Race, Trust, and Return-Migration:

The Political Drivers of Post-Disaster Resettlement

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Abstract:

After several disasters in the US, the return migration rate of Blacks to post-disaster areas has been lower than that of other races. Is there is a political reason for this pattern? I investigate political trust as the mechanism through which race affects people's decision of where to live after forced evacuation. After accounting for economic, demographic, and sociological influences on return-migration, I find that political trust has a significant effect, acting as a mediator between race and return migration. I am thus able to show that race does not have a direct effect on return migration in the US, but that race works through the causal mechanism of political trust to determine return-migration decisions. Since Blacks are more likely to have low levels of political trust, and those with lower political trust are less likely to return, Blacks are less likely to return.

After Hurricane Katrina displaced 400,000 New Orleanians in August 2005, Black citizens returned to the city at markedly lower rates than citizens of other races (Fussell, Sastry, and Van-Landingham 2010; Logan 2006). Of roughly 1.5 million evacuees of the Gulf Coast, Blacks returned at half the rate of other racial groups (Groen and Polivka 2010). Blacks also exhibit lower return migration after other hurricanes, and after other disasters (US Census Bureau 2013).

Is there a political reason behind racially-differentiated return migration? Current explanations leave political factors conspicuously absent. Class-based arguments suggest Blacks are less likely to return due to poor housing and education (Groen and Polivka 2010; Fussell, Sastry, and VanLandingham 2010). Yet Paxson and Rouse (2008) find Black evacuees less likely to return even controlling for housing damage and education. We are left asking: Why do Blacks return home at lower rates than other evacuees?

This article seeks a firmer grasp on the relationship between race and post-disaster return migration by examining a previously unconsidered variable: political trust. Political trust can be fortified or damaged by the disaster experience. Afterward, those with lower trust in their public officials have higher fear that their government will be unable to protect them from future crises (Robinson et al 2013). I argue that this trust conditions post-disaster decisions about where to live. Trust in public officials to keep promises, rebuild post-disaster, and mitigate future disasters then guides estimations of whether return migration will be worthwhile.

Race factors into political trust both before disaster strikes and during the disaster experience. Based on political socialization and disaster experiences, already-low political trust is poised to decrease further when the disaster highlights social and economic disparities. Existing and reinforced racial disparities in political trust open the door to further racial disparities in the decisions requiring political trust, such as whether to return home.

Performing mediation analysis on a survey of displaced hurricane evacuees, I find that Blacks have significantly lower political trust than others, and that political trust influences the return-migration decision. I also find that race has no direct effect on return migration, but that its effect is mediated by political trust. Political trust is the mechanism through which race affects return migration. Blacks are not returning home at lower rates because they are black., but because they trust their public officials less than others do.

These findings are unique in showing that political factors, long ignored by the return-migration literature, help explain post-disaster return migration, especially previously inexplicable racially-differentiated return-migration patterns in the US. The UN predicts that by mid-century, 50-250 million people will be displaced by climate-induced disasters (UNGA 2009), and civil conflicts drive the estimate higher. This article is timely due to a recent swell in mass displacement, and a lack of attention to displacement's political causes and consequences. If the decision to return is based on political trust, economic recovery alone may not convince certain groups to return. As polities change due to group-specific return-migration decisions, civic participation may change, along with electoral outcomes, policy choices, and the tax base.

This work speaks to three additional literatures. First, consider the effects of disasters on elections. Some argue that when elected officials lose votes after disasters, these electoral responses are due to "blind retrospection" (Achen and Bartels 2004) because voters hold leaders accountable for uncontrollable events (Healy and Malhotra 2010). I instead take the position that disasters are disruptions spurred by critical events (Perry 2006), the extent of which can be mitigated or stemmed by the public officials managing them. This view casts voters penalizing their public officials as rational because the impact of disasters is not exogenous. It depends on the people chosen to manage and mitigate them. With political trust as a new predictor of return

migration, my work reinforces findings (Gasper and Reeves 2011; Healy and Malhotra 2009) that voters factor actions of their public officials into their own future decisions, penalizing or rewarding them not just by voting at the ballot box, but also by voting with their feet.

Second, I provide valuable evidence regarding how to re-build communities after a crisis, primarily by focusing on political trust, community-building, and pre-existing economic plans. This paper reinforces Fair et al (2013) showing that political consequences of disasters should not be separated from economic effects. I show that because some economic consequences are tied to the trust citizens have in public officials, without political trust an economic rebuilding plan is unlikely to succeed. When determining where people choose to live after civil conflict, natural disasters, and economic crises, we should be mindful that this decision is influenced by trust in government. Political drivers of return migration should no longer be ignored.

While trust has long been argued fundamental to building economies, societies, and polities (Putnam 1993; Fukuyama 1995), we can now see how political trust is crucial in *re*-building these systems after unplanned disruptions, such as those caused by catastrophic events. Political trust remains a salient and key societal building block, dictating who will return and reshape communities in recovery.

The Return Migration Decision

Disasters are unplanned disruptions in social and political systems, sparked by critical events (based on Quarantelli, Lagadec, and Boin 2006). Disasters displace individuals, *forcing* migration in that people have little choice but to move (Fussell, Sastry, and VanLandingham 2010). Afterward, evacuees face a choice of whether to return home. This *return-migration* decision is based on a cost-benefit analysis. Those who will yield a net benefit from returning will return. Those without resources or benefits driving their return are not likely to do so.

Risk scholars have begun to conclude that the return-migration decision hinges on risk perceptions (Trumbo et al 2011; Lin et al 2014). Prior to a disaster, people tend to believe they are *un*-likely to experience a hazardous event (Helweg-Larsen 1999; Suls et al 2013). Afterward, citizens update perceptions of the risk of another disaster occurring (Sherman-Morris 2013), and thereby decisions of return migration (Siebeneck and Cova 2012; Pennings and Grossman 2008).

Risk assessments also co-vary with political trust. Robinson et al (2013) link risk perceptions to trust in the administrators tasked with mitigating those risks. Higher risk perceptions are correlated with lower political trust, particularly when the risk is perceived in an area of the trusted officials' purview. Because disasters can be limited by the actions of the officials managing them, a citizen will assess risk of future disasters based on trust in her officials' abilities and commitment to mitigate those disasters.

The link between political trust and return migration is the updating of both political trust, and expectations about future disasters, based on government performance during past disasters (Stromback and Nord 2006; Montgomery, Jordens, and Little 2008). During non-critical times, assessments of risk and political trust are not salient; people may not make decisions about where to live based on these factors. When faced with a decision that pertains directly to the disaster, however, disaster-based trust and disaster-based risk become salient again. These salient factors are in turn likely to impact important decisions (Hetherington and Husser 2011), such as the decision to return migrate.

My logic is similar to Moore and Shellman (2004), who argue that places with greater threats (in their case, threats of conflict) are more likely to witness a drain of citizens. They reason that government behavior today drives outward migration by conditioning expectations about government behavior tomorrow. My underlying principle is the same: government

behavior during past disasters conditions beliefs about government performance during future disasters. Those who have performed their duties successfully in the past are deemed more trustworthy (Chryssochoidis, Strada and Krystallis 2009).

In sum: public officials play a central role in managing and mitigating the extent of disasters. Good disaster management can minimize the disruption itself. The ability to manage one disaster simultaneously conditions both public assessments of future disaster risk and public assessments of political trust. When later faced with a decision of whether to live in a place susceptible to natural hazards, citizens will decide in part based on how well they trust officials to manage and mitigate disasters. Those who believe the disaster experience hinges on the performance of officials they cannot trust will opt to live elsewhere.

This argument is founded on the relationship between political trust and personal experience. Below I develop hypotheses that follow from this central theory. I first address factors influencing political trust, then examine additional drivers of return migration.

Political Trust and Personal Experience

Political trust is an orientation toward public officials or agencies based on character and ability (Keele 2007; Miller 1974), the belief that public officials can and will perform their jobs. A trusts B to do X, or in matters Y (Hardin 2002, p. xx). Political trust increases with the belief that an official is both capable of doing the job (I trust him to do it because he is competent at doing it) and has the moral fortitude to do it (I trust him to do it even if it is a personally difficult thing to do) (Nicholls and Picou 2013; Ullmann-Margalit 2004).

Political trust is a product of experience. Some experience is formative, occurring early in life and contributing to one's socialization and beliefs. This type of experience is tied to characteristics such as sex, race, age, and education, and contributes to *diffuse political trust*

(Mishler and Rose 1997). Recent experience conditions assessments of government performance, and contributes to *specific political trust* (Weatherford 1987; Hetherington and Globetti 2002).

Hetherington and Husser (2011) find that people are primed to evaluate political trust based on issue salience, which in turn causes political trust to affect preferences in the same domain. The disaster experience activates political trust as citizens sacrifice personal autonomy and trust the government to make decisions on their behalf (Montgomery, Jordens, and Little 2008). This means evacuees are primed to evaluate political trust with the disaster in mind. A successfully managed disaster boosts political trust by validating expectations, while a poorly handled disaster diminishes political trust by exposing government deficiencies (Teets 2009; Troy 2004). Because each person can experience the disaster differently, it is possible for one disaster to fortify political trust among some while it damages political trust among others.

Race, Political Trust, and Personal Experience

Elliot and Pais (2008) demonstrate racial differences in disaster experience. Among Hurricane Katrina survivors, Blacks were significantly less likely than Whites to evacuate and keep their jobs. Consistent with Morrow (1997) and Kessler (1979), they support the idea that social, political, and economic disadvantages existing prior to disasters are exacerbated by the disaster experience. The experience situates Blacks to have low specific political trust.

This work builds on evidence that US political trust is racially distinct. Low political trust in Blacks has been "one of the most persistent and powerful characteristics of American political life" (Marschall and Shah 2007, p. 649). As a disadvantaged group, Blacks confront a political reality of unbalanced power and unfair treatment, making them less likely to trust public officials. This political trust has in turn affected political participation and civic involvement (Abramson 1983, 160-64, 219-223; Marschall and Shah 2007; Emig, Hesse, and Fisher 1996).

Political trust theory tells us that personal characteristics fuse with experiences to form trust in government. Race contributes both to the socialization that molds diffuse political trust, and to the experiences that shape specific political trust. As the political reality model predicts lower diffuse political trust among Blacks, and disaster experience is expected to create lower specific political trust among Blacks, I expect overall political trust to be lower among Blacks.

Now consider how political trust conditions return migration. As people experience a disaster, they update expectations about how future disasters will unfold. Updated political trust based on the disaster experience will occur in tandem with updated beliefs regarding future disaster risk. The worse one's disaster experience, the lower one's political trust, the greater one's perceived risk of future disasters, and the less likely one is to return migrate.

Return-migration decisions, then, are shaped by political trust via the political socialization and disaster experiences, which in turn vary with race. A person's political trust affects whether or not they will return home, and that political trust varies by racial group. Blacks are expected to have lower return migration rates because their political reality and negative disaster experiences lead to lower political trust.

Additional Drivers of Return Migration

Having explored the connection between political factors and return migration, let us consider other potential reasons to go home. Previous scholarship has found a variety of economic and social determinants of return migration. While they have not yet explained the racially distinct patterns in the US, they are important drivers of the decision to return.

Economic Reasons

Scholars have noted that many make the return-migration decision based on resources. Those that can afford to return home, do; those that cannot, do not. Two elements in this calculus

are homeownership and damages. Homeowners have invested in property they do not want to lose. I expect homeowners to be more likely to return than non-homeowners. Damaged property, however, is a liability, costly to rebuild. I expect higher levels of housing damages to be correlated with lower levels of return. Homeownership and damages may co-vary, as rental properties tend to be poorly maintained and susceptible to disasters (Fussell, Sastry, & VanLandingham 2010; Falk, Hunt, & Hunt 2006).

Another element is the financial resources needed to return and rebuild. Those with jobs in the disaster location see benefits to returning rather than commuting or losing employment. Those with higher incomes should have more resources to finance their return and recovery efforts. And those who were evacuated farther from their homes will need more resources to return, simply as a factor of distance. I thus expect those with employment, higher incomes, and shorter displacement distances to be more likely to return.

Social Reasons

For some, there are few benefits to a home with no community networks, and the cost of that social void outweighs the benefits of moving back. The social network perspective suggests some people are more likely to return while others will form social ties in their new locations (Fussell, Sastry, and VanLandingham 2010). Gimpel, Lee, and Kaminski (2006) and Gimpel et al (2008) suggest people will be connected to coastal hamlet communities based on repeat interactions and physical proximity, yet Paxson and Rouse (2008) find that church-going evacuees bond quickly with groups in new areas. I therefore expect return migration to increase with church attendance and decrease with distance from the coast.

Longevity in a region builds social connectedness by creating a *sense of place*: "When families ... exist in one area for generations, their sense of place may be very strong – keeping

them there in good times and bad, drawing them back " (Falk, Hunt, and Hunt 2006, p.117). Because the sense of place can counteract the pull to leave (Landry et al 2007), I expect family longevity to increase the likelihood of return migration.

Endogeneity

Some additional elements of the race-political trust-migration relationship merit attention. First, there are factors known to influence both political trust and return migration. Certain demographic groups are more likely to return migrate, and to trust, than others, based on: sex, education, age, political ideology (Elliott and Pais 2006; Christensen and Laegreid 2005). If any of these characteristics does determine political trust and return migration, and political trust also determines return migration, then political trust is endogenous to the system.

Additionally, community-level variables could influence both one's return (Falk, Hunt, and Hunt 2006; Landry et al 2007; Paxson and Rouse 2008) and political trust (Rahn and Rudolph 2005; Marschall and Shah 2007). Yet community-level concepts found to be relevant predictors, such as integration, are not available for this study. The existence of unobserved characteristics that influence both variables would violate exogeneity.

Finally, evacuees assess their own trust in government and their own likelihood of return migration. Self-reporting of both feelings and intentions is known to be flawed, due to response error (Bemmaor 1995), lack of knowledge regarding the future (Manski 1990), or observer effects (Chandon, Morwitz, and Reinartz 2005). There is thus reason to believe there is a non-zero correlation between error terms.

The shared covariates, possible unobserved predictors, and potential correlation of errors form a compelling case for the endogeneity of political trust. I must find a determinant of political trust that is not a direct determinant of return migration. With proper mediation analysis,

this instrument would allow the prediction of political trust based on race, and return migration based on political trust, with all common variables included in the mix (Imai et al 2011).

Instrumenting Political Trust

Stress should be a reliable instrument of political trust. The release of oxytocin, known to biologically reduce the response to stressors and allow people to lower defenses and trust (Heinrichs et al. 2003; Churchland and Winkielman 2012; Baumgartner et al. 2008), becomes a stimulus that encourages both interpersonal and political trust in controlled experiments. Merolla et al (2013) manipulate levels of the neuropeptide oxytocin among subjects and are able to manipulate political trust as a result, arguing that the emotions citizens exhibit toward political figures, and when making political decisions (Marcus et al 2000; Ragsdale 1991), may be called upon when they are asked about trust in public officials. Political trust should thus be directly and negatively related to stress: the higher the stress, the lower the political trust.

Stress will be a particularly effective instrument because it is measured at least one full year after respondent evacuation. The time lapse allows for short-term stressors of the catastrophe to wane, leaving only longer-term stressors behind. We know extreme reactions are likely to abate over time (Chong and Druckman 2010; Newman and Kaloupek 2004; Galea et al 2005), but that some displaced Katrina evacuees exhibited high stress levels due to loss (Wadsworth, DeCarlo Santiago, and Einhorn 2009) and uncertainty (Sterett 2011), even up to twelve months after the event. Fielding this study a year after the hurricanes means it is less likely to measure fleeting or ephemeral stress, and more likely to capture enduring effects of the displacement experience on decision making.

Stress has been connected to health, and limited research has attempted to connect health to migration. This work posits that better health might correspond to either higher or lower

likelihoods of return migrating, because unhealthy people might encounter difficulties both in moving and in staying away (see Wallace and Kulu 2013). While theory supports either relationship, data does not support either theory. Investigations show no predictable health effects on migration within or across countries, age groups, or nationalities (Lu 2008; Tong and Piotrowski 2013; Wallace and Kulu 2013). Although exogeneity can never be proven (Sovey and Green 2011), I submit that it is plausible that stress will not have a direct effect on return migration. Empirical test results are shown below.

Other Considerations

Since political trust will be predicted as a first-stage dependent variable, it is important to form expectations regarding how particular attributes will covary with political trust and return migration. Though results are mixed, previous theories and findings support the idea that higher skepticism, possibly stemming from more education and a resulting urge to challenge authority, will have lower political trust (Fiscella, Franks, and Clancy 1998; Catterberg and Moreno 2005). Based on these findings, men, older people, the college educated, and those expressing liberal preferences should be more skeptical and trust officials less (Lindstrom and Mohseni 2009; Quintelier 2007; Keele 2005; Wildavsky 1987).

As part of the largest long-term displacement in US history, Hurricane Katrina evacuees require special consideration. Though skewed media coverage gave misimpressions about evacuation, New Orleanians represented less than one-third of the evacuees, fewer than 3.8% of whom were evacuated after the hurricane (Stein et al 2011). Still, Katrina damaged trust at all levels of government (Birkland and Waterman 2008). It is possible that Katrina survivors will be less likely to return migrate than survivors of other hurricanes.

I should be clear that I am not trying to model *all* influences on individual political trust. Other impressive work considers municipal/community factors and racially-conditioned political trust (Rahn and Rudolph 2005; Bobo and Gilliam 1990; Marschall and Shah 200). Rather, I am investigating political trust as a causal mechanism between race and return migration. I hope to explore covariates that could confound or confuse mediation analysis, and to accurately specify whether political trust causes return migration.

Data and Methods

The US hurricane seasons of 2004-2005, though devastating, are an ideal chance to study race, political trust, and return migration. They caused \$240.5 billion in damages (U\$2012), 2170 deaths (Lott et al 2013), and 3 million displacements (Groen and Polivka 2010; Stein et al 2011).

Data is from an internet survey² collected in 2006, administered by Survey Sampling International (SSI)³ to residents of hurricane-threatened areas in the US. *Hurricane-threatened areas* were defined as counties/parishes from Texas through North Carolina that either border the coast or are separated from the coast by no more than one other county/parish. As displaced

¹ I am empirically unable to consider the former, though I consider the latter in Appendix E.

² We chose the internet frame to reach as many displaced evacuees as possible (Appendix A discusses population, setting, and measurement validity).

³ SSI fielded a random sample within the target population. We counted nonresponses restrictively as "unknown eligibility" because they could indicate unwillingness, unavailability, or death. By this estimate, our response rate was AAPOR-1 9.4% (Smith 2009). Merkle and Edelman (2002) find no relationship between response rate and survey accuracy, and Keeter et al (2006) find that surveys with lower response rates give statistically indistinguishable results from those with much higher response rates, so 9.4% does not raise concern.

residents were included based on their physical home addresses *before* displacement, post-displacement responses came from 38 states and Puerto Rico. Of the 7024 respondents, 2161 (33.16%) evacuated for a hurricane in 2004-2005, and represent the subsample here. Fully 1068 (15.21%) had not returned to their original area of residence, which we take as evidence that the internet sampling frame was useful for contacting a difficult-to-reach population, while striving for maximum generalizability.

Measurement

The ultimate dependent variable is *return migration*, ranging from 0 to 1. Respondents who had returned score "1" (54.06%). Respondents who had settled in another location with no intention to return score "0" (7.13%). Remaining evacuees chose values from 0 to 10 (standardized 0-1), gauging likelihood of return (38.73%). Appendices B and C give question wording, measurement, and descriptive statistics of all variables not completely explained here.

There has been much debate on the proper measurement of political trust. Recall (from above) that political trust is based on one's *competence* to perform one's job, as well as *credibility*, or believability, and basic character. Scholars see political trust as multi-dimensional, so indices are common. Many use the Trust in Government Index (ANES), which offers longitudinal data. Following Hardin's "A trusts B to do X, or in matters Y" (2002, p. xx), we

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⁴ Return migration merges those who have and have not returned to guard against selection bias. Analysis yields the same results employing: Logit, omitting displaced individuals and using 1s for "returned" and 0s for "not returned;" OLS, using the 0-1 scale with only the displaced respondents; OLS on the full sample, with displaced respondents on the 0-1 scale, plus "-1" for "will not return" and "11" for "has returned." The patterns below are robust and give valid inferences about the mechanisms of interest while relieving selection concerns.

created an index asking about the respondent's (A's) evaluation of government (B) with respect to disasters (Y). Respondents answered trust questions regarding their evacuated governments, which were averaged to create indices (0 to 1) for local, state, and federal political trust.

Political trust is measured at each level of government because trust in each level has been found to differ in composition (Rahn and Rudolph 2005). We should see the most noticeable effect of political trust on return migration at the local level, less so with state, and the least with federal. This relationship is practical; many of the return migrations would mean a change in local government. But several would allow a constant state government, and all would require a constant federal government, meaning state and federal political trust may be less of a factor in return migration decisions.

Stress is measured on a 5-point Likert scale answering the question, "How much of the time during the past 4 weeks have you felt calm and peaceful?" Respondents chose from "All of the time," to "None of the time," coded 1-5, 5 being the most stressed. The use of a self-reported stress measure does raise the possibility of endogeneity with the self-assessed likelihood of return migration. Although the possibility cannot be completely dismissed, the two questions were asked in different sections of the instrument (and generally 13-17 minutes apart), so chances for the stress questions to have primed the return migration questions are small.

Race is self-identified by the respondent (1 black; 0 else). Church attendance ranges 1-4, "never" to "regularly." Family longevity (0-100) and age (18-100) are measured in years and divided by 10 for estimation. Damages are estimated by subtracting self-declared post- from pre-evacuation home values in tens of thousands of dollars. Ideology is a 1-7 scale, "conservative" to "liberal." Displacement distance is measured in thousands of miles. Income is ordinal (1-10). Several variables are measured dichotomously: homeownership (1=homeowners); employment

(1=employed); *sex* (1= male); *education* (1=college degree); and *Katrina* (1=Katrina evacuee). State fixed effects control for possible state-specific effects compared to Louisiana.⁵

Two respondents drop out because they did not answer the age question, and 182 respondents did not answer the questions regarding damages. Since these 182 are missing for the same unique reason, I give them a "mock" damages value⁶ and then include a dichotomous variable, *damages missing* (1=damages values missing). This way, we can see how the 182 differ from other respondents on the variables of interest.

Estimation Strategy

As I argue that political trust is a causal mechanism connecting race to return migration, I begin with basic mediation analysis. Figure 1A shows the expected race-political trust-migration relationship. A represents the effect of race on political trust. B is the effect of political trust on return migration. C is the direct effect of race on return migration. First I establish that A and C exist. Then I address B, accounting for the endogeneity of political trust with a two-stage-least-squares (2SLS) regression and stress instrument. Finally, I estimate return migration with both race and instrumented political trust. If race disappears as a significant determinant of return migration, political trust is confirmed as a causal mediator between race and return migration.

Normally, mediation analysis would establish a causal *effect* of political trust, but would not prove political trust a causal *mechanism* (Imai et al 2011). Such analysis, however, requires no unmeasured covariates or correlation between error terms. Since this system likely has both,

⁵ In unreported state trust regressions, I control for "member of governor's party." Results do not change appreciably. City-level controls are not methodologically feasible.

⁶ Results were the same, regardless of the level of the "mock" value, which was allowed to vary the full range of damages in multiple estimations.

the stress instrument can both address the endogeneity of political trust *and* confirm political trust as a causal mechanism, the link by which race affects return migration.

Results

First, I must establish that race has an effect on return migration. Model (1) in Table 1 shows OLS results predicting return migration with race and other covariates. Blacks are 4% less likely to return migrate than other evacuees (p<.05). Results conform to previous studies; despite effects of homeownership and distance, race still exerts an effect.

The second step in mediation analysis establishes that the independent variable, race, has an impact on the mediator, political trust. Models (2)-(4) use race to predict local, state, and federal political trust. These models are specified just like Model (1), except they predict trust for each level of government. Results meet the second test requirement in two of three cases. Black evacuees trust local officials 16% less and federal officials 4% less than other evacuees (p<.01).

The fact that race does not determine state trust highlights a well-established difference in composition of varying levels of political trust (see Wolak and Palus 2010). Rather than linger over this interpretation, I leave the issue for tangential work and use these results as cause to continue to the third step of mediation analysis. Here, I include the independent variable (race) and the mediator (political trust) together in predicting the dependent variable, return migration, using stress as an instrument for political trust. Models (5)-(7) present these results in Table 2. For each, stress is a significant (p < .01) predictor of political trust, with higher stress making one 3% less likely to trust all levels of government.

Hausman tests of endogeneity (Table 2) suggest that political trust is endogenous, so the 2SLS is wisely chosen. With non-i.i.d.-assumed errors, significant Wald and Kleibergen-Paap tests, plus F-tests (greater than 10) suggest stress is a relevant, strong instrument (Stata 2013).

Now we can move on to assess the mediating effect of local political trust, displayed in Figure 1B, and evident in Model (5), where the coefficient on race is insignificant. In Model (1), where political trust is not included, Blacks have a 4% lower chance of returning than other evacuees. When political trust is specified in Table 2, the effect of race on return migration loses statistical significance; it has been mediated by political trust. Although the 4% difference between races may be small, political trust completely mediates this difference.

The effect of political trust itself on return migration is strong, statistically significant, and important. One is 55% more likely to return migrate with each extra percentage of local political trust, 51% with an extra percent of state political trust, and 63% with an extra unit of federal political trust. A decreasing size of the effect of political trust as the level of government increased is not evident. It appears the effect of political trust on return migration has more to do with overall risk perceptions than with the assignment of risks to particular levels of government.

Social network drivers behave as predicted, though not always significantly. Return migration increases 2% for every 10 years one's family has lived in the area (p<.01), and decreases 6% for every 10 miles one's pre-evacuation home lies from the coast (p<.01). Church attendance makes one up to 3% less likely to return and 2-5% more likely to trust (p<.01).

Economic drivers are statistically and substantively large predictors. Homeowners are 8-9% more likely to return than non-homeowners, and the employed are 3-4% more likely than the unemployed (all p<.01). Every thousand miles of displacement distance makes one 14% less likely to return (p<.01) and 4% less likely to trust in state and local political officials (p<.05). Increasing income by one level results in a 1% increased likelihood of returning (p<.01).

Respondents who did not answer the damages questions are up to 19% less likely to return and 12% less likely to trust their federal officials than other respondents (both p<.01).

Katrina evacuees are 3% less likely to trust their federal officials and return migrate (both p<.05). Because the Katrina experience is separated from that of other evacuees, the positive (though tiny) effect of damages on federal trust could be capturing a positive experience evacuees of other hurricanes have had with FEMA, which was generally positively viewed until Hurricane Katrina.

Men are 3% less likely to trust federal officials (p<.05), and 5% more likely to return migrate when state or federal trust is considered (both p<.01). The college educated trust public officials less than their counterparts, but that difference decreases as the level of government increases, from -9% locally, to -5%, and -3% federally (all p<.01). Every 10 years of age decreases local political trust by 2% and state political trust by 1% (p<.05), and increases return migration by 1-2% (p<.05).

Discussion

New is the idea that migration depends on trust in public officials to competently mitigate and manage the consequences of critical events. Yet political trust proves itself a powerful driver of return migration, and a crucial link between return migration and race. Adding political trust to previously considered variables shows that race does not have a direct effect on US return migration, but that race is mediated by political trust in shaping return-migration decisions.

As displaced evacuees determine where to settle, they pay attention to political officials' behavior prior to, during, and after the disaster, and they adjust expectations about future critical events accordingly. Importantly, this behavior translates into different expectations depending on the race of the evacuee. Racial differentiation in resettlement occurs because Blacks and non-Blacks do not hold public officials in the same esteem. Blacks find their mayors, police first responders, governors, state emergency management, president, and FEMA to be less competent

in dealing with disasters, less believable, and on the whole less trustworthy than do other citizens. So Blacks do return home less frequently than others, but it is not because they are black. Blacks return less than others because they trust their government less than others do.

A few caveats must be acknowledged. First, there is no control for social trust. That the political trust questions refer to disasters guards against the comingling of political and social trust. Yet it is still possible that these questions are picking up overall differences in social trust.

Second, the sample may not be generalizable to all people facing a post-evacuation return-migration decision (see Appendix A). Representing a broad cross-section of people, the sample appropriately targets a sample region experienced with disasters. Yet the sample is voluntary, and though we took steps to minimize non-responses, participation was restricted to people with access to the internet before the hurricanes. Importantly, SSI's sampling frame typically disproportionately represents younger, better educated, more partisan, and more politically engaged adults than the national average (Esterling, Neblo, and Lazer 2011). To the extent that these characteristics might correlate with other characteristics relevant to this study – race, income, home ownership, employment – we must wonder whether an SSI sample could accurate represent the population of interest.

We can never know exactly how accurately the sample represents the target population, because there are no known descriptive statistics of the entire population of evacuees. It is likely that the sample disproportionately represents whites and homeowners. Comparing the 9% sample proportion of Blacks to the 47% New Orleans population proportion of Blacks one year post-Katrina (Louisiana Department of Health and Hospitals 2006), the difference is obvious; comparing it to the entire evacuation zone of the 2004-2005 seasons, which had much lower populations of Blacks, makes it less clear (Logan 2006; US Census Bureau 2009). But even these

differences are not reason for dismissal. The exhibited mediating effect of trust on the race-migration relationship suggests that an increased sample proportion of Blacks may have demonstrated the significance of political trust on return migration more substantially than shown here. Based on our sample constraints, we must infer to a younger, more educated, more partisan, and more politically engaged population than the general population. Within these limits, we are able to infer regarding populations regularly facing the prospect of disaster, those who have survived disaster and catastrophe, and those who have watched the management of and recovery after disasters they might one day encounter themselves. If we are careful about our inferences, this work should still provide value.

Third, we do not have any measure of which sector of the economy a respondent worked in, which may drive migration decisions by dictating job opportunities. It was reported that some economic sectors were faring worse than others in the Katrina-stricken area. Burger King gave \$6,000 signing bonuses to anyone willing to work in New Orleans (Martel 2005), while other international firms moved out of the city (Nocera 2006). When this survey was fielded, the Bureau of Labor Statistics was reporting gains in employment in nearly every sector of the economy in Katrina-stricken areas (2014). Suffering sectors were leisure, manufacturing, financial, information, and government, while natural resources/mining, utilities, construction, trade, transportation, professional and business services, education and health, and other services had rebounded and grown past their pre-Katrina levels (Garber 2006).

The question of economic sector raises a related issue. This study focuses on factors pushing evacuees to return migrate, but does not consider factors pulling them back to remain in their new locations. It is possible that improvements in schooling, employment, cultural attitudes, or public services are pulling evacuees away from return migration. The full effects of such

factors cannot be gauged here, but that should not lessen the import of the findings with respect to political trust. Many public services are the product of the very public officials evacuees are asked about in this survey, and positive evaluations of public services have been connected to political trust (Christensen & Laegreid 2005). If upgrades in public services in the new community are pulling evacuees away from returning, that pull may be operating via the same political trust mechanism that is pushing other evacuees back home.

It is possible that these hurricane seasons are a "critical case," in that the disasters were so drastic and plentiful, and the Katrina management failure so pronounced. Katrina was a catastrophe, but the effects of political trust are robust to the inclusion of the Katrina experience variable. Disasters and catastrophes throughout the world have not abated. We now know the utility of investigating political variables, and political trust, as predictors of return migration.

Conclusion

We now know that failure to consider political trust in return-migration studies equates to a failure to understand how and why different groups choose to resettle, rebuild, and invest in recovery. We also know that return migration is worthy of future inquiry in political science. If the return-migration decision has political causes, it is likely to have political consequences.

Specifically, we can expect the post-disaster community to be not only demographically different, but also more politically trusting, than prior to the disaster. These findings support those of Fair et al (2013) that disasters precede an increase in civic participation. Since higher political trust has been associated with higher voter turnout and political participation (Emig, Hesse, and Fisher 1996), the post-disaster community could be more politically active than prior to the disaster. In terms of future policy, heightened civic activity translates into better attention to policy decisions, better disaster management, and a limiting of future disasters (Montgomery,

Jordens, Little 2008). Communities of returnees, more trusting of public officials, are also more likely to be able to participate in their own fortification and defense.

Since race has been linked to voter choice (see Bejarano and Segura 2007), and the racial composition of post-disaster communities is likely to change, the politically active post-disaster community might elect representation that reflects these shifts. Post-disaster areas should also expect changes in the labor force, which can alter area revenue streams and public goods provisions. Resource allocation during recovery will depend on not only who chooses to return and reinvest, but also on who is making key decisions. A community that is more trusting of government while reflecting these demographic shifts might allow for the pursuit of community-altering policies, programs, and initiatives.

The application of these findings may go well beyond the disaster and return-migration context, to other situations of upheaval. Wilson (2006) writes of four Chicago neighborhoods experiencing racial evolution in the 1990s, giving some residents the impetus to move away rather than stay in a changing environment. Upheaval created out-migration according to group characteristics. How such groups believe their public officials respond to their concerns could help unlock patterns of group migration and self-segregation within US cities.

From an international and comparative policy standpoint, consider rebuilding after civil conflict, military intervention, ethnic cleansing, or other crises. My findings suggest citizens will be less likely to return home, to invest in rebuilding, indeed to be involved in society in general, due to a lack of trust in government and public officials. Further, this work indicates that political trust may differ according to predictable group characteristics. These findings give credence to policy initiatives that have only recently begun to probe political trust-building as a foundation for regeneration and rebuilding in post-conflict societies (see Brinkerhoff 2007).

Any situation of crisis or upheaval could involve political trust in ways as yet unexplored. It is imperative that we continue to investigate the impact of crises on political trust, and the consequences of changes in political trust on politics and economies. Only a comprehensive look at politics and economies can fully illuminate how political trust and disasters interact.

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Figure 1 A

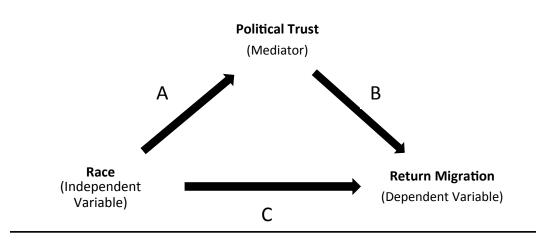


Figure 1 B

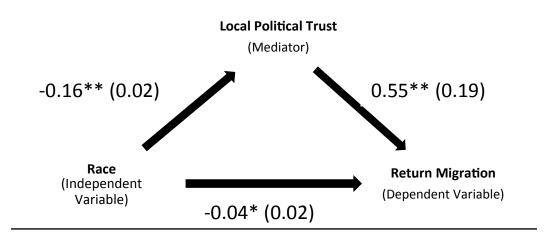


Table 1 Return Migration and Political Trust,
Estimated with Race Only

	(1)	(2)	(3)	(4)
	Return Migration	Local Trust	State Trust	Federal Trust
Race (Black = 1)	-0.04*	-0.16**	-0.03	-0.04**
·	(0.02)	(0.02)	(0.02)	(0.02)
Sex (Male = 1)	0.02	0.00	-0.03*	-0.03**
	(0.01)	(0.02)	(0.01)	(0.01)
Age	0.01	-0.02**	-0.01*	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Education	-0.01	-0.09**	-0.05**	-0.03**
	(0.01)	(0.01)	(0.01)	(0.01)
Ideology	-0.00	-0.02**	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Home Ownership	0.09**	0.01	0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Damages	0.00	-0.00	0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Damages Missing	-0.19**	-0.05	-0.09	-0.12**
	(0.06)	(0.06)	(0.05)	(0.04)
Displacement Distance	-0.14**	-0.04*	-0.04*	-0.00
	(0.02)	(0.02)	(0.02)	(0.01)
Income Level	0.01**	-0.01	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Employment	0.03*	-0.02	-0.02	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Family Longevity	0.02**	0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Coastal Distance	-0.06**	0.01	-0.00	-0.05**
	(0.02)	(0.02)	(0.02)	(0.02)
Church Attendance	-0.01	0.05**	0.02**	0.01
	(0.01)	(0.01)	(0.00)	(0.00)
Katrina Evacuee	-0.03*	0.01	-0.00	-0.03*
	(0.01)	(0.01)	(0.01)	(0.01)
Stress	-0.02**	-0.04**	-0.04**	-0.03**
	(0.01)	(0.01)	(0.01)	(0.00)
State Controls	YES	YES	YES	YES
Constant	0.80**	0.56**	0.61**	0.79**
	(0.04)	(0.05)	(0.04)	(0.03)
Observations	2,159	2,159	2,159	2,159
R ²	0.15	0.15	0.20	0.07

Standard errors in parentheses; ** p<0.01, * p<0.05

Table 2 Return Migration Estimated with Political Trust and Race, plus Displacement Distance, Income Level, and Full Sample

	(L-12)	(L-13)	(L-14) Federal	
_	Local	State		
First Stage:	Trust	Trust	Trust	
Race				
(Black 1)	-0.16**	-0.03	-0.04**	
	(0.02)	(0.02)	(0.02)	
Stress	-0.04**	-0.04**	-0.03**	
	(0.01)	(0.01)	(0.00)	
Sex (Male 1)	0.00	-0.03*	-0.03**	
	(0.02)	(0.01)	(0.01)	
Age	-0.02**	-0.01*	0.00	
	(0.00)	(0.00)	(0.00)	
Education	-0.09**	-0.05**	-0.03**	
	(0.01)	(0.01)	(0.01)	
deology	-0.02**	-0.00	-0.00	
	(0.00)	(0.00)	(0.00)	
Home Ownership	0.01	0.01	-0.01	
	(0.01)	(0.01)	(0.01)	
Damages	-0.00	0.00	0.00*	
	(0.00)	(0.00)	(0.00)	
Damages Missing	-0.05	-0.09	-0.12**	
	(0.06)	(0.05)	(0.04)	
Displacement Distance	-0.04*	-0.04*	-0.00	
	(0.02)	(0.02)	(0.01)	
ncome Level	-0.01	-0.00	0.00	
	(0.00)	(0.00)	(0.00)	
Employment	-0.02	-0.02	-0.00	
	(0.01)	(0.01)	(0.01)	
amily Longevity	0.00	0.00	-0.00	
	(0.00)	(0.00)	(0.00)	
Coastal Distance	0.01	-0.00	-0.05**	
	(0.02)	(0.02)	(0.02)	
Church Attendance	0.05**	0.02**	0.01	
	(0.01)	(0.00)	(0.00)	
Katrina Evacuee	0.01	-0.00	-0.03*	
	(0.01)	(0.01)	(0.01)	
State Controls	YES	YES	YES	
Constant	0.56**	0.61**	0.79**	
	(0.05)	(0.04)	(0.03)	
R^2	0.78	0.89	0.94	
-test of Excluded Instruments:	23.10**	36.39**	49.16**	

	Return	Return	Return
Second Stage:	Migration	Migration	Migration
Trust	0.55**	0.51**	0.63**

Race 0.04 (0.04) -0.03 (0.02) -0.02 (0.02) Sex 0.02 (0.02) 0.02* 0.04* Age 0.02** (0.01) 0.01* (0.01) 0.00 (0.01) Age 0.02** (0.02) (0.02) (0.01) Education 0.03 (0.02) 0.02) (0.01) Ideology 0.01 (0.01) (0.00) (0.00) Home Ownership 0.08** (0.02) (0.02) (0.02) Damages -0.00 (0.00) (0.00) (0.00) Damages Missing -0.16* (0.07) (0.07) (0.07) Displacement Distance -0.12** (0.02) (0.02) (0.02) Income Level 0.01** (0.00) (0.00) (0.00) Income Level 0.01** (0.00) (0.00) (0.00) Employment 0.04** (0.04**		(0.19)	(0.17)	(0.21)
Sex (0.04) (0.02) (0.02) G(0.02) 0.03* 0.04* (0.02) (0.02) (0.02) Age 0.02** 0.01* 0.00 (0.01) (0.01) (0.01) (0.01) Education 0.03 0.01 0.00 (0.02) (0.02) (0.01) (0.00) Home Ownership 0.08** 0.08** 0.09** (0.02) (0.02) (0.02) (0.02) Damages -0.00 0.00 0.00 Damages Missing -0.16* -0.14* -0.11 (0.07) (0.07) (0.07) (0.07) Displacement Distance -0.12** -0.12** -0.14** (0.02) (0.02) (0.02) (0.02) Income Level 0.01** 0.01** 0.01** (0.02) (0.02) (0.02) (0.02) Income Level 0.04** 0.04** 0.04** 0.04** (0.02) (0.02) (0.02)	Race			
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Church Attendance -0.03** -0.01* -0.01 Katrina Survivor -0.04* -0.03* -0.02 (0.02) (0.02) (0.02) State Controls YES YES YES Constant 0.49** 0.48** 0.30* (0.09) (0.09) (0.15) Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	Coastal Distance			
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Katrina Survivor -0.04* -0.03* -0.02 (0.02) (0.02) (0.02) State Controls YES YES YES Constant 0.49** 0.48** 0.30* (0.09) (0.09) (0.15) Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	Church Attendance			-0.01
State Controls YES YES YES Constant 0.49** 0.48** 0.30* (0.09) (0.09) (0.15) Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**		(0.01)	(0.01)	(0.01)
State Controls YES YES YES Constant 0.49** 0.48** 0.30* (0.09) (0.09) (0.15) Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	Katrina Survivor	-0.04*	-0.03*	-0.02
Constant 0.49** (0.09) 0.48** (0.09) 0.30* (0.15) Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**		(0.02)	(0.02)	(0.02)
(0.09) (0.09) (0.15) Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	State Controls	YES	YES	YES
Observations 2,159 2,159 2,159 R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	Constant	0.49**	0.48**	0.30*
R² 0.91 0.92 0.93 F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**		(0.09)	(0.09)	(0.15)
F 12.24** 13.60** 13.66** Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi ² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**		2,159	2,159	2,159
Wu-Hausman F-test 14.75** 13.72** 13.25** Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	R ²	0.91	0.92	0.93
Durbin-Wu-Hausman Chi² 14.82** 13.79** 13.32** Wald 43.69** 119.03** 116.37**	F	12.24**	13.60**	13.66**
Wald 43.69** 119.03** 116.37**	Wu-Hausman F-test	14.75**	13.72**	13.25**
Wald 43.69** 119.03** 116.37**	Durbin-Wu-Hausman Chi ²	14.82**	13.79**	13.32**
Kleihergen-Paan 20 10** 02 04** 04 00**	Wald	43.69**	119.03**	116.37**
Vicinci Peri i gah 20113 32'34 31'00	Kleibergen-Paap	38.19**	93.94**	91.00**

Standard errors in parentheses; **p<0.01, *p<0.05