:						
Tester(s) told any units available	89.9%	7.0%	3.1%	3.9%	1.000	129
One tester told about more units than partner		32.6%	15.5%	17.1%***	0.007	129
Avg number of units available (per visit)		1.72	1.46	0.26**	0.014	129
If available units recommended:						
Tester(s) able to inspect any units	76.7%	11.2%	6.9%	4.3%	0.383	116
One tester inspected more units than partner		20.7%	12.1%	8.6%	0.143	116
Average number of units inspected (per visit)		1.08	0.96	0.12*	0.052	116
Average rent for any unit		$842	$849	-$8	0.209	116
Tester(s) told that rent is negotiable	0.0%	5.2%	2.6%	2.6%	0.508	116
Tester(s) offered month-to-month	1.7%	2.6%	8.6%	-6.0%*	0.092	116
Tester(s) offered two-year lease	0.9%	4.3%	18.1%	-13.8%***	0.002	116
Tester(s) told fees required for any unit	92.2%	0.9%	1.7%	-0.9%	1.000	116
One tester told higher fees than partner		26.7%	18.1%	8.6%	0.169	116
Average fees for any unit		$107	$99	$7	0.259	116
Tester(s) told fees negotiable	1.7%	8.6%	1.7%	6.9%**	0.039	116
Tester(s) told payment required at move-in	97.4%	0.0%	0.9%	-0.9%	1.000	116
Average payments at move-in		$833	$830	$4	0.855	116
Tester(s) told payments negotiable	0.0%	2.6%	0.9%	1.7%	0.625	116
Tester(s) told about incentives	23.3%	11.2%	8.6%	2.6%	0.678	116
Average yearly incentives		$158	$137	$20	0.277	116
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	116
Tester(s) given choice between sec. deposit & bond	0.9%	2.6%	1.7%	0.9%	1.000	116
Tester(s) told deposit or bond negotiable	6.0%	18.1%	4.3%	13.8%***	0.002	116
Average sec. deposit for any unit		$342	$363	-$20	0.459	80
Tester(s) told higher yearly net cost		9.5%	19.0%	-9.5%	0.152	84
Average yearly net cost		$11,208	$11,328	-$119	0.136	84
Tester(s) told comment on fair housing	0.0%	0.0%	0.9%	-0.9%	1.000	116
Tester(s) told application must be completed	93.1%	2.6%	4.3%	-1.7%	0.727	116
Tester(s) told credit check must be completed	37.9%	6.0%	43.1%	-37.1%***	0.000	116
Tester(s) told background check must be done	23.3%	7.8%	50.0%	-42.2%***	0.000	116
Tester(s) told comments on credit standing	0.0%	1.7%	6.9%	-5.2%	0.109	116
Tester(s) told comments on rent history	15.5%	26.7%	26.7%	0.0%	1.000	116
Tester(s) told remarks about race/ethnicity	0.0%	1.7%	0.9%	0.9%	1.000	116
Tester(s) provided listings, floor plan, brochure, etc.	91.4%	1.7%	4.3%	-2.6%	0.453	116
Tester(s) provided more total items		28.4%	45.7%	-17.2%**	0.040	116
Tester(s) told arrangement for contact	74.1%	10.3%	10.3%	0.0%	1.000	116
Tester(s) told positive remark	23.3%	16.4%	31.9%	-15.5%**	0.022	116
Tester(s) told more positive remarks		18.1%	44.8%	-26.7%***	0.000	116
Tester(s) told negative remark	0.0%	3.4%	4.3%	-0.9%	1.000	116
Tester(s) told more negative remarks		3.4%	4.3%	-0.9%	1.000	116
Tester(s) received agent follow-up	0.9%	9.5%	0.0%	9.5%***	0.001	116
Average overall helpfulness score		1.57	1.42	0.15*	0.091	116
If units shown:						
Tester(s) saw at least one unit without any problems	84.3%	12.4%	3.4%	9%*	0.057	89
One tester saw more problems per unit than partner		4.5%	20.2%	-15.7%***	0.004	89
Average number of problems per unit		0.06	0.27	-0.21***	0.008	89

Houston: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	97.1%	0.7%	0.7%	0.0%	1.000	138
If able to meet with an agent:						
Tester(s) told any units available	97.7%	0.8%	1.6%	-0.8%	1.000	129
One tester told about more units than partner		32.6%	14.0%	18.6%***	0.003	129
Avg number of units available (per visit)		1.83	1.50	0.33***	0.001	129
If available units recommended:						
Tester(s) able to inspect any units	77.8%	5.6%	11.9%	-6.3%	0.134	126
One tester inspected more units than partner		19.0%	19.8%	-0.8%	1.000	126
Average number of units inspected (per visit)		1.09	1.12	-0.03	0.639	126
Average rent for any unit		$831	$845	-$14***	0.005	126
Tester(s) told that rent is negotiable	1.6%	4.8%	3.2%	1.6%	0.754	126
Tester(s) offered month-to-month	1.6%	5.6%	4.0%	1.6%	0.774	126
Tester(s) offered two-year lease	7.1%	3.2%	48.4%	-45.2%***	0.000	126
Tester(s) told fees required for any unit	93.7%	0.8%	2.4%	-1.6%	0.625	126
One tester told higher fees than partner		21.4%	18.3%	3.2%	0.672	126
Average fees for any unit		$102	$99	$3	0.519	126
Tester(s) told fees negotiable	0.0%	0.8%	1.6%	-0.8%	1.000	126
Tester(s) told payment required at move-in	97.6%	0.0%	0.8%	-0.8%	1.000	126
Average payments at move-in		$801	$832	-$32***	0.001	126
Tester(s) told payments negotiable	0.0%	1.6%	3.2%	-1.6%	0.688	126
Tester(s) told about incentives	15.9%	13.5%	7.9%	5.6%	0.248	126
Average yearly incentives		$136	$103	$33	0.108	126
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	126
Tester(s) given choice between sec. deposit & bond	2.4%	0.8%	1.6%	-0.8%	1.000	126
Tester(s) told deposit or bond negotiable	4.8%	10.3%	7.1%	3.2%	0.523	126
Average sec. deposit for any unit		$287	$264	$23	0.223	94
Tester(s) told higher yearly net cost		11.3%	27.8%	-16.5%**	0.014	97
Average yearly net cost		$11,246	$11,467	-$221***	0.007	97
Tester(s) told comment on fair housing	0.0%	0.0%	0.8%	-0.8%	1.000	126
Tester(s) told application must be completed	94.4%	4.8%	0.8%	4.0%	0.125	126
Tester(s) told credit check must be completed	31.7%	11.9%	36.5%	-24.6%***	0.000	126
Tester(s) told background check must be done	11.9%	18.3%	39.7%	-21.4%***	0.002	126
Tester(s) told comments on credit standing	0.0%	4.8%	19.0%	-14.3%***	0.001	126
Tester(s) told comments on rent history	7.9%	16.7%	23.0%	-6.3%	0.322	126
Tester(s) told remarks about race/ethnicity	0.0%	0.0%	2.4%	-2.4%	0.250	126
Tester(s) provided listings, floor plan, brochure, etc.	89.7%	7.1%	2.4%	4.8%	0.146	126
Tester(s) provided more total items		35.7%	34.9%	0.8%	1.000	126
Tester(s) told arrangement for contact	77.0%	7.9%	11.9%	-4.0%	0.424	126
Tester(s) told positive remark	26.2%	19.8%	34.9%	-15.1%**	0.029	126
Tester(s) told more positive remarks		27.8%	46.8%	-19.0%**	0.017	126
Tester(s) told negative remark	0.0%	1.6%	2.4%	-0.8%	1.000	126
Tester(s) told more negative remarks		1.6%	2.4%	-0.8%	1.000	126
Tester(s) received agent follow-up	3.2%	12.7%	1.6%	11.1%***	0.001	126
Average overall helpfulness score		1.46	1.39	0.07	0.447	126
If units shown:						
Tester(s) saw at least one unit without any problems	90.8%	4.1%	3.1%	1.0%	1.000	98
One tester saw more problems per unit than partner		7.1%	8.2%	-1.0%	1.000	98
Average number of problems per unit		0.14	0.12	0.02	0.786	98

Los Angeles: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	100.0%	0.0%	0.0%	0.0%	1.000	160
If able to meet with an agent:						
Tester(s) told any units available	99.4%	0.0%	0.6%	-0.6%	1.000	160
One tester told about more units than partner		16.9%	9.4%	7.5%*	0.088	160
Avg number of units available (per visit)		1.57	1.44	0.13**	0.034	160
If available units recommended:						
Tester(s) able to inspect any units	100.0%	0.0%	0.0%	0.0%	1.000	159
One tester inspected more units than partner		15.7%	6.3%	9.4%**	0.017	159
Average number of units inspected (per visit)		1.43	1.35	0.09**	0.034	159
Average rent for any unit		$1,405	$1,415	-$10	0.271	159
Tester(s) told that rent is negotiable	1.9%	10.1%	2.5%	7.5%**	0.012	159
Tester(s) offered month-to-month	6.9%	8.8%	4.4%	4.4%	0.189	159
Tester(s) offered two-year lease	2.5%	6.3%	1.3%	5.0%**	0.039	159
Tester(s) told fees required for any unit	83.0%	4.4%	2.5%	1.9%	0.549	159
One tester told higher fees than partner		17.7%	13.3%	4.4%	0.392	158
Average fees for any unit		$98	$87	$11	0.639	158
Tester(s) told fees negotiable	3.1%	8.8%	3.8%	5.0%	0.115	159
Tester(s) told payment required at move-in	23.9%	6.9%	22.6%	-15.7%***	0.000	159
Average payments at move-in		$350	$617	-$267***	0.000	153
Tester(s) told payments negotiable	0.0%	4.4%	5.0%	-0.6%	1.000	159
Tester(s) told about incentives	13.8%	15.7%	4.4%	11.3%***	0.002	159
Average yearly incentives		$180	$101	$79***	0.001	153
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	159
Tester(s) given choice between sec. deposit & bond	0.0%	0.0%	0.6%	-0.6%	1.000	159
Tester(s) told deposit or bond negotiable	4.4%	13.2%	7.5%	5.7%	0.163	159
Average sec. deposit for any unit		$1,033	$1,072	-$39*	0.064	157
Tester(s) told higher yearly net cost		10.4%	26.4%	-16.0%***	0.002	144
Average yearly net cost		$18,411	$18,818	-$406***	0.000	144
Tester(s) told comment on fair housing	0.0%	1.3%	0.6%	0.6%	1.000	159
Tester(s) told application must be completed	98.7%	0.6%	0.6%	0.0%	1.000	159
Tester(s) told credit check must be completed	96.2%	1.9%	0.6%	1.3%	0.625	159
Tester(s) told background check must be done	3.1%	13.2%	2.5%	10.7%***	0.001	159
Tester(s) told comments on credit standing	4.4%	8.8%	2.5%	6.3%**	0.031	159
Tester(s) told comments on rent history	0.6%	10.1%	1.3%	8.8%***	0.001	159
Tester(s) told remarks about race/ethnicity	0.0%	0.0%	0.6%	-0.6%	1.000	159
Tester(s) provided listings, floor plan, brochure, etc.	44.0%	16.4%	13.8%	2.5%	0.665	159
Tester(s) provided more total items		27.0%	21.4%	5.7%	0.362	159
Tester(s) told arrangement for contact	64.2%	5.0%	25.2%	-20.1%***	0.000	159
Tester(s) told positive remark	20.8%	18.9%	17.6%	1.3%	0.896	159
Tester(s) told more positive remarks		23.9%	24.5%	-0.6%	1.000	159
Tester(s) told negative remark	0.0%	3.1%	1.3%	1.9%	0.453	159
Tester(s) told more negative remarks		3.1%	1.3%	1.9%	0.453	159
Tester(s) received agent follow-up	4.4%	7.5%	3.1%	4.4%	0.143	159
Average overall helpfulness score		1.43	1.56	-0.13*	0.060	159
If units shown:						
Tester(s) saw at least one unit without any problems	83.6%	7.5%	5.7%	1.9%	0.664	159
One tester saw more problems per unit than partner		6.9%	8.8%	-1.9%	0.690	159
Average number of problems per unit		0.15	0.14	0.02	0.750	159

Los Angeles: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	94.4%	0.0%	0.0%	0.0%	1.000	143
If able to meet with an agent:						
Tester(s) told any units available	98.5%	0.7%	0.7%	0.0%	1.000	134
One tester told about more units than partner		20.1%	9.7%	10.4%**	0.038	134
Avg number of units available (per visit)		1.65	1.59	0.06	0.471	134
If available units recommended:						
Tester(s) able to inspect any units	99.2%	0.8%	0.0%	0.8%	1.000	132
One tester inspected more units than partner		19.7%	9.8%	9.8%*	0.053	132
Average number of units inspected (per visit)		1.51	1.38	0.13**	0.046	132
Average rent for any unit		$1,403	$1,408	-$6	0.493	132
Tester(s) told that rent is negotiable	6.1%	5.3%	3.0%	2.3%	0.549	132
Tester(s) offered month-to-month	12.1%	3.0%	2.3%	0.8%	1.000	132
Tester(s) offered two-year lease	0.8%	2.3%	1.5%	0.8%	1.000	132
Tester(s) told fees required for any unit	84.1%	3.0%	3.8%	-0.8%	1.000	132
One tester told higher fees than partner		13.6%	14.4%	-0.8%	1.000	132
Average fees for any unit		$84	$76	$8	0.633	132
Tester(s) told fees negotiable	2.3%	1.5%	1.5%	0.0%	1.000	132
Tester(s) told payment required at move-in	7.6%	9.8%	6.1%	3.8%	0.383	132
Average payments at move-in		$68	$121	-$53**	0.041	132
Tester(s) told payments negotiable	0.0%	6.1%	0.8%	5.3%**	0.039	132
Tester(s) told about incentives	23.5%	6.1%	4.5%	1.5%	0.791	132
Average yearly incentives		$208	$204	$4	0.866	132
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	132
Tester(s) given choice between sec. deposit & bond	0.0%	0.0%	0.0%	0.0%	1.000	132
Tester(s) told deposit or bond negotiable	4.5%	14.4%	0.8%	13.6%***	0.000	132
Average sec. deposit for any unit		$904	$869	$35	0.152	131
Tester(s) told higher yearly net cost		4.5%	11.4%	-6.8%*	0.078	132
Average yearly net cost		$17,701	$17,786	-$85	0.424	132
Tester(s) told comment on fair housing	0.8%	0.8%	0.0%	0.8%	1.000	132
Tester(s) told application must be completed	98.5%	0.0%	1.5%	-1.5%	0.500	132
Tester(s) told credit check must be completed	97.0%	0.0%	3.0%	-3.0%	0.125	132
Tester(s) told background check must be done	1.5%	25.8%	3.0%	22.7%***	0.000	132
Tester(s) told comments on credit standing	2.3%	5.3%	1.5%	3.8%	0.180	132
Tester(s) told comments on rent history	1.5%	5.3%	3.0%	2.3%	0.549	132
Tester(s) told remarks about race/ethnicity	0.8%	0.8%	1.5%	-0.8%	1.000	132
Tester(s) provided listings, floor plan, brochure, etc.	58.3%	3.8%	6.8%	-3.0%	0.424	132
Tester(s) provided more total items		22.7%	20.5%	2.3%	0.791	132
Tester(s) told arrangement for contact	58.3%	9.1%	22.7%	-13.6%***	0.008	132
Tester(s) told positive remark	26.5%	15.9%	18.2%	-2.3%	0.766	132
Tester(s) told more positive remarks		22.0%	27.3%	-5.3%	0.457	132
Tester(s) told negative remark	0.0%	1.5%	2.3%	-0.8%	1.000	132
Tester(s) told more negative remarks		1.5%	2.3%	-0.8%	1.000	132
Tester(s) received agent follow-up	13.6%	10.6%	4.5%	6.1%	0.115	132
Average overall helpfulness score		1.41	1.61	-0.20**	0.032	132
If units shown:						
Tester(s) saw at least one unit without any problems	85.5%	6.9%	2.3%	4.6%	0.146	131
One tester saw more problems per unit than partner		4.6%	9.2%	-4.6%	0.238	131
Average number of problems per unit		0.13	0.22	-0.09*	0.061	131

Miami: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	96.4%	0.7%	2.2%	-1.4%	0.625	139
If able to meet with an agent:						
Tester(s) told any units available	90.2%	6.1%	3.8%	2.3%	0.625	132
One tester told about more units than partner		25.8%	18.2%	7.6%	0.237	132
Avg number of units available (per visit)		1.37	1.27	0.11	0.231	132
If available units recommended:						
Tester(s) able to inspect any units	94.2%	2.5%	3.3%	-0.8%	1.000	120
One tester inspected more units than partner		18.3%	11.7%	6.7%	0.243	120
Average number of units inspected (per visit)		1.31	1.20	0.11	0.113	120
Average rent for any unit		$1,378	$1,363	$15	0.149	120
Tester(s) told that rent is negotiable	7.5%	11.7%	6.7%	5.0%	0.286	120
Tester(s) offered month-to-month	0.8%	4.2%	0.8%	3.3%	0.219	120
Tester(s) offered two-year lease	0.0%	9.2%	0.0%	9.2%***	0.001	120
Tester(s) told fees required for any unit	75.0%	5.0%	8.3%	-3.3%	0.454	120
One tester told higher fees than partner		29.1%	26.5%	2.6%	0.712	117
Average fees for any unit		$151	$163	-$12	0.580	117
Tester(s) told fees negotiable	0.8%	5.0%	4.2%	0.8%	1.000	120
Tester(s) told payment required at move-in	55.0%	10.0%	12.5%	-2.5%	0.701	120
Average payments at move-in		$897	$989	-$92	0.165	120
Tester(s) told payments negotiable	3.3%	10.8%	2.5%	8.3%**	0.021	120
Tester(s) told about incentives	1.7%	8.3%	4.2%	4.2%	0.302	120
Average yearly incentives		$105	$45	$60	0.183	118
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	120
Tester(s) given choice between sec. deposit & bond	0.0%	0.0%	0.0%	0.0%	1.000	120
Tester(s) told deposit or bond negotiable	5.0%	15.8%	5.0%	10.8%**	0.015	120
Average sec. deposit for any unit		$1,257	$1,192	$65	0.113	113
Tester(s) told higher yearly net cost		20.2%	19.3%	0.9%	1.000	109
Average yearly net cost		$18,980	$18,872	$109	0.471	109
Tester(s) told comment on fair housing	0.0%	0.8%	0.0%	0.8%	1.000	120
Tester(s) told application must be completed	84.2%	4.2%	10.0%	-5.8%	0.143	120
Tester(s) told credit check must be completed	67.5%	6.7%	10.8%	-4.2%	0.383	120
Tester(s) told background check must be done	59.2%	7.5%	23.3%	-15.8%***	0.003	120
Tester(s) told comments on credit standing	5.0%	17.5%	15.0%	2.5%	0.749	120
Tester(s) told comments on rent history	3.3%	25.0%	7.5%	17.5%***	0.001	120
Tester(s) told remarks about race/ethnicity	0.0%	5.8%	0.0%	5.8%**	0.016	120
Tester(s) provided listings, floor plan, brochure, etc.	65.8%	4.2%	12.5%	-8.3%**	0.041	120
Tester(s) provided more total items		19.2%	30.0%	-10.8%	0.117	120
Tester(s) told arrangement for contact	83.3%	7.5%	5.8%	1.7%	0.804	120
Tester(s) told positive remark	35.8%	17.5%	23.3%	-5.8%	0.392	120
Tester(s) told more positive remarks		31.7%	38.3%	-6.7%	0.445	120
Tester(s) told negative remark	0.0%	4.2%	1.7%	2.5%	0.453	120
Tester(s) told more negative remarks		4.2%	1.7%	2.5%	0.453	120
Tester(s) received agent follow-up	5.8%	10.0%	10.0%	0.0%	1.000	120
Average overall helpfulness score		1.45	1.23	0.22***	0.008	120
If units shown:						
Tester(s) saw at least one unit without any problems	78.8%	4.4%	14.2%	-9.7%**	0.027	113
One tester saw more problems per unit than partner		17.7%	8.8%	8.8%*	0.099	113
Average number of problems per unit		0.30	0.15	0.14*	0.063	113

New York: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	95.9%	0.0%	0.0%	0.0%	1.000	146
If able to meet with an agent:						
Tester(s) told any units available	97.0%	1.5%	1.5%	0.0%	1.000	132
One tester told about more units than partner		22.0%	15.9%	6.1%	0.322	132
Avg number of units available (per visit)		1.77	1.65	0.12	0.252	132
If available units recommended:						
Tester(s) able to inspect any units	96.9%	0.0%	1.6%	-1.6%	0.500	128
One tester inspected more units than partner		18.0%	15.6%	2.3%	0.761	128
Average number of units inspected (per visit)		1.73	1.60	0.13	0.177	128
Average rent for any unit		$2,489	$2,506	-$17	0.280	128
Tester(s) told that rent is negotiable	8.6%	12.5%	13.3%	-0.8%	1.000	128
Tester(s) offered month-to-month	0.0%	2.3%	9.4%	-7.0%**	0.035	128
Tester(s) offered two-year lease	18.0%	19.5%	16.4%	3.1%	0.659	128
Tester(s) told fees required for any unit	66.4%	9.4%	10.2%	-0.8%	1.000	128
One tester told higher fees than partner		25.8%	36.3%	-10.5%	0.141	124
Average fees for any unit		$454	$528	-$75	0.620	124
Tester(s) told fees negotiable	0.8%	10.9%	9.4%	1.6%	0.845	128
Tester(s) told payment required at move-in	72.7%	12.5%	7.8%	4.7%	0.327	128
Average payments at move-in		$3,353	$3,094	$258	0.309	126
Tester(s) told payments negotiable	6.3%	14.1%	4.7%	9.4%**	0.023	128
Tester(s) told about incentives	7.0%	3.9%	3.9%	0.0%	1.000	128
Average yearly incentives		$156	$864	-$708	0.292	124
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	128
Tester(s) given choice between sec. deposit & bond	0.0%	0.0%	0.8%	-0.8%	1.000	128
Tester(s) told deposit or bond negotiable	0.8%	8.6%	6.3%	2.3%	0.648	128
Average sec. deposit for any unit		$2,686	$2,722	-$36	0.701	116
Tester(s) told higher yearly net cost		23.1%	20.4%	2.8%	0.771	108
Average yearly net cost		$35,731	$34,770	$961	0.304	108
Tester(s) told comment on fair housing	0.0%	2.3%	5.5%	-3.1%	0.344	128
Tester(s) told application must be completed	67.2%	15.6%	10.9%	4.7%	0.392	128
Tester(s) told credit check must be completed	61.7%	13.3%	12.5%	0.8%	1.000	128
Tester(s) told background check must be done	4.7%	11.7%	4.7%	7.0%*	0.078	128
Tester(s) told comments on credit standing	8.6%	8.6%	15.6%	-7.0%	0.150	128
Tester(s) told comments on rent history	0.0%	15.6%	4.7%	10.9%***	0.009	128
Tester(s) told remarks about race/ethnicity	0.8%	4.7%	1.6%	3.1%	0.289	128
Tester(s) provided listings, floor plan, brochure, etc.	52.3%	8.6%	16.4%	-7.8%	0.110	128
Tester(s) provided more total items		14.8%	32.8%	-18.0%***	0.004	128
Tester(s) told arrangement for contact	71.9%	10.2%	9.4%	0.8%	1.000	128
Tester(s) told positive remark	11.7%	27.3%	21.9%	5.5%	0.450	128
Tester(s) told more positive remarks		31.3%	25.0%	6.3%	0.410	128
Tester(s) told negative remark	0.8%	4.7%	4.7%	0.0%	1.000	128
Tester(s) told more negative remarks		5.5%	4.7%	0.8%	1.000	128
Tester(s) received agent follow-up	3.1%	3.9%	10.2%	-6.3%*	0.096	128
Average overall helpfulness score		1.37	1.42	-0.05	0.520	128
If units shown:						
Tester(s) saw at least one unit without any problems	80.6%	11.3%	4.8%	6.5%	0.115	124
One tester saw more problems per unit than partner		15.3%	14.5%	0.8%	1.000	124
Average number of problems per unit		0.18	0.29	-0.11*	0.086	124

New York: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	97.2%	0.0%	0.0%	0.0%	1.000	145
If able to meet with an agent:						
Tester(s) told any units available	96.3%	3.0%	0.7%	2.2%	1.000	135
One tester told about more units than partner		28.9%	16.3%	12.6%**	0.040	135
Avg number of units available (per visit)		2.06	1.87	0.19	0.119	135
If available units recommended:						
Tester(s) able to inspect any units	94.7%	1.5%	0.8%	0.8%	1.000	131
One tester inspected more units than partner		24.4%	16.0%	8.4%	0.169	131
Average number of units inspected (per visit)		1.89	1.81	0.08	0.488	131
Average rent for any unit		$2,268	$2,280	-$13	0.580	131
Tester(s) told that rent is negotiable	8.4%	9.2%	13.0%	-3.8%	0.458	131
Tester(s) offered month-to-month	3.1%	1.5%	4.6%	-3.1%	0.289	131
Tester(s) offered two-year lease	18.3%	13.7%	21.4%	-7.6%	0.184	131
Tester(s) told fees required for any unit	64.9%	9.2%	14.5%	-5.3%	0.281	131
One tester told higher fees than partner		27.6%	32.5%	-4.9%	0.567	123
Average fees for any unit		$331	$399	-$68	0.513	123
Tester(s) told fees negotiable	6.1%	10.7%	8.4%	2.3%	0.690	131
Tester(s) told payment required at move-in	62.6%	16.0%	10.7%	5.3%	0.311	131
Average payments at move-in		$2,857	$2,674	$183	0.329	130
Tester(s) told payments negotiable	4.6%	11.5%	9.2%	2.3%	0.701	131
Tester(s) told about incentives	7.6%	5.3%	7.6%	-2.3%	0.629	131
Average yearly incentives		$262	$193	$69	0.530	124
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	131
Tester(s) given choice between sec. deposit & bond	0.0%	0.0%	0.8%	-0.8%	1.000	131
Tester(s) told deposit or bond negotiable	0.8%	11.5%	6.1%	5.3%	0.210	131
Average sec. deposit for any unit		$2,300	$2,339	-$39	0.522	118
Tester(s) told higher yearly net cost		33.0%	22.6%	10.4%	0.193	106
Average yearly net cost		$32,906	$32,958	-$52	0.904	106
Tester(s) told comment on fair housing	0.0%	0.8%	0.0%	0.8%	1.000	131
Tester(s) told application must be completed	73.3%	9.2%	11.5%	-2.3%	0.701	131
Tester(s) told credit check must be completed	58.8%	14.5%	13.0%	1.5%	0.868	131
Tester(s) told background check must be done	2.3%	7.6%	9.9%	-2.3%	0.678	131
Tester(s) told comments on credit standing	9.2%	10.7%	14.5%	-3.8%	0.487	131
Tester(s) told comments on rent history	0.8%	9.2%	6.1%	3.1%	0.503	131
Tester(s) told remarks about race/ethnicity	1.5%	2.3%	8.4%	-6.1%*	0.057	131
Tester(s) provided listings, floor plan, brochure, etc.	53.4%	11.5%	10.7%	0.8%	1.000	131
Tester(s) provided more total items		25.2%	21.4%	3.8%	0.609	131
Tester(s) told arrangement for contact	68.7%	7.6%	16.8%	-9.2%*	0.050	131
Tester(s) told positive remark	23.7%	19.1%	23.7%	-4.6%	0.504	131
Tester(s) told more positive remarks		26.0%	32.1%	-6.1%	0.422	131
Tester(s) told negative remark	0.0%	4.6%	7.6%	-3.1%	0.454	131
Tester(s) told more negative remarks		4.6%	7.6%	-3.1%	0.454	131
Tester(s) received agent follow-up	3.8%	5.4%	6.9%	-1.5%	0.804	130
Average overall helpfulness score		1.20	1.34	-0.14	0.106	131
If units shown:						
Tester(s) saw at least one unit without any problems	79.8%	10.5%	5.6%	4.8%	0.263	124
One tester saw more problems per unit than partner		12.9%	18.5%	-5.6%	0.337	124
Average number of problems per unit		0.20	0.23	-0.03	0.578	124

Philadelphia: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	92.5%	2.7%	1.4%	1.4%	0.688	147
If able to meet with an agent:						
Tester(s) told any units available	97.0%	0.8%	2.3%	-1.5%	0.688	133
One tester told about more units than partner		29.3%	11.3%	18.0%***	0.001	133
Avg number of units available (per visit)		1.75	1.41	0.35***	0.000	133
If available units recommended:						
Tester(s) able to inspect any units	99.2%	0.8%	0.0%	0.8%	1.000	129
One tester inspected more units than partner		20.9%	7.8%	13.2%***	0.008	129
Average number of units inspected (per visit)		1.47	1.26	0.21***	0.004	129
Average rent for any unit		$1,075	$1,085	-$10	0.151	129
Tester(s) told that rent is negotiable	4.7%	10.1%	2.3%	7.8%**	0.021	129
Tester(s) offered month-to-month	3.1%	3.9%	2.3%	1.6%	0.727	129
Tester(s) offered two-year lease	5.4%	9.3%	7.0%	2.3%	0.664	129
Tester(s) told fees required for any unit	89.1%	1.6%	1.6%	0.0%	1.000	129
One tester told higher fees than partner		16.5%	9.4%	7.1%	0.121	127
Average fees for any unit		$150	$130	$20	0.123	127
Tester(s) told fees negotiable	7.8%	10.9%	3.1%	7.8%**	0.031	129
Tester(s) told payment required at move-in	65.9%	5.4%	21.7%	-16.3%***	0.001	129
Average payments at move-in		$948	$1,373	-$425***	0.000	128
Tester(s) told payments negotiable	3.9%	11.6%	3.9%	7.8%**	0.041	129
Tester(s) told about incentives	15.5%	10.1%	5.4%	4.7%	0.263	129
Average yearly incentives		$285	$254	$31	0.490	127
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	129
Tester(s) given choice between sec. deposit & bond	2.3%	0.0%	2.3%	-2.3%	0.250	129
Tester(s) told deposit or bond negotiable	11.6%	19.4%	7.0%	12.4%***	0.009	129
Average sec. deposit for any unit		$1,082	$967	$115*	0.051	122
Tester(s) told higher yearly net cost		9.1%	34.7%	-25.6%***	0.000	121
Average yearly net cost		$14,734	$15,214	-$480***	0.000	121
Tester(s) told comment on fair housing	0.0%	0.8%	3.1%	-2.3%	0.375	129
Tester(s) told application must be completed	92.2%	0.8%	2.3%	-1.6%	0.625	129
Tester(s) told credit check must be completed	73.6%	6.2%	13.2%	-7.0%	0.108	129
Tester(s) told background check must be done	17.8%	20.2%	8.5%	11.6%**	0.020	129
Tester(s) told comments on credit standing	2.3%	3.9%	11.6%	-7.8%**	0.041	129
Tester(s) told comments on rent history	2.3%	5.4%	14.7%	-9.3%**	0.029	129
Tester(s) told remarks about race/ethnicity	0.0%	4.7%	0.0%	4.7%**	0.031	129
Tester(s) provided listings, floor plan, brochure, etc.	55.0%	11.6%	8.5%	3.1%	0.557	129
Tester(s) provided more total items		28.7%	27.1%	1.6%	0.906	129
Tester(s) told arrangement for contact	69.0%	5.4%	21.7%	-16.3%***	0.001	129
Tester(s) told positive remark	24.8%	19.4%	26.4%	-7.0%	0.298	129
Tester(s) told more positive remarks		26.4%	35.7%	-9.3%	0.219	129
Tester(s) told negative remark	0.0%	3.9%	3.1%	0.8%	1.000	129
Tester(s) told more negative remarks		3.9%	3.1%	0.8%	1.000	129
Tester(s) received agent follow-up	13.2%	15.5%	8.5%	7.0%	0.150	129
Average overall helpfulness score		1.50	1.45	0.05	0.573	129
If units shown:						
Tester(s) saw at least one unit without any problems	75.0%	10.2%	8.6%	1.6%	0.839	128
One tester saw more problems per unit than partner		14.1%	15.6%	-1.6%	0.871	128
Average number of problems per unit		0.37	0.30	0.07	0.460	128

Riverside: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	100.0%	0.0%	0.0%	0.0%	1.000	135
If able to meet with an agent:						
Tester(s) told any units available	91.2%	4.8%	4.0%	0.8%	1.000	125
One tester told about more units than partner		29.6%	18.4%	11.2%*	0.092	125
Avg number of units available (per visit)		1.35	1.18	0.17**	0.031	125
If available units recommended:						
Tester(s) able to inspect any units	75.2%	7.1%	9.7%	-2.7%	0.648	113
One tester inspected more units than partner		19.5%	15.9%	3.5%	0.636	113
Average number of units inspected (per visit)		1.04	0.98	0.06	0.347	113
Average rent for any unit		$1,101	$1,110	-$9	0.124	113
Tester(s) told that rent is negotiable	0.0%	4.4%	1.8%	2.7%	0.453	113
Tester(s) offered month-to-month	4.4%	4.4%	10.6%	-6.2%	0.143	113
Tester(s) offered two-year lease	0.0%	1.8%	1.8%	0.0%	1.000	113
Tester(s) told fees required for any unit	94.7%	0.0%	2.7%	-2.7%	0.250	113
One tester told higher fees than partner		14.2%	28.3%	-14.2%**	0.021	113
Average fees for any unit		$95	$126	-$31*	0.067	113
Tester(s) told fees negotiable	3.5%	2.7%	11.5%	-8.8%**	0.021	113
Tester(s) told payment required at move-in	26.5%	8.8%	39.8%	-31.0%***	0.000	113
Average payments at move-in		$391	$734	-$344***	0.000	111
Tester(s) told payments negotiable	0.0%	1.8%	2.7%	-0.9%	1.000	113
Tester(s) told about incentives	15.9%	19.5%	11.5%	8.0%	0.175	113
Average yearly incentives		$161	$119	$42	0.249	111
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	113
Tester(s) given choice between sec. deposit & bond	0.0%	2.7%	1.8%	0.9%	1.000	113
Tester(s) told deposit or bond negotiable	0.0%	7.1%	4.4%	2.7%	0.581	113
Average sec. deposit for any unit		$535	$536	-$2	0.896	108
Tester(s) told higher yearly net cost		12.3%	48.1%	-35.8%***	0.000	106
Average yearly net cost		$13,970	$14,544	-$574***	0.000	106
Tester(s) told comment on fair housing	0.0%	0.0%	0.9%	-0.9%	1.000	113
Tester(s) told application must be completed	95.6%	2.7%	1.8%	0.9%	1.000	113
Tester(s) told credit check must be completed	96.5%	0.0%	3.5%	-3.5%	0.125	113
Tester(s) told background check must be done	4.4%	10.6%	20.4%	-9.7%*	0.090	113
Tester(s) told comments on credit standing	0.9%	2.7%	4.4%	-1.8%	0.727	113
Tester(s) told comments on rent history	6.2%	10.6%	12.4%	-1.8%	0.845	113
Tester(s) told remarks about race/ethnicity	0.0%	0.0%	0.0%	0.0%	1.000	113
Tester(s) provided listings, floor plan, brochure, etc.	88.5%	2.7%	5.3%	-2.7%	0.508	113
Tester(s) provided more total items		36.3%	37.2%	-0.9%	1.000	113
Tester(s) told arrangement for contact	65.5%	10.6%	22.1%	-11.5%**	0.047	113
Tester(s) told positive remark	23.9%	9.7%	22.1%	-12.4%**	0.029	113
Tester(s) told more positive remarks		12.4%	30.1%	-17.7%***	0.006	113
Tester(s) told negative remark	0.0%	2.7%	3.5%	-0.9%	1.000	113
Tester(s) told more negative remarks		2.7%	3.5%	-0.9%	1.000	113
Tester(s) received agent follow-up	4.4%	5.3%	9.7%	-4.4%	0.332	113
Average overall helpfulness score		1.40	1.39	0.01	0.923	113
If units shown:						
Tester(s) saw at least one unit without any problems	78.8%	12.9%	4.7%	8.2%	0.118	85
One tester saw more problems per unit than partner		7.1%	15.3%	-8.2%	0.167	85
Average number of problems per unit		0.12	0.26	-0.15	0.113	85

San Diego: Hispanic Renters

Rental market treatment measure	Both	White	Hispanic	Difference	P	N
Tester(s) able to make an appointment	100.0%	0.0%	0.0%	0.0%	1.000	139
If able to meet with an agent:						
Tester(s) told any units available	87.8%	4.1%	8.1%	-4.1%	1.000	123
One tester told about more units than partner		23.6%	17.1%	6.5%	0.322	123
Avg number of units available (per visit)		1.37	1.20	0.18*	0.068	123
If available units recommended:						
Tester(s) able to inspect any units	88.0%	0.9%	4.6%	-3.7%	0.219	108
One tester inspected more units than partner		7.4%	9.3%	-1.9%	0.815	108
Average number of units inspected (per visit)		1.03	1.04	-0.01	0.867	108
Average rent for any unit		$1,506	$1,520	-$14	0.141	105
Tester(s) told that rent is negotiable	1.0%	1.0%	5.7%	-4.8%	0.125	105
Tester(s) offered month-to-month	9.5%	8.6%	6.7%	1.9%	0.804	105
Tester(s) offered two-year lease	0.0%	2.9%	9.5%	-6.7%*	0.092	105
Tester(s) told fees required for any unit	88.9%	1.9%	3.7%	-1.9%	1.000	108
One tester told higher fees than partner		16.5%	9.7%	6.8%	0.248	103
Average fees for any unit		$95	$65	$30***	0.006	103
Tester(s) told fees negotiable	0.0%	2.8%	2.8%	0.0%	1.000	108
Tester(s) told payment required at move-in	86.1%	1.9%	3.7%	-1.9%	1.000	108
Average payments at move-in		$1,362	$1,419	-$56	0.117	104
Tester(s) told payments negotiable	0.0%	4.6%	3.7%	0.9%	1.000	108
Tester(s) told about incentives	11.1%	12.0%	10.2%	1.9%	0.839	108
Average yearly incentives		$91	$81	$10	0.622	104
Tester(s) told security deposit required	97.2%	0.0%	0.0%	0.0%	0.250	108
Tester(s) given choice between sec. deposit & bond	1.9%	0.9%	0.9%	0.0%	1.000	108
Tester(s) told deposit or bond negotiable	4.6%	8.3%	3.7%	4.6%	0.267	108
Average sec. deposit for any unit		$969	$1,021	-$51**	0.049	105
Tester(s) told higher yearly net cost		7.9%	15.8%	-7.9%	0.152	101
Average yearly net cost		$20,536	$20,773	-$238*	0.081	101
Tester(s) told comment on fair housing	0.0%	0.0%	0.0%	0.0%	1.000	108
Tester(s) told application must be completed	95.4%	3.7%	0.9%	2.8%	0.375	108
Tester(s) told credit check must be completed	98.1%	1.9%	0.0%	1.9%	0.500	108
Tester(s) told background check must be done	5.6%	7.4%	3.7%	3.7%	0.388	108
Tester(s) told comments on credit standing	1.9%	1.9%	8.3%	-6.5%*	0.065	108
Tester(s) told comments on rent history	0.9%	5.6%	19.4%	-13.9%***	0.006	108
Tester(s) told remarks about race/ethnicity	0.0%	0.0%	1.9%	-1.9%	0.500	108
Tester(s) provided listings, floor plan, brochure, etc.	62.0%	19.4%	10.2%	9.3%	0.110	108
Tester(s) provided more total items		34.3%	32.4%	1.9%	0.906	108
Tester(s) told arrangement for contact	74.1%	11.1%	10.2%	0.9%	1.000	108
Tester(s) told positive remark	28.7%	5.6%	24.1%	-18.5%***	0.001	108
Tester(s) told more positive remarks		11.4%	36.2%	-24.8%***	0.000	105
Tester(s) told negative remark	0.0%	0.9%	0.9%	0.0%	1.000	108
Tester(s) told more negative remarks		1.0%	1.0%	0.0%	1.000	105
Tester(s) received agent follow-up	9.3%	0.9%	7.5%	-6.5%**	0.039	107
Average overall helpfulness score		1.37	1.31	0.06	0.555	108
If units shown:						
Tester(s) saw at least one unit without any problems	80.0%	14.7%	1.1%	13.7%***	0.000	95
One tester saw more problems per unit than partner		2.2%	15.1%	-12.9%**	0.013	93
Average number of problems per unit		0.04	0.19	-0.16***	0.005	93

Washington, DC: Black Renters

Rental market treatment measure	Both	White	Black	Difference	P	N
Tester(s) able to make an appointment	98.5%	0.0%	0.0%	0.0%	1.000	137
If able to meet with an agent:						
Tester(s) told any units available	90.3%	4.8%	4.8%	0.0%	1.000	124
One tester told about more units than partner		30.6%	23.4%	7.3%	0.328	124
Avg number of units available (per visit)		2.12	1.71	0.41***	0.008	124
If available units recommended:						
Tester(s) able to inspect any units	87.5%	6.3%	4.5%	1.8%	0.774	112
One tester inspected more units than partner		20.5%	25.0%	-4.5%	0.576	112
Average number of units inspected (per visit)		1.38	1.41	-0.04	0.682	112
Average rent for any unit		$1,672	$1,680	-$9	0.345	112
Tester(s) told that rent is negotiable	2.7%	11.6%	7.1%	4.5%	0.383	112
Tester(s) offered month-to-month	0.0%	3.6%	1.8%	1.8%	0.688	112
Tester(s) offered two-year lease	4.5%	7.1%	1.8%	5.4%	0.109	112
Tester(s) told fees required for any unit	92.9%	5.4%	1.8%	3.6%	0.289	112
One tester told higher fees than partner		31.3%	27.7%	3.6%	0.630	112
Average fees for any unit		$153	$160	-$7	0.603	112
Tester(s) told fees negotiable	5.4%	13.4%	10.7%	2.7%	0.701	112
Tester(s) told payment required at move-in	26.8%	16.1%	19.6%	-3.6%	0.636	112
Average payments at move-in		$214	$477	-$263***	0.001	111
Tester(s) told payments negotiable	0.0%	1.8%	5.4%	-3.6%	0.289	112
Tester(s) told about incentives	22.3%	17.9%	5.4%	12.5%***	0.009	112
Average yearly incentives		$423	$255	$168***	0.004	109
Tester(s) told security deposit required	100.0%	0.0%	0.0%	0.0%	1.000	112
Tester(s) given choice between sec. deposit & bond	5.4%	5.4%	4.5%	0.9%	1.000	112
Tester(s) told deposit or bond negotiable	10.7%	15.2%	17.0%	-1.8%	0.868	112
Average sec. deposit for any unit		$514	$555	-$41	0.392	89
Tester(s) told higher yearly net cost		10.1%	30.3%	-20.2%***	0.004	89
Average yearly net cost		$20,086	$20,488	-$402	0.016	89
Tester(s) told comment on fair housing	0.0%	1.8%	0.9%	0.9%	1.000	112
Tester(s) told application must be completed	91.1%	4.5%	4.5%	0.0%	1.000	112
Tester(s) told credit check must be completed	59.8%	18.8%	15.2%	3.6%	0.627	112
Tester(s) told background check must be done	25.0%	15.2%	24.1%	-8.9%	0.174	112
Tester(s) told comments on credit standing	0.0%	0.0%	3.6%	-3.6%	0.125	112
Tester(s) told comments on rent history	0.0%	7.1%	12.5%	-5.4%	0.286	112
Tester(s) told remarks about race/ethnicity	0.0%	0.9%	0.9%	0.0%	1.000	112
Tester(s) provided listings, floor plan, brochure, etc.	92.9%	0.9%	3.6%	-2.7%	0.375	112
Tester(s) provided more total items		28.6%	45.5%	-17.0%**	0.048	112
Tester(s) told arrangement for contact	77.7%	8.9%	13.4%	-4.5%	0.424	112
Tester(s) told positive remark	25.9%	25.0%	17.9%	7.1%	0.312	112
Tester(s) told more positive remarks		28.6%	25.0%	3.6%	0.699	112
Tester(s) told negative remark	0.0%	2.7%	3.6%	-0.9%	1.000	112
Tester(s) told more negative remarks		2.7%	3.6%	-0.9%	1.000	112
Tester(s) received agent follow-up	17.9%	20.8%	18.9%	1.9%	0.551	106
Average overall helpfulness score		1.62	1.77	-0.15	0.104	112
If units shown:						
Tester(s) saw at least one unit without any problems	87.8%	0.0%	9.2%	-9.2%***	0.004	98
One tester saw more problems per unit than partner		11.2%	5.1%	6.1%	0.210	98
Average number of problems per unit		0.14	0.09	0.05	0.326	98

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