

## Testing for Discrimination in Home Insurance

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### Executive Summary

Recent studies have shown that, compared to homeowners in predominantly white-occupied neighborhoods, homeowners in minority neighborhoods are less likely to have private home insurance, are more likely to have policies that provide less coverage in case of a loss, and are likely to pay more for similar policies. This study explores one possible source of these differences by testing for discrimination on the part of home insurance agents against homebuyers in minority neighborhoods who seek insurance quotes.

Using pairs of testers posing as first-time buyers of homes in moderate-income minority and non-Hispanic white (or "white") neighborhoods, the study examines: whether a quote for insurance is provided; the type of coverage, options, and price of insurance quoted; and the quality of service provided (such as requirements for inspections and comprehensiveness of information provided). In this study we investigate *agents' differential treatment of insurance seekers buying their first homes in moderate-income, predominantly black-or Hispanic-occupied neighborhoods in as carefully controlled a comparison as feasible*. We emphasize that we do not investigate possible discrimination in numerous other dimensions of the insurance business; rather, we focus on the information, or "quote," provided to those seeking insurance for a home they are in the process of buying.

Our pilot study uses "paired testing," a methodological advance for researching the issue of discrimination in the home insurance market. The approach measures the extent of differential treatment of matched pairs of testers posing as buyers of homes located in minority and white neighborhoods. In each test, two phone calls were made to the same insurance agency. One call was to obtain an insurance quote for a home in a minority neighborhood, the other for a home in a white neighborhood. The neighborhoods, homes, and insurance seekers were matched on a wide range of characteristics so that the primary difference within a paired test was whether the home was located in a minority or white neighborhood. The tested agents were chosen at random from the local metropolitan area *Yellow Pages* telephone directory. Comparing the outcomes of paired phone calls over a large sample of tests allows us to measure the extent of neighborhood-based differential treatment in the tested insurance market.

Our analyses are based on tests conducted in two metropolitan areas during May and June 1995, using 10 pairs of matched homes and five pairs of matched testers in each site. In Phoenix, Arizona, we tested for differential treatment of Hispanic and non-Hispanic white neighborhoods. In three boroughs of New York City (Brooklyn, Queens, and the Bronx), we tested for differential treatment of black and non-Hispanic white neighborhoods. In Cleveland, Ohio, we initiated testing but terminated it after our project was discovered by the local insurance industry.

### Research Methodology: Strengths and Limitations

We carefully matched testers, homes, and neighborhoods so that the primary difference between a pair of calls to an agency would be the racial or ethnic composition of the neighborhood where the homes were located. Pairs of testers were matched according to age, gender, and race/ethnicity (e. g., one pair consisted of two white female testers, another of two black male testers). Each pair of testers posed as first-time buyers of homes that also were carefully matched. Pairs of homes were matched on all major characteristics generally relevant for insurance underwriting and pricing, which were confirmed by two independent home insurance experts. The matched homes were located in census tracts with comparable socioeconomic and housing stock characteristics, subject to the approval of the State Insurance Commissioner, and, when possible, in the same insurance rating territory. (An insurance rating territory is the area in which an insurance company charges a common schedule of premiums based on losses experienced in that area.)

Several features of the research design helped ensure the comparability of matched calls to agents and the credibility of the information gathered. Matched testers phoned insurance agents about their matched homes

within a three-week period, minimizing the likelihood of changes in the insurance market. All testers were trained to request basic insurance information and ask for a quote for the home they were "buying." Throughout the study the testers rotated the home pairs with which they conducted tests, so that each minority tester and each white tester inquired about insurance on homes located in both minority and white neighborhoods. Every aspect of this transaction was recorded and analyzed to determine whether there was systematic differential treatment of homes located in minority versus white neighborhoods.

The pairing of testers by race/ethnicity and sex (e. g., two white females), combined with testers of both racial or ethnic groups soliciting quotes on houses in both minority and majority neighborhoods, minimized the chances that any observed differences in coverages and prices were the result of differences in individual tester characteristics. Our sample of more than 340 paired tests per site reduced the chances that the results were the product of chance.

The approach used in this study has important limitations, however, and the results must be interpreted within these limits. The findings are relevant to first-time homebuyers in moderate-income neighborhoods in two cities. Further research is needed to determine the extent to which the results are generalizable to other types of insurance seekers, to low-income neighborhoods, and to other U. S. cities. The study is designed to test for patterns of differential treatment in the market as a whole and does not identify individual instances of discrimination. This study also does not address the criteria used to draw rating territories or the fairness of the territories. Finally, we do not examine many other agent behaviors or insurance company practices that may be discriminatory against homeowners in minority neighborhoods, including the location of insurance offices, claims adjustment, underwriting of policies, and the cancellation of policies.

## Key Findings Related to Discrimination

Our primary research goal was to test for certain insurance agent behaviors that discriminated on the basis of neighborhood racial or ethnic composition. In pursuing this goal, we focused on five critical areas: (1) whether homes in minority neighborhoods are offered a quote for insurance as often as homes in white neighborhoods; (2) whether they are offered the same types of policies; (3) whether they are offered the same policy options; (4) whether they are quoted comparable prices for similar policies; and (5) whether inspections are required and quality service is provided equally. Analyses of policy types, options, and premiums are based on tests in which both teammates received a quote. By using only these tests, we maintain the paired-testing design in which matched testers representing homes in majority and minority neighborhoods ask the same insurance agencies for service. Key findings in these areas follow.

- **Quotes.** The vast majority of agents provided quotes to testers from both white and minority neighborhoods. In Phoenix, testers from white neighborhoods received quotes in 98 percent of the tests, while testers from Hispanic neighborhoods received quotes in 97 percent of the tests. In New York, testers from white and black neighborhoods received quotes in 82 percent and 78 percent of the tests. These differences of at most a few percentage points were not statistically significant.
- **Policy Type.** In general, insurance policy types are distinguished by two key dimensions: the method by which payment will be set in case of a loss and the sources of loss covered by the policy. We examined two features of policy types that reflect these dimensions:
  - *Replacement cost coverage on the dwelling* (which pays, up to a limit, the cost of rebuilding the home when it is damaged) was offered in 9 out of every 10 tests in which both teammates received a quote. Quotes that did not provide this coverage pay the market value of the home or the cost of repairing it. In New York there was a four percentage point difference (not statistically significant) favoring white neighborhoods; in Phoenix there was no difference in rates of replacement cost quotes.
  - *All-perils coverage* (which covers damage to the dwelling under most circumstances) was also offered in most instances to testers from minority and majority neighborhoods. Quotes that do not provide all-perils coverage cover damage in a more limited set of circumstances. In each site, there was less than a percentage point differential (not statistically significant) in the rates at which testers from minority and majority neighborhoods were offered this coverage.
- **Optional Coverages.** Out of the many options offered for additional coverage, we focused our analysis on two that are generally strongly recommended:
  - *Replacement cost coverage on contents* (which pays the cost of replacing personal property in case of damage) was offered more frequently to testers from white neighborhoods. In Phoenix, this coverage was offered in 95 percent of the quoted policies for white neighborhoods and 92 percent for Hispanic neighborhoods— a small but statistically significant differential. In New York, the corresponding figures were 46 and 39 percent for tested white and black neighborhoods. This difference was not statistically significant. However, this may be due to the small number of tests in which we could learn whether the option was provided.
  - *Guaranteed replacement cost coverage on the dwelling* (which pays, with no limit, the cost of rebuilding the home when it is damaged) was offered to testers in more than 54 percent of the quoted policies. In Phoenix, testers from white neighborhoods were offered this coverage five percentage points more frequently (59 percent vs. 54 percent). In New York, testers from black neighborhoods were offered this

coverage one percentage point more frequently (55 percent vs. 54 percent). Neither difference was statistically significant, although the New York finding is based on a small number of tests in which we could learn whether the option was provided.

- **Premiums.** In Phoenix, testers from Hispanic neighborhoods were quoted premiums that were an average of 12 percent higher than those quoted for a comparable policy in white neighborhoods. This difference was statistically significant. In New York there was no difference in the premiums charged homes in tested black and white neighborhoods.

The interpretation of the Phoenix finding is complicated by the fact that we could not match most of our test homes within the same rating territory. For each of the seven home pairs located within the Phoenix city limits, the home in the Hispanic neighborhood was in a higher priced rating territory than its matched home in the white neighborhood. Our analysis shows the entire 12 percent difference in premiums reported above is accounted for by the difference in premium rates filed with the Arizona State Insurance Commission. The three Phoenix home pairs located outside the city limits were in the same rating territory and showed no premium differences.

We cannot determine whether Phoenix city rating territories were drawn in a discriminatory manner or whether the higher premiums are justified by higher losses in Hispanic neighborhoods. Nevertheless, the fact that significant differences are observed even after matching the homes and neighborhoods on a range of characteristics likely to predict loss rates suggests that further research into this issue is needed.

- **Requirements to Obtain Quotes.** Agents in Phoenix were three percentage points more likely to tell testers with homes in Hispanic neighborhoods that a quote "was not guaranteed without an inspection," a statistically significant difference. This was not true in New York. In neither site was there a statistically significant difference between majority and minority neighborhoods in the rate at which testers were told that an exterior inspection of the home was required in order to obtain a quote.
- **Service.** In New York, testers with homes in white neighborhoods were six percentage points more likely to receive both written and verbal quotes rather than verbal quotes alone, a statistically significant difference. In none of the other service measures in either site did we observe any statistically significant differences in treatment for the written or verbal format of communicating the quote, the propensity to be referred to another agent, or the explicit notation of premium discounts on the quote. For the frequency of information not mentioned in the quotes, there was 1 significant difference out of 10 measures across the two sites.

A secondary research goal was to examine discrimination on the basis of the race/ethnicity of the tester—differences in treatment of minority and white home insurance seekers as distinct from differences in treatment of neighborhoods. Because our testers had distinctive voices that typically would permit the agent to ascertain their race/ethnicity, and Hispanic testers all used identifiably Hispanic names, such an examination proved feasible. Even though tester pairs were matched on race/ethnicity, we were able to assess this form of discrimination by comparing the outcomes of tests conducted by unmatched testers of different races and ethnicities. Our analysis revealed the following:

- White testers were not favored to a statistically significant degree over the minority testers in either test site. In Phoenix, offers of quotes and preferred policy types favored white testers by a statistically insignificant one to four percentage points. In New York, offers of quotes and preferred policy types favored black testers by a statistically insignificant two to nine percentage points.
- When results for minority testers calling about homes in minority neighborhoods were compared with those for white testers calling about homes in white neighborhoods, one statistically significant result emerged in Phoenix. Hispanic testers who received quotes on homes in Hispanic neighborhoods were eight percentage points less likely to be offered replacement cost coverage on the personal property contents of their home than white testers who received quotes on homes in white neighborhoods. These comparisons revealed no other statistically significant differences in either site.

## Key Findings Related to Home Insurance Industry

Although the intent of this study was to compare how insurance agents treat homebuyers in white and minority neighborhoods, an incidental outcome of the study was to gain insights into the nature of the home insurance industry. We believe these insights are noteworthy for future research and for possible policy interventions.

First, the home insurance industry operated very differently in our two sites. Although in both Phoenix and New York the top 20 firms wrote approximately 85 percent of the policies, relative to Phoenix, the New York market was distinguished by (1) a greater predominance of insurance brokers (who serve as intermediaries between consumers and insurance companies); (2) larger insurance rating territories that did not distinguish different racial or ethnic areas within boroughs; (3) in general, less willingness to provide quotes on the telephone; and (4) when quotes were provided, they involved fewer written quotes, quotes with less information, and fewer offers of policies with all-perils coverage and replacement cost coverage on personal

property.

Second, agents varied considerably in the type, clarity, and amount of information provided prospective customers, both within and across sites. Some agents provided extremely detailed written information on standard forms; others provided only sketchy verbal information. In the latter cases, key elements of the policy were either missing or ambiguously specified. Even with many detailed, written quotes, much of the information was coded in such a technical way that it was difficult for all but insurance professionals to decipher. This evidence suggests that bona fide insurance seekers may often find it difficult to exercise informed consumer judgments in selecting home insurance.

Third, agents do not appear to use a common method to estimate the cost of replacing a home, which plays a large part in determining both the type of policy provided and the cost of the policy. Our examination of New York agents' replacement cost estimates (provided by them on some written quotes) revealed that, on average, our test homes received replacement cost estimates that varied from 31 percent below the median replacement cost estimate to 30 percent above. In Phoenix, the average estimates varied from 16 percent below to 21 percent above. This inconsistency was similar for all test homes in both sites, regardless of the home's age or construction type or the racial or ethnic composition of the neighborhood. Although we found no apparent bias in the high variability of replacement cost estimates, this variation is in itself an area of potential consumer concern.

Finally, we found some evidence that agents share information with one another about the insurance quotes they provide to prospective customers. This networking seemed to be the product of clustering of agents' offices in close proximity, frequency of several relatives working in the industry, and common computerized databases, both within a company and across companies. This finding has implications for future testing studies in which insurance is requested for the same homes from many different agents.

## Conclusion

In this pilot study, we used paired homes and testers to compare home insurance agents' responses to phone requests for insurance for homes in majority and minority neighborhoods. The testers represented themselves as first-time homebuyers purchasing homes in moderate-income neighborhoods. We examined the provision of quotes, offers of specific policy types and options, prices of that coverage, requests made of the homebuyers, and quality of service provided.

We summarize the results in the [table](#) below. The table reports, for each site where we conducted tests, the frequency of behaviors exhibited toward testers buying a home in white neighborhoods and in minority neighborhoods, as well as the percentage point difference between these frequencies. The difference between the frequencies provides our measure of differential treatment. Asterisks denote differences that are statistically significant.

On the primary measures of whether both testers in a pair were provided a quote and whether they received comparable types of policies, we found no differences in either Phoenix or New York City. However, testers in Hispanic neighborhoods of Phoenix were quoted insurance premiums that were, on average, 12 percent more expensive than those offered to testers in white neighborhoods. Our analysis shows that this difference was produced by agents quoting rates in line with those filed with the state insurance commissioner for the different rating territories encompassing the white and Hispanic areas in which our Phoenix test homes were located. Nonetheless, this finding raises questions about whether the rating territories in Phoenix were fairly constructed on the basis of differential loss histories, an issue that is not within the scope of this research but clearly warrants further study.

We found limited evidence of discrimination directed against moderate-income minority neighborhoods in providing options on policy quotes. In Phoenix, homeowners in Hispanic neighborhoods were three and one-half percentage points less likely to be offered the option of replacement cost coverage on personal property contents of the home than homeowners in white neighborhoods.

There was no statistically significant difference in offers of the guaranteed replacement cost option in Phoenix. In New York City, we found no statistically significant evidence of discrimination in the provision of policy options, but this conclusion is limited because of incomplete information.

In Phoenix, testers buying homes in Hispanic neighborhoods were three percentage points more likely to be told that the quote they received would not be guaranteed without a home inspection— a small but potentially important difference if the inspection would have kept them from receiving insurance. In New York, the only indicator of discrimination was that testers with homes in white areas received both written and verbal quotes and their teammates in black areas only received verbal quotes in 18 percent of the cases, whereas the converse occurred in only 12 percent of the cases, a six percentage point differential. However, this difference did not result in testers with homes in black neighborhoods receiving less information than those with homes in white neighborhoods.

Overall, of the 20 indicators (10 for each city) of potential differential treatment analyzed, one in New York City and three others in Phoenix indicated statistically significant differences that were consistent with the hypothesis of discrimination. In addition, out of 10 measures (across the two cities) of information not mentioned in the quotes, one indicated a statistically significant difference. Although these differences warrant further investigation, they do not indicate systematic discrimination by agents directed against first-time homebuyers in moderate-income minority neighborhoods in the provision of home insurance quotes measured across a wide range of indicators.

Our study was designed to assess whether any significant differences in treatment were revealed by the market as a whole, not whether an agent discriminated in any individual instance. Thus, these findings do not mean that there are no instances of discrimination regarding these behaviors in the home insurance market.

These findings suggest, however, that discrimination on the part of agents as they respond to phone requests for quotes does little to explain the findings of earlier studies that homeowners in minority neighborhoods are less likely to have private insurance and more likely to have policies that provide less coverage in case of a loss. If the premium differences we observed in Phoenix were replicated in other cities and neighborhood types, they may help explain why homeowners in minority neighborhoods have been shown to pay more for similar policies. Future analyses should focus on the generalizability of these findings and other aspects of home insurance, including the location of agencies; the role of race in underwriting, claims adjustment, and cancellation of policies; and the design of rating territories, as well as practices not yet investigated.

## Table

### Summary of Differences in Treatment by Neighborhood

|  | Phoenix     |                        |                        |            | New York City |                        |                        |            |
|--|-------------|------------------------|------------------------|------------|---------------|------------------------|------------------------|------------|
|  | Sample Size | Majority Neighborhoods | Minority Neighborhoods | Difference | Sample Size   | Majority Neighborhoods | Minority Neighborhoods | Difference |
| Quote Offered  | 400         | 97.50%                 | 96.80%                 | 0.70%      | 343           | 81.60%                 | 78.40%                 | 3.20%      |
| Policy Type  |             |                        |                        |            |               |                        |                        |            |
| Replacement cost policy  | 373         | 99.5                   | 99.7                   | -0.2       | 172           | 95.9                   | 92.4                   | 3.5        |
| All-perils policy  | 342         | 98.8                   | 98.5                   | 0.3        | 139           | 71.9                   | 72.7                   | -0.8       |
| Policy Options   |             |                        |                        |            |               |                        |                        |            |
| Guaranteed replacement cost  | 340         | 58.5                   | 53.5                   | 5          | 92            | 54.3                   | 55.4                   | -0.9       |
| Replacement cost on property   | 346         | 95.1                   | 91.6                   | 3.5*       | 97            | 46.4                   | 39.2                   | 7.2        |
| Premium Quoted for Same Policy (% difference)  | 359         |                        |                        | 11.6%*     | 233           |                        |                        | 0.30%      |
| Premium Quoted for Same Policy (% relative differences to rating territory differential) | 359         |                        |                        | -1.4%      |               |                        |                        |            |
| Service and Requirements for Quote   |             |                        |                        |            |               |                        |                        |            |
| Received written quote; team-mate received only verbal quote                             | 374         | 3.2                    | 1.6                    | 1.6        | 233           | 18.5                   | 11.8                   | 6.7*       |
| External inspection needed to give quote   | 411         | 1.9                    | 3.7                    | -1.8       | 349           | 0.9                    | 0.3                    | 0.6        |
| Quote not guaranteed without inspection  | 370         | 3.6                    | 6.5                    | -2.9*      | 335           | 1.7                    | 1.7                    | 0          |
| Referred to another agent  | 415         | 3.4                    | 3.9                    | -0.5       | 349           | 1.1                    | 1.7                    | -0.6       |

+Sample size refers to the number of paired tests.

\*Difference is statistically significant at the .05 level, one-tailed test.

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## Other Publications by the Authors

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