

Racial Segregation and Audit Independence

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Abstract: We identify endogenously formed same-race audit pairings using dyadic data on the estimated race of audit partners and auditee executives in the nonprofit audit sector and present evidence that racial segregation (the systematic separation of people based on their race) among auditors and auditees decreases audit independence and accuracy. In our sample, same-race audit pairings occur at a significantly greater than random frequency, particularly in metropolitan statistical areas (MSAs) with high residential racial segregation. We find that having an auditor of the same race is associated with: 1) less frequent going-concern, material non-compliance, and material internal control weakness assessments, 2) audit opinions being issued more quickly, and 3) going-concern opinions that less accurately predict auditees' market exits. Consistent with the lower independence and accuracy of same-race audits being attributable to shared cultural and social interactions between auditors and auditees of the same race, our findings are concentrated in audits performed in MSAs with high residential racial segregation. Overall, our results suggest that when an auditor and auditee are in close cultural proximity, endogenous sorting based on race leads to less independent audits.

Keywords: Race, Ethnicity, Audit opinions, Going-Concern Opinions

JEL Classification: J22, J24, J44, K2, L15, L51, M41, M42

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1. Introduction

Members of the same racial and ethnic groups tend to do business together (e.g., Guiso et al. 2009).¹ For example, in the U.S. audit market, pairings between audit partners and client executives of the same race occur at a significantly greater than random frequency (Berglund and Eshleman 2019). There are two prominent explanations. First is that the ease of communication, similarity of experiences, and greater trust arising from a shared racial and ethnic heritage can reduce information asymmetry and create economic value for both parties (Cornell and Welch 2006, Fisman et al. 2017). The second explanation is that same-race partnerships are formed for preference-based reasons, where the utility gained from favoring a culturally proximate counterpart outweighs any negative impact on economic efficiency.

Research in lending markets finds evidence consistent with the first explanation—i.e., the greater familiarity that characterizes culturally proximate pairings reduces information asymmetry in the screening process and leads to better loan performance (Fisman et al. 2017, Accetturo et al. 2022). However, it is unclear whether this finding can be generalized to the audit market. In an external financial statement audit, the potential for bias and favoritism arising from a lack of independence is more severe than in lending because the auditee (endogenously) chooses the auditor and the third parties that rely on the audit (e.g., the government or donors) do not have a direct (contractual) relationship with the auditor (as a lender does with a borrower). Thus, it is unclear whether same-race audit partnerships reduce information asymmetry and lower audit costs or are formed to leverage social and cultural commonalities for more favorable opinions. In this paper, we explore how the formation of same-race pairings (i.e., racial segregation) among audit partners and auditee executives affects audit independence and accuracy as well as the role of U.S.

¹ For brevity, throughout the paper, the terms race, racial groups, and racial differences should be read as also including ethnic differences.

residential racial segregation in determining the likelihood and impact of same-race audit pairings on audit outcomes.

An audit's value is determined by both the accuracy of the information the auditor collects and the auditor's willingness to publicly express unbiased views (an important difference from the lending market). Although both information advantages and favoritism can explain frequent same-race pairings, the former results in same-race audits being more accurate whereas the latter results in lower independence and more frequent audit failures. If same-race pairings are formed primarily because of lower information asymmetry, they should be associated with enhanced audit accuracy and lower costs. If instead same-race pairings are formed primarily because of favoritism, they could decrease independence and impair the auditor's judgement (He et al. 2017).

Which of these opposing forces dominates likely depends on the centrality of racial differences in determining an individual's social and economic interactions in the community where the audit takes place—interactions that are largely determined by the extent of residential racial segregation. Residential racial segregation, defined as the sorting of people into particular communities or neighborhoods on the basis of their race, has a significant impact on some of the most central aspects of an individual's daily life, including where they go to school or work, where they socialize, and even their health outcomes (Menendian et al. 2021). We conjecture that higher levels of residential segregation (and less interactions between individuals of different races) increase the likelihood that an individual prefers working with someone of the same race as well as the potential for racially-based favoritism.

To provide evidence on the impact of racial segregation on audit independence and accuracy, we identify endogenously formed same-race audit pairings using detailed engagement-level data covering the audits of nonprofit organizations obtained from the Federal Audit

Clearinghouse (FAC).² The FAC data allows us to observe the names of both the audit partner and the auditee executive in charge of the financial statements back to 1997, from which we can estimate auditors' and auditees' races over a long time series. We estimate race building on the method described in Sutherland et al. (2021), which leverages Bayesian prediction algorithms trained on U.S. Census and Social Security Administration data and assigns a probability that each first-name-last-name pairing is associated with a race. This approach enables us to classify auditors and auditees into one of the Census' main race categories (Asian, Black, Hispanic, and White Non-Hispanic). Based on these categories, we define a "same-race" auditor-auditee pairing as an engagement where the audit partner and the auditee are members of the same estimated race.

We begin by providing descriptive evidence on the frequency of same race auditor-auditee pairings using a dyadic regression approach (e.g., Colonnelli et al. 2022; Fos et al. 2021), complementing prior work on the role of cultural proximity in the audit process (Berglund and Eshleman 2019; Krishnan et al. 2022; and Pham et al. 2022). In a dyadic regression, a unit of observation is a hypothetical auditor-auditee pair and the outcome variable is an indicator for true (i.e., non-hypothetical) pairings. An important advantage of this approach is that it allows us to control for the influence of other characteristics (e.g., location and time specific factors) that may codetermine auditor-auditee pairings (e.g., the number of minority auditors in a particular market).

We find that endogenously formed same-race pairings in the nonprofit audit sector occur at a significantly greater than random frequency, particularly in metropolitan statistical areas (MSAs) characterized as having high residential racial segregation. In markets defined based on a three-digit zip code, controlling for time and location specific factors (e.g., the local audit supply

² The U.S. Office of Management and Budget (OMB) requires all nonprofit organizations expending federal grants above a certain threshold to obtain an annual audit conducted by a CPA (known as a "Single Audit"). The results of the audit must be submitted to the FAC, which makes the reports publicly available. Single audit reports are available at: <https://facdissem.census.gov/PublicDataDownloads.aspx>.

and its racial composition), we find that auditees are approximately 2.4% more likely (compared to random selection) to choose an auditor of the same estimated race. In geographic areas with high residential racial segregation, same-race pairings are 3.3% more likely than random, compared to 1.0% in areas with low residential racial segregation.

Next, we examine the association between same-race audit pairings and audit independence, as captured by the frequency of going-concern, material non-compliance, and material internal control weakness assessments.³ We expect an auditor's willingness to issue one of these findings to be increasing in the auditor's level of independence (DeFond and Zhang 2014). Consistent with cultural proximity hampering audit independence, using a within-auditor-year research design, we find that each of the three adverse assessments are between 25-30% less common in audits where the auditor and auditee are of the same estimated race. We also find that, in same-race audit pairings, audit opinions are issued about 8 days faster, suggesting that same-race auditors base their assessments on less evidence (Knechel and Payne 2001). Two additional pieces of evidence suggest that favoritism arising from shared social and cultural experiences contributes to the lower level of independence in same-race audits. First, we find little evidence that same-gender audit pairings are systematically associated with any of these outcomes. Second, our findings are concentrated in audits performed in MSAs we characterize as having high residential racial segregation. In fact, we find no systematic evidence that same-race pairings are associated with lower independence in MSAs with relatively low residential racial segregation.

³ OMB Circular A-133 requires the auditor to give an opinion on a nonprofit charitable organization's ability to continue as a going concern over the following year and on the nonprofit's regulatory compliance and internal control adequacy. In an A-133 audit, an auditor reports material noncompliance when they consider the nonprofit not compliant with laws, regulations, grant contracts, etc., and reports an internal control deficiency when they identify weaknesses in the nonprofit's internal control systems, either in financial reporting or over compliance.

Prior research finds that the length of an auditor's and auditee's relationship can have an adverse effect on audit independence (Carey and Simnett 2006, Davis et al. 2009, Kealey et al. 2007). If different-race auditors are more independent than same-race auditors because culturally remote auditors and auditees have fewer shared connections and social interactions, this effect should dissipate as the auditor and auditee get to know one another better. Consistent with this explanation, we find that in high residential racial segregation audit markets the greater independence of different-race audit pairings dissipates as the auditor's tenure with a client increases—i.e., they issue fewer going concern, material noncompliance, and material weakness assessments over time. However, although consistent across measures, the relatively small number of long-tenured relationships makes this evidence statistically imprecise.

A potential concern with the above analyses is that the lower frequency of adverse audit assessments in same-race audit pairings could be evidence of racial bias or animus in the benchmark group of different-race audit pairings—i.e., that auditors make overly harsh assessments of different-race clients. We document two indications of lower accuracy in same-race audit pairings that jointly suggest that the lower incidence of adverse audit assessments is attributable to less independence (or more favoritism) in same-race pairings and not discrimination in different-race pairings. First, in highly racially segregated areas, same-race auditors are 42% less likely than different-race auditors to issue a going-concern opinion to a client experiencing financial distress. Second, in highly residentially segregated areas, same-race going-concern opinions predict auditee exit within the following 12 months over 50% less accurately than different-race going-concern opinions.

Interestingly, in both of the aforementioned analyses, our results are the opposite for same-race audits conducted in areas with low residential racial segregation—i.e., are consistent with

cultural proximity mitigating information asymmetry and leading to greater accuracy. In low racial segregation areas same-race auditors issue going concern opinions twice as frequently for clients in financial distress and same-race audits significantly *more* accurately predict auditee exit. The findings related to audit-report accuracy in same-race audit pairings collectively suggest that how cultural proximity affects audit accuracy depends on the extent of residential racial segregation where the audit is performed, and thus likely also the extent to which an individual's social and cultural experiences divide along racial lines.

Our paper contributes both to the broad literature on the effects of cultural proximity in economic exchange and to the narrower literature on the role of race and ethnicity in auditing. The most closely related papers on in-group matching focus on loan approvals and loan performance in the banking sector (Fisman et al. 2017; Accetturo et al. 2022).⁴ The takeaway from this literature is that in-group pairings reduce information asymmetry in the screening process and lead to (or are associated with) better loan performance. In contrast, we find that in audit markets endogenously formed same-race pairings are associated with lower audit independence and accuracy. One possible explanation for the differing results is that, in an external audit, the potential for bias and favoritism arising from a lack of independence is more severe than in lending because the auditee chooses the auditor and the third parties that rely on the audit (e.g., the government and donors) do not have a direct (contractual) relationship with the auditor (as a lender does with a borrower).

Our results also suggest that favoritism in same-race audit pairings is effectively limited to markets characterized by high residential racial segregation. Although the historical origins of residential segregation in the U.S. are complex, with potentially different determinants and

⁴ For examples of studies examining the influence of cultural or social connections on economic transactions other than loan approval, see: Guiso, et al. (2009); Helpman et al. (2008); Du et al. (2017); Haselmann et al. (2018).

consequences than in other parts of the world, our results suggest that cultural proximity in economic exchange could have the most deleterious effects in settings where cultural and social interactions amongst individuals of different races and ethnicities are the most constrained.

In the audit setting, the most closely related paper is Berglund and Eshleman (2019), who examine the effect of ethnic similarity in the nonprofit audit sector on auditor selection and retention decisions. Like us, Berglund and Eshleman (2019) we find that audit partners are more likely to pair with client executives of the same ethnic background (in their case based on nine estimated ethnicities).⁵ Unlike our paper, Berglund and Eshleman (2019) focus on the effect of ethnicity-based matching on auditor retention and audit quality (as captured by expense misreporting and the frequency of going-concern opinions) and do not examine the effect same-race pairings on accuracy (i.e., how well going-concern opinions predict exit). Most importantly, Berglund and Eshleman (2019) do not examine the role of residential racial segregation, which we find is a significant determinant of the frequency of same-race pairings and a pivotal factor in determining whether such pairings improve or impair audit independence and accuracy.

Our results also suggest a possible alternative, structural-based explanation for papers that attribute racial and ethnic differences in audit quality to discrimination.⁶ For example, Krishnan et al. (2022) find that having a racial/ethnic minority auditor is associated with higher audit quality, and attribute this finding to minority auditors attempting to avoid discrimination by exerting

⁵ Berglund and Eshleman (2019) use nine ethnicity groups: English (79%), European (10%), Russian (1%), Chinese (1%), Hindu (1%), Vietnamese (1%), Japanese (1%), Korean (0.3%), and Hispanic (6%). For some of the possible pairings based on this definition, it is less clear (in the U.S.) that these categories of ethnic distinction determine an individual's social and cultural ties (e.g., English-European is counted as a different-ethnicity pair). Berglund and Eshleman (2019) also do not include Black/African as a separate category in their analysis, which is a group of particular interest in considering the impact of racial segregation in the U.S.

⁶ Structural racism refers to the totality of ways in which societies (often indirectly) foster differences in outcomes based on race through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice as opposed to direct or intentional discrimination based on racial preferences beliefs, or biases (Bailey et al. 2017).

greater effort. Our results highlight that, because the vast majority of auditors and auditees in the U.S. are white, minorities have significantly fewer opportunities to form same-race pairings. Thus, besides discrimination, an additional explanation for the higher quality of minority audits could be that minority auditors are less likely to form same-race pairings, which we show are susceptible to bias and favoritism regardless of the auditor's race.

Our findings also have policy implications. First, anecdotal evidence suggests that audit firms explicitly consider race when assigning audit personnel to clients.⁷ Our results suggest that when an auditor and auditee are in close cultural proximity (e.g., in highly racially segregated residential areas), endogenous sorting based on race can lead to lower audit independence, providing a counterpoint to consider in evaluating such policies. Second, because 96% of audit partners and 92% of auditees are white, it is relatively difficult for white auditees to pair with more socially and culturally distant (and potentially more objective) auditors of other races and in this way signal their commitment to a more independent audit. A policy that increases the proportion of non-white auditees and auditors would likely reduce the cost of forming different-race pairings.

2. Race and Ethnicity Estimation and Stylized Facts on Race and Ethnicity

2.1 Data and Sample

Our analyses rely on detailed engagement-level data covering the audits of nonprofit organizations obtained from the Federal Audit Clearinghouse (FAC). All nonprofit organizations expending federal grants above a certain threshold are required by the U.S. Office of Management and Budget (OMB) to obtain an annual audit conducted by a CPA (known as a “Single Audit”). The OMB specifically requires the auditor to: 1) issue a report expressing an opinion on the entity's

⁷ Ernst and Young (2014): “We have a strong commitment to bringing together the right teams for our clients from across our global organization. These teams match our clients’ needs in terms of knowledge, skills and cultural background.” PwC (2014): [Clients] want our engagement teams to reflect the diversity within their own organizations.”

financial statements, 2) make an evaluation of the entity’s internal controls, 3) issue a report on the entity’s compliance with federal regulations concerning the administration of federal awards, and 4) assess the entity’s ability to continue as a going concern (OMB 2007 Circular A-133). The results of the audit must be submitted to the FAC, which makes the reports publicly available. Most importantly for our purposes, since 1997, these audit reports include the names of both the audit firm’s engagement partner and of the client employee in charge of the audit.

We measure residential racial segregation using the University of California Berkeley Roots of Structural Racism Project’s (RSRP) Dissimilarity Index, which measures the degree of segregation that exists between any two racial groups by indicating the percentage of either racial group that would have to move to a different-race neighborhood to create perfect integration. Higher values of the Dissimilarity Index, from 0 (perfect integration) to 100 (complete segregation), indicate a higher level of segregation. The RSRP provides four different dissimilarity scores: Black-White, Hispanic-White, Asian-White, and Black-Hispanic. In our main analyses, we take the average of the four dissimilarity measures within an MSA (or otherwise defined audit market) as our measure of the extent of racial segregation (*AverageDissimilarityScore*).

2.2 *Estimating Race and Ethnicity*

To prepare the data for the race prediction algorithm, we first clean and standardize both auditors’ and auditees name. We then use the approach described in Sutherland et al. (2021) to predict each auditor’s and auditee’s race.⁸ This approach employs three software packages (Python “*ethnicolr*”, R “*predictrace*”, and the R “*wru*”) to predict an individual’s race based on name, location, and gender information. Each of the software packages relies on a slightly different estimation approach (e.g., string-matching versus Bayesian prediction) and underlying training

⁸ This approach is similar to prior work such as Imai and Khanna (2016), Karimi et al. (2016), Sood and Laohaprapanon (2018), Idan and Feigenbaum (2019), and Card et al. (2020).

data (e.g., U.S. Census data versus Florida voting records). Each estimation approach produces a probability that a given first name-last name pairing is associated with one of four racial/ethnic categories—Asian, Black, Hispanic, and White non-Hispanic. As there is no consensus in the literature regarding the optimal estimation approach, we select the estimate that maximizes the probability difference between the first and the second guess following Sutherland et al. (2021). To ensure a reasonable certainty of our estimates, we eliminate observations where the first guess probability is less than 50%. We can predict both auditor and auditee race or ethnicity for 97% of all engagements.

2.3 *Descriptive Statistics on Race in Auditor-Auditee Pairings*

Table 1 Panel A shows the estimated racial composition of auditors and auditees at the engagement level. In 95.6% of audits, the auditor’s estimated race is White—1.2% of auditors are Asian, 0.4% are Black, and 2.8% are Hispanic.⁹ On the client-side, 90.3% of auditees are White—2.8% are Asian, 1.8% are Black, and 5.1% are Hispanic. The reported figures are consistent with the well-known limited representation of racial minorities among audit partners (Madsen 2013, ACIPA 2019).

In addition to the unconditional frequencies reported in Panel A, in Panel B, we report auditor race conditional on the race of the auditee. Across all races, auditors and auditees of the same race choose to work together significantly more often than would be expected if pairings were assigned randomly (i.e., compared to the unconditional shares reported in Panel A and in the *Total* row in Panel B). For instance, the share of Asian auditors among Asian auditees is 5.9%; an increase of 4.7 percentage points (pp) compared to the unconditional rate of 1.2% (as indicated by *Abnormal SameRace Pairing (pp)*). The *Abnormal SameRace Pairing % ratio (Abnormal*

⁹ These demographic shares are comparable to those reported in contemporaneous research on the role of engagement partner race in public-client audits (e.g., Krishnan et al. 2022) and those reported in firm surveys (e.g., AICPA 2019).

SameRace Pairing (pp) divided by *Total*) indicates that Asian auditees pair with Asian auditors 3.8 times more frequently than random. For Black (Hispanic, White) auditors, same-race pairings are 1.9 times (7.7 times, 0.2 times) more likely than random.

In Table 1 Panels C and D, we report *SameRace* auditor-auditee pairing frequencies separately for *High* and *Low Residential Racial Segregation* subgroups (based on the sample median) for the MSA where the auditor is located. In all instances, the frequency of *Abnormal SameRace Pairings (pp)* is significantly higher in locations characterized by high residential racial segregation. For instance, in *High Residential Racial Segregation* areas, Asian (Black) auditors are 3.8 (2.07) times more likely than random to work with Asian (Black) auditees compared to being 2.5 times more likely (0.5 times less likely) to be part of a *SameRace* pairing in *Low Residential Racial Segregation* areas. This result suggests that residential segregation by race plays a significant role in auditor and auditee preferences for *SameRace* pairings.

To complement the frequency tabulations, in Table 2, we provide estimates using a dyadic regression approach (e.g., Colonnelli et al. 2022) that allows us to control for local time varying characteristics that may codetermine auditor-auditee pairings (e.g., differences in the racial composition of both auditors and auditees in the audit market). To implement this approach, we construct a sample of all hypothetical auditor-auditee pairs within a certain location in each year (either a 5-, 4-, or 3-digit zip code), assuming that an auditee could have chosen from the pool of all auditors that provide nonprofit audits in the same location and year as the auditee's actual auditor. We estimate models of the following form:

$$TruePair_{ijt} = \beta SameRace_{ijt} + \alpha_i + X_{ijt} + \varepsilon_{ijt}, \quad (1)$$

where $TruePair_{ijt}$ is an indicator taking the value of one for realized (non-hypothetical) pairs.

The main variable of interest is $SameRace_{ijt}$, an indicator taking the value of one if the auditor

and auditee share the same race or ethnicity. We also include auditor fixed effects (α_i) to control for time-invariant auditor characteristics (e.g., talent or propensity to issue adverse assessments) as well as auditor-location-year fixed effects to control for differences in the local composition of auditor and auditee markets (e.g., the number of minority auditors).

In Panel A, we report results from estimating Eq. (1) for the full sample across varying definitions of the audit market (i.e., the geographic scope delineating the pool of auditors that an auditee could choose from). In Column (1), we assume that an auditee could have picked any auditor located in the same 5-digit ZIP code as the auditor providing the audit. In Columns (2) and (3), we expand this definition to include all auditors within the same 4-digit and 3-digit ZIP codes. Across each of the three specifications, we observe positive and statistically significant coefficient estimates for *SameRace*, indicating that auditees are significantly more likely (than random) to choose an auditor of the same race. To assess the economic magnitude of this effect, we compare the *SameRace* coefficient estimate to the *Base Rate*, defined as 1/average number of auditors in the relevant audit market (i.e., the probability of choosing any individual auditor randomly). The coefficient estimate in Column (3) indicates that a *SameRace* pairing is 2.4% more likely than a random pairing (i.e., without considering the auditor's race).

Panel B reports results for estimating Eq. (1) separately for *High* versus *Low Racial Segregation* partitions. Consistent with same-race pairings being significantly more likely in communities characterized by a high degree of residential racial segregation, across all three geographic definitions of the audit market, we find that *SameRace* pairings are significantly more likely in audit markets with high residential racial segregation. A comparison of Columns (5) and (6) indicates that same-race pairings in *High Racial Segregation* areas are 3.3% more likely than random versus 1.0% in *Low Racial Segregation* areas.

3. Evidence on Auditor Independence in Same-Race Pairings

An auditor's willingness to issue an adverse assessment of a firm, such as a going concern opinion, is an indication of whether the auditor has objectively evaluated firm performance and withstood any client pressure to issue a clean opinion (Watts and Zimmerman 1983, DeFond et al. 2002). To assess the independence of same-race audits, we examine the frequency of three types of adverse assessments auditors could make of a nonprofit firm: 1) going concern opinions, 2) material non-compliance assessments, and 3) material weakness assessments for internal controls. In addition, as an indication of the amount of evidence gathered in reaching an opinion (Knechel and Payne 2001), we examine the number of days between a firm's fiscal yearend and the issuance of the audit opinion. If same-race pairings are formed primarily because of cultural and social preferences, we expect them to be less independent and each of these four measures to be lower in same-race pairings.

To assess whether same-race audit pairings are associated with the frequency of going-concern opinions, material non-compliance, and material internal control weakness assessments, we estimate the following regression:

$$Adverse\ Audit\ Assessment_{ijt} = \beta_1 SameRace_{ijt} + \alpha_{it} + \varepsilon_{ijt} \quad (2)$$

$Adverse\ Audit\ Assessment_{ijt}$ is an indicator equal to one if the auditor i issues a going-concern, material non-compliance, or material internal control weakness assessment for auditee j in year t .

$SameRace_{ijt}$ is an indicator equal to one if the auditor and auditee are of the same predicted race.

The vector α_{it} includes $Auditor \times Year$ fixed effects, which control for differences in the frequency of adverse audit assessments within a given auditor and year. Note that this is an extremely stringent specification because it effectively compares a given individual audit partner's propensity

to issue an adverse audit assessment for *SameRace* as compared to *DifferentRace* auditees within a given year.¹⁰ We estimate standard errors clustered at the auditor-location (MSA) level.

Table 3 reports descriptive statistics. *SameRace* pairings comprise 87.0% of all audit engagements and *SameGender* pairings 51.1%. The average value of the RSRP dissimilarity index (*Residential Racial Segregation*) is 0.48, indicating that, on average, audit markets are moderately segregated. *GoingConcern* opinions are issued in 1.1% of auditee years, *Material Noncompliance* assessments in 2.1%, and *Material Weakness* assessments in 6.0%. 16.3% of auditees are in financial distress (i.e., have negative net income and fund balance), but less than 1% *Exit* each year. On average, auditees have total assets of \$51.1 million and have been with their current auditor for about 3.4 years (*PairAge*). The audit report is issued on average 195 days after the end of the auditee's fiscal year (*AuditReportLag*).

In Table 4, we report results from estimating Eq. (2). Columns (1), (3), (5), and (7) all indicate that having an auditor of the same race is associated with lower audit independence. Specifically, *SameRace* audit pairings are associated with statistically significantly fewer: going-concern opinions (Column 1), material non-compliance assessments (Column 3), and internal control weakness assessments (Column 5). In a *SameRace* pairing, an auditee is 27% less likely to receive a going-concern opinion (-0.003/0.011), 29% less likely to receive a material noncompliance assessment (-0.006/0.021), and 27% less likely to receive a material internal control weakness assessment (-0.016/0.060) relative to the sample mean. Column (7) shows that audit reports are issued 4.2% quicker (about 8 days) in *SameRace* audit pairings.

In Columns (2), (4), (6), and (8) we include an additional indicator, *SameGender*, equal to one if the auditor and the auditee are of the same predicted gender. We also estimate gender using

¹⁰ In sensitivity tests, we relax the fixed-effects structure by including separate auditor (*Auditor*) and year (*Year*) fixed effects.

a name-based approach.¹¹ Our conjecture is that the lower independence evidenced in *SameRace* audit pairings is attributable to favoritism arising from shared social and cultural experiences. It is not obvious that similar cultural bonds would arise between members of the same gender—where there is no direct (or at least significantly less) segregation between different sexes. Consistent with the lower independence of same race pairings being attributable to cultural proximity, across all four columns, we find no evidence of similar effects when the auditor and auditee are of the same gender.

To more directly assess the possibility that the lower independence we observe in *SameRace* audits is attributable to members of the same race having preferences developed through more frequent social and cultural interactions, in Table 4 Panel B, we examine the association between *SameRace* audit pairings and each of our four audit independence proxies across partitions of high versus low residential racial segregation. Across all four measures, we find that the effect of same-race audit pairings is concentrated in instances where the auditor is located in an MSA characterized as having high residential racial segregation. However, the differences between the *High* and *Low Racial Segregation* partitions are statistically significant only for going concern opinions and material noncompliance assessments.

In Table 5, we examine whether the greater independence of different-race audit pairings (compared to same-race pairings) varies with auditor tenure. Prior research finds that the length of an auditor’s and auditee’s relationship can have an adverse effect on audit independence (Carey and Simnett 2006, Davis et al. 2009, Kealey et al. 2007). If different-race auditors are more independent than same-race auditors because culturally remote auditors and auditees have fewer shared connections and social interactions, we expect this effect should dissipate as the auditor and

¹¹ Specifically, we rely on Python’s “genderguesser” package.

auditee get to know one another better (i.e., as they develop connections through the repeated interactions of multiyear engagements).

Table 5 Panel A reports results estimating Eq. (2) for each of our four audit independence proxies separately for relatively short- (1 or 2 years) and long-tenured (3 or more years) audit pairings. Consistent with dissipating independence of different-race audits over time, going concern, material noncompliance, and inadequate internal control assessments all become less frequent as auditor tenure increases. Although consistent across measures, the relatively small number of long-tenured relationships makes this evidence statistically imprecise (i.e., the coefficient estimates are insignificantly different across tenure partitions). For *AuditReportLag*, there is little difference in the *DifferentRace* coefficient estimates across audits of shorter and longer tenures.

In Table 5 Panels B and C, we examine the independence of different-race audits over time separately for *High* and *Low Racial Segregation* partitions. In the *Low Racial Segregation* partition in Panel C, consistent with our baseline analyses, there is little evidence that *DifferentRace* audits are more independent (or that this effect varies with auditor tenure). In the *High Racial Segregation* partition in Panel B, there is consistent evidence (for going concern, material noncompliance, and inadequate internal control assessments) that *DifferentRace* audits are more independent earlier in the auditor's tenure and that this effect dissipates considerably over time (although again, while the effect is consistent across measures, the coefficient estimates are not significantly different). Again, this evidence is consistent with the higher independence of different-race audits (and correspondingly the lower independence of same-race audits) being attributable to sharing fewer (more) cultural and social connections—i.e., as the auditor and auditee get to know one another

better, and develop connections through the repeated interactions of ongoing engagements, the greater independence of different-race pairings dissipates.

4. Evidence on Audit Accuracy in *SameRace* Pairings

Both information advantages and cultural preferences can explain the high frequency of same-race audit pairings. To this point, our analyses indicate that same-race auditors are less independent, suggesting that cultural proximity in auditing leads to favoritism and biased assessments. However, one potential concern with this conclusion is that the results could alternatively be interpreted as indicating that auditors in different-race audit pairings make harsher (or discriminatory) assessments of their clients—i.e., the less frequent incidence of adverse audit assessments in same-race audit pairings could be attributable to there being a *more* frequent incidence of adverse assessments in the benchmark group of auditors and auditees of different estimated races.

Fortunately, there is a clear way to distinguish between these alternative explanations. If different-race auditors are being overly harsh in issuing adverse audit assessments, the discrimination/racial animus explanation would predict that *different-race* audit pairings are associated with less accurate audit assessments. Alternatively, a cultural bias/impaired independence story would predict that *same-race* audits are less accurate. To distinguish between these two potential explanations, in this section, we examine the association between same-race pairings and audit accuracy.

4.1 Same-Race Audit Pairings and Going Concern Opinions for Financially Distressed Firms

First, we examine the association between same-race audits and the frequency of going concern opinions for financially distressed firms. One clear indication of bias would be that the lower frequency of going concern opinions issued in same-race audits is concentrated among

clients in financial distress (Berglund and Eshleman 2019). To examine this, we estimate the following regression:

$$\begin{aligned} GoingConcern_{ijt} = & \beta_1 SameRace_{ijt} \times Distressed_{jt} + \beta_2 SameRace_{ijt} + \\ & \beta_3 Distressed_{jt} + \alpha_{it} + X_{ijt} + \varepsilon_{ijt}, \end{aligned} \quad (3)$$

GoingConcern_{ijt} is an indicator equal to one if auditor *i* issues a going-concern opinion for auditee *j* in year *t*. *SameRace_{ijt}* is an indicator equal to one if the auditor and auditee are the same estimated race. *Distressed_{jt}* is an indicator equal to one if the auditee has negative net income and funding balance (following Vermeer et al. 2013). The vector *X_{ijt}* includes the natural logarithm of total assets (*Log(Assets)*). In our main specification, we control for auditor characteristics that do not change within a year by including auditor-by-year (*Auditor* × *Year*) fixed effects. We report standard errors clustered at the auditor-location (MSA) level.

Table 5 Panel A reports regression results for Eq. (3). Consistent with our expectations, in Column (1), *Distressed* is significantly positively associated with *GoingConcern*, indicating that going-concern opinions are nearly four times more commonly issued for clients in financial distress. The *SameRace* × *Distressed* coefficient estimate is negative, but statistically insignificant—suggesting that, unlike in Berglund and Eshleman (2019), in the full sample, the rate of going-concern opinions issued to distressed clients does not vary with the race of the auditor and auditee (perhaps because of our focus on race rather than ethnicity).

In Columns (2) and (3), we estimate Eq. (3) separately for *High* and *Low Segregation* subgroups. Results in Column (2) indicate that in audit markets with high residential racial segregation the increase in going concern opinions for financially distressed clients (as indicated by the *Distressed* coefficient estimate) is over 50% smaller if the auditor and auditee are the same estimated race (as indicated by the *SameRace* × *Distressed* coefficient estimate). The coefficient

estimate for the *SameRace* main effect is close to zero and statistically insignificant, indicating that same-race auditors only render going-concern opinions less frequently for auditees in financial distress (i.e., when a clean audit opinion likely matters most for the client).

Column (3) shows that in *Low Segregation* audit markets the frequency of going-concern opinions for financially distressed clients is actually significantly *higher* when the auditor and auditee are the same estimated race (i.e., consistent with cultural proximity mitigating information asymmetry and increasing independence). Interestingly, our findings related to going-concern opinions for financially distressed firms indicate that how same-race pairings affect audit independence depends on the extent of residential racial segregation where the audit is performed, and thus likely also the extent to which an individual's social and cultural experiences divide along racial lines.

Although the evidence in Table 5 Panel A is consistent with same-race auditors in highly residentially segregated areas issuing fewer going-concern opinions when auditees are in financial distress, the evidence does not necessarily imply that same-race auditors issue going-concern opinions that are less accurate (i.e., more biased). To provide more direct evidence on audit accuracy, we examine how well going-concern opinions predict subsequent auditee exits in the following regression specification:

$$Exit_{ijt} = \beta_1 SameRace_{ijt} \times GoingConcern_{jt} + \beta_2 SameRace_{ijt} + \beta_3 GoingConcern_{jt} + \alpha_{it} + X_{ijt} + \varepsilon_{ijt}, \quad (4)$$

where *Exit* equals one when a nonprofit organization does not receive a single audit one year after an audit opinion is rendered. On average, less than one percent of auditees exit each year (see Table 2). The remaining variables in Eq. (4) are otherwise identical to Eq. (3).

We report the results related to auditee exit in Table 5 Panel B. As expected, in Column (1), the *GoingConcern* coefficient estimate is positive and statistically significant, consistent with going-concern opinions predicting auditee exits within the following year. The incremental exit rate, after going-concern opinions, is over 40% lower when the auditor and auditee are the same estimated race ($-0.007/0.017$)—but the coefficient estimate is not statistically significant. The coefficient on the *SameRace* main effect is close to zero and statistically insignificant, suggesting that same-race pairings are not associated with a higher exit rate than different-race pairings, except when going-concern opinions are rendered.

In Columns (2) and (3), we estimate Eq. (4) separately for *High* and *Low Segregation* subgroups. Results in Column (2) indicate that in audit markets with high residential racial segregation the ability of going concern opinions to predict client exit (as indicated by the *GoingConcern* coefficient estimate) is over 60% smaller if the auditor and auditee are the same estimated race (as indicated by the *SameRace* $\times$ *GoingConcern* coefficient estimate). Column (3) shows that in *Low Segregation* audit markets going-concern opinions better predict auditee exit when the auditor and auditee are the same estimated race (i.e., consistent with cultural proximity mitigating information asymmetry). As in the prior analysis, our findings suggest that how same-race pairings affect audit accuracy depends on the extent of residential racial segregation where the audit is performed, and thus provides some evidence that, in the absence of significant residential racial segregation, cultural proximity can mitigate information asymmetry in auditing.

5. Conclusion

Shared backgrounds and experiences that are often associated with race and ethnicity can reduce information asymmetry and improve contract enforcement. However, shared backgrounds

can also impair auditor independence. It is an empirical question and the subject of this paper which of these forces dominate in endogenously formed auditee-auditor pairings.

We present evidence that racial segregation (the systematic separation of people based on their race) among audit partners and auditee executives decreases audit independence. We identify endogenously formed same-race audit pairings using dyadic data on the estimated race of audit partners and auditee executives in the nonprofit audit sector. In our sample, same-race audit pairings occur at a significantly greater than random frequency, particularly in metropolitan statistical areas (MSAs) with high residential racial segregation. We find that having an auditor of the same race is associated with: 1) less frequent going-concern, material non-compliance, and material internal control weakness assessments, 2) going-concern opinions that less accurately predict auditees' market exits, and 3) audit opinions being issued more quickly. Consistent with the lower independence of same-race audits being attributable to shared cultural and social interactions between the auditor and auditee, our findings are concentrated in audits performed in MSAs with high residential racial segregation. Overall, our results suggest that when an auditor and auditee are in close cultural proximity, endogenous sorting based on race leads to lower audit quality.

Appendix: Variable Definitions

Variable	Definition	Source
<i>SameRace</i>	An indicator set to one if the auditor and auditee share the same race or ethnicity.	FAC
<i>DifferentRace</i>	An indicator set to one if the auditor and auditee do not share the same race or ethnicity.	FAC
<i>SameGender</i>	An indicator set to one if the auditor and auditee share the same gender.	FAC
<i>Residential Racial Segregation</i>	The dissimilarity index value for the auditor's MSA, ranging from 0 (perfect integration) to 100 (complete segregation).	RSRP
<i>TruePair</i>	An indicator set to one for realized auditor-auditee pairings.	FAC
<i>GoingConcern</i>	An indicator set to one if the auditor rendered a going-concern opinion.	FAC
<i>MaterialNoncompliance</i>	An indicator set to one if the auditor rendered a material noncompliance assessment.	FAC
<i>MaterialWeakness</i>	An indicator set to one if the auditor rendered a material internal control weakness opinion.	FAC
<i>Distressed</i>	An indicator set to one if a nonprofit has both negative net income and a negative funding balance (following Vermeer et al. 2013).	NCCS
<i>Exit</i>	An indicator set to one in the last year a nonprofit appears in the FAC dataset.	FAC
<i>Log(Assets)</i>	The natural logarithm of total assets (\$m).	NCCS
<i>Log(Pair Age)</i>	The natural logarithm of the age of an auditor-auditee pair. The age of an auditor-auditee pair is defined as the difference between a focal t year and the year the pair initially formed.	FAC
<i>AuditReportLag</i>	The difference (in days) between the date the auditor signed the audit report and a nonprofit's fiscal year end (following Knechel and Payne, 2001).	FAC

This Appendix reports variable definitions together with data sources. We obtain data from the Federal Audit Clearinghouse (FAC), the University of California Berkeley Roots of Structural Racism Project (RSRP), and the National Center for Charitable Statistics (NCCS).

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Table 1: Racial Composition of Nonprofit Audit Engagements

Panel A: Racial Composition of Nonprofit Audit Engagements

Race / Ethnicity	Auditor		Auditee	
Asian	4,953	(1.24%)	11,192	(2.80%)
Black	1,407	(0.35%)	7,144	(1.79%)
Hispanic	11,068	(2.77%)	20,395	(5.11%)
White	381,981	(95.64%)	360,678	(90.30%)
Total	399,409	(100.00%)	399,409	(100.00%)

Panel B: Racial Composition of Nonprofit Audit Engagements by Auditee Race

Auditee Race	Auditor Race				Total
	Asian	Black	Hispanic	White	
Asian	662 (5.91%)	60 (0.54%)	432 (3.86%)	10,038 (89.69%)	11,192 (100.00%)
Black	153 (2.14%)	72 (1.01%)	272 (3.81%)	6,647 (93.04%)	7,144 (100.00%)
Hispanic	395 (1.94%)	85 (0.42%)	4,889 (23.97%)	15,026 (73.67%)	20,395 (100.00%)
White	3,743 (1.04%)	1,190 (0.33%)	5,475 (1.52%)	350,270 (97.11%)	360,678 (100.00%)
Total	4,953 (1.24%)	1,407 (0.35%)	11,068 (2.77%)	381,981 (95.64%)	399,409 (100.00%)
Abnormal SameRace Pairing (pp)	4.67pp	0.66pp	21.20pp	1.48pp	.
Abnormal SameRace Pairing %	3.77x	1.86x	7.65x	0.02x	.

Panel C: Racial Composition of Nonprofit Audit Engagements by Auditee Race for Auditors from High Racial Segregation Areas

Auditee Race	Auditor Race			
	Asian	Black	Hispanic	White
SameRace	534 (10.29%)	63 (1.57%)	1,297 (15.08%)	145,470 (95.86%)
Total	3,624 (2.14%)	869 (0.51%)	4,744 (2.80%)	160,316 (94.55%)
Abnormal SameRace Pairing (pp)	8.15pp	1.06pp	12.28pp	1.31%
Abnormal SameRace Pairing Ratio %	3.81x	2.07x	4.39x	0.01x

Panel D: Racial Composition of Nonprofit Audit Engagements by Auditee Race for Auditors from Low Racial Segregation Areas

Auditee Race	Auditor Race			
	Asian	Black	Hispanic	White
SameRace	96 (1.98%)	3 (0.13%)	978 (13.93%)	150,516 (98.04%)
Total	965 (0.58%)	419 (0.25%)	2,911 (1.74%)	163,382 (97.44%)
Abnormal SameRace Pairing (pp)	1.41pp	-0.12pp	12.19pp	0.61pp
Abnormal SameRace Pairing %	2.45x	-0.48x	7.02x	0.01x

Notes: This table reports the racial composition of nonprofit audit engagements. Panel A shows engagement-level demographic shares for auditors and auditees. Panel B shows auditor engagement-level demographic shares by auditee race. Panel C shows auditor engagement-level demographic shares by auditee race for auditors from high racial segregation areas. Panel D shows auditor engagement-level demographic shares by auditee race for auditors from low racial segregation areas. A metropolitan statistical area is defined as a high (low) racial segregation area if the average dissimilarity score between races is higher (lower) than the median of the average dissimilarity score between races for all observations.

Table 2: Role of Race in Auditor-Auditee Pair Formation**Panel A: Full Sample**

	(1)	(2)	(3)
Dependent Variable: <i>TruePair</i>	ZIP 5	ZIP 4	ZIP 3
<i>SameRace</i>	0.0022*** (4.613)	0.0022*** (7.530)	0.0016*** (11.125)
Base Rate	0.3752	0.2396	0.0838
Auditor FE	Yes	Yes	Yes
AuditorLocation-Year FE	Yes	Yes	Yes
Observations	4,063,200	6,803,975	14,233,633
Adjusted R-Squared	0.315	0.228	0.113

Panel B: High/Low Residential Racial Segregation Partitions

	ZIP 5		ZIP 4		ZIP 3	
Dependent Variable: <i>TruePair</i>	(1) High	(2) Low	(3) High	(4) Low	(5) High	(6) Low
<i>SameRace</i>	0.003*** (5.555)	0.001 (0.941)	0.003*** (7.982)	0.001** (2.426)	0.002*** (12.265)	0.001*** (2.743)
Difference in Coefficients: High–Low Segregation	0.007		0.009		0.002	
Base Rate	0.285	0.313	0.177	0.198	0.061	0.102
Auditor FE	Yes	Yes	Yes	Yes	Yes	Yes
AuditorLocation-Year-FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,172,475	1,505,358	3,552,178	2,451,832	8,001,647	3,949,827
Adjusted R-Squared	0.284	0.311	0.202	0.219	0.086	0.133

Notes: This table shows the results of the analysis examining the role of shared race in auditor-auditee pair formations. Panel A reports coefficients and t-statistics (in parentheses) from ordinary least squares (OLS) regressions of *TruePair* on *SameRace*. Panel B reports coefficients and t-statistics (in parentheses) from ordinary least squares (OLS) regressions of *TruePair* on *SameRace* for the subsample where the auditor is from a high racial segregation area, and a low segregation area, respectively. Base rate is calculated as the inverse of the average number of auditors in an area. All variables are defined in the Appendix. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Table 3: Descriptive Statistics For Auditor Independence and Accuracy

	N	Mean	SD	P25	P50	P75
<i>SameRace</i>	226,632	0.8702	0.3361	1.0000	1.0000	1.0000
<i>SameGender</i>	226,632	0.5108	0.4999	0.0000	1.0000	1.0000
<i>AverageDissimilarityScore</i>	209,926	0.4792	0.0884	0.4229	0.4824	0.5400
<i>GoingConcern</i>	226,632	0.0113	0.1056	0.0000	0.0000	0.0000
<i>MaterialNoncompliance</i>	226,632	0.0212	0.1440	0.0000	0.0000	0.0000
<i>MaterialWeakness</i>	226,632	0.0601	0.2378	0.0000	0.0000	0.0000
<i>Distressed</i>	226,632	0.1631	0.3695	0.0000	0.0000	0.0000
<i>Exit</i>	226,632	0.0005	0.0222	0.0000	0.0000	0.0000
<i>Assets (millions)</i>	224,178	51.1476	610.2827	1.0476	2.7152	8.5394
<i>PairAge</i>	226,632	3.4355	2.9244	1.0000	2.0000	5.0000
<i>AuditReportLag</i>	226,627	195.1827	136.2865	117.0000	171.0000	245.0000
<i>DifferentRace</i>	226,632	0.1298	0.3361	0.0000	0.0000	0.0000

Notes: This table reports the summary statistics for all variables used in our main analysis. We provide detailed variable definitions and data sources in the Appendix.

Table 4: Same-Race Pairings and Audit Independence

Panel A: Baseline

	<i>GoingConcern</i>		<i>MaterialNoncompliance</i>		<i>MaterialWeakness</i>		<i>Log(AuditReportLag)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>SameRace</i>	-0.003*	-0.003*	-0.006***	-0.006***	-0.016***	-0.016***	-0.042***	-0.042***
	(-1.772)	(-1.780)	(-3.217)	(-3.242)	(-3.933)	(-3.952)	(-2.701)	(-2.699)
<i>SameGender</i>		0.001		0.002*		0.002		0.001
		(0.782)		(1.931)		(0.921)		(0.291)
Auditor-Year-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA
Observations	226,632	226,632	226,632	226,632	226,632	226,632	226,623	226,623
Adjusted R-Squared	0.087	0.087	0.168	0.168	0.224	0.224	0.509	0.509

Panel B: High/Low Residential Racial Segregation Partitions

	<i>GoingConcern</i>		<i>MaterialNoncompliance</i>		<i>MaterialWeakness</i>		<i>Log(AuditReportLag)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	High	Low	High	Low	High	Low	High	Low
<i>SameRace</i>	-0.005**	-0.000	-0.009***	-0.002	-0.021***	-0.009	-0.052**	-0.032
	(-2.502)	(-0.083)	(-4.793)	(-0.572)	(-4.058)	(-1.446)	(-2.466)	(-1.533)
Difference in Coefficients: High–Low Segregation	0.073		0.054		0.137		0.509	
Auditor-Year-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA
Observations	106,350	103,514	106,350	103,514	106,350	103,514	106,346	103,509
Adjusted R-Squared	0.088	0.090	0.171	0.169	0.183	0.230	0.527	0.481

Notes: This table reports the results of the analysis of going-concern opinions, material noncompliance, material weakness, and audit report lags by auditor-auditee pair characteristics. The reported coefficients and t-statistics (in parentheses) are obtained from OLS regressions of going-concern opinions, material noncompliance, material weakness, and audit report lags on *SameRace* and *SameGender*, as indicated in each column. All variables are defined in the Appendix. We report standard errors clustered at the auditor-location (MSA) level. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Table 5: Auditor Tenure and Independence in Different-Race Pairings

Panel A: Full Sample

	<i>GoingConcern</i>		<i>MaterialNoncompliance</i>		<i>MaterialWeakness</i>		<i>Log(AuditReportLag)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3
<i>DifferentRace</i>	0.003	0.002	0.006*	0.004*	0.019***	0.015***	0.036***	0.044*
	(1.482)	(1.481)	(1.736)	(1.817)	(3.874)	(2.857)	(3.137)	(1.882)
Difference in Coefficients: Young-Old Pair	0.807		0.31		0.505		0.949	
Auditor-Year-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA
Observations	103,288	98,862	103,288	98,862	103,288	98,862	103,281	98,860
Adjusted R-Squared	0.116	0.092	0.217	0.188	0.244	0.277	0.505	0.583

Panel B: High Residential Racial Segregation Areas

	<i>GoingConcern</i>		<i>MaterialNoncompliance</i>		<i>MaterialWeakness</i>		<i>Log(AuditReportLag)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3
<i>DifferentRace</i>	0.006**	0.004	0.009**	0.005	0.022***	0.018***	0.046***	0.047*
	(2.225)	(1.507)	(2.494)	(1.591)	(3.880)	(2.933)	(3.235)	(1.719)
Difference in Coefficients: Young-Old Pair	0.806		0.158		0.53		0.65	
Auditor-Year-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA
Observations	51,049	45,289	51,049	45,289	51,049	45,289	51,046	45,288
Adjusted R-Squared	0.128	0.106	0.235	0.165	0.212	0.225	0.501	0.617

Panel C: Low Residential Racial Segregation Areas

	<i>GoingConcern</i>		<i>MaterialNoncompliance</i>		<i>MaterialWeakness</i>		<i>Log(AuditReportLag)</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3	PairAge = 1or2	PairAge >= 3
<i>DifferentRace</i>	0.001	0.001	-0.001	0.004	0.012*	0.012	0.026*	0.043
	(0.186)	(0.730)	(-0.245)	(1.223)	(1.658)	(1.409)	(1.663)	(1.153)
Difference in Coefficients: Young-Old Pair	0.953		0.454		0.779		0.707	
Auditor-Year-FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA	Auditor MSA
Observations	45,940	45,788	45,940	45,788	45,940	45,788	45,936	45,787
Adjusted R-Squared	0.097	0.071	0.201	0.204	0.261	0.269	0.498	0.542

Notes: This table reports the results of the analysis of auditor tenure and independence in same-race pairings of going-concern opinions, material noncompliance, material weakness, and audit report lags by auditor-auditee pair characteristics. *PairAge* is a variable equal to the number of the times that the auditor and the auditee form a pair. The reported coefficients and t-statistics (in parentheses) are obtained from OLS regressions of going-concern opinions, material noncompliance, material weakness, and audit report lags on *SameRace*, as indicated in each column. All variables are defined in the Appendix. We report standard errors clustered at the auditor-location (MSA) level. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Table 6: Same-Race Pairings and Audit Accuracy

Panel A: Going-Concern Opinions for Financially Distressed Firms

	(1)	(2)	(3)
Dependent Variable:			
<i>GoingConcern</i>	Full Sample	High Segregation	Low Segregation
<i>Distressed</i>	0.038*** (3.259)	0.055*** (4.099)	0.011** (1.978)
<i>SameRace</i> $\times$ <i>Distressed</i>	-0.011 (-1.149)	-0.023** (-2.347)	0.011* (1.907)
<i>SameRace</i>	0.000 (0.175)	0.001 (0.534)	-0.001 (-0.556)
<i>Log(Assets)</i>	-0.003*** (-5.789)	-0.003*** (-4.645)	-0.003*** (-4.328)
Difference in Coefficients (p-value):			
High-Low Segregation			0.006
Auditor-Year-FE	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA
Observations	258,987	123,281	116,568
Adjusted R-Squared	0.098	0.107	0.092

Notes: This table reports the results of the analysis of going-concern frequencies by nonprofits' financial health and auditor-auditee pair characteristics. The reported coefficients and t-statistics (in parentheses) are obtained from OLS regressions of *GoingConcern* on *Distressed* $\times$ *SameRace*, *Distressed*, *SameRace*, and controls, as indicated in each column. All variables are defined in the Appendix. We report standard errors clustered at the auditor-location (MSA) level. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Panel B: Going-Concern Opinions and Exit

	(1)	(2)	(3)
Dependent Variable:			
<i>Exit</i>	Full Sample	High Segregation	Low Segregation
<i>GoingConcern</i>	0.017** (2.084)	0.024** (2.438)	-0.001 (-1.438)
<i>SameRace</i> × <i>GoingConcern</i>	-0.007 (-0.954)	-0.015* (-1.898)	0.011** (2.308)
<i>SameRace</i>	0.000 (0.397)	0.001 (1.510)	-0.001 (-1.281)
<i>Log(Assets)</i>	-0.000*** (-4.225)	-0.000*** (-3.949)	-0.000** (-2.574)
Difference in Coefficients (p-value):			
High–Low Segregation			0.013
Auditor-Year-FE	Yes	Yes	Yes
Cluster	Auditor MSA	Auditor MSA	Auditor MSA
Observations	189,574	90,199	85,835
Adjusted R-Squared	0.093	0.076	0.131

Notes: This table reports the results of the analysis assessing the relation between going-concern opinions and nonprofit exits by auditor-auditee pair characteristics. The reported coefficients and t-statistics (in parentheses) are obtained from OLS regressions of *Exit* on *GoingConcern* × *SameRace*, *GoingConcern*, *SameRace*, and controls, as indicated in each column. All variables are defined in the Appendix. We report standard errors clustered at the auditor-location (MSA) level. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.