Racial and Gender Favoritism in Crowdfunding—Evidence from the Field[*]

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Abstract

We examine whether and how racial and gender biases influence crowdfunding success using a natural field experiment on GoFundMe and a complementary survey experiment on Amazon Mechanical Turk (MTurk). The field experiment allows us to *directly* estimate the causal effects of race and gender on financing outcomes. Results from a neutral benchmark treatment show evidence consistent with favoritism towards white and men as opposed to animosity against minorities and women. We further show that racial and gender disparities in the perceived trustworthiness of the fundraiser drive the observed differences in funding outcomes through influencing the perceived credibility of the campaign. Finally, we provide evidence that signals on the fundraiser's professional qualification and the campaign's progress attenuate the observed racial and gender disparities; as such quality signals serve to enhance trustworthiness of the fundraiser and the perceived credibility of the campaign.

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1. Introduction

A growing body of research has extensively documented racial and gender disparities in early-stage financing (Fairlie, Robb, and Robinson, 2021; Ewens and Townsend, 2019; Herbert, 2020; Hu and Ma, 2021), and to a lesser extent, in crowdfunding (Younkin and Kuppuswamy, 2018; Gafni et al., 2021). This strand of literature represents significant progress in understanding financing decisions and has important implications for explaining the racial and gender gaps in entrepreneurship. However, it is inherently difficult to disentangle the roles of race and gender from between-group differences in observable and/or unobservable traits of the project team. These traits may be correlated with race and/or gender while simultaneously influencing funding decisions.

Randomized experiments, typically in the form of an audit or correspondence study, have been the answer to this identification challenge in economic research.[1] However, the distinctive nature of early-stage financing has limited the application of experiments in examining racial and gender biases. Investment decisions at an early stage traditionally occur through a private process that heavily relies on personal connections and in-person interactions. Consequently, it is impractical to present identical proposals by candidates who only differ in race and/or gender, as investors may discern the artificial nature of such an exercise (Younkin and Kuppuswamy, 2018).

The emergence of crowdfunding, a new and increasingly important form of raising capital via small contributions from a broader pool of investors (Mollick and Kuppuswamy, 2014; Agrawal et al., 2015),[2] enables us to tackle this challenge. On crowdfunding platforms, funders examine the descriptions of projects and evaluate the profiles of project teams before making financing

[1] Prominent examples are studies of labor or product markets such as Bertrand and Mullainathan (2004) or List (2004). Please see Bertrand and Duflo (2017) for a comprehensive review.

[2] In 2015 alone, crowdfunding projects amassed an estimated $17.2 billion within North America, surpassing the $6.89 billion in contributions by angel investors in the United States (Massolution, 2015; Sohl, 2015).

decisions. We can experimentally vary the race and gender of the fundraiser without compromising funders' perceived authenticity of the project. This design enables us to identify causal effects (if any) of race and gender on financing decisions.

To operationalize this idea, we collaborated with a non-profit organization to conduct a natural field experiment as part of a fundraising campaign on GoFundMe, the largest online crowdfunding platform in the world.[3] The campaign was launched in the early months of the COVID-19 pandemic (April to May 2020) to raise funds for procuring and distributing surgical masks to ill-quipped medical professionals, especially those served in tribal clinics, jail clinics, and clinics in poor neighborhoods of large cities that were heavily hit by the pandemic. We randomly rotated four versions of the campaign page based on race and gender, each features a profile photo: a white man, a white woman, a minority man, and a minority woman, while keeping constant all other campaign characteristics that could influence the funding decision. Consequently, variations in funding behaviors across these four versions can be attributed to the differences in race and gender displayed in the profile photo of the campaign website.

We complemented the analysis of the GoFundMe experiment with that of a survey experiment conducted on Amazon Mechanical Turk (MTurk). Collectively, this approach enables us to *directly* (i) estimate the causal effects of race and gender on financing outcomes, (ii) explore whether racial and gender biases reflect favoritism towards one group or animosity against the other group, (iii) analyze the underlying mechanism of these biases, and (iv) examine if quality signals—professional qualifications and campaign progress—help mitigate these biases. In this regard, our MTurk experiment builds upon a growing body of work within economics utilizing exogeneous variation in information – quality signals – to identify whether observed disparities

[3] GoFundMe was founded in 2010 and has more than 100 million global users. Its campaigns have raised more than $25 billion collectively. https://money.usnews.com/investing/articles/best-crowdfunding-platforms

reflect statistical discrimination or animus (e.g., List, 2004; Gneezy et al, 2012, Busse et al., 2017; Bohren et al., 2023).

Our results show that the race and gender of the campaign profile affected both the propensity to fund (the extensive margin) and funding amount per contribution (intensive margin). Both were significantly higher when the profile was white or a man. Specifically, sessions displaying a white profile raised 41% more than those displaying a minority profile, and sessions displaying a man raised 58% more than those displaying a woman.

Our follow-up survey experiment on MTurk extended the original GoFundMe campaign along three dimensions and helped us identify the economic mechanisms underlying the observed racial and gender disparities. First, we broadened the set of profile photos to include Hispanic and African American, in addition to the initial four featuring White and Asian.[4] To minimize the potential effects of idiosyncratic personal traits on funder decisions, we included in each race-gender group three photos featuring doctors of similar ages, facial expressions, postures, and clothing. We further experimented with a second cause for fundraising—to provides financial assistance to cancer patients. Results from this set of interventions reveal disparities in funding behavior along race and gender lines very similar to those observed in the field experiment.[5] Notably, racial and gender disparities persisted when the underlying campaign aimed to elicit funds to support cancer patients, as opposed to funding the purchase and distribution of surgical

[4] Both minority fundraisers from our team were Asian.

[5] To capture participants' propensity to contribute, we ask them to indicate the amount of money they are willing to fund the project. To elicit truthful reporting from the participants, our experiment follows the design principles of Becker et al. (1964) and is akin to the approach taken by Berg et al. (1995). In detail, we set up a lottery and informed the participants that the contribution amount they indicated would be deducted from the prize if the participant won.

masks. These results thus alleviate concerns that disparities observed in the GoFundMe experiment may be driven by unfavorable attitudes towards Asians during the COVID-19 pandemic.[6]

Second, we introduced a neutral treatment in which the campaign page features the logo of the charity as opposed to the photo of the fundraiser. This neutral treatment provides a counterfactual that allows us to examine the direction of the racial and gender disparities observed in the natural field experiment. The analysis reveals that participants assigned to campaigns with a white or male profile contributed more than those assigned to the logo treatment. However, we observe no significant difference in contributions between campaigns with minority or female fundraisers and those with campaign logos. These patterns suggest that the observed disparities reflect favoritism towards white and men as opposed to animosity against minorities and women.

These results prompt a natural inquiry into the underlying driver of the racial and gender disparities in fundraising success. Crowdfunding is best described as an environment with incomplete contracting due to the geographical distance between funders and fundraisers and minimal institutional and regulatory oversight (Agrawal et al., 2017; Myside and Hausberg, 2020). Informational asymmetry problems between funders and fundraisers can be severe, resulting in a heavy reliance on the "trust me" philosophy in crowdfunding transactions. Ample empirical evidence lends support to the crucial role of trust in economic transactions including in crowdfunding contexts such as peer-to-peer lending (Duarte et al., 2012). We thus focus on the role of trust and, more specifically, how the perceived trustworthiness of the fundraiser impacts funder behaviors.

[6] Such sentiments are well documented in the literature (e.g., Gover et al., 2020; Hswen et al., 2021; Lu et al., 2021; He and Xie, 2022; Cao et al., 2023) and show a pervasive pattern of prejudice and hostility towards Asian Americans throughout the COVID-19 pandemic.

To investigate this hypothesis, we included in the mTurk survey questions designed to elicit perceptions of the fundraiser's trustworthiness and the campaign's credibility.[7] We first document that the race and gender of the fundraiser shape funders' perceptions of their trustworthiness. Survey participants rate white fundraisers as significantly more trustworthy than minority and male fundraisers as significantly more trustworthy than female. These disparities in the perceived trustworthiness of the fundraiser affect the perceived credibility of the campaign—campaigns with white or male leaders were perceived as more credible than those with minority or female leaders. Then in a mediation analysis (Heckman and Pinto, 2015; VanderWeele, 2016; Card et al., 2016; Hu and Ma, 2023), we find that the estimated impact of fundraiser's race and gender on funding outcomes significantly attenuates once the average trustworthiness rating is controlled for, suggesting an important role of perceived trustworthiness and statistical discrimination in explaining these racial and gender disparities.

To alleviate the concern that participants evaluate the profiles based on other attributes associated with race and gender similarly to how trustworthiness influences funding decisions, we asked survey participants to rate the profile photos on attractiveness, confidence, competence, authoritativeness, and agreeableness. Results reveal that these attributes do not display the same racial and gender disparities as trustworthiness. Overall, trustworthiness emerges as the only factor that consistently explains the effects of race and gender on financing outcomes.

Given these findings on the role of the perceived trustworthiness of the fundraiser, in the final set of analyses, we investigate the efficacy of two sets of interventions designed to enhance the perceived trustworthiness of the fundraiser and the credibility of the campaign. From a positive

[7] Findings from a large body of work in neuropsychology show that people quickly and consistently form inferences about a person's characteristics, including trustworthiness, from his/her face (Willis & Todorov, 2006; Borkenau et al. 2009; Todorov et al., 2009; Stewart et al., 2012; Mende-Siedlecki and Todorov, 2015).

perspective, these interventions help uncover factors that influence funder perceptions. From a normative perspective, they provide actionable strategies that can be used to moderate the impact of a fundraiser's race and gender on funding decisions.

The first set of interventions aims to signal the quality of the fundraiser by providing additional information about his or her professional qualifications. To do so, we randomize information displaying where the fundraiser received the medical degree – Harvard University, the University of Missouri, Kansas City (the UMKC), or no information provided. We further vary the average star rating by patients. Results suggest that displaying a Harvard affiliation substantially reduces observed racial and gender disparities in both trustworthiness ratings of the fundraisers and funding outcomes of the campaign. However, neither patient ratings nor an affiliation with the UMKC serve to moderate the effect of an organizer's race and gender on a funder's perceptions of and support for the underlying campaign.

The second set of interventions is designed to signal the credibility of the campaign and thus reduce the weight that funders place on the fundraiser's race and gender. One intervention provides detailed updates on campaign progress, randomly rotating between including and omitting information on the number of masks delivered and photos of nurses and doctors happily wearing or holding our masks. We find that campaign updates—especially those with photos featuring the campaign's impacts—are highly effective. Average contributions increase by approximately 41% and more importantly, the observed racial and gender disparities are attenuated in the presence of the campaign updates. The other intervention varies the level of information about the campaign, offering either a detailed campaign description with specifics and verification links or a generic version without many specifics. This variation has a negligible impact on funder behavior and underlying disparities. A follow-up survey shows that the null effects of detailed information are

due to a lack of salience. Potential funders correctly evaluate textual information only if the description is sufficiently short and the detailed information is sufficiently salient.

The results on the role of perceived trustworthiness and the moderating effects of quality signals on the fundraiser or the campaign are consistent with statistical discrimination (Aigner and Cain, 1977; Morgan and Vardy, 2009; Bohren et al., 2023) instead of taste-based discrimination (Becker, 1957). A significant challenge for distinguishing the nature of discrimination lies in the fact that researchers usually do not know on which unobserved characteristics decision makers might be statistically discriminating (Neumark, 2018). This is less of a concern in our context as we know that perceived trustworthiness of the fundraiser is part of the information set that funders rely on and exhibit biases in when making their financing decisions.

Our study contributes to three strands of literature. First, it is related to the literature on racial and gender biases in early-stage financing (Ewens and Townsend, 2019; Herbert, 2020; Bapna and Ganco, 2021; Fairlie, Robb, and Robinson, 2021; Hu and Ma, 2021). It provides the first direct evidence of the causal effects of race and gender on financing decisions, identifying the direction of these biases. In addition, our study uncovers a new mechanism for the emergence of race and gender biases in financing: through biases in the perceived trustworthiness of the fundraiser. This leads to novel suggestions for remedies based on the interpretation of trust and trustworthiness.

Second, our findings potentially have broader implications on financing decisions, given the crucial role of trust in financial transactions (Guiso et al., 2004, 2008; Karlan, 2005; Duarte et al., 2012; Nguyen, 2023). They can be particularly relevant for trust-intensive settings such as consumer finance where there is growing evidence of racial (Munnell et al., 1996; Butler et al., 2019; Giacoletti et al., 2021) and gender biases (Barlett et al., 2021; Montoya et al., 2021). Notably, such biases often disappear when the human element in assessing borrowers' creditworthiness,

which is arguably more susceptible to biases, is removed (Howell et al., 2023; D'Acunto et al., 2021; Bhutta et al., 2021).

Third, our paper contributes to an expanding literature that uses experimental methods and surveys to uncover the determinants of financing success in crowdfunding.[8] Many of these studies examine hypothetical decisions (Johnson et al., 2018; Ansink et al., 2021; Zunino et al., 2022) or intermediate outcomes such as requests for additional information about the firm/project (Bernstein et al., 2017; Bapna, 2019; Bapna and Ganco, 2021). Some studies use experimental designs to moderate the impact of the campaign organizer's race and gender on funder's stated intentions or hypothetical choices (Younkin and Kuppuswamy, 2018; Bapna, 2019; Zunino et al., 2022). We examine real funding outcomes using both a natural field experiment on GoFundMe and a survey experiment on MTurk. Our research expands the literature by estimating the effect of such interventions on actual funding decisions, identifying the underlying economic mechanism, and providing remedies to reduce the impact of racial and gender biases.

2. The Experiment

2.1. Institutional Details

The organization. We partnered with Real Heroes Need Masks, a non-profit organization founded by a group of physicians. Its mission was to procure and distribute masks to hospitals and medical facilities during the onset of the COVID-19 pandemic in the U.S. The organization's model was to leverage its network of physicians to identify and directly deliver masks to smaller facilities in hard-hit areas that were in the most urgent need but did not have the resources or media presence

[8] There is a related body of work using laboratory experiments (Cason and Zubrickas, 2017; Cason and Zubrickas, 2019; Cason et al., 2021) and quasi-experimental methods (Meer, 2014; Geva et al., 2018; Hong et al., 2018; Gong et al., 2020) to explore determinants of funder behavior in the context of charity and reward-based crowdfunding. Results from this work highlight the importance of factors such as campaign quality and publicity, rebate assurances, the price of giving and expected funder benefit on contribution decisions.

to ask the public for assistance. It also utilized its members' networks to source surgical masks directly from certified factories for a dependable and cost-effective supply. We collaborated with this organization by designing a campaign on GoFundMe to raise money that could be used to achieve its mission.

GoFundMe. GoFundMe is a crowdfunding platform that allows individuals or organizations to raise money for different causes. Users create their webpage on GoFundMe through which people can contribute using a debit or credit card and track the progress of their funding. GoFundMe is the largest crowdfunding platform in the world: over 150 million funders have contributed over $25 billion since its inception in 2010.[9] Anyone can start a new campaign on the platform, and there is no oversight of the information provided by either the fundraisers or the funders on the campaign page. We believe these features highlight the trust-intensive nature of GoFundMe transactions and suggest that trust is the key factor affecting funders' decisions.

On each GoFundMe page, there are three main sections. The first one is a photo or video of the campaign, which serves as the page profile/anchor. Next is the campaign description, where fundraisers provide more detailed information on the purpose, fundraisers, and target amount of the campaign. Due to limited screen space, GoFundMe displays only part of the description, and users must click to expand it (perhaps multiple times depending on the length) if they want to see the full description. Finally, the update section is where fundraisers provide updates on campaign activities and progress. These often include photos in addition to texts. The updates are dated, which provides information on the timeline of the campaign events. The page also shows the up-to-date total amount of funds raised and details on funders: their names (if funders do not choose

[9] See https://money.usnews.com/investing/articles/best-crowdfunding-platforms and GoFundMe: #1 Fundraising Platform for Crowdfunding.

to stay anonymous), contribution amounts, and comments (if any). Appendix C.1.1 provides a screenshot of our campaign page on GoFundMe.

2.2. Experimental Design

GoFundMe allows fundraisers to change the campaign page at any time after the campaign launch. Leveraging this feature, we randomly rotate four different profile photos on our campaign page that vary in race and gender: white man, white woman, minority man, and minority woman (shown in Appendix C.1.2).[10] In this context, users' funding decision depends on their evaluation of the campaign as well as their preferences for risk aversion, reciprocity, and altruism (Fehr, 2009; Sapienza et al., 2013). The randomized alternation of the profile pictures among visitors to the campaign website enables us to control for differences in visitors' (idiosyncratic) preferences and isolate their assessment of the campaign. As the characteristics of the campaign remain identical except for race and gender profiles, differences in contribution patterns across various renditions of the campaign website can be attributed to variations in the exhibited race and gender of the profile pictures.

Apart from the main treatment, we include two other interventions to examine factors that may enhance the perceived credibility of the campaign and thus attenuate the effect of the fundraiser's race and gender on funder choices. They are designed to signal the value of the campaign and thus lessen the weight placed on the fundraiser. First, we rotate two versions of the campaign description (i.e., detailed and general) that differ primarily in the way the information about the campaign is presented. The detailed version offers an abundance of specific details, concrete numbers and statistics, and links to external verification, whereas the language in the

[10] Both minority fundraisers from our team were Asian. In the supplemental survey on MTurk, we further include Hispanic and African American profiles. We also use photos in each race-gender group to mitigate the effect of idiosyncratic personal traits on fundraising outcomes.

general version tends to be vague. For example, the beginning of the detailed version contains links to some media outlets that feature the campaign (and thus verify its authenticity), while the general version omits media coverage. Another example is how we describe the group's achievements up to the time of the campaign launch. The detailed version describes the precise number of masks delivered and the number of receiving facilities, as well as the states in which these receiving facilities are located.

> *[We] Accomplish what we promise. We have been able to donate **21,600** masks to **32 hospitals and clinics** in the states of **Louisiana, New York, New Jersey, Georgia, Indiana, Texas, and California**.*

By contrast, the general version provides no such specifics.

> *We accomplish what we promise. We have been able to donate **tens of thousands** of masks to **hospitals and clinics** in **several states** across the US.*

Appendix C.1.3 presents full scripts of the two versions as well as details on all the differences between them. Overall, we expect the detailed version to be perceived as more credible.

Second, we vary the update on project progress. The update is important not only because it provides evidence of how the campaign fulfills its promises but also because it is highly salient due to its position on the page. We randomly rotate the page to include or omit updates. We expect that having updates makes the campaign significantly more credible, while having no updates makes funders rely more on signals from other aspects of the campaign such as the profile photo. Appendix C.1.4 provides a sample update.

In the end, we have 4x2x2 = 16 different versions for random assignment. These versions rotated every 3 hours from April 16 to May 14, 2020, resulting in a total of 232 sessions.

2.3. MTurk Survey

To address several questions arising from the experiment outcomes, we subsequently conducted a complementary survey on MTurk that extended the experiment in multiple dimensions. First, our GoFundMe campaign included only Asian profile photos for the minority group, raising concerns that the results of the original experiment may have been influenced by unfavorable attitudes toward Asians during the pandemic. To address this concern, we enhanced the diversity of profile photos by incorporating images featuring Hispanic and African Americans. Within each race-gender group, we included three photos that are similar in various features, such as clothing, posture, and facial ratios, to control for idiosyncratic factors beyond race and gender. In addition, we introduced a new cause for which contributions are solicited, namely raising money for cancer treatments, a real challenge for all race and gender groups. We had survey takers randomly shown either the original mask campaign or the cancer treatment campaign.

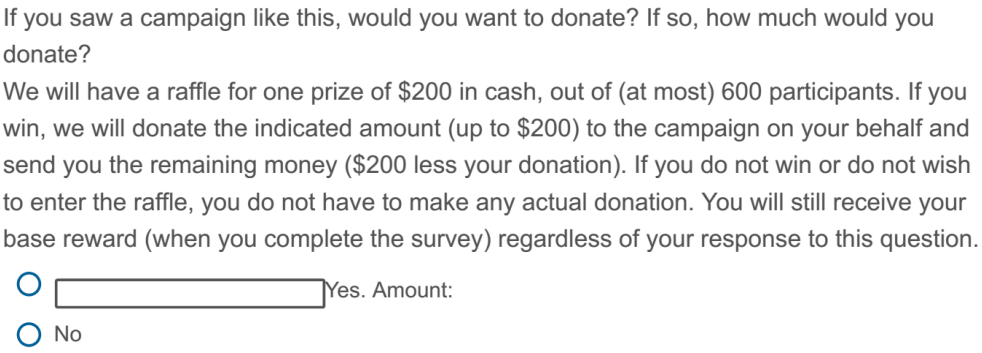
Second, we included a neutral treatment in which the campaign page featured the campaign logo instead of a fundraiser's photo. This neutral treatment serves as a counterfactual, allowing us to examine whether the disparities observed in the original experiment reflect favoritism towards white and male fundraisers and/or animosity against non-white and female counterparts.

Third, our follow-up surveys included questions designed to elicit perceptions of trustworthiness and other qualities such as confidence of the fundraiser whose photo is displayed on the campaign's webpage. This enables us to identify potential channels through which the observed disparities arise.

Lastly, we added information about the qualifications of the doctors in the profile photo along two dimensions: the medical school from which the doctor graduated and the average rating of the doctor by patients. Specifically, we varied randomly whether the profiled fundraiser received a medical degree from Harvard Medical School (high affiliation), the UMKC (low affiliation) or

provided no medical school information. We further assigned the doctor one of three patient ratings: 3.7, 4.3, or 4.9 out of 5 stars. This intervention is designed to signal the quality of the fundraisers and enhance their perceived trustworthiness.

In addition to these experimental variations, we asked the survey takers to indicate the amount of money they would contribute to the campaign. We were interested in using the contribution amount as a benchmark to compare the MTurk sample with the GoFundMe sample. To elicit truthful reporting on the contribution amount, we set up a lottery so that their indicated contribution would be deducted from the lottery payoff if they won. The design of this trust game is based on Becker et al. (1964) and is similar to Berg et al. (1995). Appendix C.2. provides the full survey script.



We also collected information on the participants' demographics, contribution preferences, and behaviors in their social networks.

2.4. Data and Summary Statistics

Appendix A provides detailed definitions of all the variables we use in the paper. The main data used in our analysis come from the GoFundMe campaign, with details on the timing, amount, and the funder's name for each contribution. We identify a funder's gender based on the first name using a frequency table from the Social Security Administration (SSA) database. The SSA has published the frequency of a certain name and its assigned gender (male or female) for every single

year since 1880. We limit our search to those born between 1950 and 2003 and assign a funder's name to the gender with higher frequency.

For race, we use the probabilistic mapping between last names and race from decennial US censuses (e.g., Kerr and Lincoln, 2010; Liu, 2013). The US Census publishes two decennial census surname files that contain frequency data on surnames reported 100 or more times in the 2010 and 2000 censuses, along with race category percentages. The possible categories are Non-Hispanic White, Hispanic or Latino, Black or African American, American Indian and Alaska Native, Asian and Native Hawaiian or Other Pacific Islander, and Two or More Races. We assign a funder's last name to the race with the highest probability. We then classify a funder as white if his/her assigned race is Non-Hispanic White and as a minority otherwise. In addition, the members of our campaign team identify the gender and race of all funders whom they personally know.

Panels A and B of Table 1 report the summary statistics of the GoFundMe campaign funders and the MTurk participants, respectively. Within the one-month window of our GoFundMe campaign (with random rotations), there are 225 funders, 22% of whom are directly connected to a member of the campaign team. The race split is relatively balanced with 43% being white, while the sample is heavily tilted toward female funders (75%). These statistics differ from those of the MTurk sample where the majority is white and male funders. The median participant in our MTurk survey is 36 years old, holds a bachelor's degree, and earns between $50,000 and $70,000 a year.

3. Contribution Amount and Race and Gender

3.1. Baseline Results

The baseline specification examines the extent to which the profiled fundraiser's race and gender explain funding behaviors:

$$Funding_{s,v,t,w} = \beta MinorityProfile_v + \beta FemaleProfile_v + \mu_t + \delta_w + \varepsilon_s \qquad (1)$$

Our main outcome variable $Funding_{v,s,t}$ measures the funding intensity of session *s*, which randomly shows version *v* of the GoFundMe page at time block *t* of a day in week *w* since campaign launch. The outcome variable can take one of the following three forms: the total amount of contribution ($ Contribution), the total number of contributions (# Contribution), and the average amount of contribution (Average $ Contribution) conditional on the session having at least one contribution. The variables of interest are $MinorityProfile_v$, which is a dummy that equals 1 if the profile shown is a minority and 0 if white; and $FemaleProfile_v$, which is a dummy that equals 1 if the profile shown is a woman and 0 otherwise. We include time-of-the-day fixed effects (μ_t) to account for the effects of timing on funding behaviors as well as stage fixed effects (δ_w) that consider the time elapsed since the campaign was launched. We report the results on the total funding amount at the session level in Panel A of Table 2. Column (1) shows that sessions with a minority or female profile received a significantly smaller contribution amount. In terms of economic magnitude, featuring a white profile increased contributions by $92.7, while showing a male profile increased contributions by $67.1. Given that the average contribution per session is $165.2, the effect is economically meaningful. In column (2), we find similarly significant, albeit weaker, results regarding the number of contributions. Although we cannot directly test the effects on the extensive margin due to the absence of data on GoFundMe visitors who did not contribute, we believe that our findings on the number of contributions are suggestive of the effect at the extensive margin. This is because we can plausibly assume that the number of visitors was comparable across sessions, given that (i) the number of visitors per session was not correlated with variations in the campaign page, and (ii) we control for time-varying patterns in visitor behavior by employing stage fixed effects and time-of-the-day fixed effects. Finally, in column (3) we explore the effects of the profile's race and gender on the session's average contribution

size among the sessions having at least one contribution and find highly significant results. We interpret this as indicative of a significant effect along the intensive margin.

In Panel B, we perform the regression at the funder level to control for funder characteristics.

$$Funding_{i,v,t,w} = \beta MinorityProfile_v + \beta FemaleProfile_v + \psi \mathbf{X}_i + \mu_t + \delta_w + \varepsilon_i \quad (2)$$

The main outcome variable is the contribution amount by funder *i* who is randomly shown version *v* of the GoFundMe page at time block *t* of a day in week *w* since campaign launch ($\$ Funding_{i,v,t,w}$). $\mathbf{X}_i$ is a vector of control variables that account for funder characteristics including race and gender. The results indicate that the profile race and gender strongly predict the contribution amount, even after we control for funder characteristics. Conditional on contributing (with an average contribution amount of $58.4), visitors seeing white and male profiles contribute $38.2 and $33.8 more to the campaign, respectively. Overall, the baseline results show strong evidence of racial and gender disparities in funding behaviors. These effects are driven by changes along both the extensive and intensive margins. When the campaign page displays a white or male profile, it attracts more contributions per session (extensive margin) and generates a higher contribution amount per contribution (intensive margin).

In addition to the binary classification of race (white vs. minority) for the profile photo, we create a continuous measure for racial identification to address concerns about the ambiguity of the binary classification. We ask participants in our MTurk survey to rate how white they consider the profile photos on a scale from 0 to 10, and we use their responses to compute an average White Score for each photo.[11] Appendix B.1 shows that results are robust to using this White Score measure in lieu of the Minority Dummy.

[11] The mean White Score on a scale from 0 to 10 for each profile photo is as follows: 8.74 for the white man, 6.53 for the white woman, 2.43 for the minority man, and 2.65 for the minority woman.

Homophily. Column (3) of Panel B shows that the estimates remain largely the same after we add controls for homophily, in which funders share the same gender or race as the person in the campaign profile photo. This suggests that the observed gender and race effects are not driven by homophily. Surprisingly, none of the coefficient estimates on the homophily variables are significant. Our findings therefore fail to provide empirical support for a popular theory in sociology arguing that social similarity breeds trust (Coleman, 1990).[12]

Alternative explanation. The racial disparities we document with the experiment could reflect hostile attitudes toward Asians during the pandemic. Our MTurk survey aims to address this concern by expanding the set of profile photos to include photos of Hispanic and African American individuals and adding another cause for which we solicit contributions: raising money to support cancer treatments. Our findings, presented in Table 3, reveal patterns similar to those observed in the original experiment. Specifically, we find that campaign profile photos displaying white (male) individuals receive higher contributions than profile photos displaying African American and Asian American (female) counterparts.[13] Importantly, we observe similar racial and gender biases when the campaign raises funds to support cancer victims. Together, these results indicate that the original disparities were not specific to Asians or fundraising for masks during COVID, alleviating the concern regarding the exacerbation of disparities due to the pandemic.

3.2. Favoritism vs. Animosity

To further understand these disparities, we analyze the results of the neutral treatment in which the campaign page features the campaign logo as opposed to the photo of a person. Results in Table 3

[12] List and Price (2008) also find null effects of homophily (which they call social connections) in a field experiment on donations. On the other hand, studies that provide evidence supporting this theory use lab experiments (e.g., Glaeser et al., 2000; Fershtman and Gneezy, 2001) or survey data (Alesina and La Ferrara, 2000).

[13] Survey takers largely see Hispanics as white and show no significant difference in their answers between the two groups. For this reason, we decided to focus on Asian and African American minority groups.

show that MTurk participants randomly assigned to campaign pages featuring a white fundraiser or a man contribute more than those randomly assigned to the logo treatment. On the other hand, there is no discernable difference in contributions between those assigned to pages displaying minority or female photos and those assigned to the logo treatment. Drawing on these patterns of evidence (Columns 1 and 2), we interpret the results as mainly suggesting favoritism towards white and men, rather than animosity against minorities and women. On the intensive margin, white fundraisers are clearly favored (column 5). On the extensive margin, minorities and women are somewhat disadvantaged (columns 3 and 4).

In Appendix B.2, we further dissect the sample into different subgroups based on the intersection of race and gender. These subgroups include White men, White women, Asian men, Asian women, Black men, and Black women. Our analysis reveals consistent favoritism towards both White men and White women, and significant biases against Black men. Conversely, the remaining subgroups do not exhibit a significant difference from the logo treatment.

Our decomposition of the campaign contributions in Table 4 reveals results consistent with this interpretation. Specifically, white funders contribute $19 more to campaigns featuring a white photo than to campaigns featuring a minority photo, while minority funders give similar amounts to white and minority campaigns. Male funders give $31 more, corresponding to 53% of the baseline contribution amount, to campaigns featuring a male photo than to those featuring a female photo, while women contribute similar amounts to both.

4. Underlying Mechanism

What drives the observed racial and gender biases in fundraising outcomes? We focus on the role of trust – more specifically, perceived trustworthiness – to explain the disparities, for two reasons. First, trust is potentially a key factor in the context of crowdfunding, which is defined by

its incomplete contracting environment. Due to geographical distance, crowdfunders face significant limitations in conducting thorough due diligence on fundraisers. Institutional and regulatory oversight is also minimal (Agrawal et al., 2014). As a result, informational asymmetry problems between funders and fundraisers are severe, and crowdfunding transactions rely heavily upon the "trust me" philosophy.

Ample empirical evidence lends support to the crucial role of trust in economic transactions (La Porta et al., 1996; Knack and Keefer, 1997; Guiso et al., 2004, 2008, 2009; Tabellini, 2010; Algan and Cahuc, 2010; Nguyen, 2021). Trust has also been found to be an important factor in contexts similar to crowdfunding such as startup financing and peer-to-peer lending. For instance, Duarte et al. (2012) find that lenders' perception of borrowers' trustworthiness through examination of their photos significantly affects financing decisions in P2P lending. Second, there is support from neuropsychology for the use of photos to infer perceived trustworthiness. Findings from a large body of work in this field have demonstrated that people rapidly and reliably form impressions about a person's characteristics, including their trustworthiness, based on their facial features (Willis and Todorov, 2006; Borkenau et al., 2009; Todorov et al., 2009; Stewart et al., 2012; Mende-Siedlecki and Todorov, 2015).[14]

To investigate this hypothesis, we asked participants in our MTurk survey to rate the trustworthiness of the person in the profile photo. We then used the consensus judgments made by these independent respondents to predict the funding outcomes on GoFundMe. However, one might be concerned that the average trustworthiness rating we obtained from MTurk workers poorly represents the judgments made by funders on GoFundMe. Research in psychology and neuroscience suggests that this is unlikely to be the case, as studies (e.g., Engell, Haxby, and

[14] People can form an impression of another person after as little as a 34-millisecond exposure to a face. These judgments are highly reliable, that is, they remain consistent over time and with longer exposure.

Todorov, 2007) have shown that the consensus component (i.e., the average trustworthiness rating across multiple participants) is a better predictor of the brain's response than individual judgments of trustworthiness.

Analyzing the trustworthiness ratings from MTurk respondents, we find similar racial and gender disparities in their assessment of the profile photos. Specifically, the results in Panel A of Table 5 reveal that MTurk survey participants rate female profiles 0.18 points lower than male profiles, given the average trustworthiness score of 8.0 (on a scale of 10). Similarly, Asian and Black profiles are rated 0.34 and 0.33 points lower than White profiles, respectively. To further understand the source of rating differentials, we look at race-gender subgroups and report the results in Table B.3 in the Appendix. Using White men as the base group, we find that White women and Black men receive similar scores, whereas Asian men, Asian women, and especially Black women receive significantly worse ratings.

Subsequently, we conducted a mediation analysis, as outlined in prior studies (Heckman and Pinto, 2015; VanderWeele, 2016; Card et al., 2016), to investigate the extent to which variations in trustworthiness perception may help explain disparities in fundraising. In this analysis, we used average ratings for each fundraiser as a control. The results in Panel A of Table 6 demonstrate that while trustworthiness scores significantly explain funding outcomes, the effects of race and gender disappear. Additionally, Table 6 indicates that other qualities such as attractiveness, confidence, competence, authoritativeness, and agreeableness do not play the same mediating role as trustworthiness. Even when we incorporate ratings of these characteristics into our mediation analysis, racial biases persist, and gender biases remain statistically significant.

We perform a similar analysis using the contribution amount from the GoFundMe campaign as the outcome variable in Panel B. The results display a pattern similar to those obtained using

the MTurk contribution amount, highlighting that variations in perceived trustworthiness help explain actual funding outcomes. However, it is worth noting that the significance of the trustworthiness score diminishes.

There is possible that participants assess profiles based on additional (observable or unobservable) attributes associated with race and gender, akin to how trustworthiness influences funding decisions. To address this concern, we asked survey participants to rate the profile photos on other dimensions including attractiveness, confidence, competence, authoritativeness, and agreeableness. The results presented in Table 5 reveal that these attributes do not exhibit the same racial and gender biases as trustworthiness. For instance, despite being consistently perceived as more attractive, female fundraisers raised less money. Additionally, there are no noteworthy differences in the ratings of these qualities along the racial dimension. Importantly, as highlighted in Table 6, controlling for these factors in the mediation analysis does not eliminate the racial and gender gaps in financing, unlike the impact observed when controlling for trustworthiness ratings.

Overall, these results collectively indicate that perceived trustworthiness plays a unique and important role in driving the observed racial and gender biases in funding outcomes, even when real contributions are considered.

5. Moderators

In this section, we examine various factors that may enhance the perceived credibility of the campaign and thus attenuate the effect of the fundraiser's race and gender on funder choices. Specifically, we focus on two interventions that provide additional information about the fundraisers and two interventions that provide additional information about the campaign. Intuitively, the first set of interventions is designed to signal the quality of the fundraisers and thus enhance their perceived trustworthiness, while the second set of interventions is designed to signal

the value of the campaign and thus lessen the weight placed on the perceived trustworthiness of the fundraiser.

5.1. Professional Qualifications

The first intervention aims to examine the effect of providing information about doctors' qualifications on racial and gender biases. We focus on two types of qualifications as a signal of their quality and credibility: the medical schools they graduate from and their patient ratings. First, we varied the school affiliation of the profiled doctors, with some doctors graduating from Harvard Medical School (high affiliation), others from the UMKC (low affiliation), and the remaining doctors' medical schools were not provided. To examine the effects of adding professional qualification on racial biases, we regress indicated contribution amounts on indicators for nine groups of three types of profile race (white, African American, and Asian) interacted with three affiliation conditions (Harvard, UMKC, and no information). Figure 2 plots the 90% confidence intervals for the coefficients of these indicators.

Our results presented in Panel A show that when no information on the doctors' qualifications was provided, racial and gender gaps were significant. Adding low qualification moved Asian and Black profiles closer to their White counterparts, but the gaps remained statistically significant. Conversely, when doctors had a Harvard degree, the racial gap in contributions disappeared. This suggests that, unlike low qualification, high qualification has a moderating effect on racial biases. This result was driven primarily by heterogeneous impacts of the qualification across racial groups: funding levels of White profiles did not vary with qualifications, while high qualification significantly improved outcomes for Black and particularly Asian profiles. These results support the interpretation that, in the absence of qualifications, funders use race as a signal to assess the fundraiser's qualities. Qualifications, in turn, provide a stronger signal to funders, reducing the

weight they put on the fundraiser's race in funding assessments. We observe similar patterns, albeit to a lesser extent for low qualification, in campaign credibility ratings; see Panel B.

Along the gender dimension, we conduct a similar analysis in which we regress indicated contribution amounts on indicators for six groups of two profile genders interacted with three affiliation conditions and plot the 90% confidence intervals of the coefficients for these indicators in Figure 3. We observe a similar pattern to that of racial disparities: the introduction of affiliation information helped narrow the gender gaps in campaign ratings and contributions. However, these effects were less pronounced, likely because the original gender gaps were not as substantial. Figure B.1 in the Appendix presents the confidence intervals for the coefficients in 18 subgroups (3 race groups x 2 gender groups x 3 affiliation conditions), revealing that Black women and Asian women benefited the most from high affiliation information.

In the second treatment, the doctor in the profile photo was randomly assigned one of three patient ratings: 3.7, 4.3, or 4.9 out of five stars. Results indicate that patient ratings did not affect the perceived trustworthiness or funding outcomes, and they did not moderate racial and gender biases in the same way as professional qualification. This is probably because patient ratings reflect other aspects of the doctor's office, such as staff friendliness and scheduling convenience, in addition to the doctor's professional skills (Alsan et al., 2019; Chen and Lee, 2021; Chan, 2023).

Overall, these findings suggest that providing information about doctors' qualifications can potentially reduce racial and gender biases. However, it appears that only certain types of qualifications, such as those associated with high-ranking medical schools, are effective in this regard.

5.2. Campaign Update and Description

The experiment rotated two versions of the campaign description: detailed and general, with the detailed version expected to be perceived as more credible. The campaign updates were also omitted randomly half of the time. The two treatments were designed to signal the value of the campaign and thus reduce the weight placed on the fundraiser.

We find that posting updates significantly increased contributions while providing a more detailed description of the campaign had no such effect. Results in Table 7 indicate that having updates increased contributions by $34 on average, equivalent to 59% of the average contribution. Survey results also show that campaign updates were consistently and strongly associated with a higher level of perceived trustworthiness. Having updates raised the trustworthiness score by 0.82 points, increased the likelihood that a survey respondent's intention to contribute by 8.4%, and increased the indicated contribution amount by $11.6. These improvements are economically meaningful, given that the average trustworthiness score is 8.00, the likelihood of contribution is 86%, and the average indicated contribution amount is $120. More importantly, the results in columns (3) and (4) show that when the campaign provided updates on its progress, the racial and gender gaps significantly weakened. This finding suggests that updates on campaign progress mediate racial and gender biases. In contrast, we find that having a detailed description of the campaign did not significantly change the amount of funds raised or perceived trustworthiness, regardless of the outcome variables.

Information Salience vs. Information Content. We propose two possible explanations for the differential effects between updates and detailed descriptions. The first one lies in the difference in information salience between the two treatments. Updates are more salient for two reasons. They are in a separate and highly noticeable section on the GoFundMe cover page. They also tend to be significantly shorter and filled with photos; thus, they impose lower cognitive costs on

funders than the long textual campaign descriptions, which are more difficult to process. The other explanation concerns information content. As trust is established through a reputational mechanism of repeated interactions, demonstrating through the updates that the campaign consistently delivers on its promises enhances trust. While the detailed version of our campaign description also mentions the organization's achievements, by design it describes only pre-campaign achievements. The long description itself does not contain information on the campaign's activities after the launch; that is, it does not disclose what the campaign does with funders' contributions.

We conducted a follow-up survey to disentangle these two possible explanations. The survey was designed to control for information content while varying salience; that is, two versions of the campaign description were presented in environments in which information was more salient vs. less salient. More specifically, we presented a long text and then a short text of each version, focusing on only one informational difference. We picked two out of six specific differences between the detailed version and the general version (as presented in Appendix C.1.3), namely differences in media coverage (with links) and the discussion of achievements. Eventually, we randomly rotated four conditions: detailed media coverage, general (no) media coverage, detailed achievement, and general achievement, each of which has both long and short texts. Using two differences ensures that the results are not driven by a particular piece of information.

The results in Table B.4 in the Appendix show that when survey takers were presented with these key differences in the short text form, i.e., when salience was not a concern, they rated the detailed version as significantly more credible. However, the significance disappeared when the information difference was embedded in longer texts. In other words, while funders can correctly evaluate textual information, their ability is significantly limited when the information is not

salient. These findings suggest that the differential results between the update treatment and the campaign description treatment are driven mainly by salience.

The survey also aims to shed light on the significant effects of updates. We varied updates to either (i) have photos but no real informational content in the text or (ii) include informative updates in the text but not photos. The results show that even though the former had no real informational content, they still scored significantly higher than the latter on the trustworthiness scale. This suggests that funders highly value visual evidence of performance to convey trustworthiness. Overall, the results suggest that while information content is important for cultivating interpersonal trust, salience plays a crucial role in making information more accessible to funders. Providing information in a more salient format such as shorter, more concise text or visual evidence proves to be immensely effective.

6. Conclusion

In conclusion, this paper shows the existence and the role of racial and gender biases in crowdfunding using a natural field experiment on GoFundMe and a survey experiment on MTurk. Our experiments unveil racial and gender biases in funder decisions, favoring white and male fundraisers. Expanding prior literature in early-stage financing that has documented gender biases, our research provides direct evidence identifying the causal effects of racial and gender biases on financing decisions.

We further identified a new mechanism for the emergence of racial and gender biases in crowdfunding: the perceived trustworthiness of the fundraisers. Our study explored interventions to enhance the perceived trustworthiness of the fundraiser and the credibility of the campaign. Quality signals such as professional qualifications of the fundraiser and progress reports of the

campaign emerge help mitigate the effect of race and gender on the perceived trustworthiness and credibility and, consequently, funding success.

Acknowledging the effect of racial and gender biases on the perceived trustworthiness and the crucial role of trust in shaping financing decisions is informative for policy making. Implementing strategies that enhance the credibility of fundraising activities is an important step toward creating a more equitable and inclusive entrepreneurial landscape. Our study lays the foundation for future research and practical initiatives to address persistent disparities in early-stage financing and crowdfunding. In addition, our findings have implications on financing decisions in many markets (e.g., consumer credit) in which trust plays an important role.

Our approach is directly applicable to online fundraising, which has become increasingly important for charitable organizations. Our research also contributes to the broader literature using experimental methods and surveys to uncover key determinants of financing success, providing real-world evidence of the impact of racial and gender biases on actual funding outcomes.

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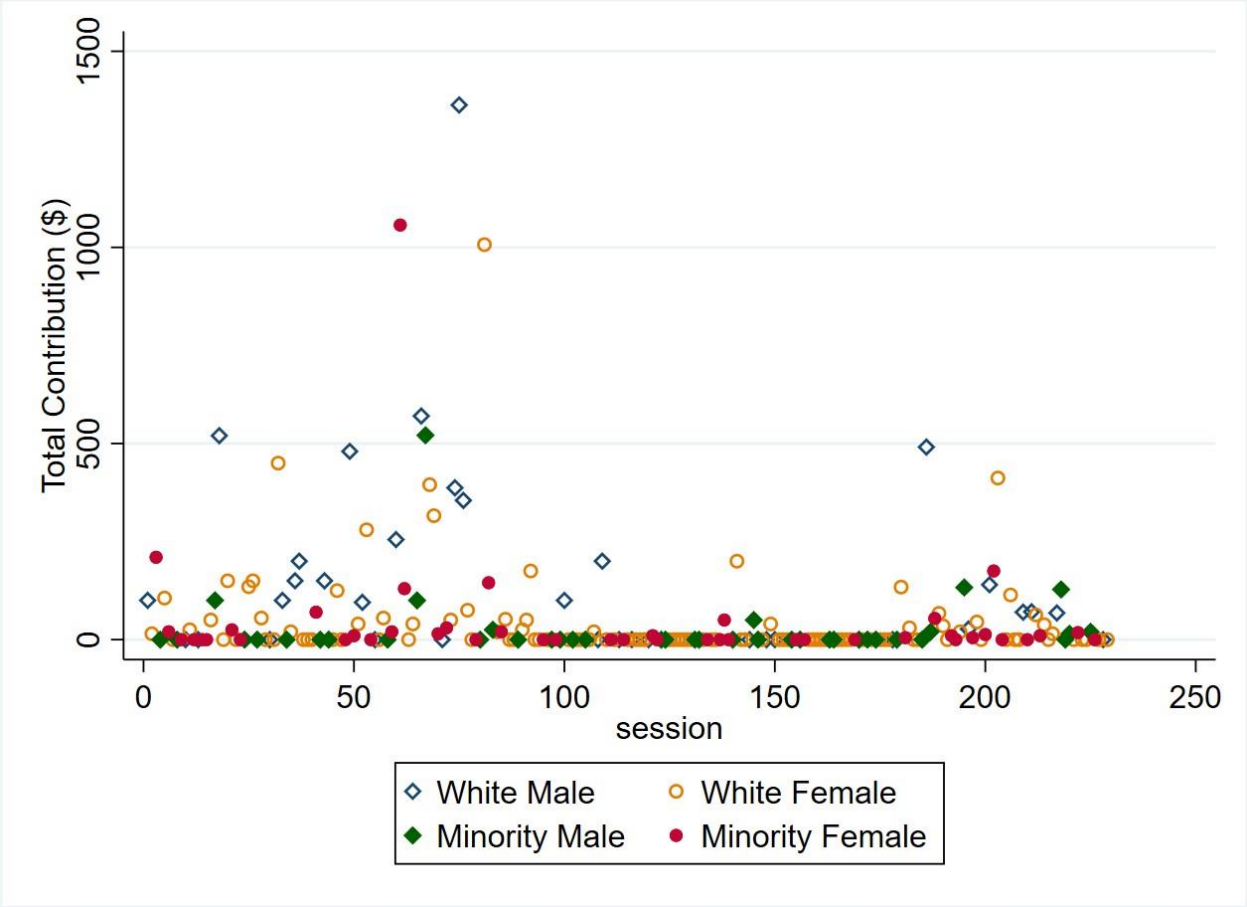
Figure 1 - Total Amount of Contributions Per Session

This figure plots the total amount of contributions for each session throughout the experiment. A session of random rotation is a block of three hours, starting from 12 AM. The experiment ran from April 16 to May 14, 2020, resulting in a total of 232 sessions.[15]

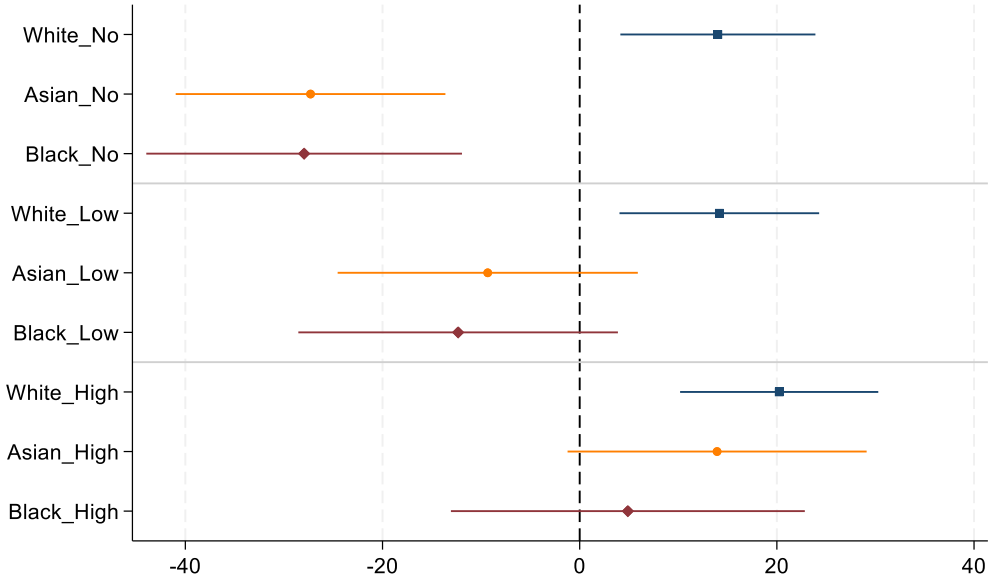


[15] The three observations with highest amounts were driven by high number of contributions (ranging from 10 to 15), rather than a few large contributions.

Figure 2 - Effects of Qualifications on Racial Gaps

This graph plots the 90% confidence intervals for the coefficients of the regression of the amount of contribution (in Panel A) or campaign trustworthiness ratings (in Panel B) specified by survey takers on the indicators for profile race and profile affiliation. The three race groups are White, Asian, and Black. The three affiliation assignments are no information on affiliation, low affiliation (the UMKC), and high affiliation (Harvard Medical School). The omitted group is the logo treatment.

Panel A: MTurk $ Contribution



Panel B: Campaign Trustworthiness Rating

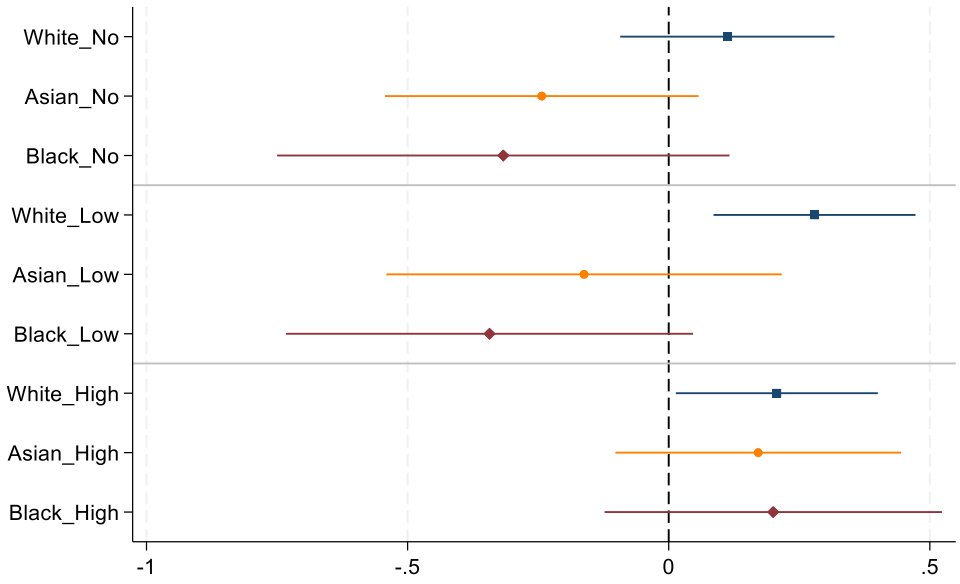
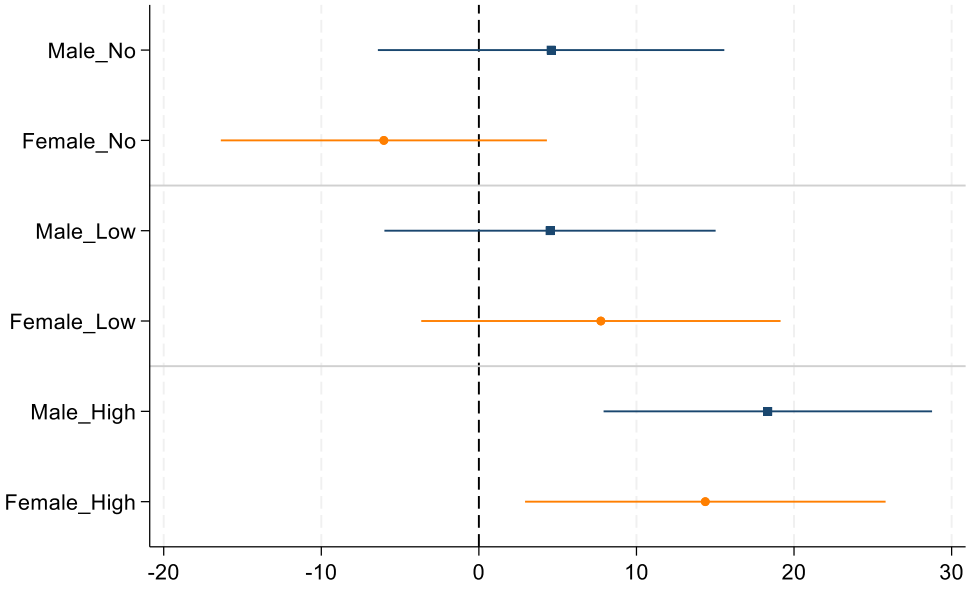


Figure 3 - Effects of Qualifications on Gender Gaps

This graph plots the 90% confidence intervals for the coefficients of the regression of the amount of contribution (in Panel A) or campaign trustworthiness ratings (in Panel B) specified by survey takers on the indicators for profile gender and profile affiliation. The two groups are Male and Female. The three affiliation assignments are no information on affiliation, low affiliation (the UMKC), and high affiliation (Harvard Medical School). The omitted group is the logo treatment.

Panel A: MTurk $ Contribution



Panel B: Campaign Trustworthiness Rating

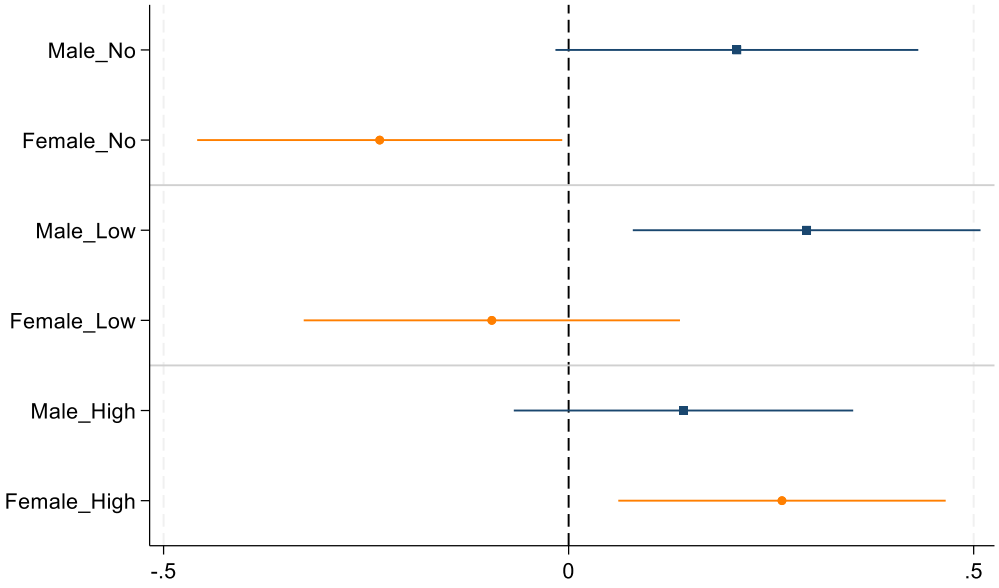


Table 1 – Summary Statistics

This table reports summary statistics for the sample. Panel A reports the characteristics of funders and the campaign pages for contributions on GoFundMe. We identify a funder's gender based on his or her first name using a frequency table from the Social Security Administration database. We identify a funder's race based on his or her last name using data from the 2000 and 2010 decennial US censuses. Panel B presents the characteristics of MTurk survey takers and the characteristics of the assigned campaign page. Please see Appendix A for definitions of variables.

Panel A – GoFundMe sample

	Mean	S.D.	*P*5	*P*50	*P*95
$ Contribution	58.4	79.1	5	25	200
Minority Profile	0.24	0.43	0	0	1
Female Profile	0.56	0.50	0	1	1
Detailed Description	0.77	0.42	0	1	1
Update	0.71	0.46	0	1	1
Minority Funder	0.57	0.50	0	1	1
Female Funder	0.75	0.44	0	1	1
Personally Connected	0.22	0.42	0	0	1
Same Both	0.26	0.44	0	0	1
Same Race, Different Gender	0.25	0.43	0	0	1
Same Gender, Different Race	0.27	0.44	0	0	1
N	225				

Panel B – MTurk sample

	Mean	S.D.	*P*5	*P*50	*P*95
Hypothetical Contribution Dummy	0.86	0.35	0	1	1
Hypothetical $ Contribution	120.17	69.21	20	135	200
Trustworthiness Score	8.00	1.67	5	8	10
Asian Profile	0.15	0.36	0	0	1
Black Profile	0.11	0.31	0	0	1
Female Profile	0.38	0.49	0	0	1
Logo Profile	0.25	0.43	0	0	1
Asian Respondent	0.05	0.21	0	0	0
Black Respondent	0.02	0.15	0	0	0
Other Race Respondent	0.05	0.26	0	0	1
Female Respondent	0.33	0.47	0	0	1
Respondent Age	35.66	9.56	26	33	57
Respondent Income	2.87	1.03	1	3	5
Respondent Education	3.01	0.85	1	3	4
Same Race	0.68	0.47	0	1	1
Same Gender	0.49	0.50	0	0	1
N	1,596				

Table 2 – Race and Gender Effects on Contributions

This table presents the relationship between the GFM contribution amount and the race and gender of the campaign profile. Panel A reports results at the session level. The dependent variables in columns (1) to (3) are the total amount of contributions per session, total number of contributions per session, and average amount of contributions per session (total amount of contributions/number of contributions) conditional on the session having at least one contribution, respectively. Panel B reports results at the funder level. *Minority Funder* is an indicator that takes a value of 1 if the funder is identified as a minority and 0 otherwise. *Female Funder* is an indicator that takes a value of 1 if the funder is identified as female and 0 otherwise. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Table 2 (continued)

Panel A – Session Level

Dependent variable =	*Total $ Contribution*	*Total # Contribution*	*Conditional on Contribution Average Amount*
	(1)	(2)	(3)
Minority Profile	-92.71***	-0.67**	-46.82***
	(-3.09)	(-2.51)	(-3.23)
Female Profile	-67.09*	-0.17	-57.50***
	(-1.72)	(-0.50)	(-3.07)
Time of the day FEs	Y	Y	Y
Stage FEs	Y	Y	Y
Dependent Variable Mean	165.2	1.0	60.02
Observations	232	232	92
R^2	0.20	0.27	0.31

Panel B – Funder Level

Dependent variable = $ Contribution			
	(1)	(2)	(3)
Minority Profile	-37.60***	-38.17***	-40.64***
	(-2.72)	(-2.94)	(-2.76)
Female Profile	-33.01*	-33.76*	-43.72*
	(-1.67)	(-1.73)	(-1.83)
Minority Funder		11.41	17.05
		(0.78)	(1.51)
Female Funder		-16.09	-18.05
		(-0.89)	(-0.91)
Same race and gender			24.69
			(0.84)
Same race, different gender			3.32
			(0.17)
Same gender, different race			12.30
			(0.55)
Time of the day FEs	Y	Y	Y
Stage FEs	Y	Y	Y
Dependent Variable Mean	58.4	58.4	58.4
Observations	225	225	225
R^2	0.05	0.06	0.07

Table 3 – Neutral Treatment as Benchmark

This table presents the relationship between the hypothetical contribution amount in the MTurk survey and the race and gender of the campaign profile. The omitted group is the logo treatment. *$ Contribution* in columns (1) and (2) takes a value of 0 in case the respondent indicates he/she would not contribute. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Dependent variable =	*$ Contribution*		*Contribution Dummy*		*Conditional $ Contribution*	
	(1)	(2)	(3)	(4)	(5)	(6)
White Profile	16.21***		-0.00		18.82***	
	(3.51)		(-0.08)		(4.06)	
Asian Profile	-4.39		-0.06**		2.11	
	(-0.72)		(-2.04)		(0.34)	
Black Profile	-7.89		-0.06*		-0.15	
	(-1.20)		(-1.81)		(-0.02)	
Male Profile		11.52**		-0.01		13.82***
		(2.43)		(-0.34)		(2.91)
Female Profile		5.49		-0.04*		12.16**
		(1.12)		(-1.77)		(2.47)
Asian Respondent	11.48	2.59	-0.03	-0.06	21.27**	13.52
	(1.09)	(0.26)	(-0.71)	(-1.48)	(2.23)	(1.46)
Black Respondent	-31.08**	-38.10***	-0.12	-0.14*	-17.73	-23.25
	(-2.30)	(-2.91)	(-1.50)	(-1.78)	(-0.95)	(-1.32)
Other Race Respondent	-7.84	-14.48	0.04	0.02	-13.22	-18.21**
	(-0.85)	(-1.62)	(1.21)	(0.64)	(-1.41)	(-2.01)
Female Respondent	-18.46***	-17.73***	-0.05**	-0.05**	-16.81***	-15.94***
	(-4.52)	(-4.29)	(-2.45)	(-2.35)	(-4.03)	(-3.79)
Respondent Age	-0.97***	-1.03***	-0.01***	-0.01***	-0.46**	-0.51**
	(-5.00)	(-5.28)	(-4.73)	(-4.91)	(-2.29)	(-2.51)
Respondent Education	-11.32***	-11.26***	-0.02*	-0.02*	-10.03***	-10.18***
	(-4.83)	(-4.73)	(-1.73)	(-1.70)	(-4.29)	(-4.33)
Respondent Income	5.38***	5.52***	0.03***	0.03***	2.68	2.90
	(2.82)	(2.86)	(2.86)	(2.93)	(1.36)	(1.46)
Mask campaign	1.20	1.15	-0.00	-0.00	1.56	1.75
	(0.32)	(0.30)	(-0.20)	(-0.25)	(0.41)	(0.46)
Attention Dummy	10.25**	9.79*	0.08***	0.08***	-1.98	-2.27
	(2.03)	(1.92)	(3.35)	(3.33)	(-0.38)	(-0.44)
Observations	1,503	1,503	1,596	1,596	1,276	1,276
R^2	0.08	0.06	0.05	0.05	0.06	0.05

Table 4 – Race and Gender Decomposition

This table decomposes the GFM Contribution amount and MTurk Trustworthiness Score by race and gender of funders or survey takers relative to the race (Panel A) and gender (Panel B) of the profile photo. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A – Race Breakdown

	White Profile (A)	Minority Profile (B)	Difference (A-B)
GFM $ Contribution			
White Funder	67	48	19***
Minority Funder	58	64	-6
MTurk Trustworthiness Score			
White Respondent	8.05	7.80	0.25**
Minority Respondent	7.24	7.36	-0.12

Panel B – Gender Breakdown

	Male Profile (A)	Female Profile (B)	Difference (A-B)
GFM $ Contribution			
Male Funder	83	52	31***
Female Funder	61	55	6
MTurk Trustworthiness Score			
Male Respondent	8.28	7.61	0.67***
Female Respondent	7.68	7.70	-0.02

Table 5 – Perceived trustworthiness and the racial and gender disparities

This table reports the regression results of perceived trustworthiness and other characteristics of the profile judged by MTurk survey takers on campaign profile race and gender. The characteristics are trustworthiness, confidence, attractiveness, competence, authoritativeness, and agreeability in columns (1) to (6), respectively. Column (7) regresses the trustworthiness score on the profile race and gender while controlling for all other characteristics. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Dependent variable =	*Trustworthy Score*	*Confident Score*	*Attractive Score*	*Competent Score*	*Authoritative Score*	*Agreeable Score*	*Trustworthy Score*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Asian Profile	-0.34**	0.02	-0.06	0.11	-0.26*	-0.06	-0.28***
	(-2.55)	(0.14)	(-0.43)	(0.96)	(-1.78)	(-0.45)	(-2.84)
Black Profile	-0.33**	-0.06	-0.08	-0.10	0.04	-0.14	-0.27***
	(-2.27)	(-0.39)	(-0.52)	(-0.71)	(0.26)	(-1.02)	(-3.09)
Female Profile	-0.18*	0.19*	0.29***	0.21**	0.15	0.19**	-0.35***
	(-1.83)	(1.90)	(2.75)	(2.18)	(1.38)	(1.97)	(-5.40)
Confident							0.09**
							(2.38)
Attractive							0.22***
							(6.91)
Competent							0.17***
							(4.79)
Authoritative							0.19***
							(5.54)
Agreeable							0.18***
							(4.94)
Profile Age	0.06	0.07	-0.07	0.05	-0.01	0.03	0.06
	(1.29)	(1.33)	(-1.27)	(1.06)	(-0.25)	(0.58)	(1.29)
Profile Affiliation	-0.10	-0.08	-0.11	-0.01	-0.04	-0.08	-0.10
	(-1.16)	(-0.97)	(-1.28)	(-0.09)	(-0.49)	(-0.98)	(-1.16)
Professional Rating	0.03	0.04	0.06	-0.01	0.04	0.08	0.03
	(0.47)	(0.67)	(1.01)	(-0.25)	(0.69)	(1.43)	(0.47)
Controls	Y	Y	Y	Y	Y	Y	Y
Observations	1,202	1,202	1,202	1,202	1,202	1,202	1,202
R^2	0.05	0.05	0.03	0.05	0.05	0.04	0.57

Table 6 – Mediation Analysis of Perceived Trustworthiness

This table reports the regression results of the contribution amount on profile race and gender controlling for the profile's perceived trustworthiness, confidence, attractiveness, competence, authoritativeness, and agreeability in columns (1) to (6), respectively. In Panel A, the dependent variable is the hypothetical contribution amount indicated by survey takers on MTurk. Other control variables include respondent age, education, income, race and gender, profile age, a dummy for the mask campaign, and a dummy for attention. In Panel B, the dependent variable is the GoFundMe contribution amount. Other control variables include funder race, funder gender, same race dummy, and same gender dummy. Please see Appendix A for definitions of variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Panel A – MTurk Sample

Dependent variable = MTurk $ Contribution						
	Trustworthy Score	Confident Score	Attractive Score	Competent Score	Authoritative Score	Agreeable Score
	(1)	(2)	(3)	(4)	(5)	(6)
Characteristics	4.21***	0.01	-1.85	-1.31	3.41**	-0.56
Score	(2.96)	(0.01)	(-1.23)	(-0.90)	(2.38)	(-0.40)
Asian Profile	-6.98	-10.72*	-16.57***	-17.44***	-16.72***	-16.66***
	(-0.87)	(-1.83)	(-2.82)	(-2.78)	(-2.87)	(-2.82)
Black Profile	-9.28	-11.73*	-19.01***	-18.76***	-19.11***	-18.74***
	(-1.00)	(-1.93)	(-3.00)	(-2.94)	(-3.00)	(-2.93)
Female Profile	-3.24	-2.96	-4.20	-2.71	-3.52	-2.86
	(-0.70)	(-0.64)	(-0.91)	(-0.59)	(-0.76)	(-0.62)
Controls	Y	Y	Y	Y	Y	Y
Observations	1,202	1,202	1,202	1,202	1,202	1,202
R^2	0.05	0.05	0.06	0.05	0.06	0.05

Panel B – GFM Sample

Dependent variable = GFM $ Contribution						
	Trustworthy Score	Confident Score	Attractive Score	Competent Score	Authoritative Score	Agreeable Score
	(1)	(2)	(3)	(4)	(5)	(6)
Characteristics	43.13	-18.97	51.54	-24.19	-16.82	-63.19
Score	(0.93)	(-0.93)	(0.93)	(-0.93)	(-0.93)	(-0.93)
Minority Profile	13.93	-24.20**	-46.03*	-21.99*	-37.50***	93.59
	(0.49)	(-2.06)	(-1.72)	(-1.68)	(-2.81)	(0.70)
Female Profile	12.11	0.65	-30.96**	13.03	-0.56	22.37
	(0.50)	(0.02)	(-2.05)	(0.29)	(-0.02)	(0.41)
Controls	Y	Y	Y	Y	Y	Y
Time of the day FEs	Y	Y	Y	Y	Y	Y
Stage FEs	Y	Y	Y	Y	Y	Y
Observations	225	225	225	225	225	225
R^2	0.07	0.07	0.07	0.07	0.07	0.07

Table 7 – Campaign Updates and Descriptions

This table presents the effects of campaign updates and a detailed description on campaign outcomes. Columns (1) and (2) show the effects on contribution amounts. Columns (3) and (4) analyze the racial and gender disparities when there are campaign updates. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Dependent variable = GFM $ Contribution				
	Overall Sample		With Updates	
	(1)	(2)	(3)	(4)
Detailed Description	-10.01	-10.50		
	(-0.58)	(-0.59)		
Update	33.96**	34.88**		
	(2.02)	(2.20)		
Minority Profile			-29.35	-22.25
			(-1.57)	(-1.15)
Female Profile			-43.34	-61.97
			(-1.37)	(-1.45)
Minority Funder	4.97	2.51	14.18	3.06
	(0.32)	(0.19)	(0.63)	(0.18)
Female Funder	-18.71	-17.86	-27.10	-36.10
	(-1.05)	(-0.91)	(-1.06)	(-1.01)
Same race and gender		-8.43		17.17
		(-0.34)		(0.37)
Same race, different gender		-3.41		-13.60
		(-0.18)		(-0.40)
Same gender, different race		-2.56		34.36
		(-0.11)		(0.82)
Controls	Y	Y	Y	Y
Time of the Day FE	Y	Y	Y	Y
Stage FE	Y	Y	Y	Y
Dependent Variable Mean	58.4	58.4	58.4	58.4
N	225	225	159	159
R^2	0.04	0.04	0.08	0.09

Appendix A – Variable Definition

Variable	Definition
GoFundMe Sample	
Session $ Contribution	The total amount of contributions in a session with a randomly selected version of the GoFundMe page.
Session # Contribution	The total number of contributions in a session with a randomly selected version of the GoFundMe page.
Conditional Average $ Contribution	The average amount of contribution in a session with at least one contribution.
$ Contribution	The contribution amount by a funder who is randomly shown a version of the GoFundMe page.
Minority Profile	An indicator that takes a value of 1 if the campaign profile photo is non-white and 0 otherwise.
White Score	A campaign profile photo's average score of how white the person in the photo looks, rated on a scale from 0 to 10 by participants in the follow-up survey.
Female Profile	An indicator that takes a value of 1 if the campaign profile photo is female and 0 otherwise.
White Funder	An indicator that takes a value of 1 if the funder is classified as white based on their last name, using a probabilistic mapping from the decennial US censuses, and 0 otherwise.
Male Funder	An indicator that takes a value of 1 if the funder is classified as male based on their first name, using a frequency table from the Social Security Administration (SSA) database, and 0 otherwise.
Same Gender	An indicator that takes a value of 1 if the campaign profile and the funder share the same gender (both male or both female) and 0 otherwise.
Same Race	An indicator that takes a value of 1 if the campaign profile and the funder share the same race (both white or both minority) and 0 otherwise.
Detailed Description	An indicator that takes a value of 1 if the campaign description is the detailed version and 0 if it is the general version.
Update	An indicator that takes a value of 1 if the campaign page on GoFundMe shows updates and 0 if it does not show any updates.
MTurk Sample	
Hypothetical Contribution Dummy	An indicator that takes a value of 1 if a respondent indicates that they would be willing to contribute to the campaign page version shown to them; and 0 otherwise.
Hypothetical $ Contribution	The amount of money a respondent would be willing to contribute to the campaign page version shown to them.
Trustworthy Score	The trustworthiness score rated by a respondent of the campaign profile shown to them.
Confident Score	The confidence score rated by a respondent of the campaign profile shown to them.
Attractive Score	The attractiveness score rated by a respondent of the campaign profile shown to them.
Competent Score	The competence score rated by a respondent of the campaign profile shown to them.

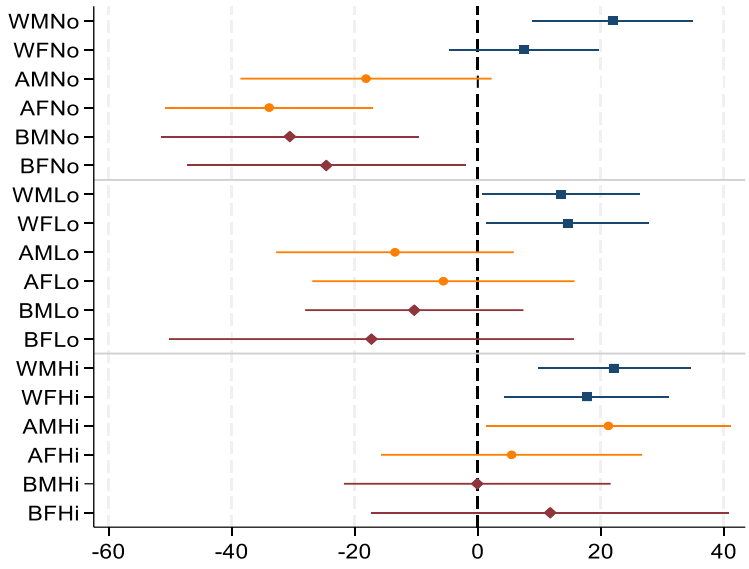
Authoritative Score	The authoritative score rated by a respondent of the campaign profile shown to them.
Agreeable Score	The agreeable score rated by a respondent of the campaign profile shown to them.
White Profile	An indicator that takes a value of 1 if the campaign profile is non-Hispanic White and 0 otherwise.
Black Profile	An indicator that takes a value of 1 if the campaign profile is Black or African American and 0 otherwise.
Asian Profile	An indicator that takes a value of 1 if the campaign profile is Asian and 0 otherwise.
Female Profile	An indicator that takes a value of 1 if the campaign profile is female and 0 otherwise.
Male Profile	An indicator that takes a value of 1 if the campaign profile is male and 0 otherwise.
Profile Age	Respondent's perception of the age of the person in the profile photo.
Profile Affiliation	A nominal variable that equals 1 if the profile is not given any information on affiliation, 2 if the profile is shown with low affiliation (the UMKC); and 3 if the profile is shown with high affiliation (Harvard University)
Profile Professional Rating	A nominal variable that equals 1 if the profile is not given any information on rating, 2 if the profile is shown with a low rating (3.7); 3 if the profile is shown with a medium rating (4.3); and 4 if the profile is shown with a high rating (4.9)
Black Respondent	An indicator that equals 1 if the respondent is Black or African American and 0 otherwise.
Asian Respondent	An indicator that equals 1 if the funder is Asian and 0 otherwise.
Other Minority Respondent	An indicator that equals 1 if the funder is a minority other than Black and Asian and 0 otherwise.
Male Respondent	An indicator that equals 1 if the funder is male and 0 otherwise
Respondent Age	Age of the respondent.
Respondent Income	Income range of the respondent: 1 - Less than $30,000; 2 - $30,000 to $50,000; 3 - $50,000 to $70,000; 4 - $70,000 to $100,000; 5 - More than $100,000.
Respondent Education	Education level of the respondent: 1 - High school graduate or less; 2 - Some college but no degree; 3 – Associate degree; 4 - Bachelor's degree; 5 - Master's degree or higher.
Same Gender	An indicator that takes a value of 1 if the campaign profile and the respondent share the same gender (both men or both women) and 0 otherwise.
Same Race	An indicator that takes a value of 1 if the campaign profile and the respondent share the same race (both white or both minority) and 0 otherwise.
Mask Campaign	An indicator that takes a value of 1 if the respondent was shown the mask campaign and 0 if the respondent was shown the cancer campaign.
Attention dummy	An indicator that takes a value of 1 if the respondent answers correctly the attention-checking question (Question #9) in the survey.

Appendix B – Supplementary Figures and Tables

Figure B.1 – The effects of qualifications on racial and gender gaps

This graph plots the 90% confidence intervals for the coefficients of the regression of the amount of contribution (in Panel A) or campaign trustworthiness ratings (in Panel B) specified by survey takers on the indicators for profile race, gender, and affiliation. The three race groups are White, Asian, and Black. The two gender groups are Male and Female. The three affiliation assignments are No Information on Affiliation, Low Affiliation (the UMKC), and High Affiliation (Harvard Medical School). The omitted group is the logo treatment.

Panel A – MTurk $ Contribution



Panel B – Campaign Trustworthiness Rating

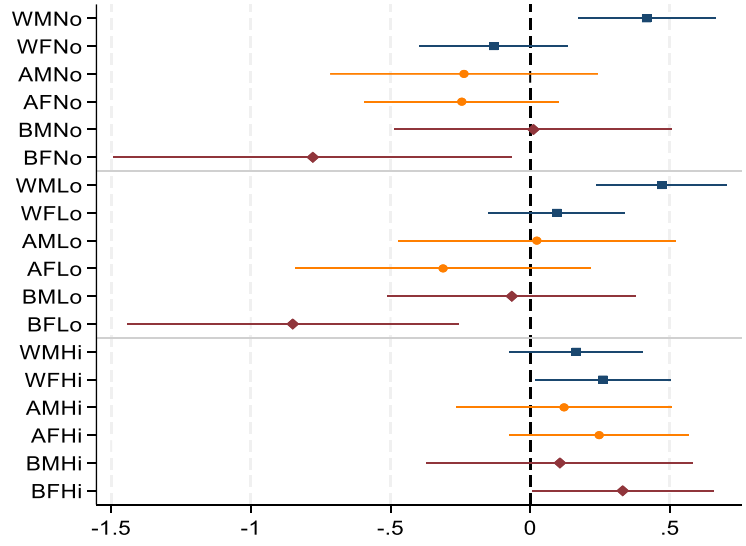


Table B.1 – Race and Gender Effects on Contributions Using White Score

This table presents the relationship between the GFM contribution amount and the race and gender of the campaign profile. *White Score* is the average rating given by survey participants to assess the perceived whiteness of profile photos. Ratings are provided on a scale ranging from 0 to 10. *Female Profile* is a dummy that equals 1 if the profile shown is female and 0 otherwise. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Dependent variable = $ Contribution			
	(1)	(2)	(3)
White Score	7.87**	7.99***	8.29***
	(2.51)	(2.70)	(2.61)
Female Profile	-20.21	-20.82	-29.97
	(-1.12)	(-1.15)	(-1.43)
Minority Funder		11.78	16.74
		(0.81)	(1.50)
Female Funder		-15.80	-17.79
		(-0.88)	(-0.90)
Same gender			23.30
			(0.80)
Same race, different gender			3.57
			(0.19)
Same gender, different race			13.27
			(0.59)
Time of the day FEs	Y	Y	Y
Stage FEs	Y	Y	Y
Dependent Variable Mean	58.4	58.4	58.4
Observations	225	225	225
R^2	0.06	0.06	0.07

Table B.2 - Neutral Treatment and Race-Gender Subgroups

This table presents the relationship between the hypothetical contribution amount in the MTurk survey and the race and gender of the campaign profile. The omitted group is the logo treatment. *$ Contribution* in columns (1) and (2) takes a value of 0 in case the respondent indicates he/she would not contribute. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Dependent Variable =	*$ Contribution*	*Contribution Dummy*	*Conditional $ Contribution*
	(1)	(2)	(3)
White Male Profile	17.70***	0.01	20.31***
	(3.25)	(0.37)	(3.79)
White Female Profile	12.46**	-0.01	16.30***
	(2.29)	(-0.48)	(2.99)
Asian Male Profile	-11.12	-0.14***	3.65
	(-1.47)	(-3.31)	(0.47)
Asian Female Profile	-1.93	0.03	-5.63
	(-0.24)	(0.89)	(-0.70)
Black Male Profile	-13.73*	-0.10**	-1.01
	(-1.81)	(-2.12)	(-0.14)
Black Female Profile	-6.69	-0.01	-5.27
	(-0.64)	(-0.28)	(-0.49)
Asian Respondent	10.55	-0.03	20.42**
	(0.99)	(-0.73)	(2.09)
Black Respondent	-30.38**	-0.12	-16.06
	(-2.24)	(-1.51)	(-0.84)
Other minority	-11.94	0.04	-18.79**
	(-1.31)	(1.17)	(-2.04)
Female Respondent	18.37***	0.05**	16.54***
	(4.45)	(2.46)	(3.94)
Respondent Age	-0.97***	-0.00***	-0.44**
	(-4.95)	(-4.62)	(-2.21)
Respondent Education	-11.64***	-0.02*	-10.11***
	(-4.91)	(-1.88)	(-4.29)
Respondent Income	5.46***	0.03***	2.86
	(2.84)	(2.87)	(1.45)
Mask campaign	1.00	-0.00	1.20
	(0.26)	(-0.15)	(0.31)
Attention Dummy	11.90**	0.08***	0.68
	(2.34)	(3.29)	(0.13)
Observations	1,520	1,596	1,293
R^2	0.08	0.06	0.06

Table B.3 – Perceived Trustworthiness and Racial and Gender Disparities

This table reports the regression results of perceived trustworthiness and other characteristics of the profile judged by MTurk survey takers on the profile's race-gender combination. The omitted group is White Man. The characteristics are trustworthiness, confidence, attractiveness, competence, authoritativeness, and agreeability in columns (1) to (6), respectively. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Dependent variable =	*Trustworthy Score*	*Confident Score*	*Attractive Score*	*Competent Score*	*Authoritative Score*	*Agreeable Score*
	(1)	(2)	(3)	(4)	(5)	(6)
White Woman	-0.16	0.16	0.26**	0.24**	0.14	0.22*
	(0.12)	(0.12)	(0.13)	(0.12)	(0.13)	(0.12)
Asian Man	-0.40**	0.19	0.35**	0.31**	-0.01	0.15
	(0.16)	(0.16)	(0.17)	(0.15)	(0.18)	(0.16)
Asian Woman	-0.45**	-0.00	-0.23	0.17	-0.39*	-0.05
	(0.20)	(0.19)	(0.22)	(0.18)	(0.23)	(0.21)
Black Man	-0.18	-0.12	-0.00	-0.06	0.15	-0.07
	(0.18)	(0.18)	(0.19)	(0.18)	(0.19)	(0.18)
Black Woman	-0.74***	0.21	0.04	0.08	-0.00	-0.03
	(0.24)	(0.23)	(0.25)	(0.22)	(0.26)	(0.22)
Controls	Y	Y	Y	Y	Y	Y
Observations	1202	1202	1202	1202	1202	1202
R^2	0.04	0.04	0.03	0.03	0.04	0.03

Table B.4 – Follow-up Survey on Campaign Characteristics

This table reports regression results from the follow-up survey on different variations in campaign characteristics. Panel A reports results about the campaign description in Part 1 of the survey. Panel B reports results about profile photos in Part 2 of the survey. Panel C reports results about campaign updates in Part 3 of the survey. Please see Appendix A for definitions of other variables. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Parenthetical values are *t*-statistics with robust standard errors.

Panel A – Campaign Description

A.1. Summary Statistics

		Trustworthiness Score	
Condition	Frequency	Short Text	Long Text
Detailed Media Coverage	121	8.37	8.73
General No Media Coverage	154	7.80	8.45
Detailed Achievement	133	8.03	8.45
General Achievement	141	7.68	8.32
Total	549		

A.2. Regression Results

Dependent variable = Trustworthiness Score		
	Short Text	Long Text
	(1)	(2)
Detailed Description	0.46***	0.20
	(2.73)	(1.61)
Information type=Media	-0.22	-0.20
	(-1.29)	(-1.61)
Observations	549	549
R^2	0.02	0.01

Panel B – Updates

B.1. Summary Statistics

Condition	Frequency	Trustworthiness Score
Control (with text and photo)	198	8.84
No Textual Information Treatment	173	8.46
No Photo Treatment	178	8.20
Total	549	

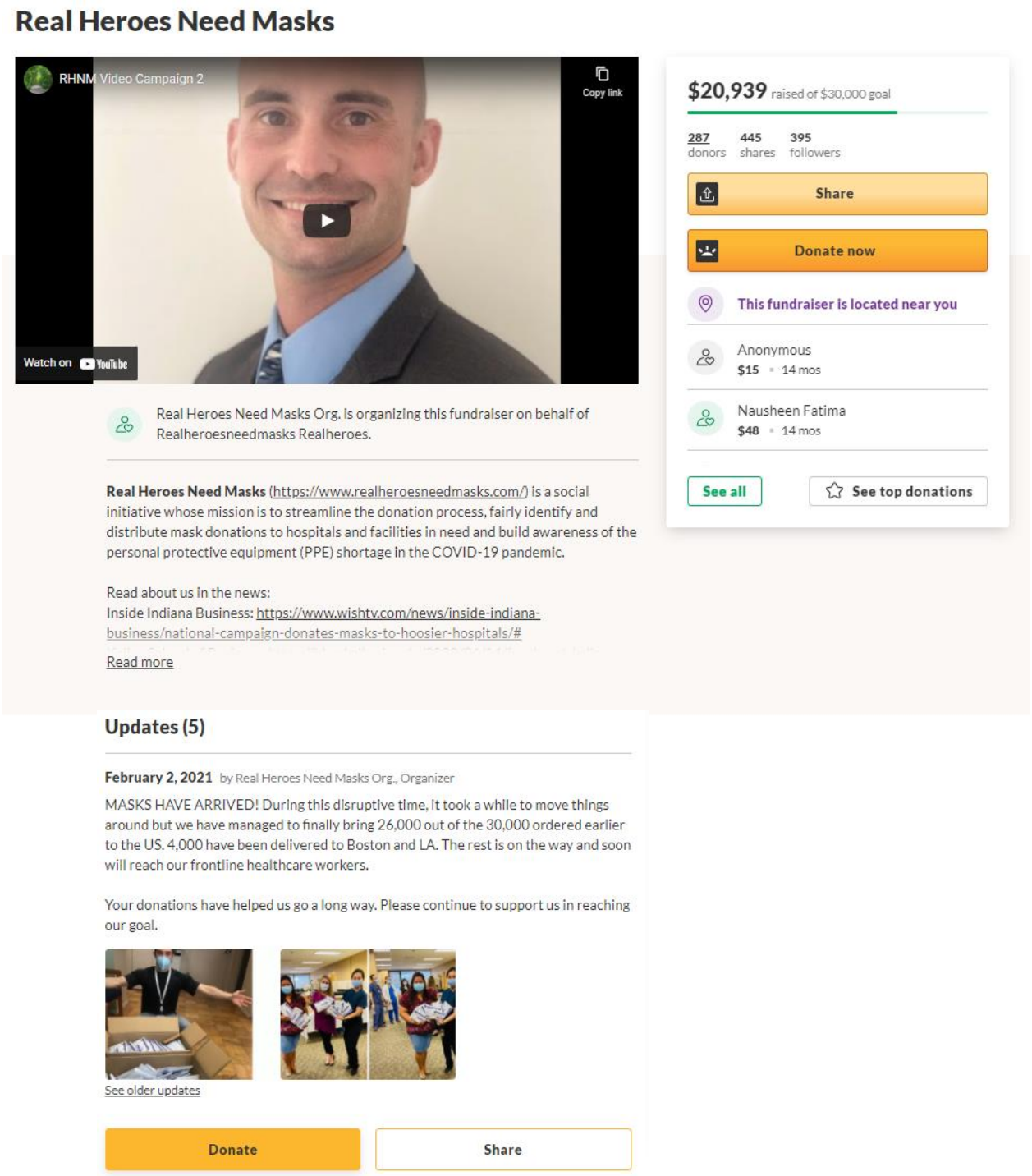
B.2. Regression Results

Dependent variable = Trustworthiness Score			
	(1)	(2)	(3)
No Textual Information Treatment – Control	-0.38***		
	(-3.21)		
No Photos Treatment – Control		-0.65***	
		(-4.73)	
No Photo Treatment – No Textual Information Treatment			-0.26*
			(-1.74)
Observations	381	386	331
R^2	0.02	0.06	0.01

Appendix C – Experimental Documentation

C.1. The GoFundMe experiment

C.1.1. The GoFundMe page



C.1.2. Profile photos

White Man

Minority Man

White Woman

Minority Woman

C.1.3. The campaign description

The detailed version

MASKS DONATED: 33,000+ to 33 facilities.

_____

Real Heroes Need Masks (https://www.realheroesneedmasks.com/) is a social initiative whose mission is to **streamline** the donation process, identify and distribute mask donations fairly to hospitals and facilities with the **most urgent need** and build awareness of the personal protective equipment (PPE) shortage in the COVID-19 pandemic.

Read about us on the news:

Inside Indiana Business https://www.wishtv.com/news/inside-indiana-business/national-campaign-donates-masks-to-hoosier-hospitals/#

https://blog.kelley.iu.edu/2020/04/14/faculty-at-kelley-offer-their-innovative-and-entrepreneurial-expertise-to-fighting-covid-19/

Our Story

We formed out of a weekend accelerator 10 days ago on March 20, 2020, with faculty, students and professionals affiliated with the Kelley School of Business at Indiana University. Our co-founders Dr. Amani Jambhekar and Dr. Mona Stone are surgeons who wanted to find a way to give back to communities in need.

Healthcare professionals are being asked to reuse and conserve PPE although this increases their risk of contracting COVID-19 or infecting their families. More than 9000 medical workers have been infected with COVID-19 while caring for us. Over 200 healthcare professionals have lost their lives worldwide due to inadequate protection. (https://n.pr/2yO8h55)

The situation is even direr for smaller facilities in hard-hit areas that do not have the resources or media presence to ask the public for donations. As a solution to this supply gap, our model is to leverage our network to source surgical masks from certified factories and deliver them directly to the communities with the most urgent need.

It is our responsibility to protect our doctors, our heroes, by providing them with PPE. We started this fundraising campaign to help fund the operation and are pledging 100% of our GoFundMe donations to purchase and deliver masks.

Why our team?

We are a team of physicians, professors, professionals and students across different fields. Our unique diversity in backgrounds and skill sets enable us to:

- **Focus on targeted distribution.** We have a network of volunteer physician coordinators that help connect to hospitals and facilities that are in the most urgent need in their local areas.
- **Secure reliable supply source.** With the help of Indiana University students, we have developed direct and reliable relationships with FDA-verified manufacturers to source our masks. Because of the global shortage of masks & PPE, donating to an academic social venture is the best way to ensure counterfeit products aren't being donated to hospital workers.
- **Accomplish what we promise.** We have been able to donate **21,600** masks to 32 hospitals and clinics in the states of Louisiana, New York, New Jersey, Georgia, Indiana, Texas, and California. For more details, please see here: https://www.realheroesneedmasks.com/donate

Our Campaign Goal

Our goal going forward is to acquire, distribute, and deliver FIFTY THOUSAND (50,000) surgical masks to those most in need!

We anticipate the cost of surgical masks to continue rising in the foreseeable future and budget on average $0.6/mask. Your donations will go a long way.

If we surpass our goal, we will keep acquiring additional PPE for frontline healthcare workers until every last penny is spent.

Join us today to help protect our medical workers! Please leave a comment for us to get to know you. Your comments will encourage others to act for the cause. Share with us

- Where you're from

- Where did you hear about us (1 – IU Affiliation, 2 – Physician network, 3 – Friend and Family -connections, 4 – GoFundMe, 5 – Social Media (Fb, Twitter, Ig).

Use our hashtag #realheroesneedmasks and share about us on social media. We are in this together!

Our Commitment

We are committed to being fully transparent with our process. We also strive to tackle this problem in a holistic manner, making sure that masks are distributed fairly.

We will be sharing photos & videos of healthcare workers receiving the donated equipment, so you can see the impact of your donation on the local communities. Please **follow us at**

Website: realheroesneedmasks.com
Twitter: @RealHeroesMasks
Instagram: @RealHeroesNeedMasks
Facebook: @Real Heroes Need Masks
Hashtag: #RealHeroesNeedMasks

For any other inquiries: realheroesneedmasks@gmail.com.

Our Team
Dr. Amani Jambhekar: Founder and Chief Executive Officer. Dr. Jambhekar is a surgical oncologist in Houston, Texas. She is in her final term of obtaining her MBA from the Kelley School of Business.

Dr. Mona Stone: Chief Marketing Officer. Dr. Stone is an oral maxillofacial surgeon in Dallas, Texas.

Logan Wilhelm: Chief Research Officer. He is an 8-year military veteran and is currently in his last year of obtaining his MBA through the Kelley School of Business.

Jun Yang: Chief Operations Officer. She is an Associate Professor of Finance at IU Kelley School of Business. She has expertise in FinTech and corporate governance, as well as direct relationships with reliable mask suppliers.

Dr. Nath Chongsuwat: Outreach Coordinator. He is an internal medicine physician in Chicago, Illinois.

Larecha Wynn: Chief of Staff. She is a finance systems implementation specialist in Indianapolis, Indiana.

Ha Diep-Nguyen: Campaign Manager. She is an Assistant Professor of Finance at Purdue University and an IU graduate.

AJ Raymond: Web Developer. He is a developer and a freelance worker in Bloomington, IN

Wei Wang: Campaign Coordinator. He is a doctoral student in finance at Kelley School of Business, Indiana University.

Vy Mai: Twitter Producer. She is a senior at Juniata College studying Human Development and Health Communication and will be graduating in May.

Samantha Hong: Twitter Producer. She is a rising senior at Juniata College, studying a mixture of Biology and Sociology. She is hoping to pursue a career in Public Health and Health Advocacy.

Nicole Zhao: Facebook Producer. She is an undergraduate senior at Stony Brook University in New York. She will obtain her BS in interdisciplinary biology in May 2020.

Elika Moallem: Instagram Producer. She is an undergraduate senior at William Paterson University studying Biology.

For more details on all our members, please visit here https://www.realheroesneedmasks.com/team

FAQ

How will the funds be used?

100% of the funds will go directly to facilitating the purchase and delivery of masks. Our entire team is donating their time and have foregone compensation for their work. No one on the Real Heroes Need Masks team is compensated or benefiting financially in any way from this campaign.

I've seen other charity efforts related to COVID-19. How is this one different?

Unlike other charities, your donation with our campaign will go directly to support the acquisition of masks from FDA-verified manufacturers for the underserved communities in need. We are also related directly to the supply of PPE from certified factories because we believe that is the best way to ensure counterfeit products aren't being donated to hospital workers.

What have you accomplished so far?

(1) We've identified and successfully distributed mask donations from FDA approved factories who can produce surgical masks. We've also identified supply partners who can source other PPE items, including FDA-cleared N95 masks as well as NOISH-approved N95 and equivalent KN95 masks.

(2) We have established a network of connections to local communities. Our state and city volunteer coordinators are in contact with other frontline healthcare professionals at every hospital in their area to understand their immediate needs.

(3) We have already begun distributing surgical masks and plan on working with supply partners to scale those purchases in the coming weeks. We have already donated 21,600 masks to 32 individual hospitals and clinics in the states of Louisiana, New York, New Jersey, Georgia, Indiana, Texas, and California. We are constantly putting the money we raise to work.

Why aren't the hospitals & government ordering these masks directly?

Hospitals, as well as government agencies, are trying their best to procure masks. However, due to supply chain limitations and global competition, they are currently experiencing extreme shortages. We are fortunate to have close relationships with many of the factories producing masks.

To read more on what governments are doing: https://www.forbes.com/sites/mattperez/2020/03/19/president-trump-on-supplying-governors-were-not-a-shipping-clerk/#1e7875581af5

To read more about the mask feeding frenzy: https://www.forbes.com/sites/daviddisalvo/2020/03/30/i-spent-a-day-in-the-coronavirus-driven-feeding-frenzy-of-n95-mask-sellers-and-buyers-and-this-is-what-i-learned/

Are donations tax-deductible?

Currently, donations are not tax-deductible. If you know of a 501(c)3 charity in this space that would like to sponsor our effort, we would love to partner with them. Until then, we have realized that the need is so urgent that we must move forward and hope that you will donate. This is subject to change, and we will be sure to update funders promptly.

I am a healthcare professional at a hospital that is currently treating COVID-19 patients. We are short on masks. How do we request masks?

We do not take direct requests for masks on our website because we have many partner organizations that already do a fantastic job taking individual hospital requests. Please visit our website to see a list of our partners. Our goal is to ship masks to our city coordinators and have the coordinators distribute throughout the city to make sure masks are delivered to hospitals that do not have the time or resources to get online and ask.

Aside from donations, how can we help?

1. If you have masks to donate and want to be connected to those in need, you can fill out this form: www.realheroesneedmasks.com/donatemasks
2. We are actively recruiting! If you have public relations or nonprofit experience, we can use your expertise! Please email us at realheroesneedmasks@gmail.com.
3. Finally, use our hashtag #realheroesneedmasks and share about us on social media. Also leave a comment for us to get to know you. Your comments will encourage others to act for the cause. Share with us
   - Where you're from
   - Where did you hear about us (1 – IU Affiliation, 2 – Physician network, 3 – Friend and Family connections, 4 – GoFundMe, 5 – Social Media (e.g., Facebook, Twitter, Instagram). We are in this together!

The General version

Real Heroes Need Masks (https://www.realheroesneedmasks.com/) is a social initiative whose mission is to streamline the donation process, identify and distribute mask donations fairly to hospitals and facilities in need and build awareness of the personal protective equipment (PPE) shortage in the COVID-19 pandemic,

Our Story

We formed out of a weekend accelerator 2 weeks ago. Our co-founders are surgeons who wanted to find a way to give back to communities in need.

Healthcare professionals are being asked to reuse and conserve although this increases their risk of contracting COVID-19 or infecting their families. Many have fallen ill or been put in self-quarantine. Front line medical professionals need our help to continue their fight to save lives.

It is our responsibility to protect our doctors, our heroes, by providing them with PPE. We started this fundraising campaign to help fund the operation and are pledging 100% of our GoFundMe donations to purchase and deliver masks.

Why our team

We are a team of physicians, professors, professionals and students across different fields. Our unique diversity in backgrounds and skill sets enable us to:

- **Focus on targeted distribution.** We have a network of local volunteer coordinators that help connect to hospitals and facilities that are in the most urgent need in their areas.
- **Secure reliable supply sources.** With the help of our connections, we have developed direct and reliable relationships with verified manufacturers to source our masks.
- **Accomplish what we promise.** We have been able to donate tens of thousands of masks to hospitals and clinics in several states across the US. For more details, please see here: https://www.realheroesneedmasks.com/donate

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- Where you're from

- Where did you hear about us (1 – Facebook, 2 – Twitter, 3 – Instagram, 4 – Google, 5 – IU Affiliation, 6 – Physician network, 7 – Other).

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We are committed to being fully transparent with our process. We also strive to tackle this problem in a holistic manner, making sure that masks are distributed fairly.

For stories & photos of how your donations helped, please **follow us at**

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2. We are actively recruiting! If you have public relations or nonprofit experience, we can use your expertise! Please email us at realheroesneedmasks@gmail.com.
3. Finally, please leave a comment for us to get to know you. Your comments will encourage others to act for the cause. Share with us

   - Where you're from

- Where did you hear about us (1 – IU Affiliation, 2 – Physician network, 3 – Friend and Family connections, 4 – GoFundMe, 5 – Social Media (e.g., Facebook, Twitter, Instagram).

Differences between two versions

Detailed version	General version
Read about us on the news: Inside Indiana Business https://www.wishtv.com/news/inside-indiana-business/national-campaign-donates-masks-to-hoosier-hospitals/# https://blog.kelley.iu.edu/2020/04/14/faculty-at-kelley-offer-their-innovative-and-entrepreneurial-expertise-to-fighting-covid-19/	No reference to media presence
Healthcare professionals are being asked to reuse and conserve PPE although this increases their risk of contracting COVID-19 or infecting their families. **More than 9000** medical workers have been infected with COVID-19 while caring for us. **Over 200** healthcare professionals have lost their lives worldwide due to inadequate protection. (https://n.pr/2yO8h55)	Healthcare professionals are being asked to reuse and conserve although this increases their risk of contracting COVID-19 or infecting their families. **Many** have fallen ill or been put in self-quarantine. Front line medical professionals need our help to continue their fight to save lives.
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Accomplish what we promise. We have been able to donate **21,600 masks** to **32 hospitals and clinics** in the states of **Louisiana, New York, New Jersey, Georgia, Indiana, Texas, and California**. For more details, please see here: https://www.realheroesneedmasks.com/donate	Accomplish what we promise. We have been able to donate **tens of thousands** of masks to hospitals and clinics in **several states** across the US. For more details, please see here: https://www.realheroesneedmasks.com/donate
We anticipate the cost of surgical masks to continue rising in the foreseeable future and budget on **average $0.6/mask**. Your donations will go a long way.	No mentioning of the expected cost
List all 13 members of the campaign team	List four selected members

C.1.4. Sample campaign update

Thanks to everyone's donations, 30,000 more masks have been shipped. We are working with our network of local physician coordinators to send masks to

Boston: 4000
Chicago: 2000
Denver: 2000
Miami: 2000
Baltimore: 2000
Detroit: 2000
LA: 2000
Austin: 2000
San Francisco: 2000
Dallas: 2000
Atlanta: 2000
Rochester: 2000
New Orleans: 2000
Philadelphia: 2000

We will update you with more progress. For now, please check out these pictures, from left to right are Nurse Yadira in LA, Dr. Kim at Rutgers in News Brunswick and Dr. Jackson at VA in Houston, TX accepting our donated masks.

C.2. The Amazon MTurk survey

[Part 1 – Demographics]

Q1. Thank you for agreeing to participate in our survey. Please tell us a little bit about yourself.

What is your year of birth?

_____

Q2. What is the highest level of school you have completed or the highest degree you have received?

- High school graduate or less
- Some college but no degree
- Associate degree
- Bachelor's degree
- Master's degree or higher

Q3. Choose one or more races that you consider yourself to be:

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Other _____

Q4. Are you male or female?

- Male
- Female

Q5. Information about income is very important to understand. Would you please give your best guess? Please indicate the answer that includes your entire household income (in previous year) before taxes.

- Less than $30,000
- $30,000 to $50,000
- $50,000 to $70,000
- $70,000 to $100,000
- More than $100,000

Q6. What is the ZIP code of your current residence?

_____

Q7. Where did you grow up? Please give us the ZIP code. If you do not remember the ZIP code or if there is no ZIP code, please put down the city and the state/country.

_____

Q8. Have you ever suffered a fatal heart attack?

○ Yes (1)

○ No (2)

[Part 2 – The campaign]

We are building a campaign on GoFundMe and would love to have your feedback. Your opinions are very important to us to build a successful campaign. Please look at our campaign in the link below and let us know what you think. (We simply ask for your opinions. You are not asked to make a donation to the campaign in any form).

Real Heroes Need Masks (https://www.realheroesneedmasks.com/) is a social initiative whose mission is to streamline the donation process, identify and distribute mask donations fairly to hospitals and facilities with the most urgent need and build awareness of the personal protective equipment (PPE) shortage in the COVID-19 pandemic. Read about us on the news:
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Our Campaign Goal

Our goal is to raise $30,000 to acquire, distribute, and deliver FIFTY THOUSAND (50,000) surgical masks to those most in need! We anticipate the cost of surgical masks to continue rising in the foreseeable future and budget on average $0.6/mask. Your donations will go a long way.

If we surpass our goal, we will keep acquiring additional PPE for frontline healthcare workers until every last penny is spent.

Join us today to help protect our medical workers!

Our Commitment

We are committed to being fully transparent with our process. We also strive to tackle this problem in a holistic manner, making sure that masks are distributed fairly.

We will be sharing photos & videos of healthcare workers receiving the donated equipment, so you can see the impact of your donation on the local communities. Please **follow us at**

Website: realheroesneedmasks.com
Twitter: @RealHeroesMasks
Instagram: @RealHeroesNeedMasks
Facebook: @Real Heroes Need Masks
Hashtag: #RealHeroesNeedMasks
For any other inquiries: realheroesneedmasks@gmail.com.

Q9. How much does the campaign aim to raise?

- ○ $5,000
- ○ $30,000
- ○ $300,000
- ○ $500,000

Q10. If you saw a campaign like this, would you want to donate? If so, how much would you donate?
We will have a raffle for three (03) prizes of $200 in cash, out of (at most) 1500 participants. If you win, we will donate the indicated amount (up to $200) to the campaign on your behalf and send you the remaining money ($200 less your donation). If you do not win or do not wish to enter the raffle, you do not have to make any actual donation. You will still receive your base reward (when you complete the survey) regardless of your response to this question.

- ○ Yes. Amount: _____
- ○ No

Q11. Do you wish to be entered into the raffle? We will draw the raffle using your worker ID and send the winner the prize money through MTurk payment system.

- ○ Yes (1)
- ○ No (2)

Q12. On a scale of 0-10, how credible do you find the campaign?

Less credible										More credible
0	1	2	3	4	5	6	7	8	9	10

[Part 3 – Donation behavior]

{If the participant chooses not to donate}

Q13. Why wouldn't you want to donate? *Check all that apply.*

- You think this is the government's responsibilities
- You do not have the financial resources
- You do not think it is going to make a difference
- Other _____

{If the participant chooses to donate}

Q14. Why would you donate to the campaign?

- The campaign story is compelling
- You want to give back to the community
- You like the campaign's model of targeted distribution
- You feel the government is failing to provide adequate public service
- Other _____

Q15. How much of your income do you normally donate (approximately)?

- < 1% of your annual income
- 1-2% of your annual income
- 2-3% of your annual income
- >3% of your annual income

Q16. To what causes do you normally donate? *(Choose all that apply.)*

- Community causes (e.g., disaster relief, food banks, homeless shelters)
- Support for women, children and people with disabilities
- Religious and political causes
- Education
- Medical expenses and research
- Animal protection and welfare
- Environmental causes
- Arts and culture

[Part 4 – Photo Assessment]

Please take a look at our campaign profile photo again.

Q17. ***On a scale from 0 to 10, how trustworthy do you find the person in the photo?***

Less trustworthy — More trustworthy

0	1	2	3	4	5	6	7	8	9	10

Q18. ***On a scale from 0 to 10, how confident do you find the person in the photo?***

Less confident — More confident

0	1	2	3	4	5	6	7	8	9	10

Q19. ***On a scale from 0 to 10, how attractive do you find the person in the photo?***

Less attractive — More attractive

0	1	2	3	4	5	6	7	8	9	10

Q20. ***On a scale from 0 to 10, how competent do you find the person in the photo?***

Less competent — More competent

0	1	2	3	4	5	6	7	8	9	10

Q21. ***On a scale from 0 to 10, how authoritative do you find the person in the photo?***

Less authoritative — More authoritative

0	1	2	3	4	5	6	7	8	9	10

Q22. ***On a scale from 0 to 10, how agreeable do you find the person in the photo?***

Less agreeable — More agreeable

0	1	2	3	4	5	6	7	8	9	10

Q23. Which **ethnicity** do you think the person in the photo belong to?

- ○ Non-Hispanic White (1)
- ○ Hispanic or Latino (2)
- ○ Black or African American (3)

○ Asian and Native Hawaiian (4)

○ Other (5) _____

Q24. How old do you think the person in the photo is?

○ Younger than 30 (1)

○ 30-33 (2)

○ 33-37 (3)

○ 37-40 (4)

○ Older than 40 (5)

[Part 5 – Professional Assessment]

Please take a look at our campaign profile photo again.

Q25. Let's say, hypothetically, you are coughing up blood and experiencing severe chest pain. You want to get it checked out by an oncologist. Would you be willing to schedule a visit to consult with Dr. Young?

○ Yes

○ No

Q26. What is the most that you are willing to pay for the initial visit with Dr. Young? *(The starting point is set randomly)*

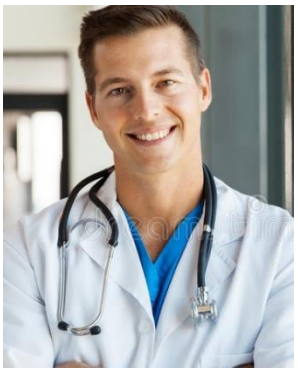
Q27. Let's say, hypothetically, you were diagnosed by Dr. Young with stage 3 lung cancer. Dr. Young recommends surgery for treatment. On a scale from 0 to 10, how likely would you consult with another doctor before starting treatment?

Sample photos used in the survey.


African American


Asian


Hispanic

White