Do Jobseekers Value Diversity Information? Evidence from a Field Experiment

Jung Ho Choi Stanford Graduate School of Business jungho@stanford.edu

> Joseph Pacelli Harvard Business School jpacelli@hbs.edu

Kristina M. Rennekamp Cornell University <u>kmr52@cornell.edu</u>

Sorabh Tomar Southern Methodist University <u>stomar@smu.edu</u>

January 2022

Abstract

We examine how information about the diversity of a potential employer's workforce affects individuals' job-seeking behavior, and whether workers' preferences explain corporate disclosure decisions. We embed a field experiment in job recommendation emails sent from a leading career advice agency in the US. The experimental treatment involves highlighting a diversity metric to jobseekers. Studying 267,494 unique jobseekers, we find that disclosing diversity scores in job postings increases the click-through rate of jobseekers for firms with higher diversity scores. These effects are more pronounced for female and entry-level jobseekers. We estimate that jobseekers update their willingness to pay (WTP) for a firm's diversity by \$1,463 when faced with a 10% increase in diversity scores relative to the interquartile range. We conduct a follow-up survey with jobseekers to better understand why diversity information was useful to them. Finally, we document that firms in industries characterized by higher jobseeker responsiveness to diversity information tend to voluntarily disclosure diversity metrics in their 10-Ks under new SEC disclosure requirements. That is, disclosure choices partially reflect 'jobseeker materiality.' Overall, our findings generate important insights regarding jobseekers' demand for diversity information.

Keywords: Diversity, Job Search, Disclosure, Field Experiment JEL Classifications: M14. J64, D40, D83, M41, C93

*We thank Susan Athey, Phil Berger, Hemang Desai, Paul Healy, Maureen McNichols, George Serafeim, Kathryn Shaw, Lisa Simon, Sarah Soule, and workshop participants at Stanford GSB, University of Illinois Chicago, and Southern Methodist University for their comments. We thank Zippia for allowing us to conduct this field experiment on its platform (www.Zippia.com/about-us). We thank Stanford GSB's Data, Analytics, and Research Computing (DARC) team for superb hands-on support, and we thank Sarah McDonald and Fiona Sequeira for excellent research assistance. The paper's AEA RCT registry number is AEARCTR-0008009. IRB approval was obtained from Stanford University. The authors declare that they have no relevant or material financial interests that relate to the research described in this paper.

I. Introduction

Recent social movements have generated a renewed emphasis on promoting diverse and inclusive workplaces. For example, institutional investors have increased their investments in firms that demonstrate strong commitments to diversity (Taylor, 2021). Regulators also increasingly require firms to describe the extent to which their culture is diverse and inclusive (Vaseghi et al., 2020). While these pressures are imposed by outside stakeholders, it is the firm's workforce that is arguably most affected by a firm's diversity practices. Yet, it remains unclear whether employees ultimately value diversity information, and whether it factors into their job search. This issue is of particular importance given the scarcity of diversity information available to employees, with 17% of public firms disclosing either numerical metrics of gender or racial workforce diversity in their 2020 public disclosures filed with the US SEC. Non-pay characteristics play an important role in job selection, and thus, such information opacity might meaningfully impede efficient labor market matching (Sorkin, 2018). Our objective is to understand how information about the diversity of a potential employer affects individuals' jobseeking behavior, whether this varies based on worker demographics, and what factors determine whether firms voluntarily disclose such information publicly.

We conduct a field experiment with Zippia, a leading career advice agency in the US that, among other things, collects and aggregates firm-level diversity information. In our field experiment, we present jobseekers with an email indicating jobs that might be of interest, and randomly vary whether the email includes information about prospective employers' levels of workforce diversity. We then measure interest in jobs that include or do not include the corresponding diversity signals. Our field experiment has a number of appealing characteristics related to our research objectives that make it preferable to both archival or laboratory settings. First, our field experiment allows us to randomize the presence of diversity information (using diversity scores from Zippia), while holding constant other important job search attributes, such as wage and location. This type of randomization is hard to achieve in archival settings. Second, we can observe prospective employees' consequent intentions to apply for a job through "click-throughs" on the emails they receive. Such user-level job search data is typically unobservable in an archival setting. Third, utilizing an unobtrusive field experiment is ideal for investigating job search behavior related to diversity information. Given the potentially sensitive nature of diversity issues, participants might be reluctant to report their real intentions and/or beliefs in a laboratory experiment. Finally, our large sample of individual job search data allows us to assess jobseekers' heterogeneous responses to exogenous information provision in real-world conditions.¹

While understanding how workers value diversity and use such information in their job search is an important endeavor, it is ex ante not clear whether the provision of such information will impact workers. On the one hand, there are compelling arguments as to why workers may respond positively to information about diversity, as employment at a diverse firm can benefit workers both directly and indirectly (Williams and O'Reilly, 1998; Roberson, 2019). Direct benefits can stem from a worker being a diverse candidate and having a higher likelihood of receiving interest from the firm, or a worker simply deriving utility from being part of a firm whose culture values diversity. For example, prior studies indicate that female workers weight job attributes differently than male workers do when evaluating prospective employers (Avery and McKay, 2006). Workers may also benefit from being employed by a diverse firm even if they are not diversity candidates. For instance, evidence suggests that diverse workplaces employ more talented individuals, foster better engagement, have higher levels of innovation, exhibit better

¹ The number of observations in our field experiment is roughly 5 to 10 times larger than the average number of observations in typical field studies (e.g., Bertrand and Mullainathan, 2004).

performance, and generally have more satisfied employees (Lorenzo et al., 2018; Lee, 2021). These arguments potentially explain why 80% of surveyed workers indicate that they want to work for a company that values diversity, equity and inclusion (Caminiti, 2021).

On the other hand, there are also valid reasons for why workers may not respond favorably to diversity information in job postings, or may even respond negatively. Workers may primarily care about salary and benefits when seeking employment.² A recent Harris Poll surveyed more than 1,100 U.S. adults and found that the top three jobseeker considerations jobseekers were salary, benefits, and location (Kuehner-Herbert, 2018). He et al. (2021) find that workers value job flexibility and are more likely to apply to jobs that offer more flexible work conditions. Workers may ultimately be unwilling to sacrifice these considerations to work at a diverse firm (i.e., a low "willingness to pay" for diversity). Moreover, workers may already be sufficiently informed about how diverse a firm is, thus making incremental diversity information less relevant.³ Finally, diversity information may even send a negative signal to some workers if they believe it will reduce their chance of obtaining the position, especially if the jobseeker is not a diversity candidate. This argument suggests that workers' response may vary based on demographic characteristics. Overall, the above discussion suggests that the impact that diversity information has on jobseekers is ultimately an empirical question. Thus, our first research question is whether and to what extent jobseekers respond to the provision of such information in job postings.

Our experiment was conducted over an eleven-week period beginning in June 2021 and ending in August 2021. Participants are 267,494 unique jobseekers who signed up for and received

² This conjecture mirrors the argument that investors mainly care about monetary benefits of securities and not those securities' corporate social responsibility aspects (Larcker and Watts, 2020).

³ While public disclosure lacks detailed diversity information, workers may learn about a firm's diversity through less formal channels. For example, a firm may develop a reputation for being diverse and this can be communicated through existing employees.

nearly 5.4 million email notifications about job listings from Zippia during the eleven weeks. These job postings relate to 107,810 identifiable companies, of which 66,694 provide requisite information for Zippia to calculate a diversity score. We use a 1 x 3 between-participants design, where participants are randomly assigned to receive either "baseline" job listings (Baseline condition), job listings with diversity scores (Diversity condition), or job listings with salary scores (Salary condition). Diversity and Salary scores rank an employer's workforce diversity and offered salaries against those of peers from similar locations. All other information is held constant, including median salaries in dollars. Our dependent variable is participants' click-through behavior (i.e., whether the participant clicks on particular jobs to learn more about and to apply for those positions). Participants in our sample ultimately click on job listings for 9,311 identifiable companies, with 8,568 companies having diversity scores. We find no significant differences across our three experimental conditions with respect to participant education, gender, ethnicity, or job level (e.g., "Junior", "Senior", "Executive", etc.), indicating successful randomization.

Our headline result is that jobs listing clicked under the Diversity condition have higher diversity scores than the job listings clicked under the Baseline condition. That is, including information about diversity influences how participants direct their attention and clicking behavior when presented with a menu of job options. This result yields two key insights. First, jobseekers on average value a firm's workforce diversity. Second, holding underlying workforce diversity constant, and in line with our focus on information content, jobseekers respond to additional diversity information. In other words, this information has value.⁴

We next employ a probit regression specification that considers companies that were probabilistically "not-clicked" by jobseekers, thus allowing us to more closely mirror a jobseekers'

⁴ We also find a positive correlation between diversity scores and firm performance, which is consistent with a general, indirect value of diversity for workers. We discuss potential mechanisms for our results in more detail below.

decision-process.⁵ At a basic level, this specification also allows us to control for wages. When viewed through a Bayesian framework, however, the results allow us to estimate by how much jobseekers' update their willing to pay (WTP) for a firm's diversity once they are informed about it. We find that jobseekers are willing to forego \$1,463 of wages when faced with a 10% increase in diversity scores relative to the interquartile range.

Having quantified the effects of diversity information with respect to employer diversity, we further examine how participants respond to the treatment condition with respect to salaries. Workers in the Diversity condition, on average, click on job postings for companies and positions with significantly higher salary scores than those in the Baseline condition. Recall that participants in the Diversity condition *do not* observe salary scores on job postings. Thus, one interpretation for this finding is that diverse firms, on average, pay more, and that searching for diverse positions or jobs has the unexpected benefit of also matching workers to better-paying jobs.

Our results thus far are consistent with jobseekers valuing diversity information. Diversity is a concept about heterogeneity, however, and thus we are also interested in the heterogeneity of responses along demographic lines to diversity information (Roberson, 2019). Our subsequent analyses generate several interesting findings. First, relative to the Baseline condition, the Diversity condition increases the average company diversity scores associated with click-throughs to a greater extent for workers seeking jobs at more entry-level positions. This suggests that younger workers are more concerned about workforce diversity, or that entry-level applicants have more uncertainty surrounding them, making them more often the targets of 'statistical discrimination.' Second, we study the effect of local attitudes towards diversity, measured by the number of pro-Black Lives Matter (BLM) protests per capita. Our results are most pronounced

⁵ We use potential employers that are likely to be recommended to jobseekers based on the platform's dataset recording jobseekers' interactions with a company on the platform's webpage.

when the number of pro-BLM protests per capita is high or low (and not moderate), suggesting that heterogeneity in attitudes to diversity moderates our treatment effect. Third, we find that gender does not interact significantly with our treatment conditions and that White applicants respond more to the Diversity condition relative to the Baseline Condition than do persons of color. However, when modeling jobseekers' choices through a probit regression, we find some evidence that our results are concentrated among both female jobseekers and white jobseekers. The latter may be less informed about firms' diversity initiatives, thus rendering the score more informative. These results suggest that gender and race influence job clicking behavior for diverse firms.⁶

Our analyses also alleviate the concern that jobseekers might naïvely click on firms with diversity scores simply because scoring firms on any numerical dimension might change clicking behavior. First, the Diversity condition increases in the diversity score more than the Salary condition increases the salary score. Given that salary is fundamentally important, we expect the Salary condition to drive at least some informed clicking. If the propensity to naïvely click is similar across conditions, it becomes unlikely that purely naïve clicking under the diversity treatment elicits an even larger response. Second, our jobseeker heterogeneity results show stronger responses for white and entry-level jobseekers, and there is no strong reason to suggest that naïve clicking should be more prominent among these subgroups. Finally, our experimental treatment effects explain firms' human capital disclosure choices (discussed below). That is, the jobseeker responses we observe capture a latent construct that employees seem aware of. If the diversity treatment leads to purely naïve clicking, we should not observe this relation after controlling for the diversity score. However, the relation persists even after the score's addition.

⁶ We acknowledge, however, that classifying race based on an individual's name and location (the characteristics considered by Zippia's machine learning classifer) is noisy and we exhibit caution in making strong conclusions about heterogeneity along race from this finding.

While our field experiment helps us use a natural setting to understand *whether* jobseekers find diversity information useful, it is not equipped for understanding *why* diversity matters to jobseekers. There are several possible mechanisms underlying our main result. First, workers may intrinsically value employment at a diverse firm (i.e., a "Preferences" channel). Second, jobseekers may choose jobs in worker-diverse firms to avoid discrimination and increase the chance of promotion and inclusion at the firm (i.e., a "Discrimination" channel). Third, diversity information might signal that the firm is of higher quality across other unobservable metrics (i.e., a "Signaling" channel). To provide a better understanding of why jobseekers may or may not value diversity information, we conducted a follow-up survey in December 2021 that yielded responses from many of our original participants. From the jobseekers who value diversity information, we find supporting evidence for all three channels. Furthermore, we find that among the three channels, there is the most evidence for workers believing that diversity is an important social issue, that is, a "Preferences" channel.

Informed by the results in our field experiment, the final part of our study seeks to understand how firms publicly communicate their workforce diversity levels. We study the recent HCD mandate imposed on firms by the SEC in November 2020, around which diversity was a commonly discussed theme. The mandate entails substantial judgement and discretion because it requires firms to disclose only the features about their human capital that they deem material. We explore whether firms consider the importance of diversity information for employees (highlighted by our field experiment) when making their HCD disclosure choices. Specifically, we extend our field experiment and show that firms' own diversity performance (our experimental stimuli) and the relevance of diversity information to jobseekers (our experimental treatment effect) are both associated with a greater probability of firms disclosing precise, numeric diversity metrics in their 10-Ks. These findings suggest that firms' diversity disclosure choices are partly explained by the usefulness of diversity information to jobseekers.

Our study makes several contributions to the literature. First, we study the effects of diversity information, as opposed to diversity itself, which has been the focus of the majority of archival studies in this area (Bernile et al., 2018; Field et al., 2020; Kim and Starks, 2016). Prior research has not examined how these fundamentals are communicated to stakeholders and whether the information provided is sufficient. We use a field experiment to break the link between fundamentals and disclosure, with the benefit of both ensuring internal validity through randomization and maintaining external validity through data obtained from a large set of users about many firms. Our setting allows us to calculate by how much a jobseeker updates their willingness-to-pay for a firm's diversity once they become informed. Importantly, this estimate embeds a jobseeker's willingness to anchor to the signal provided. To our knowledge, we are not aware of prior work that estimates jobseekers' incremental WTP for a firm characteristic following a pure endowment of information. Our results will be informative to regulators as they consider whether to make/approve more explicit disclosure demands. These findings also contribute to the labor economics literature interested in how workers sort into jobs, and complements recent field studies on this question (Card et al., 2012; Hedblom et al., 2019; Ashraf et al., 2020).⁷

We also contribute to the literature by documenting how firm-related disclosures can elicit heterogenous responses. Prior studies examining firm-related information provision consider subjects within a stakeholder group as largely homogenous, with the broad exception of studies

⁷ A long-standing economics literature is interested in understanding how individuals sort into jobs based on their preferences and skills (Roy, 1951). Several studies have demonstrated how intrinsic factors such as an individual's identity or self-image influences job search (Akerlof and Kranton, 2005; Bénabou and Tirole, 2011; Ashraf et al., 2020). Our study extends three prior field experiments that study how different types of disclosure can impact workers' job search—Card et al. (2012), Hedblom et al. (2019), and Ashraf et al. (2020)—by demonstrating the importance of workforce diversity information in the job search process, whilst not changing the nature of workplaces.

that consider a subset of investors to be sophisticated (e.g., Collins et al., 2003; Bartov et al., 2000). This again highlights the power of our field experiment in that it allows us to observe user-level activity and demographic characteristics.

Third, in addition to broadly describing the shape and structure of the diversity sections in firms' HCDs, we make a novel connection between field experimental results and a broad, archival cross-section (HCDs). Our study provides us with a measure of information's jobseeker decision-relevance, which can be framed as "stakeholder materiality." Though Rose et al. (1970) note that materiality is a central accounting concept, they also note that it is seldom discussed in the classroom, is not well understood by consumers of accounting information, and is almost never researched. Our finding that "stakeholder materiality" explains corporate disclosure decisions lends some credence to the SEC's approach of mandatory-yet-voluntary disclosure regulation with respect to certain topics. These findings also complement Khan et al. (2016), who find that sustainability-materiality assessments made by the Sustainability Accounting Standards Board (SASB) seem validated by stock markets.⁸

II. Prior Research, Theoretical Framework, and Hypothesis Development

Job Search and Information about Diversity in the Workplace

Our study is motivated by several strands of prior research. First, we build on the economics and sociology literature about job search, where there has been a long-standing interest in understanding how individuals sort into jobs based on their preferences and skills (Roy, 1951;

⁸ Our study also complements recent work by LaViers and Sandvik (2021), who propose an experiment to estimate the impact that workplace gender diversity has on an individual's willingness to work for a company. Our study differs from LaViers and Sandvik (2021) as we vary the provision of diversity information rather than varying the underlying diversity trait for a hypothetical firm—in this sense, our paper focuses more squarely on the consequences of information provision. In addition, we utilize a field experiment capturing the interest of over 200,000 individuals in the workforce with respect to over 100,000 real-life firms, thus allowing us to generate inferences regarding worker heterogeneous preferences in the market outside of a laboratory setting.

McCall, 1970). Broadly speaking, jobseekers may care about diversity for at least three reasons: "Signaling for Firm Productivity", "Heterogeneous Job Prospects", and "Identity Matching".

First, diversity might indicate better firm productivity and performance, although prior evidence on this issue is mixed (Williams and O'Reilly, 1998). On one hand, individuals who have more in common may have an easier time communicating. Diversity, which reduces shared characteristics, might therefore impede decision-making within an organization (Ingram and Zou, 2008). On the other hand, a lack of diversity can lead to "groupthink" (e.g., Asch, 1951). Diversity may introduce differing points of view and make it more acceptable to express divergent thoughts, which are often ultimately constructive (Sommers, 2006). Related research on information and decision-making theory argues that diverse workforces facilitate distinctive information flows through groups, improving performance (Corritore, Goldberg, and Srivastava, 2020).⁹

Second, diversity scores might inform workers of employers' heterogeneous job prospects. Williamson et al. (2008) show that the language used in firms' recruiting materials to describe their diversity practices affects the perceived attractiveness of those firms to prospective job applicants', and that this varies with applicants' race and prior experiences. Though targeted recruiting materials can help to attract minority and female applicants (Avery and McKay, 2006), emphasizing diversity may have different effects on the perceptions of job candidates who are not a part of the target group.¹⁰ Consistent with this, Williamson et al. (2008) find that even non-

⁹ Roberson and Park (2007) more directly investigate the relationship between firm diversity and performance and find that firms with a better reputation for diversity experience improved financial performance. Also consistent with the idea that greater diversity may improve firm performance, Hartzmark and Sussman (2019) find that investors value firms with better ESG performance, and over 25% of the investors that they surveyed view diversity (e.g., promotion of women and minorities, etc.) as a component of firms' sustainability efforts. Again, although the findings in the prior literature are mixed, particularly when it comes to different sources of diversity (Williams and O'Reilly, 1998), there is some evidence to suggest that diversity improves firm performance and is valued by external stakeholders.

¹⁰ For example, job advertisements (especially in mass media) are likely to be viewed by both the targeted applicants as well as those who are not specifically being targeted. In those cases, evidence from the advertising literature suggests that prospective applicants that are not part of the advertisement's target audience may feel that they are not

minority jobseekers are attracted to firms that convey a commitment to diversity, but that those who have experienced workforce discrimination in the past react more positively when a firm provides a business-related explanation for diversity in its recruitment materials rather than an ideology-related explanation. The evidence suggests that diversity information can help to attract job applicants, but that its influence might vary with the characteristics of jobseekers.

Third, jobseekers may have preferences over the value of diversity because it aligns with their social identity preferences (Ashraf et al. 2020). Akerlof and Kranton (2005) describe 'identity' as a form of self-image that arises from a job role, and that can be used to motivate workers in lieu of economic incentives. Individuals want to be associated with organizations that share their values, as this can affect not only their self-perception, but also their perceptions of how others will view them (Carter and Highhouse, 2014). Consistent with this notion, prior research shows that employees attracted to organizations with a social mission orientation are actually *more* cooperative and productive when they receive below-market pay rather than above-market pay (Chen, Pesch, and Wang, 2020).

Diversity Disclosures

Our research also relates to the literature examining demand for ESG disclosure and the consequences associated with such disclosure (e.g., Matsumura et al., 2014; Hartzmark and Sussman; 2019). Consistent with a pivot from a shareholder-centric reporting regime to a stakeholder-centric one, the SEC is increasingly overseeing ESG disclosures (e.g., those about median-pay ratios, supply-chain conflict minerals, climate risks, and more recently, human capital) (Hart and Zingales, 2017). Diversity and inclusion form part of the 'Social' pillar of ESG performance. As awareness of Social issues has grown, so too has the extent of associated

as valued by the organization (Grier and Brumbaugh, 1999). If so, they may further infer that they are more likely to be excluded from the candidate pool.

disclosures, covering aspects such as consumer safety (Jin and Leslie, 2003), workplace safety (Johnson, 2020), fair payments for mineral extraction rights (Rauter, 2020), and supply chain human rights integrity (Chilton and Sarfaty, 2017).

Among Social issues, diversity and inclusion are distinct because the primarily affected stakeholders (i.e., jobseekers and employees) might have considerably different views about the how strongly these aspects should be prioritized (see the discussion above about the effect of targeted recruiting materials). One can observe this type of disagreement in the often heated debate around university admissions policies.¹¹ A divergence of opinions might explain the significant heterogeneity we eventually observe in firms' human capital diversity disclosures.

Hypothesis Development

Our study is predicated on the notion that diversity information may be informative to jobseekers, which ties to the long-standing literature in accounting that is interested in the informativeness of various disclosures to stakeholders of the firm (Dechow, Ge and Schrand, 2010). We argue that diversity information presented in job postings might be useful to jobseekers as they may be uninformed about the diversity initiatives of a firm. Collecting information on a firm's diversity is costly and potentially infeasible for many prospective jobseekers. And while it is possible that some firms may generate a reputation for being committed to diversity or take highly visible actions that signal a commitment to diversity (e.g., large donations), for many firms, it may be impossible to ascertain how diverse the workforce is until the prospective worker interviews at the firm, or even accepts a job. In addition, while workers can potentially collect diversity information about prospective jobs through Zippia's website (instead of through automated emails), this process would still introduce significant search costs. The email presents

¹¹ See for example, Arcadiano et al. (2020), regarding the SFFA vs. Harvard Case

jobseekers with a simple menu of jobs that are likely a good fit based on the jobseekers' preferences, and in our experimental condition, presents diversity information in a costless way. Intuitively, and as we will show later theoretically, the extent to which workers respond to diversity information depends on *both* how much the worker values diversity and the level of prior knowledge that the worker has about the diversity of the firm.

Given the prior literature suggesting that jobseekers do, in fact, value diversity, and the above discussion suggesting that it may be difficult for individuals to gather diversity information themselves, we predict that jobseekers in our study will respond to diversity information provided by Zippia in job postings. Specifically, our first prediction is that:

H1: When presented with diversity information within job postings, jobseekers will be more likely to click on job postings for firms that are higher, on average, in their diversity score.

Although we expect that job applicants will value diversity information on average, we also recognize that the effects of diversity information are likely to vary depending on jobseekers' characteristics. More specifically, signals about firm attitudes toward diversity may differentially affect male vs. female jobseekers (NACE, 2018), jobseekers of different races (Williamson et al., 2008), or jobseekers with varying levels of education (Wodtke 2012). Combined, the prior literature on attitudes towards diversity as a consequence of the heterogeneous characteristics of individuals leads to our second hypothesis:

H2: When presented with diversity information within job postings, jobseekers clicking behaviors will be affected by their heterogeneous characteristics.

Theoretical Framework: Information's Impact on Willingness to Pay for Diversity

Our experimental data allow us to examine jobseekers' willingness to pay for diversity under two different information environments: the Baseline and Diversity conditions. Using a regression specification, the economics literature has developed a theoretical, revealed-preference framework to understand jobseekers' willingness to pay (WTP) for non-monetary benefits such as flexible working hours or fringe benefits (e.g., He et al., 2021).

We augment the job search decision model of He et al. (2021) and describe jobseekers as choosing firms based on two characteristics: wage (w) and diversity (d). We assume that jobseekers can only click and explore one job post, and that their decision to click and explore considers a search cost (c) and probability to get the job (p). Under these assumptions, a jobseeker's utility function under the (fully informative) Diversity condition is:

$$U_{ij} = \overline{U}_{ij} + \varepsilon_{ij}$$

s.t.
$$\overline{U}_{ij} = \theta + \alpha E \left[\ln(d_j) \mid \ln(d_{ij}) \right] + \beta \ln(w_j) = \theta + \alpha \ln(d_j) + \beta \ln(w_j)$$

given $\ln(d_{ij}) = \ln(d_j)$.

 $\overline{U}_{i0} = 0$ i indexes an individual and j indexes a job. $\overline{U}_{i0} = 0$ and ε_{ij} is independent and identically distributed and follows a Normal Distribution. d_j captures the diversity of the employer, and d_{ij} captures individual i's information set about employer j's diversity. The job search decision can be summarized as:

$$P_{ij} = \Phi(\overline{U}_{ij} - \frac{c}{p})$$

The estimation model for the idealized WTP is:

Willingness-To-Pay (WTP) =
$$\frac{\alpha \overline{w}}{\beta \overline{D}} \Delta D$$
.

 ΔD is the industry-adjusted diversity of an employer; the industry-average reflects a naïve prior about an employer's diversity. The above WTP equation is idealized because it does not reflect jobseekers' prior, imperfect information about employer diversity. The frictions leading to

such imperfect information are important in understanding jobseekers' decisions (Autor, 2001; Choi, Choi, and Malik, 2021). Thus, we consider the Baseline condition. Without Diversity Scores, it is costly for jobseekers to collect full information about employers' compensation packages and human capital policies. In this case, a jobseeker's utility function is as follows:

$$U_{ij} = \overline{U}_{ij} + \varepsilon_{ij}$$

s.t. $\overline{U}_{ij} = \theta + \alpha E[\ln(d_j) | \ln(d_{ij})] + \beta \ln(w_j)$ and $\ln(d_{ij}) = \ln(d_j) + \tau_{ij}$.

We assume that jobseekers use Bayes' rule and consider the precision of their information.

$$\overline{U}_{ij} = \theta' + \alpha' \ln(d_j) + \beta \ln(w_j) + \gamma \tau_{ij}$$

s.t. $\alpha' = \alpha \cdot \gamma$ and $E[\ln(d_j) | \ln(d_{ij})] = (1 - \gamma) \overline{\ln(d_j)} + \gamma \ln(d_{ij}).$

In the Baseline condition, γ captures the precision of a jobseeker's (non-Diversity Score) information about employer diversity. Comparing α and α' allows us to test the hypothesis that jobseekers value diversity information, which is a joint hypothesis of $\alpha \neq 0$ and $\gamma \neq 1$. The responsiveness of jobseekers to diversity information is captured in $\alpha(1 - \gamma)$. Additional diversity information matters only when jobseekers care about diversity and the information is new. Using the WTP formula, we define $\frac{\alpha(1-\gamma)\overline{w}}{\beta\overline{D}}\Delta D$ as how much jobseekers update their WTP for a given firm's diversity once they become additionally informed with the Diversity Score.

III. Field Experiment Research Design

Our field experiment uses a 1x3 between-participants design, where we manipulate the format of information provided to participants in email messages that they receive about job postings. We partner with Zippia, Inc., an online platform that facilitates individuals' job

searches.¹² Zippia posts job listings, provides career mentoring and, most importantly for our purposes, allows individuals to sign up to receive email messages with job postings that are tailored to their job search criteria (e.g., based on preferences related to target industry, geographic location, career stage, etc.).

For our study, Zippia sent job posting emails for a period of eleven weeks to users enrolled on their platform. The content of the emails was similar in format to the messages that Zippia sends to its users on a regular basis, with one exception. Specifically, participants in our field experiment are randomly assigned to one of three conditions that changes the format of the emails that they receive. In our Baseline condition, participants receive emails in the standard format, which includes job listings based on an individual user's job search preferences. Our second condition is our Diversity condition, which represents the treatment of interest. This condition includes the same job listings than an individual would have received if they were in the Baseline condition. However, this condition also includes a numerical diversity score for each company associated with a given job listing, so long as Zippia has enough information to calculate a diversity score for the firm. More details on how this is calculated are provided below. Our third condition replaces the diversity scores from the Diversity condition with salary scores, again, so long as Zippia has enough information to calculate a salary score for an individual firm. The inclusion of this Salary condition allows us to examine participants' clicking behavior when information is provided that is not related to diversity, in order to investigate whether the provision of any information increases clicking relative to the Baseline condition. Table 1 provides more detail on our treatment conditions, and Figure 1 provides an example of the type of email that a participant might receive under each of the conditions.

¹² For more information about Zippia, please see <u>www.Zippia.com/about-us</u>.

<INSERT TABLE 1 ABOUT HERE>

<INSERT FIGURE 1 ABOUT HERE>

The diversity and salary scores that Zippia calculates for individual companies are based on a proprietary formula that incorporates employee-level data to evaluate how a given firm compares to other firms that are similar with respect to industry and geographic location. It combines information about the race, gender, education, and language skills of a firm's workforce in a way that is standardized across the firm's job roles and locations. For our purposes, the actual calculation of the individual scores is not as critical as the extent to which users' clicking behavior is affected by the provision of summary diversity and salary measures.¹³

Each email message received by our participants includes an average of 14 job postings on the screen, in addition to a link that provides them with additional job recommendations. In Figure 2, clicking a job post leads to an employer's application page either directly or through a detailed intermediate job post. The number of job postings that are visible in a given preview of each email message depends on the type of device used to access the email (e.g., smartphone vs. desktop computer), although randomization of our participants suggests that participants' choice of how to access the emails is not expected to vary by condition. The frequency of emails also varies by user depending on their stated preferences and website activity, and ranges from daily to monthly email messages. Again, our random assignment of participants suggests that users that differ in the frequency with which they receive email messages should be evenly distributed across our three conditions.

¹³ In Online Appendix Figure 1, we relate Zippia's gender and ethnicity inputs into its diversity scores with those characteristics as disclosed in firms' 10-K HCDs. There is a strong correlation of 0.73 between Zippia's estimate of the percentages of women employed at firms (based on Zippia's users' names) and the percentages disclosed by firms (shown in Subfigure A). The correlation when considering percentages of people of color employed is meaningful at 0.50 (shown in Subfigure B).

<INSERT FIGURE 2 ABOUT HERE>

All data is captured and stored by Zippia over the course of the study. Zippia collects information on: 1) whether each email is opened, 2) how many jobs are clicked on by a user, 3) which companies were associated with each job listing that was clicked on, and 4) the "position" of each job in the list that a participant receives (e.g., if a user clicks on the third job listed in an email message, this would be recorded as having a position of "3"). After collection, the data is anonymized by Zippia for participants' privacy, and provided to the author team for analysis.

Throughout the study, we rely on two methodologies. We first use ANOVA tests to assess whether the diversity scores of clicked firms, *on average*, change when jobseekers are presented with diversity information. While ANOVAs are commonly used in experimental research and provides us with a simple approach for assessing treatment effects, they do not allow us to assess the tradeoffs workers make when choosing jobs. Thus, we also conduct probit regression analyses that consider a menu of highly probably recommended positions that a jobseeker is presented with.¹⁴ In these tests, our dependent variable is an indicator for whether a jobseeker clicks on a given job. The independent variable of interest is an indicator for the Diversity condition (varying at the jobseeker-level) and the recommended job's diversity score (varying at the recommended position-level). These tests offer three benefits. First, they provide a better conceptual mapping to jobseekers' actual decisions, as they allow us to assess within-jobseeker variation through the inclusion of non-clicked firms. Second, the regression framework allows us to explicitly control for wage. Third, this methodology allows us to empirically capture the tradeoff between wages

¹⁴ Zippia does not collect a list of firms recommended in each email, unless those firms are clicked. Instead, Zippia provided us with a list of firms that were most likely recommended based on a users' past history. The platform records its interactions with Zippia users, including its users' visits to specific company pages. In doing so, Zippia keeps track of users' interest in various companies and recommends those companies' jobs in the job recommendation email. The list of companies that users interact with does not reflect the full set of jobs that were recommended, but reasonably represents the list of companies that were presented to users in job recommendation emails.

and diversity, thus allowing us to calculate how jobseekers update their WTP for a firm's diversity after they become informed with diversity scores.

IV. Experimental Results

Participants in our study are 267,494 unique users enrolled on the Zippia platform. When individuals sign up for an account on Zippia, they have the option to provide their resume and geographic location. For those who provide sufficient information, Zippia uses machine learning software to make a probabilistic inference about the likely gender and ethnicity of a given user. Gender is inferred solely by users' names, where those who provide a first and last name that is ambiguous are classified as "unknown" (for example, a user with a gender-neutral name like "Andy"). Ethnicity is inferred based on a combination of user name and geographic location, where those who provide only one piece of information are classified as "unknown".

Our sample includes 28,670 participants classified as likely to be female, 24,984 participants classified as likely to be male, and 44,411 participants classified as "unknown". An additional 169,429 participants have never provided a first and last name to Zippia, and are therefore "unclassified." With respect to ethnicity, 70,833 participants in our sample are classified as likely to be White, 12,924 are classified as likely to be Hispanic, 9,618 are classified as likely to be Asian, 1,264 are classified as likely to be Black, and 3,426 are classified as "unknown.". As with gender, an additional 169,429 participants are "unclassified" because they have not provided their names to Zippia. Panel A of Table 2 summarizes the proportion of our participants that fall under each classification grouping for gender and ethnicity.¹⁵ Figure 3 shows that Zippia users are well distributed across the United States.

¹⁵ Panel A of Table 2 presents demographic information for all 267,494 users enrolled on the Zippia platform, as these represent the pool of potential participants in our study. However, since the frequency of email messages depends on users' preferences and website activity, only 266,453 users receive emails over the course of our study. We present

<INSERT TABLE 2 ABOUT HERE>

<INSERT FIGURE 3 ABOUT HERE>

For purposes of understanding the generalizability of our sample, we compare the participants in our experiment with the demographics represented in the US Current Population Survey (CPS). As shown in Panel A of Online Appendix Table 1, participants in our study are more educated and more likely to be female, and less likely to be a person of color (POC), on average, than individuals in the CPS.

Our participants receive a total of 5,396,141 email messages in aggregate from Zippia, with job listings associated with 107,810 unique companies. Of these companies, 66,694 provide enough information for Zippia to extract the information and calculate a diversity score, and 41,094 provide enough information to calculate a salary score. Comparing Panels B and C in Table 2, we observe that the subset of companies associated with job listings that participants *actually clicked on* was higher, on average, in both the diversity score and salary score measures, than the broader set of companies associated with job listings that were *sent* to participants.

Before analyzing our results, we first confirm that participants were appropriately randomized to different treatment conditions. Consistent with successful randomization, we do not find significant differences across our three conditions with respect to participant education, gender and ethnicity, or with respect to the level of jobs that users are seeking (ranging from entry-level to executives). Table 3 presents results for the relevant comparisons across conditions, with all p-values greater than 0.119.

<INSERT TABLE 3 ABOUT HERE>

demographic information for the full number of 267,494 Zippia users to provide more complete detail on the demographics of the sample population.

Primary Analyses

Results of our main analyses are presented in Table 4. As shown in Panel A, participants in our Diversity condition, on average, click on job listings from companies with higher diversity scores than participants in our Baseline condition (mean diversity scores of 9.277 vs. 9.252, p<0.001), consistent with our first hypothesis. Recall that participants in all conditions received emails that contained the job listings that would normally be targeted for them by Zippia, but those in the Baseline condition did not see the diversity scores for each company associated with a particular job listing, whereas those in the Diversity condition did. Those in the Salary condition saw the salary score for each company associated with a job posting, but did not see the diversity score. Comparing those in the Diversity condition to those in the Salary condition, Panel A of Table 4 shows that participants in the Diversity condition, on average, click on job listings from companies with significantly higher diversity scores than participants in the Salary condition (mean diversity scores of 9.277 vs. 9.218, p<0.001). The first key takeaway is that, on average, participants in our study prefer firms with diverse workforces. The second, and the focus of our study, is that jobseekers value additional information about diversity-the inclusion of a score in the Diversity condition directs participants' attention and clicking behavior towards firms that measured higher on diversity than in our Baseline and Salary conditions. Interestingly, Panel A of Table 4 also shows that participants in the Salary condition, on average, click on job listings from companies with significantly lower diversity scores than participants in the Baseline condition (mean diversity scores of 9.218 vs. 9.252, p<0.001).¹⁶

¹⁶ The Salary condition findings might suggest that highlighting Salary information shifts individuals' attention away from diverse companies. In additional analyses presented in Table 3 of the Online Appendix, we further explore potential explanations for why the Salary condition leads jobseekers to click on firms with lower diversity scores. We examine the clicking behavior of jobseekers in all three of our experimental conditions after partitioning our sample on firms with low, moderate, and high levels of Diversity scores. As shown in Panel A of Table 3 in the Online Appendix, our results indicate that jobseekers in the Salary condition generate more incremental clicks for firms with low, moderate, or high diversity scores firms than do jobseekers in other conditions. In other words, it does not appear

<INSERT TABLE 4 ABOUT HERE>

We also find that our treatment conditions affect both (1) the mean *salary score* for the companies associated with the job listings that users choose to click on, as well as (2) the median *dollar salary* of the jobs that users choose to click on. As shown in Panel B of Table 4, the Diversity and Salary conditions affect the average salary score of the companies associated with the job listings that users choose to click on (p<0.001 and p=0.006, respectively, when compared to the Baseline). However, while those in the Diversity condition, on average, click on job postings for companies with significantly higher salary scores than participants in our Baseline condition (mean salary scores of 8.548 vs. 8.521, p<0.001), we find no difference in mean salary scores between our Diversity and Salary conditions (mean salary scores of 8.548 vs. 8.540, p-value=0.272).

With respect to average 'median salary' for a given job listing, we again find that treatment condition affects this measure (p<0.001, as shown in Panel C of Table 4). Specifically, the average median salary of job listings that users click on in the Diversity condition is significantly higher than in the Baseline condition (\$58,057 vs. \$56,918, p<0.001), and *also* significantly higher than in the Salary condition (\$58,057 vs. \$57,394, p<0.001). These results are interesting given that participants in the Diversity condition observe the diversity scores for a company associated with a given job listing, but do *not* observe the company's salary scores. Further, these findings potentially suggest an association between companies with better diversity and higher employee salaries, which is consistent with the positive association between diversity and salary scores that we find in our sample (ρ =0.085, p<0.001, see Table 4 of the Online Appendix). This result is

to be the case that jobseekers in the Salary condition prefer firms with a low diversity score. Rather, they appear to explore more job opportunities for firms *regardless* of whether they have low, moderate, or high diversity scores than jobseekers in other conditions—user engagement with the Zippia platform increases. Similarly, jobseekers in the Salary condition click on more postings with low, moderate, or high salary scores (Panel B), and more postings with low, moderate, or high median salaries (Panel C) than do jobseekers in the Diversity and Baseline conditions.

consistent with the idea that diversity scores can signal other information about desirable features of employers. Combined, these results suggest that some aspects of firm diversity and salary are positively correlated, while others are negatively correlated.

Willingness to Pay for Diversity and Information Frictions

We next estimate how jobseekers update their WTP for a firm's diversity once they endowed with a diversity score. For our estimation, we use consider the jobs probabilistically recommended to users on the platform (see footnote13). Under a simplified assumption of binary choices, our probit regression specification is as follows:¹⁷

$$P_{ij} = \Phi(\beta_0 + \beta_1 ln(d_j) + \beta_2 Treat \cdot ln(d_j) + \beta_3 ln(w_j) + \beta_4 Treat \cdot ln(w_j) + \beta_5 Treat).$$

 d_j is for the diversity score of firm *j* and w_j is the median salary of firm *j*. *Treat* indicates the Diversity condition. In Table 5, β_1 is positive and statistically significant, indicating that jobseekers prefer to work for diverse workforces and have prior knowledge about the diversity of employers (or some correlate thereof). Importantly, β_2 is positive and statistically significant, suggesting that jobseekers click on jobs with more diverse workforces when employers' diversity metrics are provided (controlling for employers' median salaries). The other coefficients are consistent with our expectations. β_3 is positive and statistically significant, suggesting that jobseekers prefer to apply for high salary jobs. β_4 is statistically insignificant because median salaries (as opposed to salary scores) are provided under both conditions. Using these coefficients, we estimate that jobseekers update their WTP for a firm's diversity once they receive information by computing $\frac{\beta_2 \overline{w}}{\beta_3 \overline{D}} \Delta D$. We estimate an incremental WTP of \$1,463 if there is a 10% increase in diversity scores relative to the interquartile range. Importantly, this estimate

¹⁷ We assume an application cost that captures the time and energy to click on and explore a job post in our experiment.

embeds a jobseeker's willingness to update their beliefs, in a Bayesian sense, given a diversity score.

<INSERT TABLE 5 ABOUT HERE>

Job Search Behavior by Gender and Ethnicity

Having established that diversity information is, on average, useful to jobseekers, we begin our exploration of our second hypothesis. Specifically, we investigate heterogeneous effects by examining how users' gender and ethnicity affects job search behavior, and whether these demographic characteristics interact with our treatments. Avery and McKay (2006) find that targeted job advertisements that signal a firms' commitment to diversity can aid in the recruitment of women. Booth and Leigh (2010) finds that the callback rate for women who are seeking jobs is higher than that for men, particularly in female-dominated occupations. Combined, these studies suggest that jobseeker gender may affect the extent to which a firm's diversity is important to a jobseeker.

Panel A of Table 6 presents means, by condition, for the average diversity score of the companies associated with the job listings that users clicked on, broken out by participant gender and treatment condition. Panel B presents the ANOVA output for examining the effects of gender, treatment condition, and the interaction of gender and treatment on the average diversity score of clicked job postings' companies. This ANOVA is now essentially a difference-in-differences test—it assesses how one group's response to changing treatments compares to another group's analogous response. Panel B shows a significant main effect of user gender, such that the job listings that men clicked on were associated with significantly higher diversity scores, on average, than the job listings that were clicked on by women (p<0.001). Although the increase in clicked job postings' diversity scores, when moving from the Baseline to Diversity condition, is larger for

females than it is for males (0.084 vs. 0.045), the respective interaction term in the ANOVA test is insignificant (p=0.332). We revisit this gender effect of the response to diversity information in a later subsection before drawing our takeaway.

<INSERT TABLE 6 ABOUT HERE>

Bertrand and Mullainathan (2004) find that the callback rate for resumes of individuals that include Black-sounding names is lower than that for resumes with non-Black-sounding names, and Kline et al. (2021) find that such discrimination is salient across the US, even for large corporations. Together with Williamson et al. (2008), these studies suggest that jobseekers' attitudes toward a firm are likely to vary depending on their race and prior experiences.

Panel C and D of Table 6 are analogues of Panels A and B, but rather than focusing on gender, they consider heterogeneity based on whether a participant is considered a "Person of Color" (which we treat as our measure of ethnicity). Panel D shows that we do not find a significant main effect when examining the difference between users classified as White in ethnicity versus those who are classified as a person of color (p=0.885). However, we find a significant interaction between our treatment condition and jobseekers' ethnicity, where the Diversity condition increases the diversity scores of clicked job listings (as compared to the Baseline condition) to a greater extent for White users than for those users classified as Persons of Color (p=0.007).

One potential explanation for this finding is that those who are classified as a Person of Color are already more aware of workforce diversity issues, or have other sources that they use to make inferences about a firm's commitment to diversity. It is also possible that jobseekers make different assumptions about what "diversity" in a firm represents, particularly for those who already have heightened awareness of diversity issues, and that they do not automatically assume that the diversity score represents a type of diversity that it important to them. Any of these possibilities could make it less likely that the diversity scores included in our Diversity condition have an incremental effect on the job search behavior of those who are classified as People of Color in our sample.

Job Search Behavior by Preferred Job Level, and Regional Effects

Lazear and Oyer (2004) document the importance of both internal and external labor markets for filling positions that range from entry-level to senior management. Panel A of Table 7 presents means, by condition, for the average diversity score associated with the job listings that users clicked on, broken out by each jobseeker's preferred level of employment. Level of preferred employment is classified as either "Entry", "Junior", "Mid-level", "Senior", "Management" (MGMT), or "Executive". Panel B of Table 7 presents the ANOVA output for examining the effects of preferred job level, treatment condition, and the interaction of job level and treatment on the average diversity score associated with job postings that users clicked on.

As shown in Panel B of Table 7, we find a main effect of preferred job level (p<0.001), where the average diversity scores associated with job listings that are clicked on is generally increasing in users' preferred level of employment. Finally, we find a significant interaction between preferred job level and treatment condition, where the Diversity condition increases the average diversity scores associated with job listings that are clicked on (as compared to the Baseline condition) to a greater extent, generally speaking, for users who are seeking jobs at a lower preferred level of employment (p<0.001). As shown in Panel A of Table 7, there is a larger difference across conditions in the mean diversity scores for Entry-level or Junior-level jobs than for Management or Executive-level jobs.

One interpretation of these results is that more experienced workers may be less likely to face "statistical discrimination" (i.e., discrimination based on screening criteria, such as gender or

race, that economic agents use when faced with imperfect information about others). Those looking for more entry-level jobs have, by definition, fewer ways to signal their qualifications or experience, increasing the likelihood that screening tools will be used to narrow the applicant pool, and also increasing the likelihood that they face statistical discrimination. By contrast, experienced workers have more signals to convey their productivity to employers (such as prior work and promotions history, and more extensive references). Combined, this suggests that entry-level workers may care relatively more about workforce diversity than those who are more experienced (Bertrand and Duflo, 2017).

Kline et al. (2021), Tilcsik (2011) and Chetty, Hendren, Jones, and Porter (2020) document regional variation in various forms of discrimination. Accordingly, regional differences may affect whether jobseekers view diversity within firms as desirable or undesirable. Accordingly, we examine how job search behavior varies with the number of pro-BLM events per capita in a jobseeker's state of residence. We consider pro-BLM events per capita a proxy for general attitudes towards diversity or discrimination in a given region.

Panel C of Table 7 presents means, by condition, for the average diversity score of the companies associated with the job listings that users clicked on, broken out by whether each jobseeker is in a region that is in the bottom tercile, middle tercile, or top tercile in per capita pro-BLM events. Panel D of Table 7 presents the ANOVA output for examining the effects of pro-BLM events, treatment condition, and the interaction of pro-BLM events tercile and treatment interaction on the average diversity score associated with job postings that users clicked on.

As shown in Panel D of Table 7, we find a main effect of pro-BLM events per capita (p<0.001), although the effect here follows an inverted u-shaped pattern. Specifically, users clicked on job listings for companies with significantly higher diversity scores, on average, when

they lived in an area that fell into either the bottom tercile or top tercile of pro-BLM events per capita, as opposed to when they lived in an area that fell into the middle tercile of pro-BLM events. To understand this, it helps to note that we also find a significant interaction between our pro-BLM tercile grouping and our treatment condition, where the Diversity condition increases the average company diversity scores associated with job listings that are clicked on (as compared to the Baseline condition) to a greater extent in both the bottom and top tercile groups than in the middle tercile group (p<0.001). Both the main effect and the interaction presented in Panel D of Table 7 are consistent with jobseekers being more sensitive to signals about firm diversity in their job search when they come from regions with more extreme attitudes towards the pro-BLM movement rather than moderate attitudes.

<INSERT TABLE 7 ABOUT HERE>

Appendix 2 presents the results when we conduct our exploration of heterogenous responses to diversity information through a probit regression specification that considers both clicked and not-clicked, potentially recommended companies. Recall, this specification allows us to control for wages. The results are largely similar to the ANOVA results, though there are some points to note. Panel A shows that women are significantly more responsive to the diversity score when they are in our Diversity condition than when they are not. Compared to the smaller, insignificant response for males, it becomes clear that the female population drives the main probit results in Table 5. Further, users who are classified as a person of color have a higher responsiveness to the (not presented) diversity score in the Baseline condition than do white users; however, persons of color respond incrementally less to the diversity score when it is disclosed under the Diversity Condition. This is supports the possibility that people of color are already more aware of workforce diversity issues, or have other sources that they use to make inferences about

a firm's commitment to diversity, making the diversity information provided by Zippia in job recommendation emails less useful.

Concern About Naïve, Rather Than Informed, Clicking

We interpret our experimental finding that jobseekers who receive diversity information click on job posts at more diverse firms as capturing a latent demand for diversity information. A plausible alternative explanation for this effect is that jobseekers simply respond more prominently to any information that Zippia highlights as important. In other words, the simple act of presenting any numerical score (regardless of the underlying construct it represents) may attract jobseekers' attention. We address this naïve clicking concern in three ways.

First, as discussed above, we introduce a third condition (the Salary condition) to help reduce this concern. The Diversity condition leads to a 1.7% standard deviation increase in the diversity score, while the Salary condition leads to a 1.5% standard deviation increase in the salary score. Under the assumption that salary is fundamentally important, one should expect the salary treatment to be comprised of both informed clicking and naïve clicking. It then becomes unlikely that purely naïve clicking under the diversity treatment elicits an even larger response. Second, our additional findings around worker heterogeneity (e.g., job-level and ethnicity) suggest that additional diversity information is more valuable to certain subgroups of workers. There is no strong reason to suggest that naïve clicking should be more prominent among these subgroups. Finally, as we show in the next section, our Diversity condition treatment results explain firms' human capital disclosure choices. If the diversity treatment leads to purely naïve clicking, we should not observe this relation after controlling for the diversity score itself. However, the relation persists even after the score's addition.

Additional Evidence on Users' Activity in Response to Job Listing Emails

In this section we provide descriptive details about users' engagement with the Zippia platform during our field experiment. The statistics presented in Panel A of Table 8 were discussed at the beginning of Section IV. Panel B presents evidence on the average number of emails sent to each user, by condition. It shows a significant difference in the average number of emails sent does not across our treatment conditions (p<0.001). Importantly though, the number of emails sent does not differ between our Diversity and Baseline conditions (p=0.182), the two central conditions for our analyses. Similarly, Panel C of Table 8 reports that the average number of emails opened by each user is significantly different across all conditions (p<0.001), but does not differ between our Baseline and Diversity conditions (p=0.971). Likewise, Panel D of Table 8 reports that the average number of jobs clicked by each user varies by condition (p=0.080), but does not differ between the Diversity and Baseline conditions (p=0.789).

<INSERT TABLE 8 ABOUT HERE>

Combined the evidence in Table 8 suggests that the differences we observed between the Baseline and Diversity conditions on the average diversity scores of firms associated with job listings that were clicked on by our users was driven by actual selection of particular jobs based on our treatment conditions, rather than by those in the Diversity condition simply receiving more messages and engaging more with the Zippia platform. This further supports the idea that information on firm diversity was used by participants in our study in their job search.

V. Follow-up Survey

In this section, we discuss the results from our follow-up survey, which sheds light on the potential underlying mechanisms for our main result. First, workers may intrinsically value employment at a diverse firm (i.e., a "Preferences" channel). Second, jobseekers may choose jobs in diverse firms to avoid discrimination and increase the chance of promotion and inclusion at the

firm (i.e., a "Discrimination" channel). Third, diversity information might signal that the firm is of higher quality across other unobservable metrics (i.e., a "Signaling" channel).

We conducted a follow-up survey that yielded responses from many of the original participants in our field experiment. On December 9th, 2021, we emailed the original participants and provided them with the opportunity to complete a follow-up survey in exchange for the opportunity to win a small monetary prize. The survey remained open through December 20th, 2021, and participants received one reminder email. During this 12-day period, we received 1,465 completed responses (although not every respondent provided an answer to every question).

We begin by summarizing the demographics of the 1,465 participants in the survey. In the field experiment, participants were randomly assigned to the Baseline Condition, Diversity Condition, or Salary Condition. We find that participation rates in the survey are similar across the three conditions from the field experiment, with 460 survey participants from the Baseline Condition, 485 participants from the Diversity Condition, and 520 participants from the Salary Condition.¹⁸ Among participants that provided their age, the mean (median) age of participants is 37.91 (36) years of age. 57.47% of participants identify as female, 41.16% identify as male, and 1.37% did not identify with a particular gender. Most participants have a four-year undergraduate degree or higher (66.66%). The majority of participants are White (45.7%), with the second largest racial/ethnicity group being African-Americans (22.2%).

We next present participants with a side-by-side comparison of two identical excerpts from an email message containing job listings, except that one excerpt includes diversity score information for the listed jobs. Participants respond to the question: "To what extent do you think you might find the information on the Diversity Score useful in a job search?" (responses are on a

¹⁸ Responses to our survey questions do not vary based on which condition a participant was in during the field experiment.

6-point scale, from 1 = Not at All Useful to 6 = Very Useful). Panel A of Table 9 presents the results. The results indicate that, on average, participants believe that the diversity score might be useful. The mean response is 4.317, which is significantly higher than the midpoint of the scale (p<0.001, two-tailed) and 72.3% of participants responded with a score of 4 or greater. Having established the overall usefulness of diversity information among participants, we next consider why such information may or may not be useful. Participants are presented with one of two follow-up questions. If participants selected a "4", "5" or "6" on the usefulness question above, they are presented with a question assessing why such information might be useful. Otherwise, they are presented with a question assessing why such information might not be useful.

Table 9, Panel B summarizes responses from the 1,059 participants that indicated diversity information might be useful. 50.14% of these respondents indicate that such information is useful because they believe diversity is an important social issue and would like to know whether their employer shares these values. 45.14% of these participants believe such information is useful because it reflects how much they are likely to enjoy the work environment. 39.57% of these participants believe that diversity information is informative about their likelihood to be hired and/or promoted. Finally, 37.68% of these participants believe that diversity information helps them assess the overall, long-term success prospects of an employer. Thus, a large majority of jobseekers that find diversity information valuable because it relates to their preferences for diversity per se. Nevertheless, a substantial portion of these jobseekers also value diversity information for non-taste-based reasons, such as the likelihood that they will be hired and firms' long-run prospects.

In terms of the 406 participants that did not believe that diversity information might be useful, we find weaker evidence for any particular explanation. As summarized in Panel C of Table 9, the most common jobseeker view is that participants believe they already have a good sense of the diversity of employers within their profession (32.27%). Further, 29.06% of these participants believe that they can obtain such information through other sources. Only 23.15% of these jobseekers prefer employers not to focus on diversity, and 18.23% believe that diversity is not that important generally. Given that only a minority of jobseekers claim to have such information readily available through other sources, we conclude that diversity scores are generally informative to jobseekers.

In terms of explaining our main field experiment result that jobseekers value diversity information, the evidence is most supportive of the "Preferences" channel discussed earlier; that is, diversity information relates to something that workers believe is an important social issue. Nevertheless, our survey highlights that diversity information is useful for various reasons including the "Discrimination" and "Signaling" channels and that there is a non-trivial fraction of jobseekers that do not value diversity or prefer that firms do not focus on it.

<INSERT TABLE 9 ABOUT HERE>

VI. Firms' Human Capital Disclosures (HCDs)

Our field experiment demonstrates that providing information about employers' workforce diversity affects jobseekers' search behavior. This leads to a natural follow-up question: Do employers consider this decision-usefulness for jobseekers when they choose whether to disclose diversity metrics publicly? In this section we provide insight into this question by linking the findings of our field experiment to human capital disclosures (HCDs) in the United States.

HCDs were made mandatory by the SEC in 2020, with an appeal by the SEC for firms to consider 'materiality'. Materiality is typically framed in terms of decision-usefulness for investors, that is, is this information likely to change investors' decisions with respect to their investments.

However, the results of our field experiment and the broader discussion around shareholder and stakeholder models of capitalism raise the question as to whether 'investor materiality' and 'stakeholder materiality' are aligned in the context of diversity information. We briefly outline the regulatory setting before describing our data sources and analyses.

HCD Regulatory Background

On August 26, 2020, the SEC modernized items in Regulation S-K, which prescribes various reporting requirements for public companies. Included was an amendment to Item 101 (Description of Business, the first contents item in 10-Ks) that requires companies to describe their human capital resources to the extent that such items are material. Of the amendments, SEC Chairman Jay Clayton remarked, "I am particularly supportive of the increased focus on human capital disclosures, which for various industries and companies can be an important driver of long-term value." The modernization reflects a general concern that financial reporting does not adequately describe most economic assets (e.g., Ewens, Peters and Wang, 2020). The amendments became effective for FY2020 10-Ks filed on or after November 9, 2020. As is the case with the majority of ESG topics, the SEC's principles-based approach to HCD does not prescribe specific subtopics or metrics to disclose. Potential topics include training and development initiatives, retention strategies, labor relations, COVID-19 strategy, and workplace safety. However, commentary around the modernization pointed to a human capital issue widely perceived as relevant: diversity (Lee, 2020; Wyatt and Yerre, 2020).

The first set of HCDs firms produced vary widely in the degree of detail provided across the various sections. Boilerplate language is common, and casual empiricism reveals that few firms disclose detailed diversity metrics. Appendix 3, Example A provides the HCD section for Simpson Manufacturing. Simpson details its workforce gender and racial/ethnicity breakdowns by employee seniority, which we view as a high degree of detail. Simpson goes on to discuss Talent Development, Pay Equity, Workplace Safety and Health, and Labor Relations. Appendix 3, Example B details the HCD section of UScellular, which simply provides a count of full-time and part-time employees and some general, qualitative statements about employee satisfaction, training, workplace culture, and diversity. We view this as a low degree of detail.

HCD: Data

i. Disclosure of Diversity Metrics

We collect all FY2020 10-Ks filed between October of 2020 and March of 2021, and extract the HCD sections, which appear in Item 1 of the 10-K, which describes the business. This corresponds to 3,321 firms' disclosures. We then extract disclosed proportions of the workforce that comprise diversity groups, along with any attached qualifiers. Diversity groups largely correspond to gender and ethnicity/race, although a number of firms quantifying other employee subsets, such as veterans, people with disabilities, and people identifying as LGBTQ+. We focus on the predominant groupings of gender and race. As to qualifiers, firms frequently report diversity proportions for job functions and geographies, or as metrics that reflect changes (rather than levels), or aspirations (rather than current proportions). To keep the subsequent analyses consistent, we focus on disclosed metrics about a firm's current workforce.

In terms of gender, most firms disclose a female percentage and seldom an 'other' percentage, which we exclude for consistency. We also note that 17% of firms disclose a gender metric. In terms of race, the categorizations vary in terms of aggregation, for example, some firms might disclose the fraction of employees that identify as people of color, while others will provide more granular categorizations such as white, black, Hispanic, Asian, and so forth. We aggregate
the race disclosures such that there are two categories: white and non-white (henceforth people of color, or POC). The data indicate that 13% of firms disclose a race metric.

ii. Underlying Diversity Information and its Materiality

In our field experiment, we feature a firm's diversity score alongside its job posting in periodic emails sent to jobseekers. The diversity score is a proprietary measure computed by Zippia. It combines information about the race, gender, education, and language skills of a firm's workforce in a way that is standardized across the firm's job roles and locations. We find that this measure is valued by jobseekers, and thus firms performing well along this dimension might be more willing to disclose their diversity metrics in their HCDs. Thus, we first introduce Zippia's diversity score as a diversity metric disclosure determinant. The SEC's HCD requirement appeals to materiality, which is typically couched in terms of decision-relevance for investors. The broader discussion around shareholders and stakeholder models of capitalism (e.g., Magill et al., 2015), however, raises the question of whether 'investor materiality' and 'stakeholder materiality' are aligned. We compute the industry-level treatment effect from our field experiment, that is, within SIC 2-digit industry, the average diversity score of clicked firms for the Diversity condition group minus the average diversity score of clicked firms for the Baseline condition group. This can be viewed as a proxy for 'jobseeker materiality.'

iii. Other Disclosure Determinants

The issue of diversity, especially as it pertains to race, gained heightened prominence following the wave of protests that followed the murder of George Floyd in May of 2020. We examine whether these protests created social pressure upon firms to either disclose or not disclose their diversity metrics (Tilcsik, 2011) by considering the number of pro-BLM protests per capita, focusing on a firm's location of headquarters. We also include market capitalization and ROA as financial determinants of diversity metric disclosure.

HCD: Results

i. Descriptive Figures and Statistics

Appendix 4 visually describes trends in disclosure rates and disclosed percentages of women and people of color employed, by both industry and size. The broad takeaway is that, gender and race metric disclosures share similarities in terms of whether a metric is disclosed or not, but are less similar when considering how disclosed values vary with other firm characteristics.

Panel A of Table 10 describes the data used for the subsequent analysis of diversity metric disclosure. To keep the analysis parsimonious and consistent with the field experiment setting (in which an overall diversity score metric was highlighted), we now consider a firm as a discloser if it disclosed a gender and/or a race metric. By this measure, 17% of firms are disclose a diversity metric. Panel B of Table 10 splits the sample by disclosers and non-disclosers. Focusing on means, disclosing firms have higher diversity scores, are larger, and are more profitable. The latter two features are consistent with Dhaliwal et al. (2011), and with the idea that CSR reporting imposes resource constraints that larger and more profitable firms are better equipped to face.

<INSERT TABLE 10 ABOUT HERE>

ii. Determinants of Diversity Metric Disclosure

Table 11 provides the results from testing the determinants of diversity metric disclosure choice. Consistent with limited unraveling (e.g., Verrecchia, 1983), Column 1 shows that firms with higher diversity scores (again, as calculated by Zippia) tend to disclose more often—a one standard deviation increase in diversity score increases the probability of disclosure by 5.1%. Thus, firms' diversity disclosure choices correlate with a metric that is valued by jobseekers in our field

experiment. We are agnostic about whether firms are sensitive to this measure because of a first or second order consideration of employee welfare—that is, firms might consider employee welfare per se, or might only consider it to the extent it folds into investor preferences (e.g., Hartzmark and Sussman, 2019).

<INSERT TABLE 11 ABOUT HERE>

Column 2 shows that that industry-level experimental treatment effect is positively related to disclosure choice, but not significantly. Because the treatment effect occurs in response to diversity scores, it makes sense to include both variables jointly so as to examine their orthogonalized effects on disclosure choice. In Column 3, we re-include the diversity score, and the loading on *Experiment Delta* becomes significantly positive. These results persist with the addition of control variables and state fixed effects in Columns 4 and 5. The evidence suggests that, separate from their own diversity performance, firms consider the decision-usefulness of diversity information for employees when making their diversity disclosure choices. A one standard deviation increase in *Experiment Delta* increases the probability of disclosure by 1.72%. Again, whether this operates through a first or second order consideration of employee welfare is unclear. Recent papers have examined the materiality of ESG information for investors (e.g., Grewal et al., 2021; Khan et al., 2016). Our results complement this work by demonstrating the materiality of ESG information for a key non-investor stakeholder group (employees), and how such stakeholder materiality is aligned with corporate disclosure decisions.

VII. Conclusion

In this study, we examine how information about the diversity of a potential employer affects individuals' job-seeking behavior. In cooperation with Zippia, a leading job recruiting agency, we conduct a 1x3 between-participants field experiment with 267,494 unique participants.

We manipulate job recommendation emails across three conditions: a Baseline condition in which workers see job postings; a Diversity condition in which the job postings also contain information about firm diversity; and a Salary condition in which the job postings contain information about firm salaries (but not diversity information).

Our results indicate that diversity information has a significant effect on workers' jobseeking behavior. Embedding information about diversity in a job posting significantly increases the average level of firm diversity among job postings that workers click on relative to the Baseline condition. Exploiting the richness of data in our setting, we estimate that jobseekers update their willingness to pay for a company's diversity by \$1,463 when faced with a 10% increase in diversity scores relative to the interquartile range.

We also conduct analyses to assess the value of diversity to heterogeneous jobseekers by examining how our findings vary based on worker demographics. Our effects are most pronounced for entry-level workers, white workers, and workers located in regions with more extreme attitudes towards diversity issues (as proxied by either a low or high, but not moderate level of pro-BLM events per capita) appear to respond more to diversity information. Based on a follow-up survey of participants in our field experiment, we find that the usefulness of diversity information is driven by various factors including preferences (i.e., diversity information reflects something that jobseekers believe is an important social issue). Finally, we document that when the demand for diversity information is stronger, as measured through our field experiment, companies are more willing to disclose their workforce diversity in their 10-K human capital disclosure sections, which were recently mandated by the SEC.

Our field experiment allows us to break the link between a firms' underlying diversity, and the disclosure of that diversity level. By demonstrating the importance of workforce diversity information in the job search process, our study provides important insights for policy-makers considering whether to prescribe more disclosure about diversity, and for firms that might use disclosure to attract and retain a diverse workforce. We also highlight how disclosure of a firm characteristic can elicit heterogenous stakeholder responses.

Our study highlights several avenues for future research. First, while we provide novel evidence on jobseekers' demand for diversity information, we are unable to isolate the mechanisms that drives this demand. For example, workers may respond due to preferences/taste, fear of discrimination, or because diversity is a signal that a firm is better along other unobservable dimensions. Second, our analyses are based on a current cross-section of workers and rely on an information environment from a point in time. It is possible that workers' demand for diversity may shift with on time-varying conditions, such as political climate or social awareness.

References

Akerlof, G. A., and R. E. Kranton. 2005. Identity and the economics of organizations. *Journal of Economic Perspectives* 19 (1): 9–32.

Asch, S. E. 1961. Effects of group pressure upon the modification and distortion of judgments. *Documents of gestalt psychology*, University of California Press: 222-236.

Ashraf, N., O. Bandiera, E. D., and S. S. Lee. 2020. Losing prosociality in the quest for talent? Sorting, selection, and productivity in the delivery of public services. *American Economic Review* 110 (5): 1355–1394.

Autor, D. H. 2001. Wiring the labor market. Journal of Economic Perspectives 15 (1): 25-40.

Avery, D. R., and P. F. McKay. 2006. Target practice: An organizational impression management approach to attracting minority and female job applicants. *Personnel Psychology* 59 (1): 157–187.

Bartov, E., Radhakrishnan S., and I. Krinsky. 2000. Investor sophistication and patterns in stock returns after earnings announcements. *The Accounting Review* 75 (1): 43-63.

Booth, A., and A. Leigh. 2010. Do employers discriminate by gender? A field experiment in female-dominated occupations. *Economics Letters* 107 (2): 236–238.

Bénabou, R., and J. Tirole. 2011. Identity, morals, and taboos: Beliefs as assets. *Quarterly Journal* of Economics 126 (2): 805–855.

Bernile, G., Bhagwat, V., and S. Yonker. 2018. Board diversity, firm risk, and corporate policies. *Journal of Financial Economics* 127 (3): 588-612.

Bertrand, M., and E. Duflo. 2017. Field Experiments on Discrimination. *Handbook of Economic Field Experiments* 1: 309–393.

Bertrand, M., and S. Mullainathan. 2004. Are Emily and Greg More Employable Than Lakisha and Jamal? Evidence on racial discrimination in the labor market from a large randomized experiment. *American Economic Review* 94 (4): 991–1013.

Caminiti, S. 2021. <u>https://www.cnbc.com/2021/04/30/diversity-equity-and-inclusion-are-important-to-workers-survey-shows.html</u>

Card, D., Mas, A., Moretti E., and E. Saez. 2012. Inequality at work: The effect of peer salaries on job satisfaction. *American Economic Review* 102 (6): 2981–3003.

Carter, N. T., and S. Highhouse. 2014. You will be known by the company you keep: Understanding the social-identity concerns of jobseekers. *The Oxford handbook of recruitment*: 454-462.

Chen, C. X., Pesch, H. L., and L. W. Wang. 2020. Selection benefits of below-market pay in socialmission organizations: Effects on individual performance and team cooperation. *The Accounting Review 95* (1): 57-77.

Chetty, R., Hendren, N., Jones, M. R., and S. R. Porter. 2020. Race and economic opportunity in the United States: An intergenerational perspective. *Quarterly Journal of Economics 135* (2): 711-783.

Chilton, A. S., and A. S. Galit. 2017. The limitations of supply chain disclosure regimes. *Stanford Journal of International Law* 53: 1.

Choi, B., Choi, J. H., and S. Malik. 2021. Not Just for Investors: The Role of Earnings Announcements in Guiding Job Seekers. *Working Paper:* 1-66.

Collins, D. W., Gong G., and P. Hribar. 2003. Investor sophistication and the mispricing of accruals. *Review of Accounting Studies* 8 (2): 251-276.

Corritore, M., Goldberg A., and S. B. Srivastava. 2020. Duality in Diversity: How Intrapersonal and Interpersonal Cultural Heterogeneity Relate to Firm Performance. *Administrative Science Quarterly* 65 (2): 359–394.

Dechow, P., Weili G., and C. Schrand. 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics* 50 (2-3): 344-401.

Dhaliwal, D. S., Li, O. Z., Tsang, A., and Y. G. Yang. 2011. Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review 86* (1): 59–100.

Ewens, M., Peters, R., and S. Wang. 2020. Measuring Intangible Capital with Market Prices, . https://doi.org/10.31235/osf.io/kvp2f

Field, L. C., Southern, M. E., and A. S. Yore. 2020. At the table but cannot break through the glass ceiling: Board leadership positions elude diverse directors. *Journal of Financial Economics* 137 (3): 787-814.

Grewal, J., Hauptmann, C., and G. Serafeim. 2021. *Material Sustainability Information and Stock Price Informativeness. Journal of Business Ethics* 171: 513-544.

Grier, S. A., and A. M. Brumbaugh. 1999. Noticing cultural differences: Ad meanings created by target and non-target markets. *Journal of advertising 28* (1): 79-93.

Hart, O., and L. Zingales. 2017. Companies should maximize shareholder welfare not market value. *Journal of Law, Finance, and Accounting* 2: 247-274.

Hartzmark, S. M., and A. B. Sussman. 2019. Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows. *Journal of Finance* 74 (6): 2789–2837.

He, H., Neumark, D., and Q. Weng. 2021. Do workers value flexible jobs? A field experiment. *Journal of Labor Economics* 39: 709-738.

Hedblom, D., Hickman, B. R., and J. A. List. 2019. Toward an understanding of corporate social responsibility: Theory and field experimental evidence. National Bureau of Economic Research Working Paper.

Ingram, P., and X. Zou. 2008. Business friendships. *Research in organizational behavior* 28 (1): 167-184.

Jin, G. Z., and P, Leslie. 2003. The effect of information on product quality: Evidence from restaurant hygiene grade cards. *The Quarterly Journal of Economics* 118 (2): 409-451.

Johnson, M. S. 2020. Regulation by shaming: Deterrence effects of publicizing violations of workplace safety and health laws. *American Economic Review* 110 (6): 1866-1904.

Kim, D., and L. T. Starks. 2016. Gender diversity on corporate boards: Do women contribute unique skills? *American Economic Review* 106 (5): 267-271.

Khan, M., Serafeim, G., and A. Yoon. 2016. Corporate sustainability: First evidence on materiality. *Accounting Review 91* (6): 1697–1724. <u>https://doi.org/10.2308/accr-51383</u>

Kline, P., Rose, E. K., and C. R. Walters. 2021. Systemic Discrimination among Large U.S. Employers. *Becker Friendman Institute Working Paper Series* 2021-94.

Kuehner-Herbert, K. 2018. https://www.benefitspro.com/2018/07/31/whats-most-important-to-todays-jobseekers/

Larcker, D. F., and E. M. Watts. 2020. Where's the greenium? *Journal of Accounting and Economics* 69 (2): 101312.

Lazear, E. P., and P. Oyer. 2004. Internal and external labor markets: A personnel economics approach. *Labour Economics* 11 (5): 527–554.

Lee, A. H. 2020. *Diversity Matters, Disclosure Works, and the SEC Can Do More: Remarks at the Council of Institutional Investors Fall 2020 Conference.* Retrieved from https://www.sec.gov/news/speech/lee-cii-2020-conference-20200922

Lee, S. 2021. https://www.cultureamp.com/blog/benefits-diversity-in-workplace

Lorenzo, R., Voigt, N., Tsusaka, M., and M. Krentz. 2018. <u>https://www.bcg.com/en-us/publications/2018/how-diverse-leadership-teams-boost-innovation</u>

Magill, M., Quinzii, M., and J.-C. Rochet. 2015. A Theory of the Stakeholder Corporation. *Econometrica* 83 (5): 1685–1725.

Matsumura, E. M., R. Prakash, and S. C. Vera-Muñoz. 2014. Firm-value effects of carbon emissions and carbon disclosures. *Accounting Review* 89 (2): 695–724.

McCall, J. J. 1970. Economics of information and job search. *The Quarterly Journal of Economics* 84 (1): 113-126.

NACE. 2018. Students rate importance of diversity-recruiting elements https://www.naceweb. org/talent-acquisition/student-attitudes/students-rate-importance-of-diversityrecruiting-elements/. Accessed: October 11th, 2021.

Rauter, T. 2020. The effect of mandatory extraction payment disclosures on corporate payment and investment policies abroad. *Journal of Accounting Research* 58 (5): 1075-1116.

Rose, J., Beaver, W., Becker, S., and G. Sorter. 1970. Toward an empirical measure of materiality. *Journal of Accounting Research* 8 : 138-148.

Roy, A. D. 1951. Some Thoughts on the Distribution of Earnings. *Oxford economic papers* 3 (2): 135–146.

Roberson, Q. M. 2019. Diversity in the Workplace: A Review, Synthesis, and Future Research Agenda. *Annual Review of Organizational Psychology and Organizational Behavior* 6: 69–88.

Roberson, Q. M., and H. J. Park. 2007. Examining the link between diversity and firm performance: The effects of diversity reputation and leader racial diversity. *Group & Organization Management* 32(5): 548-568.

Sommers, S. R. 2006. On racial diversity and group decision making: identifying multiple effects of racial composition on jury deliberations. *Journal of Personality and Social Psychology 90* (4): 597.

Sorkin, I. 2018. Ranking Firms Using Revealed Preference. *Quarterly Journal of Economics* 133 (3): 1331–1393.

Taylor, M. 2001. <u>https://www.institutionalassetmanager.co.uk/2021/03/27/297852/institutional-investors-increase-focus-ethnic-and-gender-diversity-wake-2020</u>

Tilcsik, A. 2011. Pride and prejudice: Employment discrimination against openly gay men in the United States. *American Journal of Sociology* 117 (2): 215–224.

Vaseghi, M., Marcogliese, P., and E. Bieber. 2020. <u>https://corpgov.law.harvard.edu/2020/10/31/</u> incorporating-human-capital-management-disclosures-into-a-companys-annual-report/

Verrecchia, R. E. 1983. Discretionary disclosure. *Journal of Accounting and Economics* 5: 179–194.

Williams, K. Y., and C. A. O'Reilly III. 1998. Demography and Diversity in Organizations: A Review of 40 Years of Research. *Research in Organizational Behavior* 20: 77-140.

Williamson, I. O., Slay, H. S., Shapiro, D. L., and S. L. Shivers-Blackwell. 2008. The effect of explanations on prospective applicants reactions to firm diversity practices. *Human Resource Management* 47 (2): 311-330.

Wodtke, G. T. 2012. The impact of education on intergroup attitudes: A multiracial analysis. *Social Psychology Quarterly* 75 (1): 80-106.

Wyatt, S., and B. Yerre. 2020. *PWC Report: New human capital disclosure rules: Getting your company ready*. <u>https://viewpoint.pwc.com/dt/us/en/pwc/in_the_loop/in_the_loop_US/New-human-capital-disclosure-rules-Getting-your-company-ready.html</u>

Variable	Description
Employee level	
Gender	Female / Male
Ethnicity	Asian / Black / Hispanic / White
Education	High School / Associate / Bachelor / Master / Doctor
Level	Entry / Junior / Mid / Senior / Management / Executive
Employer level	
Diversity Score	The diversity of the workforce in a firm
Salary Score	The competitiveness of salaries of a firm
Size	The number of employees (six bins)
Gender	The proportion of female workers
Ethnicity	The proportion of workers with color
Median Salary	The median of estimated worker salaries
Disclosure Analysis	
Diversity Disclosure	Whether a firm discloses a quantitative, firm-wide gender metric or US-
	wide-people of color metric
Experiment Delta	By 2-digit SIC, the experimental treatment effect on click through rate
BLM Protests	By state, the number of Black Lives Matter affiliated protests in 2020 per capita
Log MV	The natural logarithm of market capitalization
ROA	Return on Assets

Appendix 1. Variables

Appendix 2. Diversity Information and Willingness to Pay for Diversity Across Demographics

This table describes jobseekers' heterogeneous responses to different job posts considering those employers' diversity and wage under two different conditions. 'Treatment' observations are those where the employer's diversity metric is highlighted. The other observations are those where neither the diversity nor salary metric is highlighted. The sample consists of the click patterns of Zippia users that were part of the field-experiment described in Section 3. Appendix 1 provides variable definitions.

	Job Post Click					
	Female	Male	PoC	White		
Log Diversity	0.520***	0.977***	0.826***	0.681***		
Score	(0.091)	(0.106)	(0.141)	(0.081)		
Log Diversity	0.286**	0.137	-0.148	0.386***		
Score * Treatment	(0.134)	(0.156)	(0.197)	(0.122)		
Log Median Salary	0.074**	0.164***	0.085**	0.140***		
	(0.029)	(0.029)	(0.040)	(0.024)		
Log Median Salary	0.032	-0.034	0.049	-0.014		
* Treatment	(0.041)	(0.041)	(0.056)	(0.035)		
Treatment	-1.073**	-0.036	-0.309	-0.809*		
	(0.529)	(0.554)	(0.743)	(0.453)		
Intercept	-3.011***	-4.921***	-3.632***	-4.087***		
	(0.370)	(0.384)	(0.525)	(0.314)		
Ν	45,971	39,661	19,892	63,673		
Pseudo R-squared	0.005	0.009	0.006	0.008		

Panel A: Gender and Ethnicity Groups

Panel B: Job-level Preference Groups

		Job Post Click	
	Entry / Junior	Mid / Senior	MNGT / Exec
Log Diversity Score	0.021	0.344***	0.460***
	(0.045)	(0.051)	(0.064)
Log Diversity Score *	0.320***	0.050	0.165*
Treatment	(0.069)	(0.071)	(0.089)
Log Median Salary	-0.067***	0.133***	0.053***
	(0.015)	(0.015)	(0.017)
Log Median Salary *	0.096***	0.068***	0.050**
Treatment	(0.022)	(0.021)	(0.024)
Treatment	-1.761***	-0.863***	-0.891***
	(0.281)	(0.279)	(0.326)
Intercept	-0.475**	-3.177***	-2.501***
	(0.194)	(0.198)	(0.233)
Ν	161,582	150,819	104,639
Pseudo R-squared	0.001	0.003	0.002

		Job Post Click	
	BLM-Bottom	BLM-Middle	BLM-Top
Log Diversity Score	0.730***	0.391***	0.187***
	(0.049)	(0.048)	(0.053)
Log Diversity Score *	-0.143*	-0.164**	0.354***
Treatment	(0.076)	(0.066)	(0.078)
Log Median Salary	0.183***	-0.023	0.082***
	(0.015)	(0.014)	(0.017)
Log Median Salary *	-0.013	0.073***	0.123***
Treatment	(0.022)	(0.020)	(0.024)
Treatment	0.494*	-0.435*	-2.139***
	(0.283)	(0.263)	(0.307)
Intercept	-4.669***	-1.605***	-2.348***
	(0.192)	(0.185)	(0.215)
Ν	150,364	157,580	125,307
Pseudo R-squared	0.006	0.001	0.003

Panel C: Regional Groups

Appendix 3. Examples of 10-K Human Capital Disclosures

These excerpts exemplify the variation in detail provided by firms in their 2020 10-K Human Capital Disclosures. Simpson Manufacturing is an engineering firm and building materials producer. UScelluar is a mobile network operator.

Example A: Simpson Manufacturing Co., Inc.'s HCD

Human Capital Resources

Successful execution of our strategy is dependent on attracting, developing and retaining key employees and members of our management team. The skills, experience and industry knowledge of our employees significantly benefit our operations and performance. We continuously evaluate, modify, and enhance our internal processes and technologies to increase employee engagement, productivity, and efficiency opportunities, skills, and resources they need to be successful.

At December 31, 2020, our employees, including those employed by consolidated subsidiaries, by region were approximately:

Asia Pacific	301
Europe	670
North America	2,591
	3,562

At December 31, 2020, we had the following global gender demographics:

	Women	Men
All employees	22%	78%
Individual Contributors	23%	77%
Middle Management	19%	81%
Senior Leadership	22%	78%

Inclusion & Diversity

We strive to have a diverse culture of employees representing different genders, ages, ethnicities and abilities. Our commitment to diversity and inclusion starts at the top with a highly skilled and diverse board. At December 31, 2020, our U.S. employees had the following race and ethnicity demographics:

	All U.S. Employees	Individual Contributors	Middle Management	Senior Leadership
American Indian or Alaska Native	1 %	1 %	— %	— %
Asian	10 %	11 %	7 %	8 %
Black or African American	11 %	11 %	2 %	4 %
Hispanic or Latino	20 %	22 %	8 %	— %
Native Hawaiian or Other Pacific Islander	— %	1 %	— %	— %
Two or More Races	1 %	1 %	2 %	— %
White	58 %	53 %	81 %	88 %

Talent Development

Talent development underpins our efforts to execute our strategy and continue to develop, manufacture and market innovative products and services. The opportunity to grow and develop skills and abilities, regardless of job role, division, or geographical location is critical to the success of the Company as a global organization and we continually invest in our employees' career growth and provide employees access to a wide variety of learning and development resources, including a suite of online courses for developing both soft and technical skills. These resources are designed to encourage a growth mindset and continuous learning. Accordingly, we also have leadership development programs that provide employees with training, tools and experiences that are targeted to develop their full leadership potential.

Pay Equity

The Company's compensation philosophy is to attract, retain, motivate, and differentiate employees through its rewards programs. We believe people should be paid for what they do and how they do it, regardless of their gender, race, or other personal characteristics and are committed to internal pay equity. Our Board of Directors, through its Compensation and Leadership Development Committee, monitors the relationship between the pay received by our executive officers and non-managerial employees. We believe our compensation philosophy and strategy are strongly aligned with our corporate strategic priorities and our vision for stockholder value creation.

In addition to our financial compensation we offer a health and wellness package to our employees, which is designed to provide employees with options for their individual and/or family needs. In addition, in an effort to continue to attract, retain, and motivate our workforce, in the U.S., we offer remote and flexible work packages for positions which allow for remote work. We continue to engage our partners and benefits consultants to ensure our health and wellness package continues to meet the needs of our diverse workforce today and into the future.

Workplace Safety and Health

A vital part of our business is providing our workforce with a safe, healthy and sustainable working environment. Our Environmental, Health and Safety program focuses on implementing change through our employee observation feedback channels to recognize risk and continuously improve our processes, as well as conducting regular risk reviews and self-audits at our manufacturing facilities around the world to explore new opportunities to reduce potential employee exposure to occupational injuries.

Importantly during 2020, our experience and continuing focus on workplace safety have enabled us to preserve business continuity without sacrificing our commitment to keeping our colleagues and workplace visitors safe during the COVID-19 pandemic.

At the onset of the pandemic we established a Crisis Management Team (the "CMT") to monitor new COVID-19 related developments and support our operations to respond to the ever-changing landscape:

- The CMT consists of senior members of management including our CEO, CFO, President of Sales, General Counsel, and Heads of HR, Manufacturing, IT, Internal Communications, and Safety.
- · Currently the CMT meets weekly and at onset of the pandemic met daily.
- The CMT provides updates to the Board of Directors on a regular basis.
- Our goals are to:
 - Support safe working environments in our operations,
 - Regularly communicate to inform and update employees, and
 - Provide oversight of training on COVID-19 safety practices.

The Company took immediate action at the onset of this crisis to enact rigorous safety protocols in all of our facilities by improving sanitation measures, implementing mandatory social distancing, temperature screening, use of facing coverings, reducing on-site staff through staggered shifts and schedules, remote working where possible, and restricting visitor access to our locations. These actions, in addition to generally being deemed an essential business, have enabled us to continue operating our business with minimal disruptions during the pandemic.

Labor Relations

As of December 31, 2020, approximately 14% of the Company's employees are represented by labor unions and are covered by collective bargaining agreements. We have two facility locations with collective bargaining agreements covering tool and die craftsmen, maintenance workers, and sheet-metal workers. In Stockton, California, two union contracts will expire in June 2023 and September 2023, respectively. Also, we have two contracts in San Bernardino County, California that will expire by the end of March 2021 and June 2022, respectively. Based on current information and subject to future events and circumstances, we believe that, even if new agreements are not reached before the existing labor union contracts expire, it is not expected to have a material adverse effect on the Company's ability to provide products to customers or on the Company's profitability. See "Item 1A — Risk Factors."

Available Information

The Company's website address is <u>www.simpsonmfg.com</u>. We file or furnish annual, quarterly and current reports, proxy statements and other information with the Unites States Securities and Exchange Commission (the "SEC"). You may obtain a copy of any of these reports, free of charge, on the "Investor Relations" page our website, as soon as reasonably practicable after we file such material with, or furnish it to the SEC. Printed copies of any of these materials will also be provided free of charge on request.

Example B: UScellular's HCD

Human Capital Resources

UScellular had approximately 5,300 full-time and part-time employees as of December 31, 2020. Employee engagement and development is critical to the success of UScellular. UScellular periodically surveys its employees; those surveys have consistently shown that employees have strong engagement and high overall job satisfaction. UScellular offers education assistance, development assignments, and mentoring programs to assist in employee development. Additionally, UScellular sponsors various employee resource groups to build small, connected communities within its workforce and promote diverse, inclusive experiences. UScellular supports the communities it serves and encourages employees to volunteer and support local organizations and community groups.

Appendix 4. Visual Description of Human Capital Disclosure Trends

Subfigure A of this Appendix plots, by industry, the disclosed percentage of women employed (for disclosers) against the percentage of firms that choose to disclose; in other words, the intensive margin of gender disclosure against the extensive margin. The plot reveals a linear trend: when industries exhibit higher disclosure rates, their disclosing firms hire more women. Industries with higher disclosure rates and disclosed female percentages tend to be less industrial (e.g., depository institutions, business services, and holding and other investments vs. transportation equipment, electronic and other electronic equipment, and oil and gas extraction).

Subfigure B of this Appendix plots the same disclosure margins, this time by market value decile. There are two clear patterns. First, larger firms have higher disclosure rates, which might reflect their better ability to invest in the infrastructure needed to measure diversity within the firm. Larger firms might also be more prominent in the public eye and thus subject to greater external pressure to disclose. Second, conditional on disclosure, larger firms employ a lower fraction of women than smaller firms do. This might reflect larger firms being older, and thus having an employee-base that accrued during a time when workforce gender diversity received less attention.

Subfigure C and D of this Appendix recreate Subfigures A and B, but focus on racial diversity rather than Gender. Subfigure C shows that disclosure rates are still higher for less industrial sectors. However, there is no clear relation between race disclosure rates and disclosed POC percentages (for disclosers). Similarly, Subfigure D shows that larger firms still have higher disclosure rates, but that there is no clear relation between size and disclosed POC percentages (for disclosers). In terms of broad patterns, gender and race metric disclosures seem similar in terms of disclosure choice, but not disclosed values.

Appendix 4 Subfigures. Average Disclosed Diversity Proportions vs. Percentage of Firms that Disclose

These Subfigures plot, by industry and market value decile, i) the mean disclosed proportion of a firm's global workforce that is composed of women (Subfigures A and B) or US workforce that is composed of people of color (Subfigures C and D), conditional on disclosing this metric, against ii) the proportion of firms disclosing this metric. The sample consists of firms that had their 2020 10-Ks available for download from the SEC by March, 2021, and that passed other filters described in Section V.



Subfigure A: Gender, by industry

Subfigure B: Gender, by market value decile









Subfigure D: People of color, by market value decile

Table 1. Description of Treatment Conditions

This table shows the potential configurations of treatments for a simplified version of the field experiment described in Section III. This example includes nine users and three firms, with each user receiving one email about two firms. For example, Users 1, 4, and 7 were randomly assigned to the "Baseline" condition, where they received emails from Zippia containing job postings in the standard format. User 1 would receive an email with job listings for Firms A and B, whereas users 4 and 7 would receive job listings from Firms A and C, and Firms B and C, respectively. Users 2, 5, and 8 were randomly assigned to the Diversity condition, where they received emails from Zippia containing job postings that also included a diversity score metric for each firm associated with a given job listing. Finally, Users 3, 6, and 9 were assigned to the Salary condition, where they received emails containing job postings that did not include the diversity score metric, but did include a salary score metric for each firm associated with a given job listing associated with a given job listing. In the actual field experiment, there were 267,494 users and 107,810 firms, with each user receiving daily to monthly emails, each for about 14 firms (not necessarily the same firms within each successive email sent to the same user).

User	Email sent	to user that contain	ns the below:	We then obser	ve the following:
User	Firm A	Firm B	Firm C	- We then observe the following:	
1	Baseline post	Baseline post	Not shown		
2	Diversity post	Diversity post	Not Shown		
3	Salary post	Salary post	Not shown		
4	Baseline post	Not shown	Baseline post	Di Lu	If email opened,
5	Diversity post	Not shown	Diversity post	Did the user open	which firms' posts
6	Salary post	Not shown	Salary post	the email?	were clicked
7	Not shown	Baseline post	Baseline post		
8	Not shown	Diversity post	Diversity post		
9	Not shown	Salary post	Salary post		

Table 2. Descriptive Statistics

This table shows the descriptive statistics for users of the Zippia platform. The sample consists of users and companies that were part of the field experiment described in Section III. Panel A describes sample users, Panel B describes potential sample companies with relevant information, and Panel C describes sample companies, with relevant information, that were clicked on by jobseekers that were participants in our experiment. Appendix 1 provides variable definitions.

	Number	%
Gender		
Female	28,670	10.72
Male	24,984	9.34
Not classified	44,411	16.60
No information	169,429	63.34
Ethnicity		
Asian	9,618	3.60
Black	1,264	0.47
Hispanic	12,924	4.83
White	70,833	26.48
Not classified	3,426	1.28
No information	169,429	63.34
Education		
None	608	0.23
High School	12,898	4.82
Associate Degree	7,707	2.88
Bachelor's Degree	29,286	10.95
Master's Degree	11,577	4.33
Doctorate	2,134	0.80
No information	203,284	76.00
Preferred Level		
Entry	40,832	15.26
Junior	15,804	5.91
Mid	26,961	10.08
Senior	13,798	5.16
Management	13,630	5.10
Executive	7,175	2.68
No information	149,294	55.81

Panel A: Sample Users

	Ν	Missing	< 50	100	500	1,000	10,000	>10,000
Size	107,810	8.00) 39.49	7.63	18.86	10.77	13.21	2.03
		N	Mean	StdDev	Q1	M	edian	Q3
Diversity Scor	'e	66,694	7.650	1.541	6.6	67	7.778	8.889
Salary Score	<u> </u>	41,094	7.651	1.537	6.6		7.778	8.889
Median Salary		107,810	45,730	17,889	36,5	579	43,068	53,958
· · ·								
Panel C: Sample	e Clicked N	Companio		100	500	1,000	10,000	>10,000
Panel C: Sample Size		Miss			500 14.25	1,000	10,000 40.69	
-	N	Miss	sing < 50			17.91	,	
Panel C: Sample Size Diversity Scor	N 9,3	Miss 011 2	sing < 50 2.21 8.9	1 2.81 StdDev	14.25 Q1	17.91	40.69	13.2

21,418

38,651

46,713

63,573

Panel B: Potential Sample Companies

Median Salary

9,224

51,654

Table 3: Covariate Balance across Treatment Conditions

This table assesses the effectiveness of randomization of users across the three treatment conditions in our field experiment, as described in Section III. Four demographics are used: gender, ethnicity, education, and job search level. Appendix 1 provides variable definitions.

	Treatment Condition				
	Baseline	Diversity	Salary	F-value	p-value
<u>Gender</u>					
Female	0.543	0.537	0.532	0.520	0.594
<u>Ethnicity</u>					
People of Color	0.251	0.254	0.250	0.945	0.389
Education					
None	0.002	0.002	0.002	0.934	0.393
High School	0.049	0.047	0.049	1.053	0.349
Associate	0.029	0.029	0.028	0.386	0.680
Bachelor's	0.109	0.109	0.110	0.363	0.696
Master's	0.043	0.044	0.042	1.185	0.306
Doctorate	0.008	0.008	0.007	2.130	0.119
Level					
Entry	0.343	0.348	0.345	1.049	0.350
Junior	0.134	0.133	0.134	0.060	0.942
Mid	0.227	0.228	0.229	0.209	0.811
Senior	0.117	0.116	0.118	0.292	0.747
Management	0.117	0.113	0.115	1.301	0.272
Executive	0.062	0.061	0.059	1.743	0.175

Table 4. Diversity Information and Job Search Activities

This table describes the sensitivity of jobseekers' interest in job postings (measured by click-through-rates) to diversity metrics of candidate employers. Specifically, it describes how this sensitivity changes when the diversity metric of the employer is made observable to jobseekers. 'Diversity condition' ('Salary condition') observations are those where the employer's diversity (salary) metric is highlighted. 'Baseline condition' observations are those where neither the diversity nor salary metric is highlighted. The sample consists of the click-through patterns of Zippia users that were part of the field-experiment described in Section III. Appendix 1 provides variable definitions.

Panel A: Diversity Score

	Tr	eatment Conditi			
-	Baseline	Diversity	Salary	F-value	p-value
Diversity Score	9.252	9.277	9.218	28.985	0.000
Baseline vs. Diversity				10.044	0.002
Baseline vs. Salary				18.629	0.000
Diversity vs. Salary				56.894	0.000

Panel B: Salary Score

	Tr	eatment Conditi			
-	Baseline	Diversity	Salary	F-value	p-value
Salary Score	8.521	8.548	8.540	7.556	0.001
Baseline vs. Diversity				14.151	0.000
Baseline vs. Salary				7.504	0.006
Diversity vs. Salary				1.206	0.272

Panel C: Median Salary

	Tr	eatment Conditi			
-	Baseline	Diversity	Salary	F-value	p-value
<u>Median Salary</u>	56,918	58,057	57,394	26.496	0.000
Baseline vs. Diversity				52.412	0.000
Baseline vs. Salary				9.573	0.002
Diversity vs. Salary				18.469	0.000

Table 5. Diversity Information and Willingness to Pay for Diversity

This table describes jobseekers' responses to different job posts considering those employers' diversity and wages under two different conditions. 'Treatment' observations are those where the employer's diversity metric is highlighted. The other observations are those where neither the diversity nor salary metric is highlighted. The sample consists of the click patterns of Zippia users that were part of the field-experiment described in Section III. Appendix 1 provides variable definitions.

	Job Post Click
Log Diversity Score	0.730***
	(0.069)
Log Diversity Score * Treatment	0.213**
	(0.102)
Log Median Salary	0.128***
	(0.020)
Log Median Salary * Treatment	-0.001
	(0.029)
Treatment	-0.561
	(0.381)
Intercept	-4.029***
	(0.265)
N	85,632
Pseudo R-squared	0.007

Table 6. Diversity Information and Job Search Activities across Gender and Ethnicity Groups

This table describes heterogeneity in the sensitivity of jobseekers' interest in job postings (measured by click-through rates) to diversity-metrics of candidate employers. Specifically, it describes heterogeneity in how this sensitivity changes when the diversity-metric of the employer is made observable to jobseekers. The heterogeneity is with respect to jobseekers. 'Diversity condition' observations are those where the employer's diversity metric is highlighted. 'Baseline condition' observations are those where neither the diversity nor salary metric is highlighted. The sample consists of the click-through patterns of Zippia users that were part of the field-experiment described in Section III. Appendix 1 provides variable definitions.

Row Means Female Male **Diversity Score** Baseline 9.167 9.300 9.233 Diversity 9.345 9.298 9.251 Column Means 9.207 9.321 9.264

Panel A: Descriptive Statistics - Mean Diversity Score by Gender and Treatment Condition

Panel B: ANOVA - Test of Mean Diversity Score by Gender and Treatment Condition

	Sum of				
	Squares	df	Mean Square	F-value	p-value
Treatment	12.990	1	12.990	10.000	0.002
Gender	41.598	1	41.598	32.022	0.000
Treatment x Gender	1.224	1	1.224	0.942	0.332
Model	16,412.118	12,634	1.299	-	-

Panel C: Descriptive Statistics - Mean Diversity Score by Ethnicity and Treatment Condition

Diversity Score	People of Color	White	Row Means
Baseline	9.275	9.236	9.245
Diversity	9.258	9.296	9.288
Column Means	9.267	9.266	9.266

Panel D: ANOVA - Test of Mean Diversity Score by Ethnicity and Treatment Condition

	Mean						
	Sum of Squares	df	Square	F-value	p-value		
Treatment	16.683	1	16.683	12.401	0.000		
Ethnicity	0.028	1	0.028	0.021	0.885		
Treatment x Ethnicity	9.883	1	9.883	7.346	0.007		
Model	50,287.206	37,381	1.345	-	-		

Table 7. Diversity Information and Job Search Activities across Job-level Preference and Regional Groups

This table describes heterogeneity in the sensitivity of jobseekers' interest in job postings (measured by click-through rates) to diversity-metrics of candidate employers. Specifically, it describes heterogeneity in how this sensitivity changes when the diversity-metric of the employer is made observable to jobseekers. The heterogeneity is with respect to jobseekers. 'Diversity condition' observations are those where the employer's diversity metric is highlighted. 'Baseline Condition' observations are those where neither the diversity nor salary metric is highlighted. The sample consists of the click-through patterns of Zippia users that were part of the field-experiment described in Section III. Appendix 1 provides variable definitions.

<u>Diversity</u> <u>Score</u>	Entry	Junior	Mid	Senior	MGMT.	Executive	Row Means
Baseline	9.172	9.199	9.291	9.294	9.318	9.315	9.265
Diversity	9.241	9.301	9.258	9.322	9.312	9.315	9.288
Column Means	9.205	9.251	9.275	9.309	9.315	9.315	9.276

Panel A: Descriptive Statistics - Mean Diversity Score by Job Search Level and Treatment Condition

Panel B: ANOVA - Test of Mean Diversity Score by Job Search Level and Treatment Condition

	Sum of Squares	df	Mean Square	F-value	p-value
Treatment	8.742	1	8.742	6.387	0.011
Level	107.579	5	21.516	15.721	0.000
Treatment x Level	34.607	5	6.921	5.057	0.000
Model	90,298.564	65,978	1.369	-	-

Panel C: Descriptive Statistics – Mean Diversity Score by Pro-BLM Events per Capita and Treatment Condition

Diversity Score	Bottom Tercile Middle Tercile Pro-		Top Tercile Pro-	Row Means
	Pro-BLM Events	BLM Events per	BLM Events per	
	per Capita	Capita	Capita	
Baseline	9.261	9.273	9.242	9.260
Diversity	9.323	9.225	9.312	9.283
Column Means	9.292	9.250	9.278	9.272

Panel D: ANOVA - Test of Mean Diversity Score by Pro-BLM Events Per Capita and Treatment Condition

	Sum of				
	Squares	df	Mean Square	F-value	p-value
Treatment	8.784	1	8.784	6.355	0.012
Pro-BLM	22.522	2	11.261	8.147	0.000
Treatment x Pro-BLM	51.834	2	25.917	18.750	0.000
Model	93,828.028	67,881	1.382	-	-

Table 8. Emailing and CTR by Treatment Status

This table presents user activity for the different treatment groups in the field-experiment described in Section III. Appendix 1 provides variable definitions.

	N Users	N Interactions	Mean	StdDev	Q1	Median	Q3
Email Sent	266,453	5,396,141	19.877	19.546	0	13	38
Email Opened	198,265	237,7031	11.989	22.233	1	4	14
Job Clicked	152,276	197,565	1.266	8.073	0	0	1

Panel A: Descriptive Statistics of User Engagement

Panel B: Email Sent (Emails per User)

	Tr	eatment Conditi			
-	Baseline	Diversity	Salary	F-value	p-value
Email Sent	19.587	19.709	20.337	37.604	0.000
Baseline vs. Diversity				1.781	0.182
Baseline vs. Salary				65.061	0.000
Diversity vs. Salary				45.394	0.000

Panel C: Email Opened (Emails per User)

	Tr	eatment Conditi			
-	Baseline	Diversity	Salary	F-value	p-value
Email Opened	11.776	11.780	12.413	17.953	0.000
Baseline vs. Diversity				0.001	0.971
Baseline vs. Salary				25.404	0.000
Diversity vs. Salary				25.344	0.000

Panel D: Jobs Clicked (Jobs per User)

	Tr	eatment Conditi			
-	Baseline	Diversity	Salary	F-value	p-value
Job Clicked	1.227	1.240	1.332	2.523	0.080
Baseline vs. Diversity				0.071	0.789
Baseline vs. Salary				4.217	0.040
Diversity vs. Salary				2.855	0.091

Table 9. Survey Results

This table presents the results from our follow-up survey. Panel A presents the count of participant responses (and % of the total sample), in response to our survey question about how useful diversity score information would be to them (from 1=Not at all Useful to 6 = Very Useful). Panel B presents participants' rationale regarding why diversity score information may be useful to them. Panel C of this table presents participants rationale regarding why diversity score information may not be useful to them.

Panel A

		Count (and %) of Responses							
Sample	1	2	3	4	5	6	Total		
All Respondents	158	97	151	258	318	483	1,465		
All Respondents	10.78%	6.62%	10.31%	17.61%	21.71%	32.97%	100.00%		

Panel B

Option	Proportion
	that Chose
Diversity information is useful to me because I believe that it helps me assess the	37.68%
overall, long-term success prospects of an employer.	(N=399)
Diversity information is useful to me because I believe that it helps me understand the	39.57%
likelihood that I might be hired and/or promoted by an employer.	(N=419)
Diversity information is useful to me because I believe that it tells me about how	45.14%
much I might enjoy the work environment of an employer.	(N=478)
Diversity information is useful to me because I think diversity is (or is not) an	50.14%
important social issue, and I would like to know whether an employer shares my	(N=531)
values.	
Other	3.68%
	(N=39)

Panel C

Option	Proportion
	that Chose
Diversity information is not all that useful to me because I believe that the diversity of	18.23%
an employer's workforce is not that important generally.	(N=74)
Diversity information is not all that important to me because I prefer employers not to	23.15%
focus on diversity.	(N=94)
Diversity information is important to me, but I would find another way to obtain it	29.06%
and would not need to see a Diversity Score.	(N=118)
Diversity information is important to me, but I already have a good sense of the	32.27%
diversity of employers within my profession and would not need to see a Diversity	(N=131)
Score.	
Other	11.58%
	(N=47)

Table 10. Descriptive Statistics of Human Capital Disclosure Analysis Sample

These tables describe the data used to examine firms' choices to disclose diversity metrics in their 10-Ks. The sample consists of firms that had their 2020 10-Ks available for download from the SEC by the end of March, 2021.

	Ν	Mean	SD	Min	Q1	Median	Q3	Max
Diversity Disclosure	3,267	0.17	0.38	0.00	0.00	0.00	0.00	1.00
Diversity Score	2,027	8.74	1.32	3.03	8.16	9.29	9.66	9.98
Experiment Delta	3,235	0.00	0.07	-0.87	0.01	0.02	0.02	0.36
BLM Protests	3,087	2.87	1.11	1.34	2.14	2.77	3.23	12.19
Log MV	3,220	8.83	34.70	0.00	0.21	0.99	4.39	778.23
ROA	3,266	-4.90	63.08	-284.01	-6.78	1.80	6.15	3050.75

Panel A: Full sample

Panel B: Sample split by diversity metric disclosure status

	Disc	Ν	Mean	SD	Min	Q1	Median	Q3	Max
Diversity Score	ND	1,634	8.66	1.36	3.03	7.98	9.24	9.64	9.98
	D	393	9.09	1.04	3.25	8.97	9.47	9.72	9.97
Experiment Delta	ND	2,682	0.00	0.07	-0.87	0.01	0.02	0.02	0.36
	D	553	0.00	0.06	-0.87	0.01	0.02	0.03	0.14
BLM Protests	ND	2,564	2.87	1.11	1.34	2.14	2.77	3.23	12.19
	D	523	2.89	1.13	1.34	2.14	2.77	3.29	8.40
Log MV	ND	2,680	7.21	28.92	0.00	0.18	0.75	3.57	677.44
	D	540	16.89	54.37	0.02	0.82	3.22	11.14	778.23
ROA	ND	2,710	-5.95	68.84	-284.01	-9.45	1.69	6.08	3050.75
	D	556	0.25	15.77	-111.18	0.42	2.46	6.39	46.65

Table 11. Determinants of Diversity Metric Human Capital Disclosure

This table examines the determinants of whether a firm discloses, within its 2020 10-K, the fraction of its global workforce composed of women, or the fraction of its US workforce composed of people of color. The sample consists of firms that had their 2020 10-Ks available for download from the SEC by March 2021.

			Diversity	Disclosure		
Diversity Score	0.039***		0.040***	0.019***	0.019**	0.021***
	(0.007)		(0.007)	(0.007)	(0.008)	(0.008)
Experiment Delta		0.087	0.191*	0.219*	0.227**	
		(0.094)	(0.115)	(0.113)	(0.115)	
BLM Protests				-0.002		
				(0.008)		
Log MV				0.035***	0.035***	0.037***
				(0.005)	(0.005)	(0.005)
ROA				-0.0003	-0.0002	-0.0003
				(0.0004)	(0.0004)	(0.0004)
State effects					Y	Y
SIC-2 effects						Y
Observations	2,027	3,235	2,011	1,947	1,947	1,940
R2	0.017	0.0003	0.019	0.049	0.072	0.130

Standard errors in parentheses; *p<0.1; **p<0.05; ***p<0.01

Figure 1. Experimental Design

This figure depicts the experiment design of different emails sent to users.



Consultant - Accounting Solutions - Healthcare

Sr Professional- Integrated Marketing

Communications Manager Corelogic • Austin, TX

9.7 Salary Score \$76,000 - \$141,000 yearly estimated

\$

CoreLogic

Figure 2. Zippia's User Interaction

This figure depicts the typical flow of the platform's interaction with users.



Figure 3. User Location

This figure depicts the number of Zippia users, by state, that are distributed across the US.



Figure 4. BLM Protests per Capita

This figure depicts the number of BLM protests per capita, by state, across the US.



Do Jobseekers Value Diversity Information?

Evidence from a Field Experiment

Online Appendix

OA Figure 1. Comparison of Zippia Estimated Diversity Percentages and 10-K Human Capital Disclosure Diversity Percentages

These figures plot the percentages of women and people of color employed as reported in firm's 10-K Human Capital Disclosures, and as estimated by Zippia. The sample consists of firms that had their 2020 10-Ks available for download from the SEC by March, 2021, and that passed other filters described in Section V, and that also had coverage in the Zippia system.

Subfigure A: Percentages of Women Employed





Subfigure B: Percentages of People of Color Employed

OA Table 1. Sample Comparison

Panel A compares the Zippia user-level data to the US Current Population Survey. Appendix 1 provides variable definitions. Panel B compares the Zippia firm-level data to the US Longitudinal Business Database. The sample consists of Zippia firms that were part of the field-experiment described in Section III.

	Zippia	Zippia		
	Mean	N	Mean	Ν
Education				
No Education	0.009	64,210	0.067	50,728
High School	0.201	64,210	0.429	50,728
Associates Degree	0.120	64,210	0.109	50,728
Bachelor's Degree	0.456	64,210	0.244	50,728
Master's Degree	0.180	64,210	0.127	50,728
Doctorate	0.033	64,210	0.024	50,728
<u>Gender</u>				
Female	0.542	53,654	0.473	50,728
Ethnicity				
People of Color	0.278	98,065	0.326	50,728

Panel A: Comparison between Zippia Users and CPS

Panel B: Comparison between Zippia Companies and QWI/LBD

			QW	I/LBD				
	Mean	Ν	Min	Median	Max	SD	Mean	Ν
Female	0.472	8,256	0.029	0.464	0.968	0.171	0.498	-
People of Color	0.374	8,256	0.130	0.370	0.774	0.081	0.374	-
<u>Company Size</u>								
100	0.120	9,105	-	-	-	-	0.978	5,289,164
500	0.146	9,105	-	-	-	-	0.017	5,289,164
1,000	0.183	9,105	-	-	-	-	0.002	5,289,164
10,000	0.416	9,105	-	-	-	-	0.002	5,289,164
10,000	0.135	9,105	-	-	-	-	0.000	5,289,164

OA Table 2. Industry Composition

Industry	Ν	%
Manufacturing	13,799	13.24
Technology	10,828	10.39
Retail	9,414	9.03
Health Care	9,381	9.00
Professional	8,053	7.73
Finance	7,544	7.24
Hospitality	6,870	6.59
Construction	5,995	5.75
Education	4,983	4.78
Internet	4,216	4.05
Media	2,778	2.67
Transportation	2,756	2.64
Non-Profits	2,522	2.42
Government	2,474	2.37
Real Estate	2,071	1.99
Automotive	1,880	1.80
Insurance	1,867	1.79
Pharmaceutical	1,596	1.53
Energy	1,589	1.52
Telecommunication	1,140	1.09
Utilities	1,096	1.05
Agriculture	669	0.64
Start-up	624	0.60
Fortune 500	74	0.07

This table describes the industry composition of potential sample companies. This table only includes companies with non-missing industries.

OA Table 3. Average Clicks Per User by Diversity and Salary Categories

This table presents the number of clicks for different groups.

Diversity Score Category	Treatment Group	Mean	N Users
	All Groups	0.133	161,424
Diversity Seens < 0	Baseline	0.121	56,978
Diversity Score < 9	Diversity	0.126	52,551
	Salary	0.154	51,895
	All Groups	0.163	193,015
0 < Diversity Seere < 0.5	Baseline	0.159	65,027
$9 \le$ Diversity Score < 9.5	Diversity	0.155	64,253
	Salary	0.174	63,735
	All Groups	0.181	483,353
0.5 < Diversity Seens	Baseline	0.174	161,097
$9.5 \le \text{Diversity Score}$	Diversity	0.179	162,049
	Salary	0.189	160,207

Panel A: Average Clicks per User by Diversity Score Category

Panel B: Average Clicks per User by Salary Score Category

Salary Score Category	Treatment Group	Mean	N Users
Salary Score < 7	All Groups	0.156	80,065
	Baseline	0.151	27,340
	Diversity	0.148	26,484
	Salary	0.168	26,241
Salary Score >= 7, < 9	All Groups	0.175	383,805
	Baseline	0.169	128,800
	Diversity	0.171	128,042
	Salary	0.186	126,963
Salary Score >= 9	All Groups	0.173	335,626
	Baseline	0.165	112,345
	Diversity	0.169	112,377
	Salary	0.185	110,904

Median Category	Treatment Group	Mean	N Users
Median Salary < 40,000	All Groups	0.163	185,876
	Baseline	0.161	62,950
	Diversity	0.156	61,573
	Salary	0.173	61,353
Median Salary >= 40,000, <60,000	All Groups	0.172	315,061
	Baseline	0.167	105,743
	Diversity	0.165	105,480
	Salary	0.184	103,838
Median Salary >= 60,000	All Groups	0.179	298,559
	Baseline	0.168	99,792
	Diversity	0.179	99,850
	Salary	0.190	98,917

Panel C: Average Clicks per User by Median Category

OA Table 4. Correlation Table

	Diversity	Performance	Salary
Diversity	1	-	-
Performance	0.178***	1	-
Salary	0.085***	0.166***	1

This table presents the correlation of firm characteristics of potential Zippia companies.