Denied: Racial Disparities in Insurance Claims*

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We document that Black homeowners receive less value from their insurance policies than White homeowners with similar coverage. Using detailed administrative data on policies and claims, we find that Black policyholders face higher claim rejection rates, lower payouts, and longer resolution times than White policyholders filing similar claims in similar locations. Insurance agents contribute to these disparities, with the gap disappearing for Black agents. Disparities are larger where competitive and economic constraints on agents are weaker. Our findings show that racial gaps in financial markets extend beyond the point of sale, affecting wealth preservation, not just accumulation.

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I have no potential conflicts to disclose.
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1 Introduction

Do minorities receive equal value from financial products they have already purchased? When households purchase financial products, they expect equal treatment not only at the point of sale[1] but also when exercising their contractual rights—filing an insurance claim, exercising a warranty, seeking dispute resolution. If minorities are treated differently at this stage, equal treatment at the point of sale does not deliver equal value. This is a consequential margin: households have paid for contractual rights that may not be fully honored.

We study this question in the context of homeowners insurance claims. For most American families, home equity is their primary asset,[2] and homeowners insurance—with a market size of over $145 billion in annual premiums covering 80 million households—is meant to protect it. A denied claim or reduced payout can force families to pay out of pocket for repairs, take on debt, or defer maintenance—eroding the very wealth the insurance was meant to safeguard. If Black policyholders systematically receive less favorable claim outcomes, they effectively hold less valuable policies despite paying similar premiums. Given that home equity is the dominant source of wealth for Black households in particular,[3] disparities in claim outcomes could contribute to the racial wealth gap.

Using a novel dataset linking policyholders, agents, and claims, we document a racial gap in claim outcomes by comparing policyholders within the same insurance agent. We find that Black policyholders are 3.2 percent more likely to have claims rejected, receive payouts 4.8 percent lower, and wait 18 percent longer for resolution than White policyholders with similar coverage and deductibles, filing claims for the same types of losses, in the same neighborhoods. Insurance agents—the intermediaries who help policyholders navigate the claims process—contribute to this racial gap. The disparity appears only among White

1. A large literature documents discrimination at the point of sale. See, e.g., Yinger (1986), Ayres and Siegelman (1995), List (2004), Edelman et al. (2017), Munnell et al. (1996), Bartlett et al. (2022), Bayer et al. (2018), Blanchflower et al. (2003).

2. Home equity accounts for a median of 45 percent of homeowners' net worth (Pew Research Center, 2023).

3. Black homeowners derive 63 percent of their net worth from home equity compared to 41 percent for White homeowners (Pew Research Center, 2023).

agents and disappears with Black agents.

Examining these racial disparities in insurance claims presents several empirical challenges. First, it requires detailed claims data along with the race of the applicant and claim outcomes. Second, the claims process involves multiple actors—policyholders, agents, and adjusters—making it difficult to isolate their roles in observed disparity without linking claims to specific intermediaries. Third, evaluating the mechanism requires testing potential candidates that are themselves difficult to observe, such as differences in claim quality or policyholder behavior.

Our setting and data address these challenges. We obtain administrative records from Florida's insurer of last resort covering over four million policies and 200,000 claims over a twenty-year period, which identify the individual agent who handles each policy and track the adjuster who adjudicates each claim. We merge these records with voter registration data to recover the race of both policyholders and agents, which allows us to examine any disparities in the claims process and the role of intermediaries involved. In particular, because the same adjuster evaluates claims brought by many different agents, we can hold the adjuster fixed and ask whether outcomes still depend on who handles the claim—separating the agent's contribution from that of the adjuster who makes the final decision.

We address alternative explanations for the gap in several ways. First, we compare Black and White policyholders served by the same agent, holding fixed the agent's claim-handling practices and controlling for a rich set of contract, property, and claim characteristics, so that the comparison is between relatively similar claims handled by the same intermediary. Second, to evaluate the role of differences in claim quality, we examine how policyholders respond to unfavorable outcomes through litigation and appraisal. Because contesting a claim is costly, such responses would indicate that policyholders regard the outcome as wrong, which would be difficult to reconcile with the claim-quality hypothesis. Third, we exploit major hurricanes as shocks that generate damages across nearby policyholders, comparing the same agent–policyholder pair before and after the event. Because the match is held

fixed, the comparison nets out any differences in how policyholders sort to agents or in the quality of the underlying match. Fourth, we split the sample by the race of the agent, since any difference between Black and White policyholders or their claims should affect outcomes regardless of who handles them—allowing us to assess whether the gap instead depends on the agent.

We find significant racial gaps in payouts, rejection rates, and resolution times. These gaps persist, and in some cases grow, as we progressively control for observable characteristics for Black and White policyholders: contract terms through policy year, coverage limits and deductibles; property characteristics through property size, age, and structure; the kinds of losses they file and where they live through cause-of-loss and neighborhood controls; and the economic conditions surrounding them, through local income and educational attainment at the time of underwriting, which absorb time-varying area-level differences in wealth and financial sophistication. The disparities remain even when we compare policyholders served by the same agent, ruling out differences in the intermediaries to whom they sort.

To evaluate whether differences in claim quality explain the gap, we evaluate policyholder responses. Black policyholders are significantly more likely to contest claim outcomes. Compared to White policyholders, Black policyholders are 3.7 percentage points more likely to litigate claims and 2.2 percentage points more likely to invoke the appraisal process. Because contesting an outcome is costly and time-consuming, a policyholder who does so, having weighed that cost, shows that they view rejections and underpayments as erroneous rather than legitimate. Moreover, when Black policyholders do contest, they prevail at rates indistinguishable from White policyholders, indicating that the claims they pursue hold up on the merits rather than reflecting weaker claims.

To address the concern that the matching of policyholders to agents is endogenous—that Black and White policyholders sort to agents in ways correlated with how their claims are handled—we exploit major hurricanes as shocks that generate damage across nearby policyholders. Comparing the same agent–policyholder pair before and after a hurricane, we

find that disparities in rejection rates and payouts widen sharply in its aftermath.[4] Because agent-by-policyholder fixed effects hold the match constant, these results cannot reflect time-invariant differences in claim quality, policyholder characteristics, or sorting.

Insurance agents advocate for policyholders throughout the claims process, so if agents contribute to the disparity, it should depend on which agent handles the claim. We examine this by splitting the sample based on agent race. The racial gap in payouts and rejection rates exists only among White agents: Black policyholders served by White agents receive lower payouts and face higher rejection rates, while with Black agents these disparities disappear. Because any difference in the claims Black and White policyholders file would affect outcomes regardless of the agent's race, a gap that emerges only with White agents is difficult to attribute to claim quality or other policyholder characteristics, and instead points to the role of the agent.[5]

We further examine the role of insurance agents in driving these disparities. Agents are independent intermediaries who place business with multiple insurers rather than working for a single carrier. In the claims process, the agent is the policyholder's primary point of contact: agents help initiate claims, assemble and submit documentation, communicate with the insurer's adjuster, follow up on the pace and terms of resolution, and assist policyholders in contesting unfavorable decisions through appraisal or litigation. This advocacy is effortful and discretionary. Agents are compensated through both premium-based commissions and contingent commissions tied to the loss experience of the policies they place—earning more when their book generates fewer and smaller claims (Cummins and Doherty, 2006). Agents thus have a financial stake in claim outcomes and discretion over how much effort to expend on any given claim.

We find that the racial gap in payouts and rejection rates exists only among White agents—Black policyholders with White agents face lower payouts and higher rejection rates.

4. These results are robust to using a stacked triple difference approach instead of a staggered implementation.

5. These results on agent heterogeneity and triple differences around hurricanes also further help address the issue of claim quality as discussed in Section 5.3.

With Black agents, these disparities disappear. Despite facing no disparity in rejection rates with Black agents, Black policyholders litigate at nearly the same rate as they do with White agents—where rejections are significantly higher. This pattern suggests Black agents encourage Black policyholders to contest rejections while White agents discourage it. This likely increases resolution times that remain elevated for Black policyholders at similar levels with both agent types. When we restrict to accepted claims, the resolution time disparity disappears with Black agents but persists with White agents—further supporting this interpretation. Disparities are also concentrated in discretionary claim closures—rejections classified as "miscellaneous reasons"—consistent with differential advocacy operating through agent discretion.

We next consider what type of agent-bias might explain these patterns. Discrimination can arise from taste-based preferences against out-groups (Becker, 1957; Charles and Guryan, 2008; Fisman et al., 2017) or from using race as a statistical proxy when better information is unavailable (Arrow, 1973; Phelps, 1972; Altonji and Pierret, 2001). We find several results consistent with the taste-based interpretation, including heterogeneity based on agent race discussed earlier. Because such discrimination is costly, disparities should shrink as the cost of differential treatment rises or its feasibility falls. Supporting this hypothesis, we find larger gaps in less competitive markets, among lower-value clients, and where Black-agent capacity is most constrained and Black policyholders must rely on White agents—so that the marginal agent they reach is more prejudiced (Charles and Guryan, 2008). We also find patterns consistent with statistical discrimination, which predicts that disparities should diminish as agents acquire information—through experience on the job or repeated interactions with the same policyholder (Altonji and Pierret, 2001). Supporting this hypothesis we find larger disparities for agents with less experience and for the first claim filed by a given policyholder.

The conditions under which agents operate also shape disparities. When agents face heavier workloads and time pressure, they have less capacity to evaluate each claim even-handedly, and bias of either kind is more likely to surface (Bertrand et al., 2005). Consistent

with this prediction, we find that the widening of racial gaps after hurricanes is concentrated in the immediate aftermath, when agent workload peaks. Cross-sectional evidence also corroborates this — we find that agents with more insurer appointments produce larger racial gaps. While our results provide suggestive evidence on the type of bias (i.e., taste-based vs statistical), the fact that the gap responds to different characteristics of agents and the market conditions they operate in shows that agents contribute to the racial gap in claim outcomes.

A potential concern with our setting is external validity. Our data come from Florida's insurer of last resort, which may include selected agents and policyholders and hence the findings may not generalize to other insurers. However, over 95% of agents in our sample are independent agents who also work with private insurers. We do not find any material difference between agents covered in our sample versus those not affiliated with our data provider. Further, the disparities we document operate through agent behavior and not insurer-specific policies. Hence our qualitative findings and the mechanism we uncover are likely to extend to the broader homeowners insurance market.

Our paper contributes to a substantial literature documenting racial discrimination in financial services. Minority mortgage applicants face higher denial rates even after controlling for creditworthiness (Munnell et al., 1996), pay higher interest rates (Bartlett et al., 2022), and are steered toward high-cost subprime products (Bayer et al., 2018). Lending disparities also operate at the neighborhood level, with mortgage credit less available in minority communities (Tootell, 1996). Similar patterns appear in auto lending, where minority borrowers pay higher interest rates (Charles et al., 2008; Butler et al., 2023). In small business credit markets, minority-owned firms face higher denial rates (Blanchflower et al., 2003; Cavalluzzo and Wolken, 2005), and discrimination appears to decline with market competition (Cavalluzzo et al., 2002). A related strand examines how intermediaries shape these disparities: cultural proximity between loan officers and borrowers improves credit access (Fisman et al., 2017), minorities pay higher fees when working with white mortgage brokers (Ambrose et al.,

2021), minority loan officers reduce disparities for minority borrowers (Frame et al., 2025), and process automation can reduce racial gaps by limiting human discretion (Howell et al., 2024), though machine learning algorithms may also widen disparities by more precisely pricing borrower risk (Fuster et al., 2022).

Research on disparities in insurance markets has been comparatively limited. Using aggregate data, Squires (2003) documents geographic patterns in homeowners insurance availability consistent with redlining, and Harrington and Niehaus (1998) examine whether auto insurance premiums vary with neighborhood racial composition. We provide the first evidence on discrimination in insurance claims. While prior work examines whether minorities can obtain financial products on equal terms, we ask whether they receive equal value from products they have already purchased. This margin is especially consequential because unlike point-of-sale discrimination—a price the household can shop or decline—claims discrimination withholds insurance value in the bad state of the world, when a household has suffered a loss and is least able to absorb it. Policies addressing discrimination at the point of sale may not reach disparities that arise when households exercise their contractual rights. We also show that intermediaries create disparate outcomes through differential advocacy even when they do not make final decisions—extending work on loan officers to a setting where the advocacy and decision-making roles are clearly separated. By documenting that Black homeowners receive less insurance protection for their primary asset, we identify a novel channel through which financial market frictions contribute to racial wealth inequality. Unlike racial gaps in credit markets, which affect wealth accumulation, gaps in claims affect the preservation of wealth households have already built.

2 Institutional Framework

Our empirical design rests on a few institutional features of the residential property insurance market, which we describe here. The granular regulatory, licensing, and compensation

detail underlying this discussion is described in Appendix A1.

Separation of agents and adjusters. Residential property insurance is distributed and serviced through licensed intermediaries regulated by state-level agencies.[6] The agent and the adjuster are separately licensed functions occupying legally distinct roles. The agent is the policyholder-facing intermediary, who sells and services policies and assists the policyholder throughout the claims process. The adjuster, acting on the insurer's behalf, investigates the loss, verifies coverage, estimates the amount payable, and determines the payout. This separation implies that agents cannot approve, value, or deny a claim; any contribution of the agent to claim outcomes operates through advocacy and effort rather than formal authority.

Agent advocacy and discretion. The agent and adjuster perform complementary functions: the agent assembles and transmits the claim file, and the adjuster evaluates it. Because adjusters handle claims from many independent agents and cannot independently re-verify every file with equal depth, the effort an agent expends in documenting and framing a claim conveys information about its quality, and can shift outcomes even when the adjuster is unbiased. This advocacy operates at several points in the claims process, none of which requires the agent to decide the claim: how documentation is gathered, formatted, and presented during the investigation; how the claim is followed up during settlement; and whether the policyholder is advised to contest an unfavorable determination. Each action is costly to the agent in time and attention and is only partly observable to the insurer. Because agent effort matters for outcomes yet is discretionary and difficult to monitor, agent behavior can generate disparities among similar claims handled by the same agent.

Agent compensation. Agent compensation is a further reason advocacy is discretionary rather than uniform. Cummins and Doherty (2006) show that independent intermediaries earn both premium-based commissions, paid as a percentage of premium written, and con-

6. For Florida, this agency is the Florida Department of Financial Services.

tingent commissions, tied to the profitability, persistency, or volume of business placed with an insurer. When keyed to profitability, the contingent component is often based on the loss ratio of the agent's book, so fewer and smaller claims raise the agent's payout, creating a tension between the policyholder's interest in full recovery and the agent's financial relationship with insurers. Our argument does not require any single carrier to pay claim-specific contingent commissions; it requires only that agents—who overwhelmingly hold appointments with multiple private insurers—face costly and discretionary advocacy decisions and may have a financial stake in the loss experience of their book.[7] Advocacy may also fall short not only when agents deliberately provide less of it, but when they cannot sustain even-handed effort under pressure—conditions that arise during the compressed surges in claim volume that follow major hurricanes, motivating our analysis of disparities around hurricanes and across agents facing greater capacity constraints.

3 Data

Our analysis combines administrative homeowners' insurance records, individual-level voter registration data, and regulatory records on insurance agent licensing. The insurance data consist of policy-level and claims-level administrative records obtained from Citizens Property Insurance Corporation, Florida's insurer of last resort and one of the largest providers of multi-peril homeowners' insurance in the state.

The insurance dataset covers all residential policies issued by Citizens from 2002 through September 2023. The policy-level data include detailed information on contract characteristics, such as premiums, deductibles, coverage limits, and policy effective dates. In addition, the data reports the names and addresses of insurance agents and contains rich property-level characteristics, including street address, year of construction, total building area, number of units, and number of stories.

7. More than 95% of agents in our sample also place business with private insurers, so the broader-market compensation structure is the relevant one even though our claims data come from a single carrier. Appendix A1 provides supporting documentation.

The claims data provides granular information on the claims process, including loss and resolution dates, claim status (e.g., approved or denied), net losses incurred, and the identifier of the claims adjuster assigned to each claim. We merge the policy and claims datasets using policy and term numbers as unique identifiers, allowing us to link contract characteristics to subsequent claims and their outcomes.

To measure the demographic characteristics of policyholders and insurance agents, we use voter registration data from L2, a widely used commercial data provider in academic research. The L2 data contain monthly to yearly snapshots of Florida registered voters from 2004 to 2023 and report individuals' race and ethnicity, political affiliation, and registered residential address, primarily drawn from voter registration records.

The availability of names and residential addresses in the insurance and voter registration datasets allows us to match voter records to insurance policyholders and agents. This linkage enables us to observe the race and other demographic characteristics of policyholders and agents at a granular level. Our final matched sample includes more than 4.5 million homeowners' insurance policies and approximately 200,000 claims.

We supplement the insurance and voter registration data with administrative records on insurance agents obtained from the Florida Department of Financial Services. These records contain detailed information on agent licensing and insurer appointments, including the identity of each insurer with which an agent is appointed and the dates of appointment. This allows us to observe time-varying measures of agent workload, such as the number of active insurer appointments held at any point in time. We match these records to our insurance data using agent license numbers.

3.1 Summary Statistics

Figure 1 displays the geographic distribution of policies and claims across Florida ZIP codes. Both policies and claims are concentrated in the southern and coastal regions of the state, reflecting population density and property exposure. Figure 2 maps the distribution

of insurance agents, which follows a similar pattern.

Table 1 reports summary statistics for the main variables used in the analysis. The policy-level sample consists of 4,672,904 homeowners' insurance contracts. Approximately 5 percent of policies experience at least one claim during the observation period.

Black policyholders account for 14 percent of contracts in the sample, while 5 percent of insurance agents are Black, reflecting the racial composition of policyholders and agents in our data. The claims sample includes 213,701 claims, of which 35 percent are rejected. The mean payout-to-coverage ratio is 0.11, with substantial dispersion (standard deviation of 0.23), indicating that, conditional on filing a claim, payouts average approximately 11 percent of insured dwelling coverage. The median payout ratio is 2 percent. Claim resolution takes 7.3 months on average and exhibits substantial heterogeneity, with an interquartile range of 1 to 7 months.

Policyholders may contest unfavorable outcomes through two primary channels. 8 percent of claims result in litigation, while 7 percent go to appraisal. In addition, 2 percent of claims close with partial payment, and 9 percent close for miscellaneous reasons not captured by standard rejection categories. Insurance agents in our sample have an average tenure of 14.1 years and write an average of 338 policies, with substantial heterogeneity in agent volume (standard deviation of 545 policies). The median agent writes 183 policies and has a tenure of 15.5 years.

Table A1 reports summary statistics separately by agent race. Black agents serve a substantially higher share of Black policyholders, with 54 percent of their policyholders being Black, compared with 12 percent for White agents. Rejection rates are slightly lower for Black agents (33 percent versus 35 percent), while payout-to-coverage ratios are lower on average. Claims associated with Black agents take longer to resolve, averaging 8.8 months compared with 7.1 months for White agents. Dispute rates are substantially higher among Black agents: 15 percent of claims result in litigation and 12 percent invoke appraisal, compared with 7 percent for each outcome among White agents. Rates of partial payment

and miscellaneous claim closures are similar across agent race. Finally, Black agents operate at smaller scale, handling fewer policies on average, while agent tenure is comparable across groups.

Table A2 reports the same statistics by policyholder race. Black policyholders receive lower payout-to-coverage ratios (0.07 versus 0.12) and wait substantially longer for resolution (9.2 versus 6.6 months). They also contest outcomes far more often, litigating at 15 percent versus 5 percent and invoking appraisal at 12 percent versus 5 percent. Rejection rates are similar across groups in raw terms (34 versus 35 percent). These are unconditional differences that motivate the controlled analysis in the following sections.

Overall, the summary statistics indicate meaningful differences in client composition and claim experiences across agent race, motivating our analysis of racial disparities in claim outcomes in the following sections.

3.2 Sample selection

Our analysis is subject to two potential sources of sample selection. First, the agents in our sample are those who work for Citizens and may differ from the broader population of licensed homeowners insurance agents in Florida. Second, identifying policyholder race requires matching Citizens policy records to L2 voter registration data, and the matched sample may differ systematically from unmatched policies. We address both concerns in turn.

To assess the representativeness of agents in our sample, we compare Citizens agents to the broader population of licensed homeowners insurance agents in Florida. We construct the comparison sample by scraping the universe of agent licensing records from the Florida Department of Financial Services, which provides detailed information on each agent's license categories, insurer affiliations, and tenure. This data collection effort yields a comprehensive comparison sample covering all state-licensed agents over our sample period. Figure A3 compares the two groups across a range of licensing characteristics. Citizens and non-Citizens

agents hold similar numbers of valid and invalid licenses and have comparable tenure as measured by years since first license issuance. The two groups differ modestly along two dimensions: Citizens agents work with somewhat fewer property insurers and hold fewer distinct license categories, reflecting differences in the scale of practice. Figure A4 compares demographic composition. The racial composition of the two samples is broadly similar—both groups are majority White, with Black agents representing a small share in each—though Citizens agents are slightly less likely to be Black than the broader population. Overall, Citizens agents broadly resemble the broader population of Florida insurance agents and while some modest differences exist, they are economically small.

We next examine selection into the matched sample. We identify policyholder race by linking Citizens policy records to L2 voter registration data using names and residential addresses, and a natural concern is whether the matched sample differs systematically from unmatched policies in ways that would bias our estimates. Figure A1 compares the two samples across policy characteristics, including coverage limits across all coverage categories, premium subtotals and totals, and deductibles for all-other-perils, hurricane, and sinkhole coverage. The distributions track closely across all dimensions, indicating that the matching process does not select on contract terms or coverage levels. Figure A2 extends the comparison to claim characteristics—rejection rates, time from loss to resolution, and loss amounts. These outcomes form the basis of our main analysis, and the matched and unmatched samples exhibit nearly identical distributions across all of them. Selection into the matched sample does not operate along the policy or claim dimensions central to our analysis.

4 Empirical methodology

Our empirical strategy for evaluating racial differences in insurance claim outcomes exploits within-agent variation in policyholder race. Insurance agents act as the primary intermediaries in the claims process and exercise discretion over claim initiation, documentation,

communication with insurers, and the pace of resolution. Importantly, individual agents handle claims for multiple policyholders who differ in racial identity. This institutional feature allows us to compare claim outcomes for Black and White policyholders handled by the same agent, holding fixed all agent-specific factors that may affect claim processing.

We estimate the following specification:

$$Y_{i,j,z,t} = \beta \times \mathit{Black}_i + \alpha_j + \alpha_z + \mathbf{X}_i^{\text{Contract}} + \mathbf{X}_i^{\text{Property}} + \mathbf{X}_i^{\text{Claim}} + \mathbf{D}_z \times \text{PolicyYear}_t + \varepsilon_{i,j,z,t}, \quad (1)$$

where $Y_{i,j,z,t}$ denotes an outcome associated with the insurance claim process for policyholder i, handled by agent j, residing in ZIP code z, in policy year t. Outcomes include payout-to-coverage ratios, claim rejection, resolution time, and litigation. The indicator Black_i equals one if the policyholder is Black and zero if White. The coefficient β captures differences in claim outcomes between Black and White policyholders.

The specification includes agent fixed effects (α_j), which absorb all time-invariant agent-specific characteristics—such as claim-handling style, baseline discretion, business model, and local operating practices—that may influence claim processing. To further account for geographic heterogeneity, the specification also includes policyholder's ZIP-code fixed effects (α_z).

We control for a rich set of observable characteristics that affect claim outcomes. Contract characteristics $\mathbf{X}_i^{\text{Contract}}$ include fixed effects for quintiles of deductibles and coverage limits. Property characteristics $\mathbf{X}_i^{\text{Property}}$ include fixed effects for dwelling size, number of stories, and property age. Claim characteristics $\mathbf{X}_i^{\text{Claim}}$ include loss-year fixed effects and cause-of-loss fixed effects, capturing systematic variation in claim timing and claim type. To flexibly control for evolving local socioeconomic conditions, we additionally include interactions between ZIP-code–level demographics $\mathbf{D}_z$ (income and educational attainment) and policy-year fixed effects. Standard errors are clustered at the agent level, thereby allowing for arbitrary correlation among the outcomes of all claims handled by a given agent.

Under this within-agent design, the fixed-effects approach tests whether claims filed by Black policyholders experience systematically different outcomes than claims filed by White policyholders when handled by the same agent. Since the comparison is across policyholders for a given agent, all time-invariant agent-specific claim-handling characteristics are absorbed by the agent fixed effect. Conditioning further on a rich set of contract, property, claim, and location-by-time controls, differences in claim outcomes cannot be attributed to agent-level heterogeneity or common institutional factors and instead reflect within-agent variation associated with policyholder race. The identifying assumption is that, within a given agent, unobserved determinants of claim outcomes do not vary systematically with policyholder race. Under this assumption, the estimated differences can be interpreted as reflecting differential outcomes associated with policyholder race rather than differences in agent behavior or local conditions.

5 Racial gap in claims process

5.1 Claim outcomes

We begin by examining whether homeowners' insurance claim outcomes differ systematically by policyholder race. Specifically, we test whether Black and White policyholders receive different treatment in the claims process. Table 2 reports estimates for claim payout-to-coverage ratios, rejection rates, and resolution times as a function of an indicator for Black policyholders, controlling for detailed policy characteristics, property attributes, loss characteristics, and fixed effects that absorb local and temporal variation.

Across all specifications, Black policyholders experience significantly worse claim outcomes. Panel A shows that Black policyholders receive systematically lower payouts. In our most saturated specification (Column 5), which includes agent fixed effects and controls for policy characteristics, property features, loss characteristics, and neighborhood demographics, Black policyholders receive payouts that are 0.51 percentage points lower relative

to coverage limits. Given a mean payout ratio of 10.6 percent, this corresponds to a 4.8 percent reduction in claim payouts. The estimated effect remains economically and statistically significant across all specifications, ranging from 0.44 to 0.64 percentage points.

Black policyholders also face higher rejection rates. Panel B shows that Black policyholders are 1.12 percentage points more likely to have claims rejected than otherwise similar White policyholders—filing claims for the same types of losses, in the same neighborhoods, and served by the same insurance agents. Relative to the baseline rejection rate of 34.9 percent, this represents a 3.2 percent increase.

Panel C shows that Black policyholders experience substantially longer resolution times. Claims filed by Black policyholders take 1.35 months longer to resolve than comparable claims filed by White policyholders, an 18 percent increase relative to the mean resolution time of 7.3 months. This disparity persists across all specifications and remains economically meaningful even when comparing policyholders served by the same agent and filing claims in the same year for identical loss types. This gap is not an artifact of differential rejection rates or rejected claims resolving on a different timeline. Among accepted claims, where resolution reflects processing speed rather than the outcome of a contested decision, Black policyholders still wait 1.68 months longer than comparable White policyholders (Table A3), somewhat larger than the unconditional gap.

Importantly, these differences persist even after conditioning on ZIP code, policy year, cause of loss, and agent fixed effects, indicating that they are not driven by neighborhood characteristics and contract terms. The inclusion of agent fixed effects is particularly important, as it ensures comparisons between Black and White policyholders served by the same agent, ruling out explanations based on sorting to lower-quality agents.

5.2 Rejection reasons

To analyze higher rejection rates among Black policyholders, we examine the specific reasons for claim rejections. Table A4 reports estimates for two discretionary categories:

partial payment closures and miscellaneous closures.

Panel A shows small differences in partial payment closures. Once agent fixed effects are included, these differences become statistically insignificant. These partial payment rates largely reflect observable claim characteristics rather than differential treatment. In contrast, Panel B shows that Black policyholders are significantly more likely to have claims closed for miscellaneous reasons. These closures do not fall into standard denial categories and represent the most discretionary form of claim rejection. They occur 0.58 percentage points more frequently for Black policyholders.

Notably, this disparity accounts for about half of the overall racial gap in rejection rates. The concentration of disparities in non-specific rejection categories suggests that racial differences arise from discretionary decision-making rather than from observable differences in coverage or claim characteristics.

5.3 Claim quality

The gaps in claim outcomes could reflect legitimate differences in claim quality. If Black policyholders file weaker claims (perhaps because they are less financially sophisticated), those claims may be denied or underpaid more. Such differences, if present, would bear on the interpretation of the gap rather than its consequences: a policyholder who receives a lower payout is worse off whether the shortfall reflects a weaker claim or other reasons. Nonetheless, evaluating it is central to understanding the mechanism, and this section examines whether differences in claim quality explains the gap.

We begin with policyholders' own responses to unfavorable outcomes. If Black policyholders file lower-quality claims, we would expect them to accept the rejection outcomes at rates similar to or higher than those of White policyholders. Instead, as reported in Table 3, we find that they contest them substantially more often through both litigation and appraisal. Black policyholders are 3.73 percentage points more likely to litigate claims—a 47 percent increase relative to the baseline litigation rate of 7.9 percent. Similarly, Black

policyholders are 2.22 percentage points more likely to invoke the appraisal process, relative to a mean rate of 7.1 percent.

Contesting an unfavorable outcome is costly and time-consuming. Litigation requires retaining counsel and bearing legal fees, and invoking appraisal entails hiring an independent appraiser. Both also substantially delay resolution. Because contesting is expensive on both monetary and non-monetary margins, policyholders pursuing weak claims have little to gain from it. The markedly higher rate at which Black policyholders contest therefore indicates that they regard their rejections and underpayments as unwarranted—a pattern difficult to reconcile with the view that they are filing weaker claims in the first place.

We test this empirically by evaluating the success rate of contestations across race. If Black policyholders were filing and subsequently contesting weaker claims, the success rate of those contestations would be lower. Instead, as reported in Table A5, we find no such gap: conditional on litigation, on appraisal, or on either, Black policyholders obtain full payment at rates statistically indistinguishable from those of comparable White policyholders. If anything, conditional on appraisal, the likelihood of success is 1.31 percentage points higher for Black policyholders, though statistically insignificant with a t-statistic of 1.59. That Black policyholders contest unfavorable outcomes more often—at real cost—and succeed at the same rate is difficult to reconcile with the view that they are pursuing weaker claims; it instead suggests they are contesting valid claims that were wrongly denied or underpaid. That these contested claims are upheld as often as White policyholders' indicates that the higher rate of contestation reflects valid claims that were wrongly denied—not weaker claims that policyholders mistakenly pursue.

In addition, several other analyses in the paper further help address the claim-quality explanation. In Section 5.1, we progressively saturate the specification with controls for contract, property, and claim characteristics, so that the comparison isolates policyholders and thereby claims that are observably similar. In Section 6.1, we compare outcomes across agents of different races. Any difference in the claims themselves should affect outcomes

regardless of who handles them, so a gap that depends on the agent's race is difficult to attribute to claim quality. We also exploit designs that hold the policyholder–agent match fixed, comparing the same pair before and after a hurricane (Section 5.4), which absorbs fixed differences between policyholders and the match to agents. Finally, we compare policyholders living on the same street (Section 7.4), where housing stock and neighborhood are most similar, to address residual differences in property or location.

5.4 Evidence from hurricanes

Our results so far document substantial racial disparities in claim outcomes and show that Black policyholders contest rejections at higher rates. However, a remaining concern is that Black and White policyholders served by the same agent may differ in unobservable ways that affect claim outcomes. We address this concern using major hurricanes as events that generate property similar damage across policyholders in the same area. Our specification includes agent-by-policyholder fixed effects, comparing outcomes for the same policyholder-agent pair before and after a hurricane—holding constant all time-invariant characteristics of the policyholder, the agent, the property, and the match.

We identify major hurricanes and tropical storms using the SHELDUS database, which provides county-level property damage estimates for natural disaster events. We restrict the sample to counties that have experienced at least one such event during our sample period. This restriction ensures that treated and control counties are relatively more comparable—both are located in hurricane-prone regions of Florida. Within this sample, we define treated counties as those experiencing above-median property losses at the county level for a given event. Counties with below-median losses serve as controls. Because hurricanes strike different parts of the state at different times, variation comes from the staggered timing of events across counties. This design compares how racial disparities evolve in high-damage versus low-damage counties around the same hurricane, while the staggered nature of events provides variation across multiple storms over our sample period.

We estimate the following specification:

$$
\begin{aligned}
Y_{i,j,c,t} = {} & \beta_1 \times Post_{c,t} \times Treated_{c,t} \times Black_i + \beta_2 \times Post_{c,t} \times Treated_{c,t} + \beta_3 \times Post_{c,t} \times Black_i \\
& + \beta_4 \times Treated_{c,t} \times Black_i + \beta_5 \times Post_{c,t} + \beta_6 \times Treated_{c,t} + \beta_7 \times Black_i \\
& + \alpha_{i \times j} + \alpha_z + \alpha_t^{loss} + \alpha^{cause} + \epsilon_{i,j,c,t} \qquad (2)
\end{aligned}
$$

where $Y_{i,j,c,t}$ denotes the claim outcome for policyholder i, handled by agent j, in county c, at time t. $Post_{c,t}$ is an indicator equal to one for the period following a hurricane in county c. $Treated_{c,t}$ equals one for counties experiencing above-median property losses from the event. $Black_i$ is an indicator for Black policyholders. The coefficient of interest β_1 captures whether racial disparities widen differentially in high-damage counties after a hurricane. The specification includes agent $\times$ policyholder fixed effects ($\alpha_{i \times j}$), which absorb all time-invariant characteristics of the policyholder, agent, property, and the match. Since the sample is conditional on claims, the variation comes from policyholder-agent pairs who file for multiple claims around hurricane. We additionally include policyholder ZIP code fixed effects (α_z), loss year fixed effects (α_t^{loss}), and cause of loss fixed effects (α^{cause}). Standard errors are clustered at the agent level.

Table 4 reports the estimates. The triple-difference coefficient is large and statistically significant for three of the four outcomes. Black policyholders in high-damage counties receive payouts 5.28 percentage points lower after a hurricane, relative to White policyholders in the same zip code and Black policyholders in low-damage counties. Given a mean payout-to-coverage ratio of 10.6 percent, this represents a roughly 50 percent reduction. Rejection rates increase by 11.44 percentage points, representing a 33 percent increase relative to the mean rejection rate. Resolution times lengthen by nearly 3 months, more than doubling the baseline disparity of 1.35 months. The litigation coefficient is positive and significant.

Figure 3 presents dynamic event-study estimates that allow us to assess the key identifying assumption of this design — that racial disparities in high-damage and low-damage

counties would have evolved similarly absent the hurricane. We plot the coefficient on the interaction of Black, Treated, and event-time indicators for each quarter relative to the hurricane. The pre-event coefficients are centered around zero across all four outcomes, confirming parallel pre-trends. The divergence occurs sharply in the immediate aftermath of the hurricane and attenuates in subsequent quarters, consistent with the disparities being tied to the acute disruption caused by the event rather than permanent differences between treated and control counties.

A potential concern with our design is that hurricanes occur at different times across counties, and recent work shows that two-way fixed-effects estimators of staggered treatments can be biased when treatment effects vary across cohorts or over time, with already-treated units serving as effective controls for later-treated ones (Goodman-Bacon, 2021; de Chaisemartin and D'Haultfœuille, 2020; Callaway and Sant'Anna, 2021). To address this, we re-estimate the triple difference using a stacked design: for each hurricane we construct a separate event-specific sample around the event, stack these samples, and include event fixed effects (i.e., stack ID) so that all comparisons occur within an event. As reported in Table A6, the estimates are consistent with our baseline: the triple-difference coefficient remains negative and significant for payouts and positive and significant for rejection rates, resolution times, and litigation, with magnitudes comparable to or larger than those in Table 4.

These results suggest that racial disparities in claims outcomes are less likely to reflect unobserved differences in claim quality or policyholder-agent sorting. Within the same policyholder-agent pair, we find substantial gaps after a hurricane relative to before. Because agent-by-policyholder fixed effects hold the match constant, the only change is the hurricane itself and the conditions it creates for claims processing. We explore what drives this intensification—and why it is concentrated in the immediate aftermath—in Section 6.5.

6 Mechanisms

We now turn to identifying the source of these disparities. Because insurance agents act as intermediaries between policyholders and insurers and play a central role in the claims process, we examine whether agents contribute to the observed disparities.

6.1 Role of insurance agents

Table 5 presents our main test of agent influence by formally examining whether racial disparities vary by agent race. We split the sample by the insurance agent's race and re-estimate our baseline specifications separately for each subsample. The racial gap in payouts arises entirely among White agents. Column 2 shows that Black policyholders working with White agents receive payouts that are 0.52 percentage points lower than those received by White policyholders. This amount is nearly identical to our baseline estimate. In contrast, Column 1 shows no meaningful payout disparity among Black agents. The coefficient is a small and statistically insignificant 0.15 percentage points. If anything, the point estimates suggest that Black agents may favor Black policyholders. However, the smaller sample size limits statistical precision.

Rejection rates show a similar pattern. Black policyholders face significantly higher rejection rates when working with White agents (1.12 percentage points) but not when working with Black agents, where the estimated effect is negative and statistically insignificant. As with payouts, these estimates are consistent with in-group favoritism among Black agents, though we cannot rule out equal treatment given the standard errors.

In contrast, resolution times remain elevated for Black policyholders regardless of agent race. Columns 5 and 6 show delays of about 1.3 months for Black policyholders, with no economically meaningful difference between Black and White agents.

Table A7 provides additional evidence on the role of agents by examining resolution times conditional on claim acceptance and discretionary rejection categories. When we restrict the

sample to accepted claims, the resolution-time disparity disappears among Black agents but persists among White agents. This result suggests that the overall resolution gap reflects Black agents encouraging Black policyholders to contest rejections—thereby increasing total resolution time—while White agents discourage such challenges. Consistent with this interpretation, Black policyholders litigate at similar rates with Black and White agents, despite facing substantially higher rejection rates when working with White agents. Moreover, discretionary miscellaneous closures are disproportionately higher for Black policyholders only among White agents.

A natural question is whether Black agents simply encourage their clients to contest more aggressively, including claims with little merit. If so, the claims contested under Black agents should succeed less often. We do not find any evidence of this. As reported in Table A8, the likelihood that a contested claim results in full payment does not differ by agent race—claims contested under Black agents succeed at rates indistinguishable from those contested under White agents.

Taken together, these results indicate that insurance agents play a central role in shaping claim outcomes and that agent race is a key determinant of the observed racial disparities.

6.1.1 Differential Agent Advocacy versus Adjuster Bias

The results in Table 5 show that racial disparities exist only with White agents. One concern is that this pattern could reflect sorting between agents and adjusters—if White agents' claims are routed to different adjusters than Black agents' claims, the disparity could arise from adjuster bias rather than differential advocacy. For example, if White agents systematically work with adjusters who are biased against Black policyholders, the agent race heterogeneity would reflect adjuster assignment rather than agent behavior. To address this concern, we re-estimate our main results controlling for adjuster fixed effects, comparing outcomes for claims evaluated by the same adjuster.

Table A9 reports the baseline results where we find that racial disparities persist within

adjusters. Black policyholders receive payouts 0.90 percentage points lower than White policyholders whose claims are decided by the same adjuster. This represents an 8.5 percent reduction relative to the mean payout ratio. Black policyholders also face rejection rates 2.11 percentage points higher—a 6 percent increase relative to the baseline rejection rate—and wait 0.6 months longer for resolution. These estimates are similar in magnitude to our baseline results, indicating that adjuster sorting does not explain the disparities.

Table 6 combines adjuster fixed effects with the sample split by agent race. If adjuster bias explained the disparities, we would expect the racial gap to persist regardless of which agent presents the claim—biased adjusters would treat Black policyholders worse whether the claim comes from a White or Black agent. The results reject this prediction. The racial gap in payouts and rejections exists only when White agents present claims—even holding the adjuster constant. Black policyholders with White agents receive payouts 0.93 percentage points lower and face rejection rates 2.05 percentage points higher than White policyholders evaluated by the same adjuster. With Black agents, these within-adjuster disparities disappear. The coefficient on payouts is small and statistically insignificant, and the coefficient on rejections is positive but imprecisely estimated.

The same adjuster produces different outcomes for Black policyholders depending on which agent presents the claim. This pattern rules out adjuster bias as the primary explanation. If adjusters were biased against Black policyholders, the disparity would appear regardless of agent race. Instead, the results indicate that agents influence how adjusters perceive and process claims—consistent with differential advocacy shaping outcomes within the decision-making process.

6.1.2 Agent Discretion

Our results so far are consistent with agents playing an important role in explaining the racial gap in claim outcomes. We further build on this evidence by evaluating whether this gap is larger when agents have more discretion in shaping outcomes. To address this question,

we construct proxies along three dimensions that capture the strength of the agent-adjuster relationship, adjuster workload, and the discretionary nature of the claim itself. Each reflects variation where agent advocacy may be more likely to shape claim outcomes—either because the adjuster defers more to a familiar agent, lacks bandwidth to independently evaluate the claim, or faces a claim type that permits broader interpretation. If differential advocacy is the channel through which agents shape outcomes, racial disparities should be larger where agents have more discretion. Table 7 reports estimates across four panels testing this prediction.

We begin with the strength of the agent-adjuster relationship. Agents who have worked repeatedly with the same adjuster accumulate relationship capital that increases the adjuster's deference to their advocacy. Where the adjuster already trusts the agent's characterization, providing less advocacy for Black policyholders requires less effort and is less likely to be questioned. Panels A and B of Table 7 split the sample on two measures of relationship strength: the duration of the agent-adjuster pair and the number of claims they have processed jointly. Both panels show consistent results. Racial disparities in payouts and rejection rates are significantly larger among pairs with longer-standing relationships and more joint claims, and substantially smaller — and largely insignificant — among pairs with less established relationships.

We next consider adjuster workload. Adjusters handling high claim volumes have less time to independently scrutinize each claim and lean more heavily on the agent. Under these conditions, agent advocacy carries greater weight in shaping the adjuster's decision, and differential advocacy is likely to translate more directly into differential outcomes. Panel C presents results for these tests where we split the sample by the number of claims the adjuster handled in the calendar month prior to the loss event. Disparities are concentrated among high-workload adjusters. Black policyholders whose claims are evaluated by overloaded adjusters receive payouts 1.00 percentage points lower and face rejection rates 2.56 percentage points higher than comparable White policyholders. Among adjusters with below-median

workload, the payout gap is smaller and the rejection-rate gap is economically negligible and statistically insignificant.

Finally, we examine variation in discretion at the claim-type level. Some causes of loss admit greater interpretive flexibility than others—water damage and structural claims, for instance, often involve subjective judgments about coverage, causation, and valuation that wind damage from a documented hurricane does not. We measure this variation by computing the share of miscellaneous rejections within each cause of loss, with higher shares indicating greater interpretive latitude. Where the claim type itself permits broader interpretation, agent advocacy has more room to shape how the claim is characterized and resolved. Panel D splits the sample by whether the cause of loss falls above or below the median in discretionary closure share. Racial disparities are concentrated in high-discretion claim types. Black policyholders filing claims under high-discretion causes of loss receive payouts 0.62 percentage points lower and face rejection rates 1.50 percentage points higher than comparable White policyholders. In low-discretion categories, both gaps are smaller and statistically insignificant.

6.2 The Marginal Agent

The evidence so far suggests that agents contribute to claim outcomes and that disparities are larger where agents have more discretion to do so. We now turn to evaluating the nature of this contribution. Racial differences may reflect agents' taste-based preferences against out-groups or the use of race as a statistical proxy when information is scarce, and distinguishing between them is crucial to interpreting our results. We begin by evaluating the taste-based mechanism following the simple framework provided by Becker (1957). In his model, discrimination is costly because it requires agents to forgo profits, so its extent depends on the economic structure in which agents operate. A direct implication, developed by Charles and Guryan (2008), is that the disparity observed in the market reflects the preferences of the marginal agent rather than the average agent. When Black policyholders

can sort toward the least prejudiced agents, the gap they face is determined by the marginal agent they reach—not by the most prejudiced agents in the market, whom they avoid. The market-level disparity therefore depends on how far into the prejudice distribution Black policyholders must reach to be served, which in turn depends on the supply of low-prejudice agents relative to demand.

This hypothesis requires that Black policyholders sort toward less prejudiced agents when they can. The summary statistics indicate that they do. As reported in Table A1, Black agents serve a clientele that is 54 percent Black, compared with 12 percent for White agents. This pattern of assortative matching, together with the finding in Section 6.1 that disparities arise only among White agents, implies that Black agents function as the low-prejudice option toward which Black policyholders sort. The marginal agent a Black policyholder reaches therefore depends on the availability of Black agents relative to demand.

We test this prediction using two measures of how binding the supply of low-prejudice agents is. The first interacts the local share of Black policyholders with the degree of White-agent dominance in the market: disparities should be largest where Black demand is high and Black-agent capacity is most constrained. Panel A of Table 8 reports results consistent with this pattern. In ZIP-code-years where both the Black policyholder share and the White-agent share are above median, Black policyholders receive payouts 1.53 percentage points lower and face rejection rates 2.46 percentage points higher than comparable White policyholders. Elsewhere, the payout gap shrinks to 0.29 percentage points and the rejection-rate gap to 0.82 percentage points. The second measure captures the realized outcome of constrained sorting directly: the share of Black policyholders in a market who are served by White agents. Panel B shows that disparities are concentrated where this share is high. Black policyholders in above-median exposure markets receive payouts 0.85 percentage points lower and face rejection rates 1.90 percentage points higher, while in below-median markets both gaps are small and statistically insignificant.

Taken together, the concentration of disparities where Black-agent capacity is most con-

strained is consistent with taste-based discrimination: the gap a Black policyholder faces is governed by the prejudice of the agent they are forced to reach, and that agent is more prejudiced precisely where sorting toward low-prejudice agents is hardest.

6.3 Policy characteristics

The cost of taste-based discrimination also depends on the value of the client. Because acting on a distaste means forgoing profitable transactions, unequal treatment is more expensive when the client is more profitable, and racial disparities should therefore be smaller among higher-value clients.

We examine this prediction by testing whether disparities vary with client value. Table 9 reports estimates separately by premium and relationship length. In Panel A, we split the policies at the median premium. Racial disparities are more pronounced among lower-premium contracts. Black policyholders in the below-median premium group receive payouts that are 0.47 percentage points lower and face rejection rates that are 1.46 percentage points higher than comparable White policyholders. For above-median premium policyholders, the payout disparity attenuates to 0.28 percentage points, and the rejection-rate gap becomes statistically indistinguishable from zero.

Panel B measures client value using relationship length, defined as the number of times a policyholder renews with the same agent. Longer relationships increase the expected future value of the client. Consistent with the profitability mechanism, racial disparities are larger among shorter-tenure relationships and smaller among long-standing clients, although they do not fully disappear.

Overall, the results indicate that racial disparities are concentrated among lower-value clients—those generating lower premiums or with shorter agent relationships. These results are consistent with Becker (1957) framework, where the economic cost of unequal treatment is higher, the discriminatory behavior is more limited.

6.4 Market concentration

We further examine whether competitive pressure mitigates racial disparities in the claims process. Panel A of Table 10 splits the sample by the number of agents operating within each ZIP code–year. In less competitive markets with fewer agents, Black policyholders face rejection rates that are 1.71 percentage points higher than those of White policyholders. In contrast, in more competitive markets with a greater number of agents, the rejection-rate gap is economically small (0.6 percentage points) and statistically indistinguishable from zero.

Payout disparities show a similar but more muted pattern. Black policyholders in less competitive markets receive payouts that are 0.59 percentage points lower. Those in more competitive markets face payout gaps of 0.41 percentage points. The comparable magnitudes suggest that competition may be more effective at disciplining outright claim denials—a highly visible outcome—than at reducing more subtle underpayments.

Resolution-time disparities are larger in more competitive markets than in less competitive markets. This result likely reflects higher litigation rates in competitive markets. Black policyholders may have greater access to legal representation and face lower barriers to contesting unfavorable outcomes. This can lead to longer overall resolution times.

Panel B measures market concentration using the Herfindahl–Hirschman Index (HHI), where higher values indicate greater concentration and less competition. Consistent with Panel A, markets with lower concentration generally exhibit smaller disparities. The differences are less pronounced. Rejection-rate disparities equal 1.88 percentage points in more concentrated markets and 0.50 percentage points in less concentrated markets. Payout disparities are similar across market structures, while resolution-time disparities again differ across levels of competition.

The stronger results using agent counts rather than HHI suggest that the absolute number of alternative agents may matter more than formal market-share distributions. In markets with many agents, discriminatory behavior is more likely to be disciplined by com-

petition. In contrast, in markets with few agents—even when market shares are evenly distributed—policyholders have limited alternatives.

Overall, these results indicate that racial disparities in the claims process are amplified in less competitive markets. These findings are consistent with the view that taste-based discrimination is constrained by competition.

6.5 Capacity Constraints

When agents face greater cognitive load and time pressure, they may rely more on heuristics and mental shortcuts in processing claims. Bertrand et al. (2005) argue that such conditions can aggravate implicit biases, leading to discrimination even in the absence of conscious prejudice. If differential advocacy partly reflects automatic rather than deliberate behavior, disparities should be larger when agents are under greater strain. We examine this prediction using two sources of variation in agent capacity constraints — the hurricane events analyzed in Section 5.4 and cross-sectional differences in agent workload.

The hurricane evidence from Section 5.4 speaks directly to this prediction. Racial disparities in payouts, rejection rates, and resolution times widen sharply in the immediate aftermath of hurricanes — precisely when agents face acute workload pressure from a surge in claims. The dynamic event-study estimates show that this intensification is concentrated at the time of the event and attenuates in subsequent quarters as conditions normalize. This pattern is consistent with capacity constraints temporarily amplifying racial disparity rather than permanent differences between high- and low-damage counties.

We find corroborating evidence in the cross-section. Agents vary in the number of insurers they are appointed with at any given time, which provides a measure of workload and cognitive demands. Table A10 splits the sample at the median number of insurer appointments in the month prior to claim filing. Capacity-constrained agents — those with above-median appointments — produce significantly larger racial disparities. Black policyholders working with these agents receive payouts 0.59 percentage points lower and face

rejection rates 2.00 percentage points higher than comparable White policyholders. In contrast, agents with below-median appointments show a smaller payout gap of 0.45 percentage points and a rejection-rate gap that is economically negligible and statistically insignificant. Resolution times remain elevated for Black policyholders regardless of agent capacity.

Both the time-series evidence from hurricanes and the cross-sectional evidence from agent appointments are consistent with racial disparities being larger when agents face greater capacity constraints.

6.6 Agent characteristics

If racial disparities reflect statistical discrimination—where agents use race as a proxy when information is limited—these gaps should attenuate as agents acquire information through experience. Table A11 examines this prediction by exploring heterogeneity by agent tenure and policy volume.

Panel A shows that disparities are larger among less experienced agents. Among agents with below-median tenure, Black policyholders face rejection rates that are 1.44 percentage points higher, while among more experienced agents, the estimated disparity is smaller and statistically insignificant. Payout disparities show similar results, with larger, statistically significant gaps concentrated among less experienced agents.

Panel B reports mixed evidence by agent policy volume. High-volume agents exhibit larger payout disparities, whereas low-volume agents exhibit larger rejection-rate disparities. These results may reflect differences in operating models: high-volume agents may process claims more mechanically, while low-volume agents may exercise greater discretion.

Statistical discrimination predicts that disparities should decline as agents learn about policyholders through repeated interactions. To examine this, Table A12 compares first claims to subsequent claims from the same policyholder. Results show that Black policyholders face rejection rates 0.82 percentage points higher on first claims. For subsequent claims, the gap decreases to 0.55 percentage points, although this estimate is imprecise.

Thus, while there is some attenuation, the persistence of economically meaningful disparities after agents observe prior claims behavior suggests taste-based preferences remain even as information accumulates.

7 Robustness

In this section, we assess the robustness of our main findings to alternative explanations and identification concerns.

7.1 Time-Varying Agent Behavior

A potential concern may be that agent behavior may evolve in ways correlated with the racial composition of their client base. If agents adjust their claim-handling practices in response to changing local conditions, agent fixed effects alone may not fully absorb this variation. To address this concern, we include Agent × Policy Year fixed effects in our most saturated specification. This specification compares Black and White policyholders served by the same agent in the same year.

Table A13 shows that racial disparities remain economically and statistically significant even after including Agent × Policy Year fixed effects. Black policyholders receive payouts 0.57 percentage points lower relative to coverage, face rejection rates 0.96 percentage points higher, and wait 1.37 months longer for resolution than comparable White policyholders handled by the same agent in the same year. These magnitudes are similar to our baseline estimates.

In Table A14, we apply the same specification to the agent-race heterogeneity tested in Table 6. The racial gap in payouts and rejection rates persists among White agents, even after controlling for agent-by-year and adjuster fixed effects. Black policyholders working with White agents receive payouts 0.57 percentage points lower and face rejection rates 0.93 percentage points higher than White policyholders evaluated by the same adjuster in the

same year. In contrast, no statistically significant disparities appear among Black agents. Resolution times remain high for Black policyholders across agent race.

These results show that the findings are therefore not explained by time-varying agent behavior or adjuster sorting, and are instead consistent with differential advocacy by White agents contributing to the observed racial gaps in the claims outcomes.

7.2 How do Agents observe Policyholder Race?

Our interpretation requires that agents observe or infer policyholder race, yet race is not recorded as an explicit field in the claims file. What matters for differential advocacy, however, is not race as recorded administratively but the race the agent perceives. The agent is the policyholder's primary point of contact, helping to initiate claims, assemble and submit documentation, communicate with the adjuster, and contest unfavorable outcomes. These repeated interactions—conducted in person or by telephone—provide ample opportunity to observe or infer race. A large body of evidence indicates that such perception is both rapid and accurate, operating even through non-visual channels: U.S. listeners identify a speaker's race from minimal auditory cues, in some cases from as little as the word "hello" or a one-second vowel sample, and do so accurately over the telephone (Purnell et al., 1999; Walton and Orlikoff, 1994; Massey and Lundy, 2001; Thomas and Reaser, 2004; Grogger, 2011; Squires and Chadwick, 2006). Because in-person claims interactions reveal race more directly than the telephone channel these studies isolate, our assumption that agents can observe or infer policyholder race is, if anything, conservative.

Among these channels, one is directly observable in our data: the policyholder's name. Names carry strong racial signals, and a large literature shows that economic actors infer and act on race from names alone, even absent any personal contact (Bertrand and Mullainathan, 2004; Kline et al., 2022). This allows us to test for perception directly. If agents respond to perceived race, the disparity should be more pronounced when a policyholder's name more clearly signals their race. For each surname, we compute the share of individuals of each

race from the Census Bureau's Frequently Occurring Surnames file, and classify a name as a strong racial signal when one race predominates and as ambiguous otherwise. The results, reported in Table 11, show that the disparity is concentrated among policyholders whose names strongly signal race. This is consistent with agents acting on perceived race, and points to the name as one channel through which race becomes salient in the claims process.

7.3 Familiarity and Trust

An alternative mechanism is that our results reflect familiarity and trust between policyholders and agents. Same-race pairs may communicate more easily and trust one another more readily, and an agent who knows a client well may advocate more forcefully on their behalf. Under this channel, the racial gap need not reflect discrimination. Instead, it could arise if Black policyholders are disproportionately matched to agents who know them less well, so that the disparity reflects a difference in relationship quality rather than taste-based preferences. This explanation makes two testable predictions. First, if better outcomes stem from same-race familiarity, the advantage should be symmetric across agent race—White policyholders should fare better with White agents just as Black policyholders fare better with Black agents. Second, the gap should narrow as agents come to know their clients.

Our results do not support the first hypothesis. The pattern in Table 5 suggests asymmetric gaps. The racial gap in payouts and rejection rates is concentrated among White agents. In contrast, the gap disappears instead of reversing with Black agents. These results are less consistent with familiarity and more consistent with some White agents exhibiting taste-based preferences.

We test the second prediction using geographic distance between the policyholder's property and agent as a proxy for familiarity. Table A15 reports these results where we estimate how the racial gap evolves with distance separately for White and Black agents. Because this comparison holds the agent fixed, it compares Black and White policyholders who are equally distant from—and thus equally familiar to—the same agent. The racial gap survives: among

White agents, disparities in payouts and rejection rates are concentrated at above-median distance, while the Black-agent estimates move in the same direction but are imprecise. For familiarity to explain this within-agent gap, agents would have to know White clients better than equally distant Black clients—which is differential treatment by race, not a difference in familiarity.

Overall, our results are inconsistent with familiarity and trust being the primary mechanism driving the racial gap in claim outcomes.

7.4 Omitted Differences

Black and White policyholders served by the same agent may differ in the quality or severity of their claims, in unobserved characteristics correlated with how they navigate the claims process, or in features of their properties. Our previous tests already account for several of these differences. First, we saturate our baseline specification with a number of fixed effects thereby controlling for a host of observables that reduce the likelihood that Black and White policyholders may be different. Second, our hurricane triple-difference design (Section 5.4) addresses these differences. Because the specification includes agent-by-policyholder fixed effects, it compares the same policyholder-agent pair before and after a hurricane and absorbs time-invariant characteristics of the policyholder, the property, the agent, and the match. The flat pre-event coefficients in Figure 3 provide reassurance against this threat, showing that disparities in high- and low-damage counties evolve in parallel until the hurricane itself. Third, we evaluate policyholder reactions and success rates across race and find that Black policyholders are more likely to litigate the outcome and use appraisers than White policyholders, while succeeding at the same rate.

Neighborhood fixed effects: Notwithstanding these arguments, we further address residual concerns relating to potential differences. While our baseline specification absorbs differences across ZIP codes, it does not account for residential sorting based on race across

neighborhoods within the same ZIP code. If Black and White policyholders tend to live in different parts of the same ZIP code that differ in housing stock, age, or condition, then differences in their properties could persist even within our most saturated specification (outside of the characteristics we control for like dwelling size, number of stories, and property age.). To address this, we compare Black and White policyholders living on the same street. We replace ZIP-code fixed effects with ZIP-code-by-street fixed effects, so that our estimates compare policyholders whose homes are on the same street within the ZIP-code and hence whose housing stock and local conditions are more similar. If unobserved differences in property or neighborhood drove the gap, this finer comparison should attenuate it. Instead, as Table 12 shows, the payout and rejection-rate gaps are larger than in our baseline—payouts are 0.72 percentage points lower and rejection rates 1.49 percentage points higher for Black policyholders on the same street—while the resolution-time gap remains positive and significant. The disparity is strongest precisely where within-neighborhood differences in housing and location are smallest, which is difficult to reconcile with property or neighborhood differences as the explanation.[8]

Post-hurricane claim differences: A related concern arises in the hurricane setting. While the agent-by-policyholder fixed effects absorb fixed differences between agent-policyholder pairs, a hurricane may change the nature of the claims themselves: storms generate damage that is more severe and more difficult to assess, and if the post-storm claims filed by Black and White policyholders differ in ways correlated with their properties or locations even within the same ZIP code, the widening could reflect these differences rather than differential treatment. To address this, we re-estimate the hurricane triple difference with ZIP-code-by-street fixed effects, comparing how disparities change before and after the storm for policyholders on the same street. As Table A17 reports, the triple-difference estimates are essentially unchanged from our baseline: Black policyholders in high-damage areas continue

8. We also find similar results when we instead define fine geographic units using distance radii of 200 to 300 meters and compare houses located within these small distances (Table A16).

to receive lower payouts and face higher rejection rates after a hurricane, even relative to same-street neighbors. The post-hurricane widening is therefore not explained by differences in property or location that emerge when claims are filed in the wake of a storm.

Selection on unobservables: Finally, we evaluate how large selection on unobservables would have to be, relative to selection on the observables we already include, to attenuate our estimates to zero. We do so by estimating and reporting bounds from Oster (2019) and report results in Table A18. For payouts, resolution time, and litigation, the implied degree of selection ranges from 1.8 to 3.1 times the selection on observables—that is, unobservables would need to be substantially more important than the rich set of controls already in the specification to overturn the results. The bias-adjusted coefficients under the benchmark of equal selection on observables and unobservables remain economically meaningful and correctly signed. For claim rejection, the statistic is negative, which arises because the estimate grows rather than shrinks as we add controls; selection on unobservables that operated like selection on observables would push the coefficient away from zero, not toward it, so the result is, if anything, reinforced. Across all four outcomes the bounds indicate that our estimates are difficult to explain through selection alone.

Overall, our results suggest that omitted unobservables are less likely to explain our findings.

8 Conclusion

This paper documents racial disparities in homeowners insurance claims. Using administrative data linking policyholders, agents, and claims, we find that Black policyholders face 3.2 percent higher rejection rates, receive 4.8 percent lower payouts, and wait 18 percent longer for claim resolution than White policyholders with similar coverage filing similar claims in similar locations. Black policyholders are also more likely to contest outcomes through litigation and appraisal, suggesting they view rejections and underpayments as er-

roneous rather than legitimate—inconsistent with the explanation that disparities reflect lower-quality claims.

The disparities operate through insurance agents—intermediaries who advocate for policyholders but do not make final decisions. The racial gap exists only with White agents and disappears entirely with Black agents. Our within-adjuster analysis shows that the same decision-maker yields different outcomes depending on agent race, consistent with differential advocacy rather than decision-maker bias. These disparities vary systematically with the conditions agents face. They are larger in less competitive markets; in areas where the supply of Black agents is most constrained relative to demand; among agent-adjuster pairs with more established relationships; in smaller policies and discretionary claim closures where oversight is weaker; and when agents are under greater workload pressure. They also decline with agent experience and repeated interactions, though they persist even among experienced agents.

Our findings have broader implications. First, they demonstrate that racial gaps in financial markets extend beyond the point of sale. Equal access to financial products does not guarantee equal value if minorities receive less favorable outcomes when exercising their contractual rights. Policies designed to address racial gaps at the point of sale may not address disparities that arise afterward. Second, intermediaries can create disparate outcomes through differential effort even when they do not make final decisions—a mechanism that likely operates in other settings where agents advocate on behalf of clients. Third, by documenting that Black homeowners receive less protection for their primary asset, we identify a channel through which financial market frictions contribute to racial wealth inequality—affecting wealth preservation, not just accumulation.

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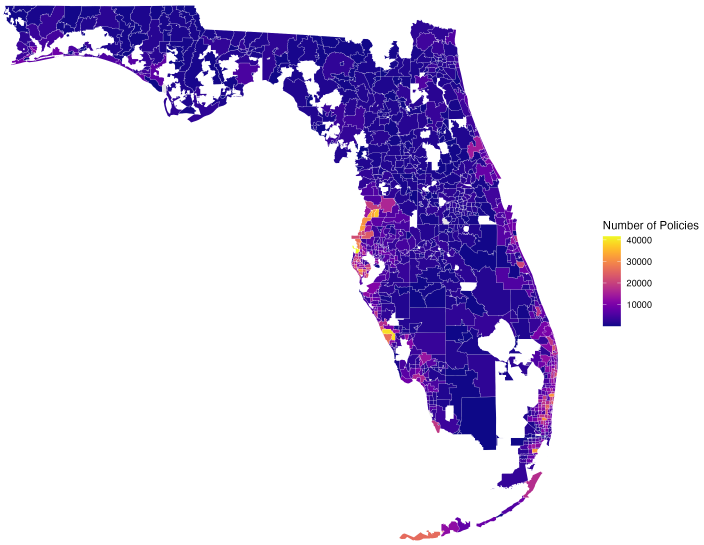
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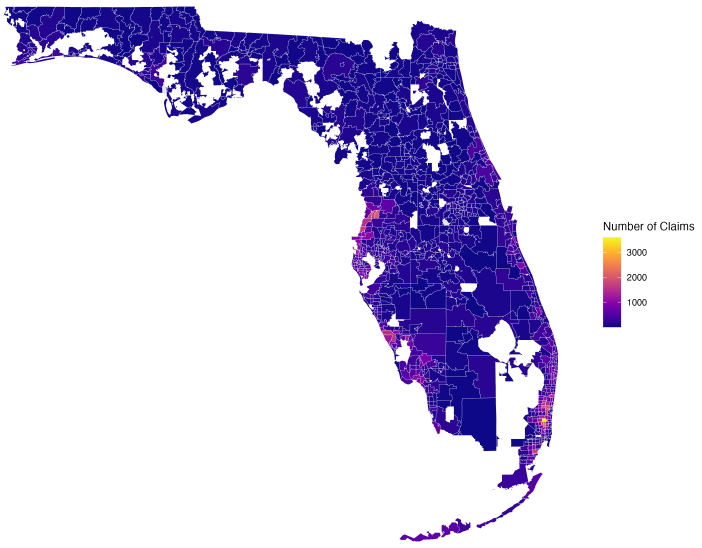
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(a) Policyholder Distribution



(b) Claims Distribution

Figure 1: Florida Zipcode Distribution by Insurance Contracts and Claims
Panel (a) maps the distribution of homeowners' insurance policies across Florida ZIP codes, measured by the number of active policies. Panel (b) maps the distribution of insurance claims, measured by the number of claims filed. Color intensity reflects higher concentrations.

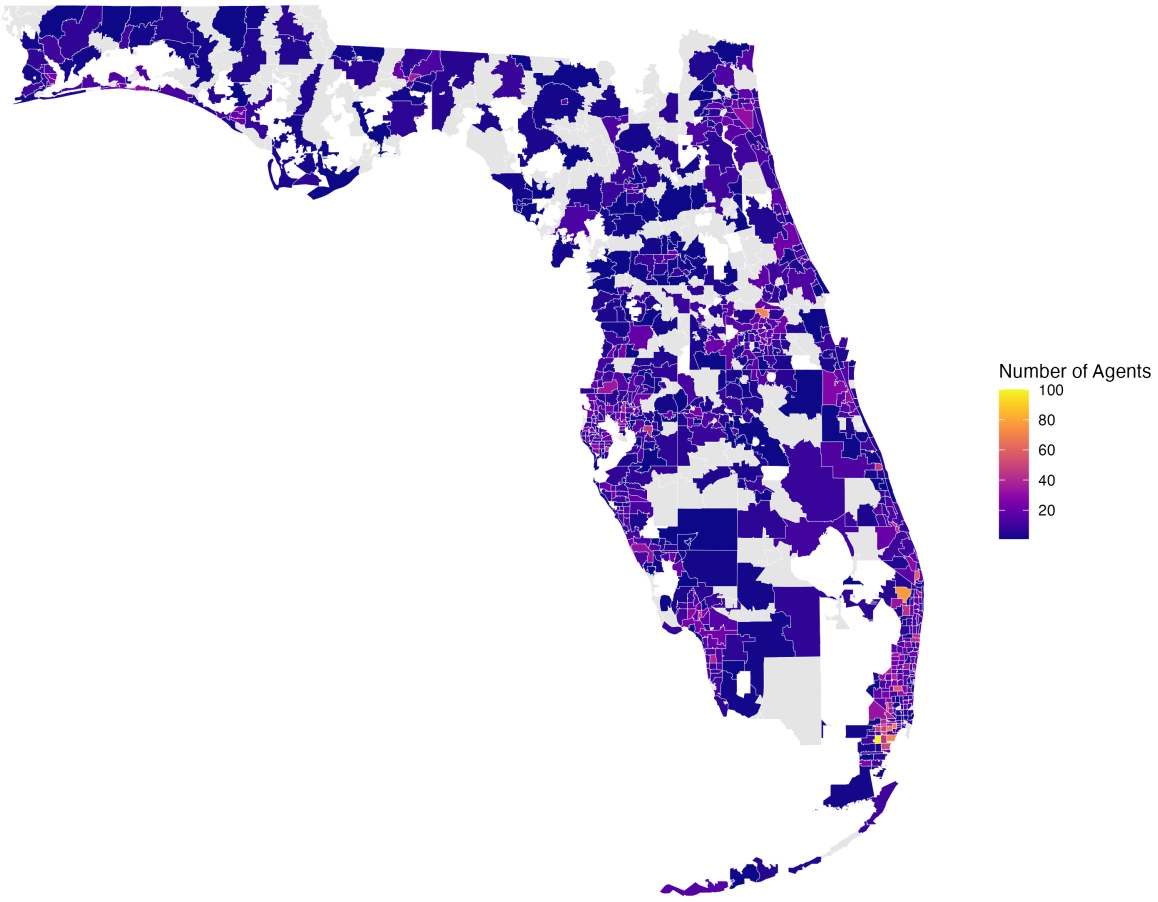


Figure 2: Insurance Agent Distribution
This figure maps the geographic distribution of insurance agents across Florida. Shaded areas represent the number of agents operating in each ZIP code, with color intensity indicating higher agent density.

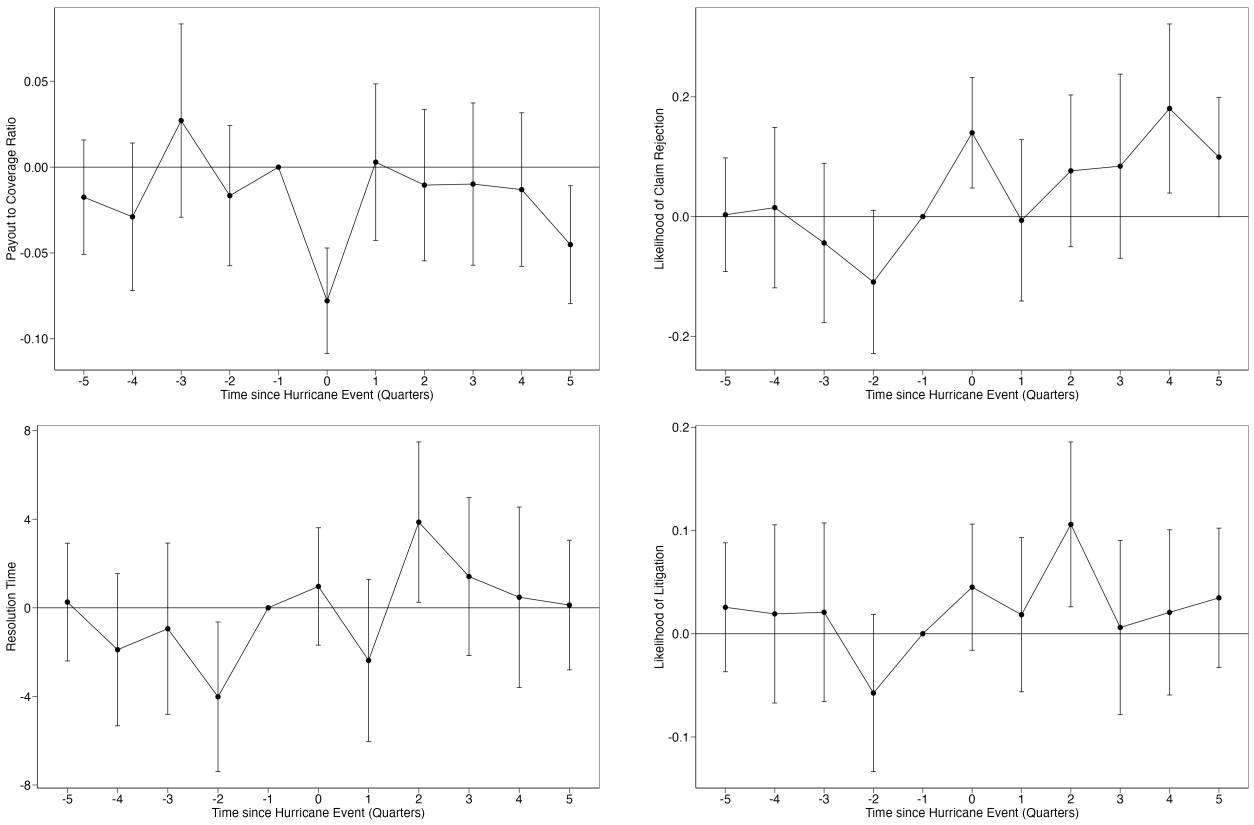


Figure 3: Racial disparities in claims processing around major hurricane: Dynamic Triple DiD Estimates

This figure presents event-time triple-difference (DDD) estimates of racial disparities in claims processing surrounding major hurricane or tropical storm events. Each point represents the coefficient on the interaction between Black, Treated, and event-time indicators, capturing the differential change in outcomes for Black policyholders in high-damage counties relative to White policyholders and lower-damage counties. Vertical bars denote 90% confidence intervals with standard errors clustered at the agent level. All specifications include fixed effects for policyholder ZIP code, loss year, cause of loss as well as Agent interacted with Policyholder.

Table 1: Summary Statistics

This table reports summary statistics for the main variables used in the analysis. Claim-related variables such as claim rejection, payout, resolution time, litigation, appraisal and rejection reasons are defined only for contracts with at least one claim filed. Claim Rejection is an indicator coded as 1 if the associated payout is zero. Resolution time is measured as the number of months between the date the loss is incurred and the date the claim is resolved. Closure w/ Partial Payment and Closure w/ Misc. Reason are indicators coded as 1 if the claim is closed with a partial payment or rejected stating miscellaneous reasons respectively. Agent Tenure is defined as the number of years between an agent's first and last policy written with a given agency. Agent Policy Volume is measured as the number of policies written by an agent with a given agency. Policy Tenure is defined as the number of years between the policy effective date and date of loss incurred.

	N	Mean	Std. Dev.	p25	Median	p75
Prop. Black Policyholders	4,672,904	0.14	0.35	0	0	0
Prop. Black Agents	4,672,904	0.05	0.23	0	0	0
Agent Tenure (years)	4,672,904	14.05	6.30	8.66	15.53	20.08
Agent Policy Volume	4,672,904	338.07	544.77	76.00	183.00	381.00
Claim Rejection (0/1)	213,701	0.35	0.48	0	0	1
Payout-to-Coverage Ratio	213,250	0.11	0.23	0	0.02	0.09
Resolution Time	204,442	7.28	13.04	1	2	7
Litigation (0/1)	213,701	0.08	0.27	0	0	0
Appraisal (0/1)	213,701	0.07	0.26	0	0	0
Closure w/ Partial Payment (0/1)	213,701	0.02	0.13	0.00	0.00	0.00
Closure w/ Misc. Reason (0/1)	213,701	0.09	0.28	0.00	0.00	0.00
Policy Tenure (years)	213,701	0.45	0.33	0.21	0.44	0.70

Table 2: Race and Insurance Claim Outcomes

This table reports regression estimates of differences in homeowners' insurance claim outcomes between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
Panel A: Payout to Coverage Ratio					
Black	-0.0044***	-0.0064***	-0.0053***	-0.0055***	-0.0051***
	(0.0014)	(0.0013)	(0.0013)	(0.0014)	(0.0014)
N	213,250	213,250	200,677	200,677	200,451
R^2	0.1566	0.2611	0.2479	0.2807	0.2846
Panel B: Claim Rejection (0/1)					
Black	0.0031	0.0091***	0.0112***	0.0120***	0.0112***
	(0.0035)	(0.0033)	(0.0034)	(0.0036)	(0.0036)
N	213,701	213,701	201,062	201,062	200,836
R^2	0.0316	0.0899	0.0896	0.1239	0.1268
Panel C: Resolution Time (in months)					
Black	1.473***	1.568***	1.613***	1.343***	1.353***
	(0.1128)	(0.1092)	(0.1134)	(0.1156)	(0.1135)
N	204,442	204,442	192,086	192,086	191,871
R^2	0.1178	0.2714	0.2723	0.2995	0.3051
Policy Year FE	Yes	Yes	Yes	Yes	
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes
Loss Year FE		Yes	Yes	Yes	Yes
Cause of Loss FE		Yes	Yes	Yes	Yes
Dwelling Size FE			Yes	Yes	Yes
No. of Stories FE			Yes	Yes	Yes
Property Age FE			Yes	Yes	Yes
Agent FE				Yes	Yes
Income × Policy Year FE					Yes
Education × Policy Year FE					Yes

Table 3: Race and Policyholder Reaction to Claim Rejection

This table reports regression estimates of differences in the likelihood of litigation and appraisal between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
	Panel A: Litigation {0, 1}				
Black	0.0474***	0.0466***	0.0476***	0.0377***	0.0373***
	(0.0029)	(0.0029)	(0.0030)	(0.0027)	(0.0027)
N	213,701	213,701	201,062	201,062	200,836
R^2	0.10107	0.13484	0.13558	0.17325	0.18334
	Panel B: Appraisal {0, 1}				
Black	0.0299***	0.0269***	0.0266***	0.0221***	0.0222***
	(0.0023)	(0.0023)	(0.0023)	(0.0024)	(0.0024)
N	213,701	213,701	201,062	201,062	200,836
R^2	0.08183	0.09665	0.09788	0.13322	0.13869
Policy Year FE	Yes	Yes	Yes	Yes	
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes
Loss Year FE		Yes	Yes	Yes	Yes
Cause of Loss FE		Yes	Yes	Yes	Yes
Dwelling Size FE			Yes	Yes	Yes
No. Of Stories FE			Yes	Yes	Yes
Property Age FE			Yes	Yes	Yes
Agent FE				Yes	Yes
Income × Policy Year FE					Yes
Education × Policy Year FE					Yes

Table 4: Race and Insurance Claim Process around Hurricanes: Triple DiD

This table reports triple difference-in-differences regression estimates measuring the racial bias in claims processing surrounding major hurricane/tropical storm events. *Treated* equals 1 for counties with above-median property damage from the hurricane/tropical storm. *Post* is 1 for months following hurricane occurrence. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
Post × Treated × Black	-0.0528***	0.1144***	2.980***	0.0359**
	(0.0107)	(0.0250)	(0.8036)	(0.0147)
Post	0.0156***	-0.0056	0.3475	-0.0139**
	(0.0043)	(0.0107)	(0.2744)	(0.0063)
Treated	-0.0120**	0.0121	-0.6692***	-0.0106**
	(0.0048)	(0.0091)	(0.2414)	(0.0047)
Black	0.0193**	-0.0300*	2.315***	0.0705***
	(0.0082)	(0.0159)	(0.7669)	(0.0136)
Post × Treated	0.0367***	-0.0314**	1.545***	0.0129**
	(0.0079)	(0.0126)	(0.3274)	(0.0064)
Post × Black	-0.0152***	0.0252	-2.207***	-0.0703***
	(0.0051)	(0.0157)	(0.4823)	(0.0113)
Treated × Black	0.0141	-0.0529**	-4.634***	-0.0662***
	(0.0089)	(0.0233)	(0.8069)	(0.0133)
N	228,624	229,117	219,306	229,117
R^2	0.88435	0.82092	0.86629	0.83520
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Agent FE × Client FE	Yes	Yes	Yes	Yes

Table 5: Heterogeneity in Insurance Claim Process by Agent Race

This table reports heterogeneity by agent race in the regression estimates of differences in homeowners' insurance claims process between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. Agent B corresponds to the subsample of Black agents and Agent W to White agents respectively. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	0.0015	-0.0052***	-0.0079	0.0112**	1.291***	1.342***	0.0356***	0.0407***
	(0.0054)	(0.0017)	(0.0129)	(0.0044)	(0.3116)	(0.1327)	(0.0079)	(0.0032)
N	17,467	148,029	17,490	148,342	16,588	142,295	17,490	148,342
R^2	0.28903	0.29359	0.16510	0.12631	0.20495	0.34620	0.23230	0.16060
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 6: Heterogeneity in Insurance Claim Process by Agent Race with Adjuster FE

This table reports heterogeneity by agent race in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. Agent B corresponds to the subsample of Black agents and Agent W to White agents respectively. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, property age and adjuster FE. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0053	-0.0093***	0.0112	0.0205***	0.4790	0.6259***	0.0105**	0.0131***
	(0.0057)	(0.0017)	(0.0134)	(0.0042)	(0.2933)	(0.1015)	(0.0052)	(0.0018)
N	17,428	147,351	17,450	147,662	16,548	141,615	17,450	147,662
R^2	0.45561	0.41279	0.37822	0.23523	0.55418	0.55737	0.75390	0.62105
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjuster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 7: Heterogeneity in Insurance Claim Process by Agent-Discretion

This table reports heterogeneity by the extent of agent discretion, in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. Panel A splits the sample by the length of agent-adjuster relationship. Panel B reports a sample split based on number of claims the agent-adjuster have worked on together. Panel C reports heterogeneity by the number of claims the adjuster handles in a given calendar month, also controlling for agent workload FE. Panel D reports sample split based on discretionary nature of claims measured as the share of miscellaneous rejections within a cause of loss. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout/Coverage		Rejection		Resolution Time		Litigation	
	$\geq$ Med.	$<$ Med.	$\geq$ Med.	$<$ Med.	$\geq$ Med.	$<$ Med.	$\geq$ Med.	$<$ Med.
	Panel A: By Agent-Adjuster Pair Relationship Length							
Black	-0.0122***	-0.0006	0.0126**	0.0094**	0.8798***	1.612***	0.0158***	0.0502***
	(0.0022)	(0.0017)	(0.0057)	(0.0047)	(0.1630)	(0.1470)	(0.0031)	(0.0036)
N	77,801	122,650	77,874	122,962	75,742	116,129	77,874	122,962
R^2	0.29950	0.31916	0.15101	0.15621	0.38049	0.33691	0.20440	0.20196
	Panel B: By # of Claims by Agent-Adjuster Pair							
Black	-0.0111***	-0.0004	0.0126**	0.0080*	1.077***	1.597***	0.0224***	0.0483***
	(0.0021)	(0.0017)	(0.0055)	(0.0048)	(0.1568)	(0.1489)	(0.0034)	(0.0036)
N	88,189	112,262	88,278	112,558	85,779	106,092	88,278	112,558
R^2	0.31611	0.30934	0.14987	0.15937	0.37195	0.34218	0.22752	0.19817
	Panel C: By # of Claims by Adjuster							
Black	-0.0100***	-0.0010	0.0256***	0.0054	0.5336***	1.738***	0.0102***	0.0539***
	(0.0020)	(0.0018)	(0.0057)	(0.0051)	(0.1398)	(0.1681)	(0.0023)	(0.0042)
N	78,911	107,090	79,027	107,348	76,657	101,002	79,027	107,348
R^2	0.28008	0.34472	0.17146	0.16163	0.33579	0.38912	0.14157	0.21094
	Panel D: By Discretionary Closure Share							
Black	-0.0062***	-0.0031	0.0150***	0.0052	1.591***	0.6562***	0.0445***	0.0160***
	(0.0016)	(0.0026)	(0.0043)	(0.0072)	(0.1350)	(0.1891)	(0.0033)	(0.0036)
N	144,775	55,676	145,022	55,814	137,954	53,917	145,022	55,814
R^2	0.30048	0.34131	0.10755	0.24351	0.35065	0.18779	0.20938	0.19173
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8: Heterogeneity by Black-Agent Scarcity

This table reports heterogeneity in racial differences in homeowners' insurance claim outcomes by sorting pressure (Panel A) and exposure to White agents (Panel B). Panel A splits the sample by sorting pressure, measured as the interaction between local Black policyholder share and White-agent dominance; *Above Median* equals one when both Black share and White-agent share are above their respective medians. Panel B splits the sample by exposure to White agents, defined at the ZIP-code-year level as the share of Black policyholders served by White agents. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout/Coverage		Rejection		Resolution Time		Litigation	
	$\geq$ Med.	$<$ Med.	$\geq$ Med.	$<$ Med.	$\geq$ Med.	$<$ Med.	$\geq$ Med.	$<$ Med.
	Panel A: Sorting Pressure							
Black	-0.0153***	-0.0029*	0.0246***	0.0082**	0.7286**	1.446***	0.0165***	0.0411***
	(0.0037)	(0.0015)	(0.0093)	(0.0040)	(0.2878)	(0.1285)	(0.0042)	(0.0030)
N	20,306	180,126	20,327	180,490	19,571	172,285	20,327	180,490
R^2	0.37425	0.29386	0.28707	0.12979	0.43253	0.30625	0.31521	0.18494
	Panel B: Exposure to White Agents							
Black	-0.0085***	-0.0012	0.0190***	0.0058	0.8300***	1.563***	0.0110***	0.0463***
	(0.0025)	(0.0017)	(0.0064)	(0.0044)	(0.1769)	(0.1456)	(0.0029)	(0.0035)
N	93,850	97,116	94,049	97,268	90,750	91,940	94,049	97,268
R^2	0.33463	0.27891	0.15546	0.15830	0.45399	0.16560	0.20304	0.18858
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9: Heterogeneity in Insurance Claim Process by Client Value

This table reports heterogeneity by client value in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. Panel A measures client value based on policy premium. Panel B reports a measure based on renewal frequency, calculated as the number of times a policyholder renews the policy with the same agent. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median
	Panel A: By Premium							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0028**	-0.0047*	0.0059	0.0146***	1.692***	0.9844***	0.0476***	0.0249***
	(0.0013)	(0.0025)	(0.0049)	(0.0055)	(0.1640)	(0.1489)	(0.0040)	(0.0032)
N	99,344	101,107	99,344	101,492	93,158	98,713	99,344	101,492
R^2	0.29546	0.30433	0.16310	0.15245	0.27102	0.38167	0.20420	0.18375
	Panel B: By Relationship Length							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0032*	-0.0077***	0.0065	0.0145**	1.597***	0.9688***	0.0443***	0.0264***
	(0.0016)	(0.0022)	(0.0045)	(0.0063)	(0.1488)	(0.1779)	(0.0035)	(0.0036)
N	129,737	70,714	129,926	70,910	125,974	65,897	129,926	70,910
R^2	0.29668	0.33090	0.13277	0.19584	0.31464	0.34615	0.18949	0.24552
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10: Heterogeneity in Insurance Claim Process by Market Concentration

This table reports heterogeneity by local insurance agent market concentration in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. Panel A measures concentration based on number of agents within a ZIPcode-Year. Panel B reports ZIP code–year measures of agent market concentration using the Herfindahl–Hirschman Index (HHI), calculated as the sum of squared agent policy shares. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median
	Panel A: By # of Agents in Zipcode x Year							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0041**	-0.0059***	0.0060	0.0171***	1.676***	0.7925***	0.0470***	0.0243***
	(0.0018)	(0.0021)	(0.0049)	(0.0058)	(0.1621)	(0.1630)	(0.0038)	(0.0036)
N	102,327	90,945	102,440	91,193	97,227	87,606	102,440	91,193
R^2	0.32631	0.29295	0.14740	0.16521	0.32834	0.30660	0.20011	0.19870
	Panel B: By HHI							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0063***	-0.0036**	0.0188***	0.0050	0.8189***	1.671***	0.0222***	0.0479***
	(0.0021)	(0.0018)	(0.0059)	(0.0049)	(0.1635)	(0.1641)	(0.0036)	(0.0039)
N	94,597	98,675	94,851	98,782	91,115	93,718	94,851	98,782
R^2	0.29518	0.32029	0.16142	0.14848	0.35071	0.30254	0.20011	0.19737
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 11: Heterogeneity in Insurance Claim Process by Race Recognizability

This table reports heterogeneity in our main results based on the recognizability of policyholder race from their last names. *Hi* indicates instances where race recognisability is above a threshold and *Lo* when the likelihood is below a threshold stated in the table. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
	Hi: Pr(Black)≥ 50% or Pr(White)≥ 50%; **Lo:** Pr(Black)< 50% & Pr(White)< 50%							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0046***	0.0007	0.0088**	-0.0050	1.393***	0.4306	0.0360***	0.0227*
	(0.0015)	(0.0063)	(0.0040)	(0.0167)	(0.1160)	(0.5671)	(0.0029)	(0.0130)
N	171,189	9,642	171,530	9,656	163,973	9,143	171,530	9,656
R^2	0.28884	0.54867	0.13213	0.44005	0.30513	0.46980	0.18616	0.43371
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 12: Race and Insurance Claim Process with ZipCode x Street FE

This table reports regression estimates of differences in homeowners' insurance claim outcomes between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age as well as agent interacted with policy year. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Policyholder ZIP is interacted with Street Name FE. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
Black	-0.0072***	0.0149***	0.5670***	0.0120***
	(0.0021)	(0.0054)	(0.1539)	(0.0025)
N	199,587	199,968	191,003	199,968
R^2	0.61435	0.49862	0.67527	0.74184
ZIP Code Policyholder × Street FE	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes

Appendix for Online Publication

A1 Institutional Details

This appendix describes institutional details underlying the framework described in Section 2, covering agent and adjuster licensing, the claims process, the regulatory and dispute-resolution framework, and agent compensation.

A1.1 Agent and adjuster licensing

Residential property insurance in Florida is distributed and serviced through licensed intermediaries regulated by the Florida Department of Financial Services (DFS), Division of Agent and Agency Services. The licensing framework separates two functions. A resident general lines agent holds the "2-20" license, which authorizes the sale and servicing of property and casualty policies; licensure requires a 200-hour pre-licensing course (or qualifying experience), a state examination, and continuing education.[1] Agents who write only personal lines may instead hold the narrower "20-44" personal lines license, which covers homeowners, dwelling, and personal auto coverage but not commercial lines.[2]

The adjustment of claims is a separate licensed function. An all-lines adjuster holds the "6-20" license and investigates the loss, verifies coverage, estimates the amount payable, and determines the payout on the insurer's behalf.[3]

1. Florida Department of Financial Services, Division of Agent and Agency Services, Resident General Lines (2-20) Agent license requirements, https://www.myfloridacfo.com/division/agents/licensing/agents-and-adjusters. Agent appointments are governed by §626.112, Florida Statutes, which provides that a person may not act as an agent unless both licensed by the department and appointed by an appointing entity (an insurer).

2. The 20-44 requires a 60-hour pre-licensing course and a state examination, and cannot be held jointly with the 2-20 license. Citizens Property Insurance Corporation appoints agents holding either a 2-20 or a 20-44 license; see https://www.citizensfla.com/agents.

3. Florida Department of Financial Services, Resident All-Lines (6-20) Adjuster license requirements, https://www.myfloridacfo.com/division/agents/licensing/agents-and-adjusters. Adjusters may be company (staff) adjusters employed by the insurer or independent adjusters retained by the carrier; in either case the adjuster acts on behalf of the insurer, in contrast to a public adjuster (3-20 license), who is retained by the policyholder.

A1.2 The claims process

A residential property claim begins with the first notice of loss (FNOL). The policyholder reports the loss to the insurer, either directly or through the agent. Agents appointed by the insurer are required to report claims promptly upon receipt.[4] The insurer assigns an adjuster, who reviews coverage, inspects the damage, prepares an estimate, and recommends a settlement, partial payment, or denial. Documentation is central throughout: photographs, inventories, receipts, and repair estimates establish the cause, scope, and value of the loss. Industry guidance for policyholders emphasizes prompt reporting and thorough documentation and describes the agent as an adviser who helps the insured navigate the process.[5]

A1.3 Regulation and dispute resolution

Florida law imposes procedural obligations on insurers handling residential property claims. Section 627.70131 of the Florida Statutes requires insurers to acknowledge communications, begin investigation, identify the adjusters assigned to a claim, maintain claim records, and pay or deny claims within statutory time limits, absent specified exceptions.[6] The unfair claim settlement practices statute, Section 626.9541, identifies misrepresenting policy provisions, failing to act promptly on communications, failing to adopt reasonable investigation standards, and denying claims without reasonable investigation as unfair practices.[7]

Policyholders who dispute an outcome have several avenues. Section 627.7015 establishes

4. Citizens Property Insurance Corporation instructs appointed agents to report claims immediately upon receipt and provides policyholders with claim-reporting requirements (policy number, contact information, property address, and date and description of loss). See https://www.citizensfla.com/agents and https://www.citizensfla.com/report-a-claim.

5. National Association of Insurance Commissioners, "What You Need to Know When Filing a Homeowners Claim," https://content.naic.org/article/what-you-need-know-when-filing-homeowners-claim.

6. Florida Statutes §627.70131, https://www.flsenate.gov/Laws/Statutes/2023/627.70131. The 2022 property-insurance reforms shortened several of these deadlines, reducing the time to acknowledge a claim communication and to begin investigation from 14 days to 7 days.

7. Florida Statutes §626.9541, https://www.flsenate.gov/Laws/Statutes/2023/626.9541.

a non-adversarial mediation procedure for disputed residential property claims.[8] When the policy so provides, an appraisal clause resolves disputes over the *amount* of loss through each party's appraiser and an impartial umpire.[9] Litigation remains available when other channels fail.

The litigation environment changed materially near the end of our sample, which runs through September 2023. For much of the sample period, property-insurance litigation was common in Florida. Observers attribute this to a one-way attorney-fee regime, under which insurers paid prevailing policyholders' fees while policyholders bore little fee risk, and to the use of assignment-of-benefits agreements. The large majority of claims in our sample were filed and resolved under this regime. In a December 2022 special session, the Legislature enacted Senate Bill 2-A, signed into law on December 16, 2022, which eliminated one-way attorney fees for property-insurance suits and, together with earlier reforms, curtailed assignment of benefits; it applies to policies issued on or after its effective date.[10] Our sample spans both the high-litigation regime and the onset of the reform regime, so the litigation and appraisal outcomes we study reflect both environments.

A1.4 Agent compensation

Cummins and Doherty (2006) characterize independent intermediaries as market makers who match policyholders with insurers, and show that intermediary compensation has two components: premium-based commissions, paid as a percentage of premium written, and contingent commissions, tied to the profitability, persistency, or volume of the business an agent places with an insurer. When the contingent component is keyed to profitability, it is often based on the loss ratio of the agent's book, so fewer and smaller claims raise the agent's payout.[11]

8. Florida Statutes §627.7015, https://www.flsenate.gov/Laws/Statutes/2023/627.7015.

9. See Florida Statutes §627.70151, https://www.flsenate.gov/Laws/Statutes/2023/627.70151.

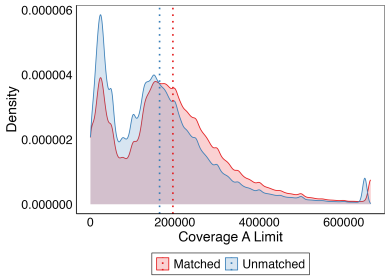
10. Senate Bill 2-A (2022 Special Session A), Florida Senate Bill Summary, https://www.flsenate.gov/Committees/BillSummaries/2022A/html/2; see also Florida Statutes §627.428 (as amended).

11. This profitability-based compensation structure is not specific to commercial lines. Industry compensation disclosures describe contingent-commission arrangements based on profitability measures, including

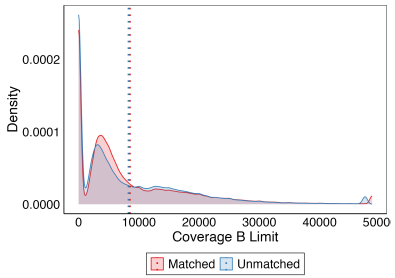
For our data provider, public financial disclosures indicate that appointed agents receive premium-based commissions at rates set by the carrier's board.[12] Two scope caveats apply. First, Cummins and Doherty (2006) focus on the commercial property-casualty market and emphasize that profitability-based contingent commissions can play an efficiency-enhancing role by aligning insurer and intermediary incentives; we invoke the compensation structure only to establish that agents have a financial stake and discretion over advocacy, not to characterize contingent commissions as welfare-reducing. Second, more than 95% of the agents in our sample also place business with private insurers, so the broader-market compensation structure is the relevant one even though our claims data come from a single carrier.

loss ratio, across personal as well as commercial lines; see, e.g., Chubb, "Broker and Independent Agent Compensation," producer compensation disclosure.

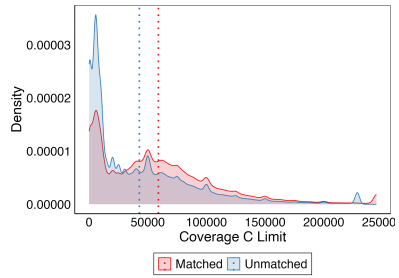
12. Citizens Property Insurance Corporation, *Audited Financial Statements, December 31, 2023 and 2022*, Note 10 (Agent Commissions and Servicing Company Fees), which reports that agent commissions are paid at rates established by the Board as a percentage of direct written premiums, net of certain surcharges and assessments. These materials establish premium-based compensation for business placed with the carrier; they do not, by themselves, establish claim-outcome-based contingent commissions on these policies.



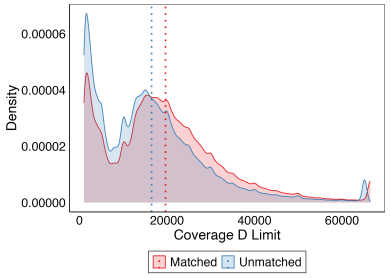
(a) Coverage A Limit



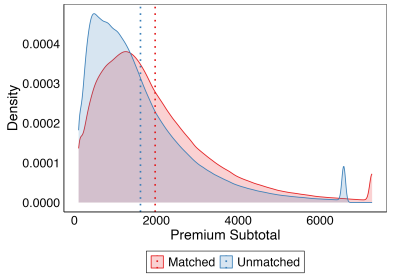
(b) Coverage B Limit



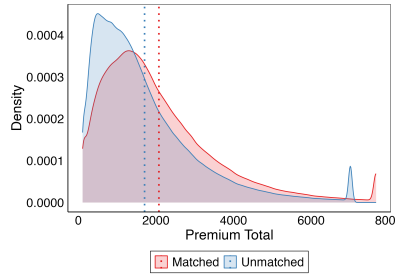
(c) Coverage C Limit



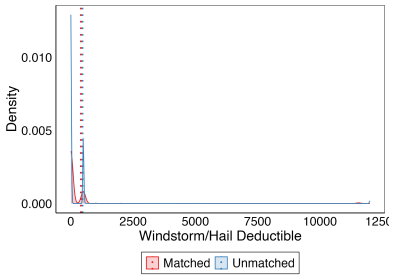
(d) Coverage D Limit



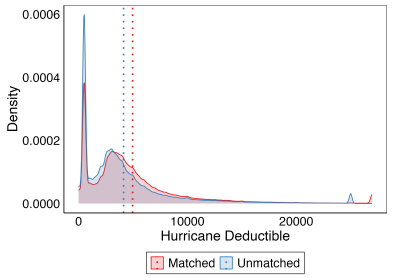
(e) Premium Subtotal



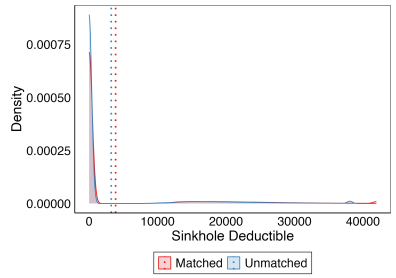
(f) Premium Total



(g) AOP Deductible

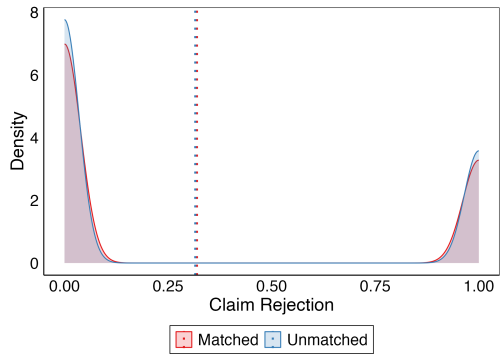


(h) Hurricane Deductible

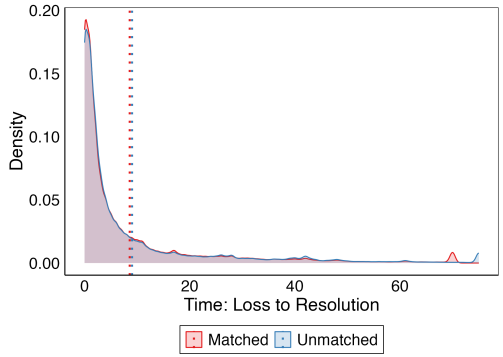


(i) Sinkhole Deductible

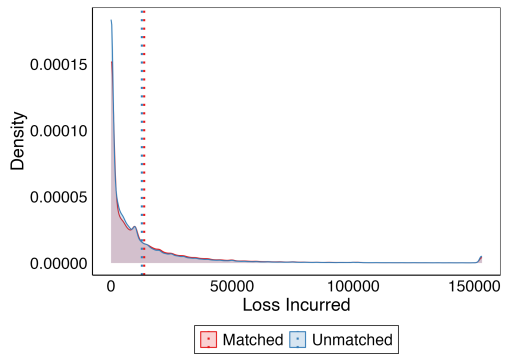
Figure A1: Distribution of Policy Attributes: Citizens–L2 Matched and Unmatched Samples
This figure compares the distribution of policy characteristics between policies in the matched Citizens–Voter Registration sample and those in the unmatched sample.



(a) Claim Rejection

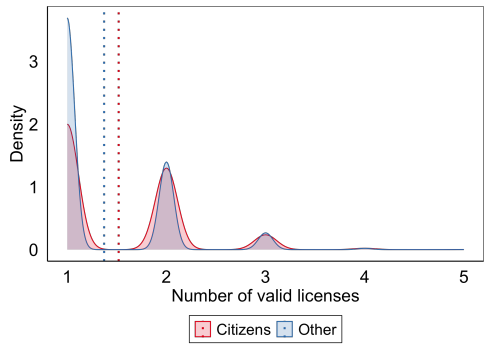


(b) Loss to Resolution (Time in Months)

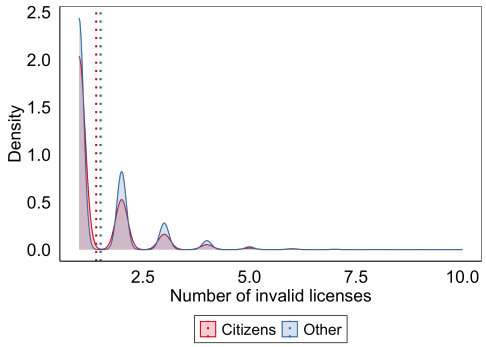


(c) Loss Incurred

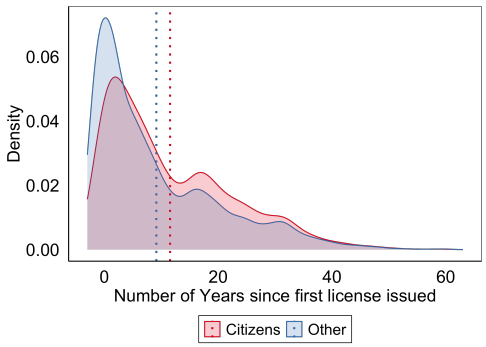
Figure A2: Distribution of Claim Attributes: Citizens–L2 Matched and Unmatched Samples
This figure compares the distribution of claim characteristics between policies in the matched Citizens–Voter Registration sample and those in the unmatched sample.



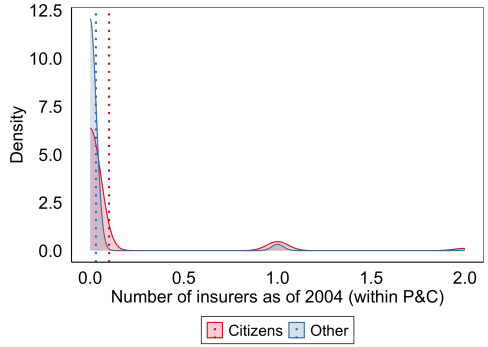
(a) Valid licenses



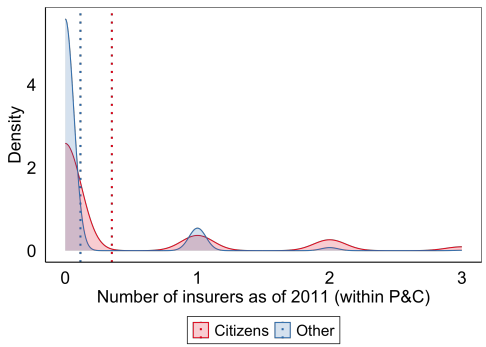
(b) Invalid licenses



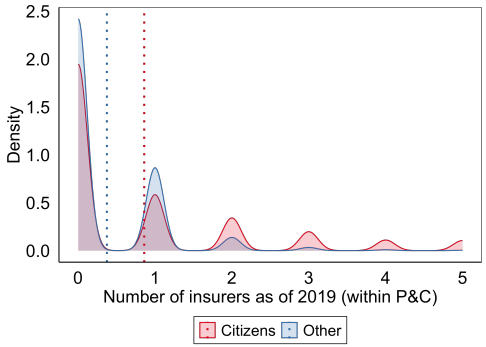
(c) Years since first license



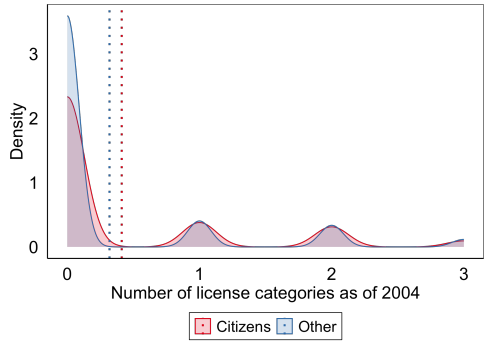
(d) Property insurers as of 2004



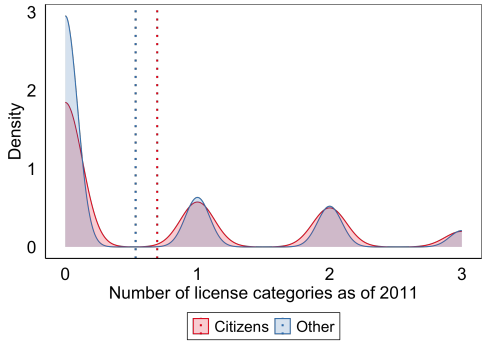
(e) Property insurers as of 2011



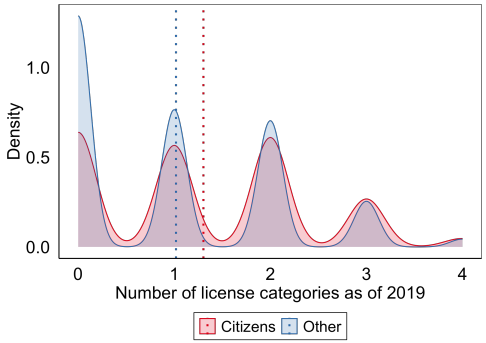
(f) Property insurers as of 2019



(g) License categories as of 2004



(h) License categories as of 2011



(i) License categories as of 2019

Figure A3: Distribution of Agent Characteristics: Citizens vs Non Citizens
This figure compares the distribution of agent characteristics between agents appointed by Citizens and those not appointed by Citizens. Panels (d)–(f) plot the number of property insurers with which these agents held appointments as of 2004, 2011, and 2019, respectively. Panels (g)–(i) similarly plot the number of distinct license categories held by agents.

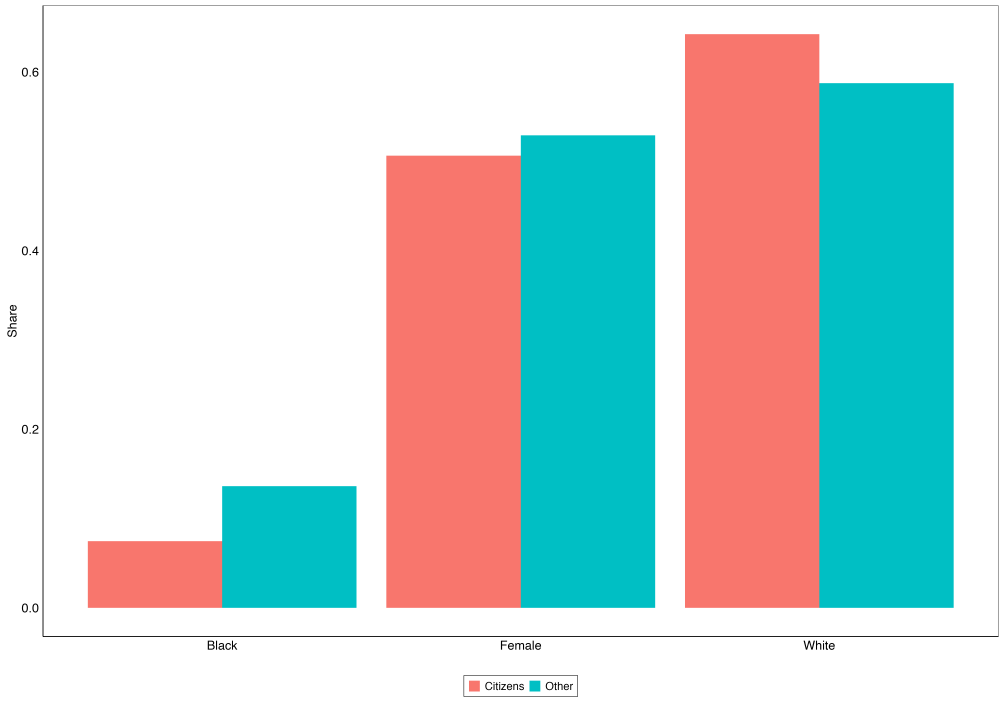


Figure A4: Distribution of Demographics across Agent: Citizens vs Non Citizens
This figure compares the distribution of demographics such as race and gender between agents appointed by Citizens and those not appointed by Citizens.

Table A1: Summary Statistics by Agent Race

The table presents mean values of key variables by agent race. Claim-related variables are defined only for contracts with at least one claim filed. Black Agent equals 1 for contracts associated with Black agents and 0 for those associated with White agents. All variable definitions are described in Table 1.

	Black Agent=0	Black Agent=1
Prop. Black Policyholders	0.12	0.54
Claim Rejection	0.35	0.33
Payout-to-Coverage Ratio	0.11	0.08
Resolution Time	7.14	8.83
Litigation	0.07	0.15
Appraisal	0.07	0.12
Closure w/ Misc. Reason	0.09	0.09
Closure w/ Partial Payment	0.02	0.01
Agent Policy Volume	345.75	204.91
Agent Tenure	14.03	14.38
Policy Tenure	0.45	0.46

Table A2: Summary Statistics by Policyholder Race

The table presents mean values of key variables by policyholder race. Claim-related variables are defined only for contracts with at least one claim filed. Black equals 1 for contracts associated with Black policyholder and 0 for those associated with White policyholder. All variable definitions are described in Table 1.

	Black = 1	Black = 0
Claim Rejection	0.34	0.35
Payout-to-Coverage Ratio	0.07	0.12
Resolution Time	9.20	6.61
Litigation	0.15	0.05
Appraisal	0.12	0.05
Closure w/ Partial Payment	0.01	0.02
Closure w/ Misc. Reason	0.09	0.09
Agent Policy Volume	278.62	347.78
Agent Tenure	14.00	14.06
Policy Tenure	0.45	0.45

Table A3: Race and Insurance Claim Resolution Time Conditional on Acceptance

This table reports regression estimates of differences in time from loss to resolution, conditional on claim acceptance, between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Resolution Time‖Acceptance (months)				
	(1)	(2)	(3)	(4)	(5)
Black	1.804***	1.892***	1.988***	1.688***	1.683***
	(0.1517)	(0.1401)	(0.1442)	(0.1520)	(0.1496)
N	132,184	132,184	123,343	123,343	123,195
R^2	0.14642	0.39491	0.39694	0.42901	0.43518
Mean	9.325	9.325	9.325	9.325	9.325
Policy Year FE	Yes	Yes	Yes	Yes	Yes
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes
Loss Year FE		Yes	Yes	Yes	Yes
Cause of Loss FE		Yes	Yes	Yes	Yes
Dwelling Size FE			Yes	Yes	Yes
No. of Stories FE			Yes	Yes	Yes
Property Age FE			Yes	Yes	Yes
Agent FE				Yes	Yes
Income × Policy Year FE					Yes
Education × Policy Year FE					Yes

Table A4: Race and Insurance Claim Rejection Reasons

This table reports regression estimates of differences in reasons for rejection of homeowners' insurance claims between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
	Panel A: Closure w/ Partial Payment {0, 1}				
Black	0.0014	0.0017*	0.0011	0.0006	0.0006
	(0.0009)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
N	213,701	213,701	201,062	201,062	200,836
R^2	0.10948	0.11858	0.10661	0.13103	0.13390
Mean	0.0180	0.0180	0.0180	0.0180	0.0180
	Panel B: Closure w/ Miscellaneous Reasons {0, 1}				
Black	0.0049**	0.0079***	0.0087***	0.0060***	0.0058***
	(0.0020)	(0.0020)	(0.0021)	(0.0022)	(0.0022)
N	213,701	213,701	201,062	201,062	200,836
R^2	0.10060	0.13673	0.14017	0.16738	0.17047
Mean	0.0885	0.0885	0.0885	0.0885	0.0885
Policy Year FE	Yes	Yes	Yes	Yes	
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes
Loss Year FE		Yes	Yes	Yes	Yes
Cause of Loss FE		Yes	Yes	Yes	Yes
Dwelling Size FE			Yes	Yes	Yes
No. Of Stories FE			Yes	Yes	Yes
Property Age FE			Yes	Yes	Yes
Agent FE				Yes	Yes
Income × Policy Year FE					Yes
Education × Policy Year FE					Yes

Table A5: Race and Likelihood of Success Conditional on Litigation

This table reports regression estimates of differences in the likelihood of success between Black and White policyholders, conditional on litigation, appraisal, or either litigation or appraisal. Success is defined as the likelihood of receiving full payment. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age as well as agent interacted with policy year. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Closure with Full Claim Payment $\{0, 1\}$		
	$\mid$ *Litigation*	$\mid$ *Appraisal*	$\mid$ *Litigation OR Appraisal*
	(1)	(2)	(3)
Black	-0.0102	0.0131	-0.0003
	(0.0096)	(0.0082)	(0.0066)
N	16,606	14,784	28,392
R^2	0.44603	0.49885	0.38673
ZIP Code Policyholder FE	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes

Table A6: Race and Insurance Claim Process around Hurricanes: Stacked DiD

This table reports stacked triple-difference regression estimates measuring racial disparities in claims processing around major hurricane and tropical storm events. *Treated* equals one for hurricane/tropical storm events with above-median property damage. *Post* equals one for claim observations occurring after the hurricane/tropical storm event. *Black* is an indicator equal to one if the policyholder is Black and zero if the policyholder is White. All specifications include event-stack fixed effects, event-time fixed effects, insured ZIP-code fixed effects, loss-year fixed effects, cause-of-loss fixed effects, and agent-by-policyholder fixed effects. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
Post × Treated × Black	-0.0554***	0.1119***	4.911***	0.0657***
	(0.0115)	(0.0299)	(0.9879)	(0.0161)
Post × Treated	0.0384***	-0.0226	-0.1852	-0.0013
	(0.0094)	(0.0175)	(0.4636)	(0.0084)
Post × Black	-0.0131**	0.0211	-2.037***	-0.0862***
	(0.0059)	(0.0172)	(0.5294)	(0.0124)
Treated × Black	0.0106	-0.0301	-5.329***	-0.1101***
	(0.0108)	(0.0287)	(0.9419)	(0.0157)
Black	0.1689	-0.1992	2.821	0.2184***
	(0.1791)	(0.2171)	(7.043)	(0.0622)
N	189,724	190,124	182,164	190,124
R^2	0.94001	0.90170	0.90926	0.89421
Stack ID	Yes	Yes	Yes	Yes
Event Time FE	Yes	Yes	Yes	Yes
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Agent FE × Client FE	Yes	Yes	Yes	Yes

Table A7: Heterogeneity in Insurance Claim Resolution Conditional on Acceptance, Rejection Reason by Agent Race

This table reports heterogeneity by agent race in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. Agent B corresponds to the subsample of Black agents and Agent W to White agents respectively. Resolution Time‖Acceptance is measured conditional on claim rejection equal to 0. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Resolution Time‖Acceptance		Closure w/ Partial Payment		Closure w/ Miscellaneous Reasons	
	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W
	(1)	(2)	(3)	(4)	(5)	(6)
Black	0.8829*	1.781***	0.0019	-0.0003	-0.0066	0.0082***
	(0.4824)	(0.1902)	(0.0031)	(0.0010)	(0.0069)	(0.0026)
N	10,962	91,027	17,490	148,342	17,490	148,342
R^2	0.26465	0.49895	0.10596	0.14857	0.22278	0.16835
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Table A8: Heterogeneity in Likelihood of Success Conditional on Litigation by Agent Race

This table reports heterogeneity by agent race, in regression estimates of differences in the likelihood of success between Black and White policyholders, conditional on litigation, appraisal, or either litigation or appraisal. Success is defined as the likelihood of receiving full payment. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age as well as agent interacted with policy year. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Closure with Full Claim Payment $\{0, 1\}$					
	| *Litigation*		| *Appraisal*		| *Litigation OR Appraisal*	
	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W
	(1)	(2)	(3)	(4)	(5)	(6)
Black	-0.0147	-0.0154	0.0217	-0.0034	-0.0134	-0.0058
	(0.0324)	(0.0127)	(0.0388)	(0.0112)	(0.0255)	(0.0091)
N	2,796	9,222	2,164	8,415	4,452	16,158
R^2	0.48773	0.45028	0.48541	0.54962	0.40317	0.40156
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Table A9: Race and Insurance Claim Process with Adjuster FE

This table reports regression estimates of differences in homeowners' insurance claim outcomes between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, property age and adjuster FE. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
Black	-0.0090***	0.0211***	0.6122***	0.0105***
	(0.0013)	(0.0034)	(0.0892)	(0.0015)
N	199,619	200,000	191,035	200,000
R^2	0.39266	0.23580	0.53399	0.64916
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes
Adjuster FE	Yes	Yes	Yes	Yes

Table A10: Heterogeneity by Agent Capacity Constraints

This table reports heterogeneity by agent capacity constraint, in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. Agent capacity constraint is measured as the number of insurers the agent is appointed with. $\geq$ Median denotes the subsample with above-median number of insurers. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0059***	-0.0045**	0.0200***	0.0005	1.336***	1.369***	0.0376***	0.0375***
	(0.0018)	(0.0020)	(0.0053)	(0.0049)	(0.1608)	(0.1612)	(0.0040)	(0.0037)
N	96,706	103,745	96,744	104,092	91,639	100,232	96,744	104,092
R^2	0.29684	0.29923	0.13806	0.14335	0.28900	0.33199	0.18104	0.20759
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table A11: Heterogeneity in Insurance Claim Process by Other Agent Characteristics

This table reports heterogeneity by agent characteristics such as tenure and volume, in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. Agent Tenure is defined as the number of years between an agent's first and last policy written with a given agency. Agent Policy Volume is measured as the number of policies written by an agent with a given agency. $\geq$ Median denotes the subsample with above-median agent tenure in Panel A and above-median agent policy volume in Panel B. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median
	Panel A: By Agent Tenure							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0030	-0.0063***	0.0075	0.0144***	1.585***	1.152***	0.0425***	0.0325***
	(0.0020)	(0.0018)	(0.0051)	(0.0050)	(0.1701)	(0.1522)	(0.0040)	(0.0035)
N	98,796	101,655	99,023	101,813	95,835	96,036	99,023	101,813
R^2	0.27513	0.30764	0.10910	0.15706	0.28798	0.33561	0.17053	0.20608
	Panel B: By Agent Policy Volume							
Black	-0.0068***	-0.0032*	0.0107**	0.0106**	1.235***	1.440***	0.0362***	0.0380***
	(0.0020)	(0.0018)	(0.0054)	(0.0048)	(0.1682)	(0.1470)	(0.0041)	(0.0033)
N	90,274	110,177	90,406	110,430	86,352	105,519	90,406	110,430
R^2	0.31042	0.28821	0.11760	0.15975	0.36181	0.27255	0.16205	0.21093
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table A12: Heterogeneity in Insurance Claim Process by Claim Order

This table reports heterogeneity in the regression estimates of differences in homeowners' insurance claim outcomes between Black and White policyholders across additional policy characteristics, including the order of claims filed within the same contract. *First* Claim is defined as the earliest observed claim associated with a contract at a given agency. *Subsequent* Claim is defined as other claims thereafter. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	First	Subsequent	First	Subsequent	First	Subsequent	First	Subsequent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0042***	-0.0074**	0.0082**	0.0055	1.363***	1.176***	0.0345***	0.0483***
	(0.0014)	(0.0037)	(0.0037)	(0.0110)	(0.1146)	(0.3370)	(0.0026)	(0.0077)
N	177,134	23,317	177,473	23,363	169,633	22,238	177,473	23,363
R^2	0.29657	0.35320	0.13368	0.28666	0.31921	0.34982	0.17783	0.34171
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table A13: Race and Insurance Claim Process with Agent × Policy Year FE

This table reports regression estimates of differences in homeowners' insurance claim outcomes between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age as well as agent interacted with policy year. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
Black	-0.0057***	0.0096**	1.330***	0.0347***
	(0.0015)	(0.0040)	(0.1178)	(0.0029)
N	200,451	200,836	191,871	200,836
R^2	0.41407	0.28511	0.43227	0.34084
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes
Agent FE × Policy Year FE	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes

Table A14: Heterogeneity in Insurance Claim Process by Agent Race with Agent × Policy Year FE

This table reports heterogeneity by agent race in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. Agent B corresponds to the subsample of Black agents and Agent W to White agents respectively. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, property age and agent interacted with policy year. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W	Agent B	Agent W
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0013	-0.0057***	-0.0063	0.0093*	1.460***	1.326***	0.0425***	0.0373***
	(0.0058)	(0.0018)	(0.0155)	(0.0048)	(0.3587)	(0.1463)	(0.0092)	(0.0034)
N	17,467	148,029	17,490	148,342	16,588	142,295	17,490	148,342
R^2	0.42296	0.41566	0.30076	0.28079	0.32326	0.46145	0.34801	0.31466
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table A15: Heterogeneity in Insurance Claim Process by Geographic Proximity b/w Agent and Policyholder

This table reports heterogeneity in the regression estimates of differences in homeowners' insurance claims between Black and White policyholders by geographic proximity b/w agent and policyholder. Proximity is calculated as the distance in miles between property and centroid of agent zipcode. Panel A reports the estimates for black agents and Panel B corresponds to white agents. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio		Claim Rejection		Resolution Time		Litigation	
	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median	$\geq$ Median	$<$ Median
	Panel A: Sub-sample of Black Agents							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0022	0.0059	-0.0012	-0.0095	1.702***	1.371**	0.0408***	0.0396***
	(0.0066)	(0.0081)	(0.0190)	(0.0212)	(0.5232)	(0.6308)	(0.0142)	(0.0117)
N	7,396	9,758	7,407	9,770	6,990	9,296	7,407	9,770
R^2	0.37830	0.31274	0.25394	0.17719	0.27829	0.21331	0.29193	0.25494
	Panel B: Sub-sample of White Agents							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.0049**	-0.0042	0.0128**	0.0063	1.340***	1.496***	0.0378***	0.0439***
	(0.0021)	(0.0028)	(0.0060)	(0.0070)	(0.1876)	(0.2204)	(0.0040)	(0.0049)
N	75,117	70,609	75,259	70,777	71,871	68,165	75,259	70,777
R^2	0.31754	0.31049	0.15442	0.14741	0.36039	0.37909	0.18459	0.18224
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Of Stories FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Education $\times$ Policy Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table A16: Race and Insurance Claim Process with Geographic Cluster FE

This table reports regression estimates of differences in homeowners' insurance claim outcomes between Black and White policyholders. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects for quintiles of deductibles, coverage limits, dwelling size, number of stories, and property age. Income and educational attainment (percentage of college graduates) are measured at the ZIP-code level. Geographic clusters constructed at 200m, 250m, and 300m radii are interacted with year and included in the specifications reported in Panels A–C, respectively. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
	Panel A: Cluster 200m radii x Policy Year FE			
Black	-0.0035**	0.0070	1.606***	0.0433***
	(0.0016)	(0.0044)	(0.1444)	(0.0035)
N	200,451	200,836	191,871	200,836
R^2	0.46853	0.30264	0.41035	0.28012
	Panel B: Cluster 250m radii x Policy Year FE			
Black	-0.0039***	0.0083**	1.545***	0.0422***
	(0.0015)	(0.0041)	(0.1343)	(0.0032)
N	200,451	200,836	191,871	200,836
R^2	0.42999	0.25868	0.38455	0.24784
	Panel C: Cluster 300m radii x Policy Year FE			
Black	-0.0048***	0.0086**	1.486***	0.0409***
	(0.0015)	(0.0040)	(0.1292)	(0.0031)
N	200,451	200,836	191,871	200,836
R^2	0.40779	0.23337	0.36934	0.23225
ZIP Code Policyholder FE	Yes	Yes	Yes	Yes
Deductible FE	Yes	Yes	Yes	Yes
Coverage FE	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Dwelling Size FE	Yes	Yes	Yes	Yes
No. of Stories FE	Yes	Yes	Yes	Yes
Property Age FE	Yes	Yes	Yes	Yes
Agent FE	Yes	Yes	Yes	Yes
Income × Policy Year FE	Yes	Yes	Yes	Yes
Education × Policy Year FE	Yes	Yes	Yes	Yes

Table A17: Race and Insurance Claim Process around Hurricanes: Triple DiD (Additional FE)

This table reports triple difference-in-differences regression estimates measuring the racial bias in claims processing surrounding major hurricane/tropical storm events. *Treated* equals 1 for counties with above-median property damage from the hurricane/tropical storm. *Post* is 1 for months following hurricane occurrence. *Black* is an indicator variable equal to 1 if the policyholder is Black and 0 if White. All specifications include fixed effects. Standard errors are clustered at the agent level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Payout to Coverage Ratio	Claim Rejection	Resolution Time	Litigation
	(1)	(2)	(3)	(4)
Post × Treated × Black	-0.0532***	0.1139***	2.985***	0.0357**
	(0.0126)	(0.0295)	(0.9480)	(0.0173)
Post	0.0154***	-0.0058	0.3333	-0.0142*
	(0.0051)	(0.0126)	(0.3232)	(0.0074)
Treated	-0.0119**	0.0118	-0.6657**	-0.0107*
	(0.0056)	(0.0107)	(0.2839)	(0.0056)
Black	0.0194**	-0.0300	2.360***	0.0706***
	(0.0096)	(0.0186)	(0.9060)	(0.0160)
Post × Treated	0.0371***	-0.0309**	1.566***	0.0133*
	(0.0092)	(0.0149)	(0.3865)	(0.0075)
Post × Black	-0.0150**	0.0251	-2.196***	-0.0700***
	(0.0060)	(0.0185)	(0.5689)	(0.0133)
Treated × Black	0.0139	-0.0526*	-4.722***	-0.0665***
	(0.0104)	(0.0273)	(0.9449)	(0.0156)
N	228,585	229,078	219,267	229,078
R^2	0.88443	0.82099	0.86642	0.83524
ZIP Code Policyholder x Street FE	Yes	Yes	Yes	Yes
Loss Year FE	Yes	Yes	Yes	Yes
Cause of Loss FE	Yes	Yes	Yes	Yes
Agent FE × Client FE	Yes	Yes	Yes	Yes

Table A18: Sensitivity to Omitted Variables: Oster Bounds

The table reports Oster (2019) sensitivity statistics comparing a restricted specification,

$$Y_{i,j,z,t} = \beta \times Black_i + \alpha_z + X_i^{\text{Contract}} + X_i^{\text{Claim}} + PolicyYear_t + \varepsilon_{i,j,z,t}$$

to a full specification,

$$Y_{i,j,z,t} = \beta \times Black_i + \alpha_j + \alpha_z + X_i^{\text{Contract}} + X_i^{\text{Property}} + X_i^{\text{Claim}} + D_z \times PolicyYear_t + \varepsilon_{i,j,z,t}$$

Restricted $\hat{\beta}$ and Full $\hat{\beta}$ denote the coefficient on Black policyholder status in the restricted and full specifications. δ to zero is the relative selection on unobservables needed to attenuate the full estimate to zero. $\beta^*(\delta = 1)$ is the bias-adjusted coefficient assuming equal selection on observables and unobservables.

	Observations	Restricted $\hat{\beta}$	Full $\hat{\beta}$	δ to zero	$\beta^*(\delta = 1)$
Payout-to-coverage ratio	199,619	-0.0057	-0.0050	3.2672	-0.0035
Claim rejection	200,000	0.0092	0.0113	-5.3445	0.0135
Resolution time	191,035	1.6100	1.3504	1.8741	0.6298
Litigation	200,000	0.0477	0.0372	3.1225	0.0253