WHAT WORKS?

Evidence-Based Ideas to
Increase Diversity, Equity, and
Inclusion in the Workplace

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Dedication

This report is dedicated with love and admiration to Devah Pager. Pager was the Peter and Isabel Malkin Professor of Public Policy and Professor of Sociology at Harvard University. Her pathbreaking scholarship focused on the institutions affecting racial stratification, including education, labor markets, and the criminal justice system. Her research included a series of field experiments studying discrimination against racial minorities and ex-offenders in the low-wage labor market. In addition to her writing and research, Pager was a dedicated advisor and mentor to the next generation of social scientists studying inequality and social stratification. Her contributions to the academic community and the world will live on for many, many years to come. Sadly, she died in 2018.

Introduction

David S. Pedulla, *Stanford University*

Diversity, equity, and inclusion in the workforce are ideals that many companies aspire to. Yet achieving these goals is often challenging. The advice offered by consultants, scholars, and the media can be difficult to make sense of or even contradictory. This report cuts through all this noise to answer the question: what actually works? The following pages offer concrete, research-based evidence about strategies that are effective for reducing discrimination and bias and increasing diversity within workplace organizations. This guide is intended to provide practical strategies for managers, human resources professionals, and employees who are interested in making their workplaces more inclusive and equitable.[1]

In this report, leading academics, researchers, and businesspeople offer keen insights on an array of important topics related to diversity, equity, and inclusion.[2] The opening chapter, written by psychologists Tessa Charlesworth and Mahzarin Banaji (both at Harvard University), examines change over time in implicit attitudes and beliefs about different social groups, including racial minorities, women, and LGBTQ individuals. They then tackle some of the reasons that change occurs in certain areas but not in others. This information provides a valuable backdrop against which to understand the remaining chapters of the report.

The following chapters examine key organizational policies and practices and evaluate their effectiveness for promoting the types of diversity and inclusion that companies often desire. In Chapter 2, sociologists Elizabeth Hirsh (University of British Columbia) and Donald Tomaskovic-Devey (University of Massachusetts Amherst) focus on one simple strategy: collecting metrics. By gathering and analyzing data on diversity over time, comparing those numbers to the numbers at other organizations, and sharing them with key stakeholders, organizations can increase accountability and transparency around diversity issues. In turn, they argue that this type of accountability and transparency can be a key driver for reducing bias and discrimination and increasing diversity.

Next, sociologists Frank Dobbin (Harvard University) and Alexandra Kalev (Tel Aviv University) tackle the changes necessary to improve how companies currently structure their discrimination and harassment complaint systems because the current systems are not working. Indeed, half of all discrimination and harassment complaints result in retaliation against the victim. Dobbin and Kalev propose a set of alternatives to legalistic grievance mechanisms that can improve how discrimination and harassment are dealt with in organizations. In Chapter 4, business leaders Kelly Trindel (pymetrics), Frida Polli

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1   This report emerged from a 2018 conference that was organized by Devah Pager and David Pedulla, entitled "What Works to Reduce Discrimination?" and hosted by the Radcliffe Institute for Advanced Study at Harvard University.

2   Each section of this report was written independently. The views and recommendations offered in each section belong to the authors of that section alone.

(pymetrics), and Kate Glazebrook (Applied) highlight the potential promises and pitfalls of technological innovation for promoting diversity and equity. They describe how pymetrics and Applied have worked to develop tools that can be stripped of bias and then put to use evaluating candidates to create a more fair workplace.

Next, behavioral scientists Iris Bohnet and Siri Chilazi (both at Harvard University) discuss a subtle yet important factor that can contribute to biased decision-making: group size. When individuals belong to groups that are underrepresented in an organization, such as racial minorities or women, they may be subjected to stereotype-based evaluations or tokenism. These biased perceptions can have negative consequences for both individual workers and the larger organization. Bohnet and Chilazi offer key solutions for managers to consider in this domain.

In the final essay, researchers and strategists Lori Nishiura Mackenzie and JoAnne Wehner (both at Stanford VMWare Women's Leadership Innovation Lab) discuss how to actually go about implementing change in organizations. Drawing on concrete examples from their own work in this area, they propose a "small wins" model of change that identifies a specific area to improve and then pilots a targeted intervention. Interventions are most likely to succeed when they take into account the specific structure and dynamics of the organization and when organizational leaders are engaged in the process.

Together, the chapters in this report offer a wealth of evidence-based insights about how managers can increase diversity, inclusion, and equity in their organizations. Of course, the report can be read cover to cover. But, you can also dive right in to a particular chapter that addresses a pressing issue for your organization. Each chapter can stand alone. Additionally, at the end of each chapter, the authors have included citations to the articles and resources that they have drawn on in their analysis. These reference materials may be of use to you as well.

We hope that the pages that follow are useful to you as you work to build more equitable, fair, and diverse workplaces.

Chapter 1
Do Implicit Attitudes and Beliefs Change over the Long-Term?

Tessa E.S. Charlesworth, *Harvard University*

Mahzarin R. Banaji, *Harvard University*

SUMMARY

Social scientists have long understood that *explicit* social attitudes and beliefs—attitudes and beliefs measured on surveys and self-reports—can change over time. Indeed, remarkable change has occurred in the past 50 years in Americans' explicit beliefs about the rights, capacities, and qualities of many social groups, such as groups defined by race, sexual orientation, or gender.

It is less clear if *implicit* social cognition (ISC) is capable of such long-term change. ISC refers to the more automatic and less controllable attitudes and beliefs that one holds about different social groups. Being more automatic and less controllable, ISC has been described as relatively stable and unchanging.

If this is true and ISC cannot change, then workplaces and communities may continue to perpetuate biases and discrimination even if what they explicitly say or do seems to reflect equity.

In this essay we report analyses performed on a unique dataset that reveal the first evidence that ISC can, in fact, change over the long-term (10 years). Importantly, we also show that ISC does not always change, and sometimes even changes in harmful directions. We describe evidence that shows both *positive* and *negative* trends, where *positive trends* refer to change in the direction of neutrality (zero bias), and *negative trends* refer to no change or reverse change, away from neutrality.

KEY FINDINGS

Positive trends
Long-term change in some ISC is widespread

- The fastest change over time is observed in implicit sexual orientation attitudes (Straight-good/Gay-bad), which have changed towards neutrality by 33 percent over the past decade. This is particularly noteworthy as anti-gay bias was initially among the strongest and is now among the weakest biases.

- Implicit race (White-good/Black-bad) and skin-tone attitudes (Light skin-good/Dark skin-bad) have changed towards neutrality by 17 and 15 percent, respectively.

Negative trends
Long-term change in some ISC is limited and slow

- No change is observed in implicit age attitudes (Young-good/Old-bad) or disability attitudes (Abled-good/Disabled-bad).

- Implicit body-weight attitudes (Thin-good/Fat-bad) have *increased* in bias, away from neutrality over the past decade by as much as 40 percent.

- Implicit beliefs about gender roles (Women-home/ Men-career and Women-arts/Men-science) have also become more neutral by 13 and 17 percent, respectively.

- Nearly all groups of people are changing their ISC in similar ways, regardless of gender, race, education, religion, politics, age, and geography.

There is substantial evidence that attitudes and beliefs can change over time. For example, in 1937 only 33 percent of Americans said they would vote for their party's nominee if she were a woman; in 2015, 92 percent said they would.[1] In 1958, only 4 percent of Americans approved of interracial (black-white) marriages; today 87 percent of Americans approve.[2] These data reflect change in consciously-accessible and self-reported (i.e., "explicit") attitudes and beliefs on surveys. The question remains open, however, as to whether less consciously accessible, indirectly-assessed *implicit* attitudes and beliefs—referred to as implicit social cognition (ISC)—can also change.

When first introduced in the 1990s, ISC was believed to be automatic, unavoidable, and immutable. If true, then it would be futile to invest effort in attempting to change ISC. Those with policy responsibility would have to consider alternative strategies for bringing about social change because ISC was rigid and slow to change. Today, the understanding of ISC is evolving. Our recent research shows that ISC is indeed capable of changing over a period of 10 years. In some cases (i.e., beliefs about sexual orientation) that change is significant and widespread.

Understanding When and Why Change in Implicit Social Cognition Succeeds or Fails

1. New methods reveal that long-term change in ISC is possible

Previous research on implicit attitude/belief change was often limited by using relatively small samples of participants collected within two or three single sessions over a day or, at most, a few months, and for only one or two attitudes/beliefs. To surmount these limitations, we used a subset of data collected from volunteers at Project Implicit's Demonstration Website (https://implicit.harvard.edu/implicit/), which provided more than 4.4 million tests of implicit attitudes, collected continuously for over a decade (2007–2016) across six attitudes: sexual orientation, race, skin tone, age, disability, and body weight.[3]

1   "The Presidency," Gallup, accessed January 29, 2020, https://news.gallup.com/poll/4729/presidency.aspx.

2   Frank Newport, "In U.S., 87% Approve of Black-White Marriage, vs. 4% in 1958," Gallup, July 25, 2013. http://www.gallup.com/poll/163697/approve-marriage-blacks-whites.aspx.

3   Tessa E. S. Charlesworth and Mahzarin R. Banaji, "Patterns of Implicit and Explicit Attitudes: I. Long-Term Change and Stability From 2007 to 2016," *Psychological Science* 30, no. 2 (2019): 174-192. See also "Project Implicit," Harvard University, https://implicit.harvard.edu/implicit/.

These implicit attitudes/beliefs were measured using the Implicit Association Test (IAT),[4] a test that bypasses the need for verbal self-reporting by comparing the speed at which participants respond to relatively "congruent" pairs of pictures or words (e.g., "young" paired with "good" and "old" paired with "bad") with the speed of responding to relatively "incongruent" pairs of pictures or words (e.g., "young" paired with "bad" and "old" paired with "good"). The greater the difference in how fast a participant can categorize these pairings, the greater their score on the IAT and the greater their implicit association.

With these data (and a new statistical approach), we find new evidence that long-term change is indeed possible across multiple implicit attitudes.

2. The fastest change is observed in attitudes about sexual orientation

Anti-gay attitudes have changed towards neutrality so fast and reliably that our forecast predicts reaching neutrality (zero bias) between the years 2025 and 2045—dates that, for many of us, will be within our lifetimes.

What is working to reduce anti-gay bias so rapidly? We offer several possible hypotheses that deserve additional study:

a. *Widespread Contact Hypothesis*: Variations in sexual orientations are seen in all parts of society, across rich and poor, males and females, racial and ethnic groups, and all zip codes, states, and countries. Unlike groups defined by race/ethnicity, age, or disability, individuals with different sexual orientations are not as easily segregated. This provides widespread opportunity for positive contact with individuals with different sexual orientations, prompting positive attitude change.[5]

b. *Concealed Identity Hypothesis*: Unlike age, race/ethnicity, or gender, sexuality can be a concealed identity even in adulthood. As such, positive relationships with parents, friends, and broader social networks can form before sexuality is revealed. The foundation of these positive personal relationships can help change one's mind in the direction of greater acceptance once sexuality is revealed.[6] Of note, concealment may decline over time as it becomes more acceptable for sexuality identities to be expressed early in life.

4   Anthony G. Greenwald, Debbie E. McGhee, and Jordan L. K. Schwartz. "Measuring Individual Differences in Implicit Cognition: The Implicit Association Test." *Journal of Personality and Social Psychology*, 74, no. 6 (1998): 1464–1480.

5   Cara C. MacInnis, Elizabeth Page-Gould, and Gordon Hodson, "Multilevel Intergroup Contact and Antigay Prejudice (Explicit and Implicit) Evidence of Contextual Contact Benefits in a Less Visible Group Domain," *Social Psychological and Personality Science* 8, no. 3 (April 2017): 243-251.

6   Kristin Davies, Linda R. Tropp, Arthur Aron, Thomas F. Pettigrew, and Stephen C. Wright, "Cross-Group Friendships and Intergroup Attitudes: A Meta-Analytic Review," *Personality and Social Psychology Review* 15, no. 4 (2011): 332–351.

c. **Public Engagement Hypothesis:** Sexual orientation, race, and gender roles (the three topics moving toward neutrality) are constantly discussed in the public sphere and evoke strong opinions in a way that other attitudes/beliefs (e.g., age, disability) do not. Such public engagement (even when contentious) is likely necessary to produce change because it increases the accessibility of the attitude.[7]

d. **Positive Focus Hypothesis**: Discussions of sexuality in media and the public sphere have largely focused on marriage equality and the *granting* of rights to everyone—a positive topic that may be particularly likely to change attitudes towards acceptance. In contrast, discussions of race, age, or disability often center on reparations, inequalities in justice, hiring and accessibility, and the *taking away* of rights from marginalized groups. This more negative focus may create greater resistance and slow attitude change.

e. **Media Representation Hypothesis**: Hollywood and the media/entertainment industry broadly have invested in positive media representation of gay characters.[8] Given the power of media in shaping attitudes/beliefs,[9] such high frequency of positive media exposure is likely to change attitudes/beliefs.

f. **Religious Change Hypothesis**: Negative attitudes toward sexuality were often rooted in religious dogma. As belief in organized religion has been decreasing in the U.S.,[10] a fundamental basis for prejudice and discrimination is evaporating.

g. **Transfer of Prejudice Hypothesis**: The sexuality attitudes we tested were restricted to the gay-straight attitudes. However, over the past decade a host of new identities have emerged to challenge the binaries of gender and sexual identities. Although this is not a desirable outcome, it is possible that the biases previously directed towards gay/lesbian individuals have been transferred to other groups, notably transgender individuals, who continue to experience widespread prejudice and discrimination.[11]

7   Richard E. Petty and Jon A. Krosnick, eds, *Attitude Strength: Antecedents and Consequences*, Mahwah, NJ: Lawrence Erlbaum Associates, 1995.

8   See e.g., Bradley J. Bond and Brendon L. Compton, "Gay On-Screen: The Relationship Between Exposure to Gay Characters on Television and Heterosexual Audiences' Endorsement of Gay Equality," *Journal of Broadcasting & Electronic Media* 59, no. 4 (2015): 717–732; Jarel P. Calzo and L. Monique Ward, "Media Exposure and Viewers' Attitudes Toward Homosexuality: Evidence for Mainstreaming or Resonance?" *Journal of Broadcasting & Electronic Media* 53, no. 2 (May 2009): 280–299; Edward Schiappa, Peter B. Gregg, and Dean E. Hewes "Can One TV Show Make a Difference? A *Will & Grace* and the Parasocial Contact Hypothesis." *Journal of Homosexuality* 51, no. 4 (2006): 15-37.

9   King, Gary, Benjamin Schneer, and Ariel White. "How the News Media Activate Public Expression and Influence National Agendas." *Science* 358, no. 6364 (2017): 776-780.

10 "U.S. Public Becoming Less Religious," Pew Research Center, Religion & Public Life, November 3, 2015, https://www.pewforum.org/2015/11/03/u-s-public-becoming-less-religious/.

11 Aaron T. Norton and Gregory M. Herek, "Heterosexuals' Attitudes toward Transgender People: Findings from a National Probability Sample of US Adults," *Sex Roles* 68, no. 11-12 (2013): 738-753.

3. Implicit sexual orientation attitudes are not the only attitudes that are changing

Long-term change is also present in implicit race and skin-tone attitudes as well as stereotypes about gender roles. Race and skin-tone attitudes have changed by 17 percent and 15 percent, respectively.[12] Additionally, in more recent work we've also found that gender stereotypes associating women with "arts" and men with "science" as well as women with "home" and men with "career," have also changed by 17 percent and 13 percent, respectively.[13] Given that race/skin-tone attitudes and gender stereotypes are often argued to be especially stable over the long-term,[14] this result is notable and encouraging.

4. Long-term implicit attitude/belief change is widespread

In forthcoming papers,[15] we examine whether these patterns of change in ISC are isolated to a few groups (e.g., women, liberals), or whether they are widespread across society. Remarkably, the patterns of change in ISC are consistent across demographics: with few exceptions, change is observed across genders, race, levels of education, religion, political affiliations, age, and geography (both U.S. states and other countries). Challenging the assumption that change is limited to only certain respondents, this new evidence shows that ISC change may be a product of widespread cultural shifts towards greater acceptance, regardless of one's demographic identity.

That said, the pace of change does vary across some groups. Liberals and young respondents have shown faster attitude change than conservatives and older respondents on both sexual orientation and race attitudes. These demographic groups may have unique social or psychological experiences that motivate greater change.

5. Not all attitudes/beliefs are changing

Implicit attitudes about age (preference for young over elderly) and disability (preference for abled over disabled) have changed by less than 5 percent over the past decade and are not forecasted to reach attitude neutrality within the next 150 years. Moreover, implicit attitudes about body weight show an increase in anti-overweight bias by 40 percent since 2004. These results underscore that, while long-

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12 Tessa E. S. Charlesworth and Mahzarin R. Banaji, "Patterns of Implicit and Explicit Attitudes: I. Long-Term Change and Stability From 2007 to 2016," *Psychological Science* 30, no. 2 (2019): 174-192.

13 Tessa E. S. Charlesworth and Mahzarin R. Banaji, "Gender in Science, Technology, Engineering, and Mathematics: Issues, Causes, Solutions," *The Journal of Neuroscience* 39, no. 37 (2019): 7228-7243; Tessa E. S. Charlesworth and Mahzarin R. Banaji, "Patterns of Implicit and Explicit Attitudes II. Consistency and Variability in Long-term Attitude Change by Demographics," unpublished manuscript, last updated 2020, Microsoft Word file.

14 Elizabeth L. Haines, Kay Deaux, and Nicole Lofaro, "The Times They are A-Changing... or Are They Not? A Comparison of Gender Stereotypes, 1983–2014," *Psychology of Women Quarterly* 40, no. 3 (2016): 353–363; Kathleen Schmidt and Jordan R. Axt, "Implicit and Explicit Attitudes Toward African Americans and Barack Obama Did not Substantively Change During Obama's Presidency," S*ocial Cognition* 34, no. 6 (2016): 559–588; Kathleen Schmidt and Brian A. Nosek, "Implicit (and Explicit) Racial Attitudes Barely Changed during Barack Obama's Presidential Campaign and Early Presidency," *Journal of Experimental Social Psychology* 46, no. 2 (2010): 308–314.

15 Charlesworth and Mahzarin R. Banaji, "Patterns of Implicit and Explicit Attitudes II. Consistency and Variability in Long-term Attitude Change by Demographics," unpublished manuscript, last updated 2020, Microsoft Word file; Tessa E. S. Charlesworth and Mahzarin R. Banaji, "Patterns of Implicit and Explicit Attitudes and Stereotypes III. Long-term Change in Gender Stereotypes across Demographics and Countries," unpublished manuscript, last updated 2020, Microsoft Word file.

term change in multiple attitudes has moved toward neutrality, increased negativity is also possible. In this case, the increased anti-overweight negativity may emerge from a well-intentioned focus on health and wellness; however, the outcome of greater negativity is nevertheless a concerning trend for how overweight individuals are treated by healthcare providers, coworkers, and family.

6. Conclusion

New data from nearly 6 million respondents shows that implicit (and explicit) attitudes/beliefs about minority groups can and do improve over the long-term (sexuality, race, skin tone, and gender roles). Moreover, this change is widespread across most demographic groups, suggesting it is a consequence of large-scale cultural shifts. However, some implicit attitudes (about age and disability) have remained stagnant and others (about body weight) have become more biased over time. Given that implicit attitudes/beliefs are shown to predict discriminatory behavior,[16] particularly when aggregated at the population level,[17] understanding the nature of implicit social cognition, and especially its capacity or limits for change, remains a worthy endeavor.

16   Benedek Kurdi et. al., "Relationship between the Implicit Association Test and Intergroup Behavior: A Meta-Analysis," *American Psychologist* (2018).

17   B. Keith Payne, Heidi A. Vuletich, and Kristjen B. Lundberg, "The Bias of Crowds: How Implicit Bias Bridges Personal and Systemic Prejudice," *Psychological Inquiry* 28, no. 4 (October 2017): 233-248.

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Chapter 2
Metrics, Accountability, and Transparency: A Simple Recipe to Increase Diversity and Reduce Bias

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SUMMARY

The best organizational research shows that the magic recipe for achieving diversity is no different from the steps necessary to achieve other business goals. In order to change behavior, firms must develop appropriate goals and metrics, share them with stakeholders, and embrace accountability for outcomes. In the case of diversity, this means firms must collect diversity data and analyze them by examining flows over time and comparing them to similar organizations.

KEY FINDINGS

Advantages of collecting and analyzing diversity data

- Keeping track of personnel transitions allows firms to see where diversity problems are—recruitment, hiring, promotion, pay, and/or retention.

- Collecting relevant metrics allows firms to develop diversity goals and make timelines for reaching them.

- Keeping track of discrimination complaints and outcomes helps firms to develop routines and practices to restore dignity, demonstrate commitment to equal opportunities, and save on the cost and trauma of legal solutions.

- Transparent metrics allow stakeholders to hold top management accountable for outcomes.

Pitfalls of collecting and analyzing diversity data

- Counting diversity numbers but not analyzing the data or comparing to peer organizations leaves firms without information on where their problems are or how to fix them.

- Making diversity numbers transparent without clear plans to address disparities may incur pressure from internal and external stakeholders.

- Metrics, plans, and goals that are not transparent will be limited in their effectiveness as stakeholders cannot hold decision makers accountable.

- Though discrimination complaints can provide an opportunity for accountability and transformation, complaints can also put firms on the defensive and derail attention from good-faith efforts to change.

Research on diversity from a variety of disciplines shows that the most effective way to improve diversity and create bias-free workplaces is to assess current diversity levels, identify disparities, and develop concrete strategies for addressing them. Once metrics and goals are in place, they should be made transparent to stakeholders, who should be empowered to hold decision makers accountable for making progress toward a diverse and fair workplace.

Collect, Count, and Compare

Firms reveal what outcomes they truly value through the data they collect and analyze. It is hard to imagine a firm that does not track and analyze its sales, for instance. But simply collecting data is not enough: the information must also be analyzed and shared with others. Hiding important statistics in a drawer suggests something is not working well and no action will be taken to fix it.

The simple recipe for managing diversity, then, is to develop metrics, make them transparent, and hold people accountable, just like for any other outcome of interest, be it profit, sales, or market penetration. Treating diversity differently from other organizational goals leaves the firm vulnerable to consulting fads, symbolic actions, and slow or no progress.

What metrics are useful when it comes to diversity? Companies should collect composition data —gender, race, ethnicity, age, disability, etc.—at the job level. This will permit analysis of flows of hiring, promotions, terminations, and departures by category at the job level. Firms already keep detailed pay data, and they should analyze pay gaps both within and between jobs. Finally, to identify systemic problems in the workplace, firms should keep records on internal and external complaints of discrimination, bias, and harassment as well as managers' responses.

Establish Goals and Accountability

Once firms have diversity data, they must use them to identify problem areas and personnel bottlenecks. Firms should identify shortfalls relative to local labor markets, peer firms, and corporate aspirations. With this information, they can then begin drafting goals for increasing diversity or decreasing discrimination. Leaders should ask the same questions they might ask about capital investment or market position: "Where do we want to be in the next 12 months? What about five years out?" If metrics identify gender and racial disparities at the managerial level, then set a goal for increasing representation to match local labor market levels and a timeline for reaching the goal. For instance, if you are a finance firm in New York and 30 percent of your senior analysts are women while other finance firms in the area are at 40 percent, then a sensible goal would be to increase the representation of women in senior analyst positions to 40 percent over the next three years. An even more ambitious goal would be to achieve 50 percent in

five years. If you find that discrimination complaints or troubling climate survey responses occur more in particular work groups or departments than in others, then prioritize managerial improvements in those groups/departments.

Next comes accountability: who should be monitoring the firm's progress towards its diversity goals? One strategy is to empower a diversity officer or assemble a diversity task force that will track diversity numbers, identify gender and racial disparities, and devise hiring and promotion plans for addressing them. Alexandra Kalev, Frank Dobbin, and Erin Kelly show in their landmark study of diversity policies that such accountability structures lead to clear improvements in the representation of white women, Black women, and Black men in management.[1] The reason? Once it is someone's full-time job to monitor diversity and inclusion in the company, that person will help the company make progress toward its diversity goals. If no one is accountable, change is unlikely.

Involving managers at all levels to take ownership of diversity goals is an even more desirable accountability strategy, and it is much more effective than threatening them with legal action or treating diversity goals as distractions from core business goals. One approach to making this happen is to convert diversity officers and HR departments from compliance police to business partners.[2] A second is to convert line managers' resistance to diversity initiatives to ownership by involving them in creating transparency, developing metrics and, of course, the personnel decisions necessary to meet diversity goals.[3]

We also know that companies change due to external pressure from the courts or markets.[4] For example, in a study of nearly 500 race and gender discrimination lawsuits resolved in the U.S. federal courts, in the rare cases where the legal resolution included mandates to establish accountability structures, including diversity metrics and timelines for reaching them, firms posted gains in the representation of white women, Black women, and Black men in management for up to five years after the legal resolution.[5] Undesirable forms of external accountability, such as national media attention and drops in stock price associated with discrimination complaints, also lead to long-term gains in diversity.[6] But most firms would prefer to lean in on diversity metrics via internal accountability structures rather than being pushed by courts or social movements.

1   Alexandra Kalev, Frank Dobbin, and Erin Kelly, "Best Practices or Best Guesses? Assessing the Efficacy of Corporate Affirmative Action and Diversity Policies," *American Sociological Review* 71, no. 4 (2006): 589–617.

2   Kurt W. Sandholtz and Tyler N. Burrows, "Compliance Police or Business Partner? Institutional Complexity and Occupational Tensions in Human Resource Management," in *The Structuring of Work in Organizations*, ed. Lisa M. Cohen, M. Diane Burton, and Michael Lounsbury (Bingley, UK: Emerald Group Publishing Limited, 2016), 161–191.

3   Frank Dobbin, Daniel Schrage, and Alexandra Kalev, "Rage Against the Iron Cage: The Varied Effects of Bureaucratic Personnel Reforms on Diversity," *American Sociological Review* 80, no. 5 (2015): 1014–1044.

4   Kevin Stainback and Donald Tomaskovic-Devey, *Documenting Desegregation: Racial and Gender Segregation in Private Sector Employment since the Civil Rights Act* (New York: Russell Sage Press, 2012).

5   Elizabeth Hirsch and Youngjoo Cha, "Mandating Change: The Impact of Court-Ordered Policy Changes on Managerial Diversity," *Industrial and Labor Relations Review* 70, no. 1 (2017): 42–72.

6   Elizabeth Hirsh and Youngjoo Cha, "For Law and Markets: Employment Discrimination Lawsuits, Market Performance, and Managerial Diversity," *American Journal of Sociology* 123, no. 4 (2018): 1117–1160.

Make Processes and Outcomes Transparent

Transparency can serve as a powerful foundation for accountability. Metrics and goals need to be visible to be viable. As Emilio Castilla describes, transparency can be implemented in two steps. First, organizations can make certain employment *processes* transparent so that employees are made aware of "how things are done" within the organization. What are the criteria for making hiring, promotion, salary, and bias complaint decisions? Who makes these decisions? What steps or processes are used to arrive at a decision? Indeed, in his study of one company's merit-based pay system, Castilla found that simply providing senior managers with data on how their pay decisions compared to others helped managers hold themselves accountable and reduce pay disparities by gender, race, and birth nationality.[7]

Second, organizations can make the *outcome* of their decisions transparent to stakeholders so that both individuals within the organization (i.e., employees) and external audiences (e.g., regulators, the public) can assess demographic patterns and disparities.[8] Companies that submit employment diversity data (EEO-1 forms) to the U.S. Equal Employment Opportunity Commission (EEOC) already track the *outcome* of hiring, promotion, and job assignment decisions by collecting and reporting composition data to the EEOC. Recently, 26 major Silicon Valley tech firms, including Airbnb, Cisco, Facebook, and Google, went a step further by releasing their EEOC employment diversity reports to the public, allowing internal and external stakeholders to observe progress[9] and benchmark levels relative to other tech firms.[10] Companies that do not submit EEO-1 forms could create and release such reports themselves.

The EEOC could do more to help firms achieve diversity outcomes by helping them to analyze their data. For instance, the EEOC could send companies reports on their diversity ranking relative to other firms in their industry and local labor market. The EEOC could also develop a simple tool that allows firms to compare themselves to other employers in their city and industry. And the EEOC could generate a best-practice pay gap calculator so that companies would not have to invent their own.[11] Firms could ask more of the EEOC in supporting their transparency and accountability efforts, perhaps leading to less time in the courtroom.

7   Emilio J. Castilla, "Accounting for the Gap: A Firm Study Manipulating Organizational Accountability and Transparency in Pay Decisions," *Organization Science* 26, no. 2 (2015): 311–333.

8   Emilio J. Castilla, "Achieving Meritocracy in the Workplace," *MIT Sloan Management Review* 57, no. 4 (2016): 35–41; Adam D. Galinsky et. al., "Maximizing the Gains and Minimizing the Pains of Diversity: A Policy Perspective," *Perspectives on Psychological Science* 10, no. 6 (2015): 742–748.

9   Sinduja Rangarajan, "Here's the Clearest Picture of Silicon Valley's Diversity Yet: It's Bad. But Some Companies Are Doing Less Bad," *Reveal News,* June 25, 2018, https://www.revealnews.org/article/heres-the-clearest-picture-of-silicon-valleys-diversity-yet/.

10 Donald Tomaskovic-Devey and JooHee Han, "Is Silicon Valley Tech Diversity Possible Now?" Center for Employment Equity, University of Massachusetts Amherst, June 2018, https://www.umass.edu/employmentequity/silicon-valley-tech-diversity-possible-now-0.

11 Some prototype data visualizations using EEOC private sector firm data are now available at the Center for Employment Equity at https://www.umass.edu/employmentequity/diversity-analytics.

Listen to Internal Complaints to Learn What Is Broken

Both external stakeholders and employees play an important role in establishing accountability and transparency. External pressure is often more visible, as community activists pressure firms to diversify their workplaces along many dimensions, including gender, race, ethnicity, and sexual orientation, and make those workplaces welcoming for everyone. As one example, the #Metoo movement has brought to light the pervasive and destructive impact of sexual harassment. These external pressures are often mirrored internally by status-based advocacy or support groups that pressure employers to take a stand. A striking example was the 2018 global walkout of Google employees over executive mishandling of sexual harassment.[12]

For the most part, firms have not responded warmly to this pressure. Research on firms' legal strategies in response to discrimination lawsuits suggest that many companies attempt to isolate and vilify employees who speak up about discrimination and harassment, often encouraging them to quit or firing them.[13] As a result, these employees tend to leave quietly, rather than help managers learn how to improve their workplace. For example, a study of all sexual harassment complaints to the U.S. Equal Employment Opportunity Commission between 2011 and 2016 estimated that 70 percent of workplace sexual harassment targets never told anyone at work, much less HR or managers; among those that filed complaints with the EEOC, 68 percent faced employer retaliation of one sort or another, and 64 percent lost their jobs during the process.[14]

Managers may be tempted to see legal complaints or lawsuits as irritations or in extreme cases as crises and go on the defensive, but a more productive approach to complaints is to harness them as organizational learning opportunities.[15] All too often, the response to concerns of bias and discrimination is to use non-disclosure agreements and monetary incentives to hide the allegations and expel irritating employees. But there is an alternative approach. Companies can instead learn from the information on diversity shortfalls, high turnover among women or minority staff, and complaints of poor treatment. Firms should use complaint resolution as an opportunity to develop new routines and practices to reinforce diversity and morale. It is well established that business innovation and performance require managerial practices that nurture organizational learning.[16] Of course, many businesses fail to learn

12 Daisuke Wakabayashi, Erin Griffith, Amie Tsang, and Kate Conger, "Google Walkout: Employees Stage Protest Over Handling of Sexual Harassment," *New York Times*, November 1, 2018, https://www.nytimes.com/2018/11/01/technology/google-walkout-sexual-harassment.html.

13 Vincent Roscigno, *The Face of Discrimination: How Race and Gender Impact Work and Home Lives* (New York: Rowman and Littlefield, 2007); Ellen Berrey, Robert L. Nelson, and Laura Beth Nielsen, *Rights on Trial: How Workplace Discrimination Law Perpetuates Inequality* (Chicago: University of Chicago Press, 2017).

14 Carly McCann, Donald Tomaskovic-Devey, and M.V. Lee Badgett, "Employers Responses to Sexual Harassment," Center for Employment Equity, University of Massachusetts Amherst, December 2018, https://www.umass.edu/employmentequity/employers-responses-sexual-harassment.

15 Lynn Perry Wooten and Erika Hayes James, "When Firms Fail to Learn: The Perpetuation of Discrimination in the Workplace," *Journal of Management Inquiry* 13, no. 1 (2004): 23–33; Erika Hayes James and Lynn Perry Wooten, "Diversity Crises: How Firms Manage Discrimination Lawsuits," *Academy of Management Journal* 49, no. 6 (2006): 1103–1118.

16 Daniel Jiménez-Jiménez and Raquel Sanz-Valle, "Innovation, Organizational Learning, and Performance," *Journal of Business Research* 64, no. 4 (2011): 408–417.

and eventually fail to thrive or survive. If your business is not making progress on creating a diverse workforce, it is likely because you haven't included diversity among your core business goals and so you are failing to learn.

Policy Advice

Even in the absence of regulatory pressure from governments or social movements, many firms continue to embrace the idea of equal opportunity because they value diversity, fairness, and respectful workplaces. While many have made the case that diversity is good for business, what the research increasingly shows is that achieving diverse and respectful workplaces requires incorporating diversity into standard business practices. It is as simple as setting goals, developing transparent metrics, and holding people accountable for moving toward those goals. Involving managers at all levels to count, compare, and take ownership of diversity goals is an effective recipe to increase diversity and reduce discrimination.

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Chapter 3
Making Discrimination and Harassment Complaint Systems Better

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SUMMARY

For decades, employers have used formal grievance procedures to handle both discrimination and harassment complaints. The system seems straightforward: If an employee believes they were subject to harassment or discrimination, they file a formal complaint with human resources. The employer promises an investigation followed by disciplinary action if the investigators find a violation of company policy. But in practice, complainants often face career-ending retaliation and the investigation is often inadequate. Procedures that provide confidentiality for the accused can prevent serious investigation and protect serial abusers. To avoid the pitfalls of the formal complaint system, employers should adopt a menu of alternatives, including ombuds programs and dispute resolution systems. The formal grievance system can then be reserved for cases where the misbehavior is particularly egregious. In addition, employers need to address the systemic factors in the workplace that lead to discrimination, harassment, and retaliation for publicizing misbehavior.

KEY FINDINGS

- Half of discrimination and harassment complaints produce retaliation.

- Workers who complain of harassment have worse careers, mental health, and physical health than those who experience similar levels of harassment but do not complain.

- Accused harassers are more likely to be struck by lightning than to be transferred or lose their jobs.

- Managers accused of discrimination are rarely sanctioned in any way.

- Grievance procedures carry confidentiality clauses that permit serial abusers to carry on.

- After employers create grievance procedures they see significant decreases in the representation of minority men and women in management.

- Employee assistance plans, ombuds offices, and transformative dispute resolution systems promise to solve some of these problems.

The Civil Rights era raised awareness of systemic discrimination across society—in education, transportation, housing, and employment. In response, by the late 1960s, many American employers had developed civil rights complaint systems based on union grievance procedures, complete with quasi-judicial boards to hear complaints, due process protections for the accused, and representation for both parties. Employers created parallel processes for handling harassment complaints after federal courts recognized sexual harassment as a form of sex discrimination under Title VII of the Civil Rights Act of 1964, in decisions handed down after 1975. By 1998, when two Supreme Court decisions suggested that having grievance procedures could protect employers against certain harassment complaints, over 70 percent of medium and large employers had discrimination grievance procedures and over 90 percent had harassment procedures. With guidance from the Department of Education, universities have created similar procedures for handling student sexual assault and harassment complaints brought under Title IX of the Higher Education Amendments of 1972, which outlaws sex discrimination in education.

On the surface, these procedures seem like a reasonable approach to detect and deter discrimination and harassment. However, evidence from many quarters suggests that these legalistic complaint processes frequently incite retaliation and rarely resolve problems. Half of the 80,000 or so discrimination and harassment complaints filed annually with the U.S. Equal Employment Opportunity Commission (EEOC) from workplaces across the country include a charge of retaliation against the initial complainant.[1] Large random-sample studies of women who experience harassment show that those who file complaints have worse mental health, physical health, and career outcomes than women who experience similar levels of harassment but do not complain.[2] Filing a harassment complaint appears to take a toll on women. Studies of discrimination complaints more broadly show that a vanishingly small number are resolved, internally in firms or through the courts, to the satisfaction of the complainant, and that complainants frequently have to leave their jobs.[3]

Furthermore, our research suggests that formal grievance procedures for discrimination and harassment actually slow workforce integration by decreasing representation of minority men and women in management.[4] This appears to happen because the use of formal procedures leads to backlash against those who were discriminated against in the first place, which causes accusers to leave their jobs and thereby interrupts the careers of many minority women and men.

1   "Retaliation-Based Charges, FY1997–FY 2018," U.S. Equal Employment Opportunity Commission, accessed January 23, 2020, https://www.eeoc.gov/eeoc/statistics/enforcement/retaliation.cfm.

2   Heather McLaughlin, Christopher Uggen, and Amy Blackstone, "The Economic and Career Effects of Sexual Harassment on Working Women," *Gender & Society* 31, no. 3 (2017): 333–358; U.S. Merit Systems Protection Board, "Sexual Harassment in the Federal Workplace: Is It a Problem?" (Washington, D.C.: U.S. Merit Systems Protection Board, 1981); U.S. Merit Systems Protection Board, "Sexual Harassment in the Federal Government: An Update," (Washington, D.C.: U.S. Merit Systems Protection Board, 1988); U.S. Merit Systems Protection Board, "Sexual Harassment in the Federal Workplace: Trends, Progress, Continuing Challenges," (Washington, D.C.: U.S. Merit Systems Protection Board, 1995).

3   Ellen Berrey, Robert L. Nelson, and Laura Beth Nielsen, *Rights on Trial: How Workplace Discrimination Law Perpetuates Inequality* (Chicago: University of Chicago Press, 2017); Lauren B. Edelman, *Working Law: Courts, Corporations, and Symbolic Civil Rights* (Chicago: University of Chicago Press, 2016); Vincent Roscigno, *The Face of Discrimination: How Race and Gender Impact Work and Home Lives* (New York: Rowman and Littlefield, 2007).

4   Frank Dobbin and Alexandra Kalev, "The Promise and Peril of Sexual Harassment Programs," *Proceedings of the National Academy of Sciences* 116, no. 25 (2019): 12255–12260; Frank Dobbin, Daniel Schrage, and Alexandra Kalev. "Rage Against the Iron Cage: The Varied Effects of Bureaucratic Personnel Reforms on Diversity," *American Sociological Review* 80, no. 5 (2015): 1014–1044.

Grievance procedures pose several problems beyond that of retaliation. One is that the process is usually confidential in order to protect both the complainant and the accused. Individuals submitting complaints are asked not to mention it to anyone else, thus word does not get out about a problem employee. Confidentiality also often prevents investigators from looking for a pattern of harassment or discrimination because a behind-the-scenes investigation would expose the identity of the accused. Even the resolution to an investigation is usually confidential, thus the process protects the accused even if they are found guilty. Complainants sometimes quit because they think their harasser has faced no consequences even when discipline has been handed down.

Another problem with the current formal grievance system is that the standard of proof prevents companies from taking action early to prevent future misconduct. In the case of discrimination claims, proof of intent to discriminate is often required. Intent is hard to prove when the complaint is that person X, who got the promotion, or a raise, or avoided layoff, is actually less qualified than person Y. In the case of hostile environment harassment, evidence of "persistent" and "serious" harassment is usually required. People who complain about a single instance of harassment are often rebuffed and left to wait for the situation to deteriorate. In consequence, people accused of harassment face an infinitesimal risk of being transferred, much less fired.[5] Those accused of discrimination rarely face any consequences.[6] And the standard of proof delays action, preventing the employer from taking immediate steps to fix the problem.

Finally, the legalistic, adversarial process leads employers to think of complaints not as opportunities for change and improvement, but as threats to the organization that need to be put down quickly.[7]

Alternatives to Legalistic Grievance Mechanisms

Alternatives to the legalistic grievance mechanism have been experimented with for decades but have yet to be widely adopted. While we need more research on these alternatives, some of them promise to replace the broken formal grievance procedure with a system that incorporates a menu of alternatives that is better able to stop discrimination and harassment.

One alternative is the ombuds office, which acts as a neutral party in hearing complaints. The system is common in Scandinavia and in U.S. universities, although few places use it regularly to address

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5   Lisa D. Bastian, Anita R. Lancaster, and Heidi E. Reyst, *1995 Sexual Harassment Survey* (Arlington, VA: U.S. Department of Defense, 1996); Lilia M. Cortina and Jennifer L. Berdahl, "Sexual Harassment in Organizations: A Decade of Research in Review," in *Handbook of Organizational Behavior*, ed. Julian Barling and Cary L. Cooper (New York: Sage Publications, 2008): 469–497.

6   Vincent Roscigno, *The Face of Discrimination: How Race and Gender Impact Work and Home Lives* (New York: Rowman and Littlefield, 2007); Ellen Berrey, Robert L. Nelson, and Laura Beth Nielsen, *Rights on Trial: How Workplace Discrimination Law Perpetuates Inequality* (Chicago: University of Chicago Press, 2017).

7   Ellen Berrey, Robert L. Nelson, and Laura Beth Nielsen, *Rights on Trial: How Workplace Discrimination Law Perpetuates Inequality* (Chicago: University of Chicago Press, 2017); Lauren B. Edelman, *Working Law: Courts, Corporations, and Symbolic Civil Rights* (Chicago: University of Chicago Press, 2016).

harassment and discrimination.[8] The classic ombuds is an independent party, located outside the chain of command, whose role is to listen to the victim's story and provide confidential advice. The ombuds has substantial freedom in how they help employees resolve problems in the workplace. They may advise an employee on how to speak with the person who has discriminated against or harassed them, what to do if it happens again, or how to move to another job. In some systems, they may address the accused directly, or talk with human resources about modifying work conditions, assignments, or team configurations.

A second alternative is the Employee Assistance Plan. These benefit programs provide free, confidential support to workers on issues in and outside of work that might be affecting their health, wellbeing, or work performance. Like the ombuds, however, they are rarely used to handle discrimination or harassment complaints. EAPs are typically run by outside vendors who make experts in counseling and mediation available to employees, usually by phone. They can play a role similar to that of the ombuds, but they do not typically intervene in the organization.

A third alternative is a dispute resolution office, an approach that currently has been adopted primarily by employers in the public sector. The dispute resolution office is available to workers who have complaints of almost any sort about coworkers or supervisors. These offices, which can be either internal or external to the firm, use the tools of arbitration and mediation to arrive at a remedy that satisfies both parties. Because of this, they may not be the best path when there is a big power differential between the accuser and the accused, or when termination is the only reasonable remedy. These are very different from the mandatory arbitration systems employers require new recruits to agree to at the point of hire, which put complainants at a disadvantage by ruling out the option of appealing to the courts.

A fourth alternative that some employers use is a transformative model of dispute resolution that is designed to change the workplace. The emphasis is on hearing both parties' voices to generate an attentive and responsive dialogue.[9] This model holds the promise of overcoming the adversarial nature of the legalistic model, increasing complainant satisfaction, and reducing retaliation. The United States Postal Service has such a system, and a long-term study showed that 90 percent of participants were satisfied.[10] Supervisors reported that the process improved their conflict management and listening skills. In addition, exit interviews showed that 30 percent of complainants received an apology—an outcome unknown to complainants in formal grievance systems, where an apology amounts to an admission of guilt.

Implementing one or more of these four alternative processes is now easier than ever because tech start-ups have developed virtual versions for companies. For example, tEQuitable (tequitable.com) has built a virtual ombuds system, which provides a large repository of suggestions for how to handle a

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8   Mary P. Rowe, and Michael Baker, "Are You Hearing Enough Employee Concerns?" *Harvard Business Review* 62, no. 3 (May-June 1984): 127–138.

9   Robert A. Baruch Bush and Joseph P. Folger, *The Promise of Mediation: Responding to Conflict Through Empowerment and Recognition* (San Francisco: Jossey-Bass, 1994).

10 Lisa B. Bingham, "Mediation at Work: Transforming Workplace Conflict at the United States Postal Service" (Arlington, VA: IBM Center for The Business of Government, 2003), Human Capital Management Series, http://www.businessofgovernment.org/sites/default/files/Mediation.pdf.

variety of problems as well as live ombudspersons who are available by phone. tEQuitable will report aggregate statistics about complaints to employers by department or business unit to alert them to problem areas. Online reporting systems promise to address a problem frequently brought up by the #MeToo and #WhyIDidntReport movements: confidentiality clauses prevent victims from learning that their abuser has done it before. There is an escrowed complaint system from Callisto (projectcallisto.org), which employers and universities can subscribe to. The system allows college students and employees to register a time-stamped complaint about harassment or assault, which is put in "escrow." The complainant can then decide later about whether to go forward with a formal complaint. Individuals can time-stamp multiple allegations before filing a formal charge, and they can be notified when someone else registers a complaint about the same person.

The alternative systems described here make many improvements to the formal grievance system that exists at most employers today. However, the effectiveness of any system ultimately depends on the attitude of the organization's leaders. No system will foster change if companies continue to view complaints as threats to the organization that must be resolved as quickly as possible rather than as well as possible. Complaint systems can help to prevent workplace discrimination and harassment only when they spark a transformative process within the organization. The ideal complaint system should encourage workers to voice their grievances and should communicate the organization's commitment to fair and non-retaliatory resolution. It should also increase bystander awareness of harassment, discrimination, and retaliation. Plenty of employers know that their current systems don't work. While we need more research about the efficacy of these alternatives, employers shouldn't wait for the research to introduce new options.

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Chapter 4
Using Technology to Increase Fairness in Hiring

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SUMMARY

Traditional recruitment and hiring practices are plagued with bias. While technological advances do not offer a silver bullet, when properly designed they can work to reduce discrimination. We offer concrete steps toward fairness for technology-enabled employment selection tools. Although the current state of public conversation around technology in employment selection highlights the potential danger and recent missteps, it is important to keep in mind that traditional analog recruitment and hiring approaches have resulted in a situation that is not working for women and racial/ethnic minority group members. Carefully designed technological solutions cannot be ignored as viable alternatives to a biased human approach. We describe the approaches of two organizations that are grounded in principles of fairness and achieve optimal results.

KEY FINDINGS

- The current state of employment selection is biased.

- Fairness is defined here as the lack of disparate treatment and disparate impact.

- Technology-enabled employment selection tools offer a viable alternative to biased human selection decisions.

- Technology must be designed mindfully in order to avoid pitfalls and reach its potential for fair hiring.

Despite countless studies that have shed light on the inevitability of human bias, for more than 50 years HR professionals have relied on methods that introduce these biases to talent pipelines and employment selection procedures. Jobseekers consequently face systems that significantly disadvantage particular groups because of their demographic characteristics. In the following section, we investigate an important question: can technology reduce systematic discrimination in employment procedures?

The Current State of Employment Selection

To motivate this exploration, it is worth noting a few economic and labor trends that demonstrate the extent of bias in the current order.

For almost 50 years, researchers have used audit and correspondence studies to measure rates of discrimination in the labor market.[2] Studies have consistently found that resumes submitted by equally qualified candidates receive differential outcomes that can be directly traced to changes in the name or other demographic signals. In one seminal study, candidates with "white-sounding" names received 50 percent more requests for interviews than their equally qualified black counterparts. Put another way, black candidates would need to have approximately five more years of work experience than white candidates to reach the same rate of interviews per job application.[3]

Despite increases in awareness of unconscious bias and discrimination over recent decades, meta analyses have shown no evidence of a decline in discrimination against black job-seekers in the labor market since the late 1980s, and only slight declines for Hispanic and Latino applicants.[4] Similar effects persist across genders, with one study indicating that even top-tier academic faculty inadvertently rate female candidates for STEM positions lower than identically-qualified male candidates.[5]

This degree of bias in the labor market is not simply an academic trend; it represents the daily experience of thousands and thousands of individuals. In 2018 alone, the U.S. Equal Employment Opportunity Commission (EEOC) received 76,418 charges of employment discrimination, 64 percent of them on the basis of race or sex.[6] Furthermore, while black workers make up 13 percent of the U.S. workforce, as a group they file 26 percent of claims with the agency and its partners.[7] In 2017 the aggregate national unemployment rate was 4.4 percent; however for blacks it was 7.5 percent and for Hispanics it was 5.1 percent.[8] Clearly, the current state of employment selection is plagued with discrimination.

2   Marianne Bertrand and Esther Duflo, "Field Experiments on Discrimination," NBER Working Paper Series, February 2016, https://www.nber. org/papers/w22014.pdf.

3   Marianne Bertrand and Sendhil Mullainathan, "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination," *American Economic Review* 94, no. 4 (2004): 991–1013.

4   Lincoln Quillian, Devah Pager, Ole Hexel, and Arnfinn H. Midtboen, "Meta-Analysis of Field Experiments Shows No Change in Racial Discrimination in Hiring Over Time," *Proceedings of the National Academy of Sciences* (2017), https://www.pnas.org/content/early/2017/09/11/1706255114.

5   Corinne A. Moss-Racusin, John F. Dovidio, Victoria L. Brescoll, Mark J. Graham, and Jo Handelsman, "Science Faculty's Subtle Gender Biases Favor Male Students," *Proceedings of the National Academy of Sciences* (2012), https://doi.org/10.1073/pnas.1211286109.

6   "EEOC Releases Fiscal Year 2018 Enforcement and Litigation Data," U.S. Equal Employment Opportunity Commission, April 10, 2019, https://www1.eeoc.gov/eeoc/newsroom/release/4-10-19.cfm.

7   Maryam Jameel and Joe Yerardi, "Despite Legal Protections, Most Workers Who Face Discrimination Are on Their Own," The Center for Public Integrity, February 28, 2019, https://publicintegrity.org/workers-rights/workplace-inequities/injustice-at-work/workplace-discrimination-cases/.

8   "Labor Force Characteristics by Race and Ethnicity, 2017," U.S. Bureau of Labor Statistics, Updated August 2018, https://www.bls.gov/opub/reports/race-and-ethnicity/2017/home.htm.

While recruiting and hiring practices are not the only driver of racial inequality in this country, they inevitably contribute to a system that makes it more difficult for certain groups of people to achieve their socioeconomic and professional potential. This is a major motivation for developing new technologies to increase fairness in hiring across our society.

What Is Fairness?

To better understand how technology might improve the employment selection process, it is important to establish what a "fair" process looks like. In the U.S., two legal theories are commonly used to describe workplace discrimination: "disparate treatment" and "disparate impact." For HR risk and compliance experts, a hiring procedure is deemed fair only if it is absent of *both* types of discrimination.

Disparate treatment occurs when a candidate is affected by an intentional act of overt discrimination. For example, a recruiter or hiring manager who discards a resume because they believe the applicant is black based on the name is engaging in disparate treatment. Note that, in this case, the discrimination is overt and intentional.

Disparate impact, on the other hand, occurs when a test or selection procedure disproportionately excludes candidates based on a protected characteristic (race, color, religion, sex [including pregnancy, sexual orientation, and gender identity], national origin, age, disability, and genetic information).[9] Here, intent to discriminate is not necessary. As an example, consider the landmark case decided by the U.S. Supreme Court in 1971, *Griggs v. Duke Power*. Following the passage of the Civil Rights Act of 1964, North Carolina's Duke Power company adopted the requirement that employees in all departments (except its lowest-paying labor department) have a high school diploma and a minimum score on two paper and pencil tests, the Bennett Mechanical Comprehension Test and the Wonderlic Cognitive Ability Test, for work in any department other than its lowest-paying labor department. While the requirement of a high school diploma and a passing score on two tests appears neutral on its face (and hence does not constitute disparate treatment), at the time these requirements demonstrably excluded Black employees. Specifically, the passing rate for the Bennett Mechanical and the Wonderlic tests was 58 percent for whites but only 6 percent for blacks. Further, the 1960 Census showed that 34 percent of white males had high school diplomas while only 12 percent of black males did.[10] In contrast to the overt and conscious decisions that lead to disparate treatment, disparate impact discrimination is typically covert and seemingly unintentional.

Putting the above definitions together, a hiring process is considered fair when candidates are not intentionally singled out for discriminatory treatment and when the overall effect of the selection process does not disproportionately disadvantage members of any one demographic group. While other

9   "Frequently Asked Questions," U.S. Equal Employment Opportunity Commission, accessed January 27, 2020, https://www.eeoc.gov/employers/smallbusiness/faq/who_is_protected.cfm.

10   *Griggs v. Duke Power Co.*, 401 U.S. 424 (1971), https://www.law.cornell.edu/supremecourt/text/401/424.

academic and philosophical definitions of fairness are available, these legal standards are typically the default for practitioners.

Using Technology to Increase Fairness

In reflecting on the state of the world in the 1970s, when most labor laws in the U.S. were written, it is easy to imagine that equal employment opportunity advocates did not view technology as a tool for their cause. On the contrary, over the past several decades the idea of using automated systems to score tests and check backgrounds have likely alarmed labor law practitioners far more than the harms of manually-applied human prejudices that pervade traditional approaches to selection. However, in recent years, advancements in data collection and processing have fundamentally changed the prospects of using technology to overcome bias, and lawmakers are growing receptive to this potential. For example, in September 2019, the California State Assembly passed ACR 125, Bias and Discrimination in Hiring Reduction through New Technology, which affirms that artificial intelligence (AI) may be used to promote fairer employment practices than the status quo. Importantly however, this resolution calls for ethical standards to be established to inform development and use of AI.[11] As of February 2020, both the New York City Council[12] and the California State Senate[13] have introduced bills to actually amend outdated regulations around employment selection tools to account for advancements in technology.

Of course, technology in and of itself is not a silver bullet that will end discrimination. One need not dig deep before unearthing examples of technology gone awry.[14] When utilizing historic datasets to train algorithms, technologists must be mindful to avoid codifying human biases. For example, in an organization where successful incumbents are mostly white and male, a tool that is modeled on them is likely to disadvantage non-white and female candidates, unless that tool is proactively inspected and stripped of such biases. Here, the benefit of an automated tool is that it *can* be stripped of such biases and trained to focus on truly job-relevant signals rather than the "noise" associated with demographic indicators or proxies for such indicators. The brains of human resume reviewers cannot be similarly stripped of such biases. When developers understand the importance of fairness and agree on the goals for the technology, novel approaches to employment selection can reduce discrimination and increase fairness.

In simple terms, the success of these approaches lies in how the technology is designed and how it interacts with humans. Essential steps towards fairness for any technology-enabled assessment include:

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11   Bias and Discrimination in Hiring Reduction through New Technology, ARC-125, September 4, 2019, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200ACR125.

12   https://www.wsj.com/articles/new-york-city-bill-aims-to-regulate-ai-hiring-tools-11582801200.

13   http://sacobserver.com/2020/02/new-california-bill-aiming-to-eliminate-racial-and-other-biases-in-hiring/.

14   See e.g., Jeffrey Dastin, "Amazon Scraps Secret AI Recruiting Tool that Showed Bias Against Women," Reuters, October 9, 2018, https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G.

- Start by utilizing meaningful data points that evidence fairness across demographic groups in the aggregate.

- Design technology-enabled assessments and selection procedures that are objectively job-relevant and predictive of success in-role.

- Proactively test for and address disparate impact in selection algorithms before they are deployed on jobseekers.

- Hide demographic indicators from decision makers and allow objective assessment results to guide the decision-making process.

- Where human decision-making takes place, design tools that mitigate the risk of human bias from influencing outcomes.

- Audit procedures for disparate impact on candidates after deploying the assessment and revisit the solutions to develop improvements as necessary.

Two Examples of Fair Hiring Technology

pymetrics and Applied are two companies that put the above-mentioned principles for fair hiring technology into practice. The authors of this chapter have substantial experience at these companies developing, deploying, validating, and back-testing such solutions. Kelly Trindel is the Head of I/O Science & Diversity Analytics and Frida Polli is Co-Founder and CEO at pymetrics. Kate Glazebrook is the Co-Founder and CEO of Applied. Below we review each approach in greater detail.

pymetrics

pymetrics[15] has gamified well-known behavioral science assessments adopted from the peer-reviewed academic literature and utilizes the data points collected from these exercises to build custom success profiles for clients. The behavioral assessments were chosen because they measure cross-culturally relevant cognitive, social, and emotional traits reliably and in such a way that minimizes demographic differences in performance.

Each time pymetrics builds a custom success profile based on the performance of locally successful incumbents, the algorithm behind the profile is proactively audited for disparate impact before it is deployed for candidate selection. This is done using a diverse hold-out set of individuals who previously completed the exercises and voluntarily provided their demographic information.

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15   To learn more about pymetrics, visit https://www.pymetrics.com/employers/.

The performance of this hold-out group against each custom algorithm indicates objectively whether the algorithm results in disparate impact. The tests deployed by pymetrics to check for disparate impact are open-sourced[16] and based on federal guidelines.[17] Where disparate impact is uncovered, pymetrics is able to identify the data point(s) in the custom algorithm that cause the difference in performance across demographic groups and de-weight or remove those data points prior to use on candidates. The custom algorithm is then tested iteratively against the hold-out set until all demographic groups pass the assessment at a substantively similar rate. The company refers to this as a proactive debiasing process. It could also be considered a technology-enabled search for the least discriminatory alternative, as specified in guidance from the U.S. Equal Employment Opportunity Commission.[18]

In the end, pymetrics identifies the version of the algorithm that is best able to differentiate the locally successful incumbent group from a baseline population while being least likely to result in disparate impact on candidates. The cognitive, social, and emotional factors most heavily weighted in the custom algorithm are then compared to the knowledge, skills, and abilities required for the job to confirm and document rational job relevance. All custom algorithms are back-tested to determine whether disparate impact occurred in candidate selection and the degree to which the algorithm predicted success in role longitudinally (i.e., predictive validity). Algorithms are rebuilt annually if back-testing indicates room for improvement.

Applied

Applied is a technology platform that focuses on building tools that guardrail human decisions from bias.[19] Applied redesigns the hiring environment so that only the most relevant (predictive) information is made available to assessors and removes distractions so that candidates are assessed based on skill not demography. Specifically, candidates are assessed based on their responses to work-based scenarios, not their resumes. Their answers are then anonymized to remove all candidate details, chunked up to allow for comparative assessment and reduce "halo" effects, randomized to mitigate ordering effects, and then scored and averaged across multiple independent assessors to harness the wisdom of the crowd and reduce idiosyncratic bias.

A similar methodology is applied to interview processes to increase predictive validity and reduce bias. This methodology codifies behavioral and data science research into a decision tool, and the experiments that underpin the technology are publicly shared.[20] Data from the hiring process is also collected and

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16   The tests are available to the public at https://github.com/pymetrics/audit-ai.

17   The federal guidelines followed by pymetrics are available online from the U.S. Department of Labor. See "Validation of Employee Selection Procedures: Frequently Asked Questions," Question 4, https://www.dol.gov/ofccp/regs/compliance/faqs/ValidationEmployeeSelectionFAQs.htm#Q4 and "Practical Significance in EEO Analysis: Frequently Asked Questions," https://www.dol.gov/ofccp/regs/compliance/faqs/PracticalSignificanceEEOFAQs.htm.

18   U.S. Equal Employment Opportunity Commission, "Employment Tests and Selection Procedures," accessed January 27, 2020, https://www.eeoc.gov/policy/docs/factemployment_procedures.html.

19   To learn more about Applied, visit https://www.beapplied.com/.

20   The tests are available to the public at https://www.beapplied.com/blog.

analyzed for any latent disparate impact that may affect success rates. Only the most predictive and unbiased assessments are used.

While we have reviewed here the specific examples of pymetrics and Applied, the design principles utilized to ensure fairness in these technologies can be adopted by other technology-enabled assessments and selection devices. It is the opinion of these authors that indeed, they should be adopted.

Conclusion

Can technology work to reduce discrimination in recruiting and hiring? The answer is yes, so long as the developers of such technologies optimize these tools for fairness, transparency, and validity. Technology that is built by, trained on, and utilized by humans must be designed with an eye to avoiding the typical shortcomings human bias produces. When we agree on clear goals for the technology, these prosocial approaches can be coded and adopted with minimal effort. If however the creators and users of technology do not commit to ethical principles in both their processes and procedures, such systems will unfortunately mask unfair practices under the guise of automated objectivity.

In this chapter we have identified the value of technology for reducing discrimination and increasing fairness, we have provided a straightforward definition of fairness, and we have laid out essential steps that developers should follow and users should demand. It is our hope that moving forward, practitioners will continue to iterate on the steps described here with the goal of creating and using the fairest and most predictive technology-enabled approaches to employment selection and human capital development.

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Chapter 5
Overcoming the Small-N Problem

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SUMMARY

Small samples negatively affect the quality of the information we use when making group-based estimates. Small samples have higher variability than large samples, so data about a handful of female and minority leaders are less informative than the data about the large cohort of their male and white counterparts. While reliance on group-level characteristics, i.e., stereotypes, is in itself hotly debated, the problem of stereotyping is compounded by the data being less accurate and less reliable the smaller the group is. Simply put, if you want to learn about the typical attributes of, say, millennials, a sample of 10,000 will yield more useful information than a sample of 100. In addition, relative to majorities, minorities are more likely to be subject to tokenism, and additional scrutiny, in numerically skewed groups where they make up only a small proportion of the group. People are unlikely to correct for small-N statistics and often erroneously consider small samples to be equally representative of the underlying population as large samples. Obviously, increasing the sample size would solve the small-N problem. As this is not always possible, another way to counteract the threat of inaccurate stereotypes is to increase the availability of role models by making visible individuals from underrepresented groups who are representative of the group as a whole. Additionally, changes in decision processes that decrease the impact of stereotypes on people's judgments by focusing attention on individual-level data rather than group-level characteristics are likely to improve diversity because differences in sample size no longer matter.

KEY FINDINGS

Problems

Group size

- Smaller samples are less informative than larger ones, leading to less accurate, more variable, and less useful inferences. Assessments based on group averages are more likely to be inaccurate.

- Relative to members of larger groups, members of smaller groups are more likely to stand out, receive more scrutiny, and feel pressure to assimilate (tokenism).

Perception of group size

- Smaller samples tend to be taken as equally representative of the population as larger samples (the representativeness heuristic).

- People tend to mistake easily retrievable and salient examples for frequent occurrences (the availability heuristic). For example, a person who remembers that Sheryl Sandberg is the COO of Facebook might estimate the fraction of female corporate leaders to be much higher than it actually is.[1]

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1   Daniel Kahneman, Paul Slovic, and Amos Tversky, eds., *Judgment under Uncertainty: Heuristics and Biases* (Cambridge: Cambridge University Press, 1982).

Relevance of group size for decision-making

- A host of situational factors including stress, evaluation procedures, and accountability mechanisms can affect the relative importance of group stereotypes (whose accuracy depends on group size) and individual characteristics (which are independent of group size) in the decision process.

- One of the consequences is stereotype threat, which can undermine the efficacy of stereotyped individuals.[2]

Solutions

Group size

- Make the sample bigger by increasing the representation of underrepresented individuals, such as by setting goals, targets, or quotas.

Perception of group size

- Make a greater number of representative examples (role models) of underrepresented groups more salient and visible, such as by increasing their inclusion in public displays (conference panels; media and movies; public portraits and art; etc.). Over time, this can counteract stereotype threat and even change societal stereotypes.

Relevance of group size for decision making

- Focus attention on relevant individual-level information to decrease the impact of group-based assessments, such as by changing evaluation procedures (joint and simultaneous evaluation instead of separate and sequential evaluation).

A multinational company we are working with is trying to motivate managers to hire and promote more women and people of color by encouraging them to "take more risks." While describing members of smaller groups as intrinsically riskier than members of larger groups might not be the best strategy to advance diversity—the company's ultimate goal—there is some truth to the statement. Women and people of color hold a small fraction of leadership positions in this company, as they do in the vast majority of organizations. Such small samples are inherently more variable than large samples and less likely to be representative of the population distribution, thus yielding less useful information for people who want to learn from them.[3] This makes hiring women or people of color seem riskier. When asked whether women or people of color lead differently than men, for example, people's assessments can be skewed because their answers compare a very small sample of political and business leaders who identify as women and people of color with a much larger sample of white and male leaders. In addition, the

2   Stereotype threat refers to situations where members of a stereotyped group are concerned about being judged in light of the stereotype, which can undermine their performance and aspirations. For example, women are stereotyped to have lower math ability than men, which can result in women performing worse on math tests than their ability would predict, especially if their gender identity is made salient. Nalini Ambady et. al., "Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance," *Psychological Science* 12, no. 5 (2001): 385–390.

3   Iris Bohnet and Farzad Saidi, "Informational Inequity Aversion and Performance," *Journal of Economic Behavior and Organization* 159 (2019): 181–191.

sample itself may be biased because the very few individuals who have made it to the top are likely not representative of the average individual of a given group.

The "small-N problem" affects numerically underrepresented groups—the "small N members"—in at least three ways: they have fewer and thus less useful role models available to learn from; they are more likely to be taken for tokens; and when being evaluated for hiring or promotion, they are confronted with managers who might be affected by inaccurate stereotypes. But the "small-N problem" also affects members of numerical majority groups, whose decision-making can be unduly influenced by unconscious biases. In order to give everyone an equal shot at success in the workplace, it is essential to overcome the challenges posed by small and biased samples and make unbiased decisions regardless of representation. So how can we make it happen and level the playing field?

The Problems of Small Samples

Decision makers tend to rely on group-based assessments when person-specific information is limited but group-level information is available.[4] Such group-based assessments have been widely documented in labor, housing, and credit markets.[5] Using group stereotypes, however, has direct negative effects leading to differences in pay[6] and opportunity[7] between the advantaged and the discriminated groups. It also has secondary negative effects leading members of the discriminated group to decrease their effort in response to anticipated lower returns to effort, which, in the end, can induce a vicious cycle whereby the individuals who were discriminated against perform worse than they would have in the absence of discrimination.[8] For example, if there is a gender gap in promotion that causes equally qualified women to be promoted less often than men, women might adjust their effort by working less hard, thus confirming the prevailing—but inaccurate—beliefs about their ability. Members of smaller groups are further disadvantaged relative to members of larger groups by tokenism, which magnifies differences and makes minority members subject to additional scrutiny.[9] If a hockey team has 20 different countries represented, nationality is unlikely to be a salient issue; but if only two players come from a different country than the rest of the players, they are likely to stand out.[10]

4   Economists refer to this as "statistical discrimination." People often rely on group-level characteristics in situations where individual characteristics are hard to observe. Edmund Phelps, "The Statistical Theory of Racism and Sexism," *American Economic Review* 62, no. 4 (1972): 659–61; Kenneth J. Arrow, "The Theory of Discrimination," in O. Ashenfelter and A. Rees (eds.), *Discrimination in Labor Markets*, (Princeton, NJ: Princeton University Press, 1973).

5   Marianne Bertrand and Esther Duflo, "Review on Field Experiments on Discrimination," in *Handbook of Field Experiments*, eds. Abhijit Banerjee and Esther Duflo (North Holland, U.K.: Elsevier Science, 2017).

6   Roland Fryer, Devah Pager, and Jörg L. Spenkuch, "Racial Disparities in Job Finding and Offered Wages," *The Journal of Law & Economics* 56, no. 3 (2013): 633-689.

7   Lincoln Quillian, Devah Pager, Ole Hexel, and Arnfinn H. Midtbøen, "Meta-Analysis of Field Experiments Shows no Change in Racial Discrimination in Hiring over Time," *Proceedings of the National Academy of Sciences* 114, no. 41 (2017): 10870–10875.

8   Iris Bohnet, Ashley Craig, and Clémentine van Effenterre, "Overcoming Gender Differences in Interview Ratings," Harvard Kennedy School Working Paper, Harvard University, Cambridge, MA, 2019 (Microsoft Word file).

9   Rosabeth M. Kanter, "Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women," *American Journal of Sociology* 82, no. 5 (1977): 965–990.

10   Katherine W. Phillips and Damon Phillips, "Nationality Heterogeneity, Performance, and Blau's Paradox: The Case of NHL Hockey Teams, 1988-1998," Paper presented at the Academy of Management conference, New Orleans, LA, August 2004.

Small numbers present a cognitive challenge because of how people perceive them. People do not accurately correct for sample size, believing that smaller samples are as representative of the underlying population as larger samples. Furthermore, the availability heuristic leads human minds to make decisions based on the most easily accessible information—in other words, salient and readily available examples. Americans tend to think of the elderly when asked who lives in Florida even though more than 80 percent of Floridians are younger than 65.[11] Indeed, stereotypes are often based on readily available examples rather than actual prevalence, such that human minds overweight a group's most outstanding types in determining their average characteristics.[12]

Finally, the small-N problem can be amplified by situational factors, such as the design of the decision process.[13] Hiring, promotion, and electoral procedures often focus on very few individuals—sometimes just one—and evaluate candidates separately and sequentially. However, when people evaluate one person at a time and do not make joint assessments, they are more likely to rely on stereotypes instead of individual-level information to make decisions.[14] For example, in first-past-the-post electoral systems common in the United States, the United Kingdom, Canada, and India, voters indicate their preferred candidate on a ballot, and the candidate with the most votes wins. This winner-takes-all, single-member district system stands in contrast to proportional representation electoral systems, which are designed to make the proportion of seats awarded to candidates and parties reflect the proportion of votes they receive as closely as possible. It turns out that proportional representation elections are twice as likely to propel women into office than winner-takes-all elections, and women are even more likely to get elected in multimember constituencies where voters evaluate candidates jointly and make multiple simultaneous decisions by voting for multiple candidates.[15]

Solutions to Overcome the Small-N Problem

The most obvious solution to the small-N problem is to make the sample bigger by increasing the numbers of traditionally underrepresented individuals. In India, this was done successfully through political quotas that randomly assigned a third of village chief positions to women, which caused the share of women in local government to increase from 5 percent in 1993 to 40 percent in 2005.[16] The United Kingdom saw similar success when the government introduced non-binding targets that encouraged companies to diversify their boards of directors. Supported by peer pressure among large companies and senior executive search firms, as well as a research-based publicity campaign, the targets

11   Pedro Bordalo et. al., "Stereotypes," *The Quarterly Journal of Economics* 131, no. 4 (2016): 1753–1794.

12   Devah Pager and Diana Karafin, "Bayesian Bigot? Statistical Discrimination, Stereotypes, and Employer Decision Making," *The Annals of the American Academy of Political and Social Science*, 621, no. 1 (2009): 70–93.

13   Iris Bohnet, *What Works: Gender Equality by Design* (Cambridge, MA: The Belknap Press of Harvard University Press, 2016).

14   Iris Bohnet, Alexandra van Geen, and Max Bazerman, "When Performance Trumps Gender Bias: Joint Versus Separate Evaluation," *Management Science* 62, no. 5 (2016): 1225–1234; Edward H. Chang et al., "The Isolated Choice Effect and Its Implications for Gender Diversity in Organizations," Forthcoming in *Management Science* (n.d.).

15   Pippa Norris, "The Impact of Electoral Reform on Women's Representation," *Acta Politica*, 41, no. 2 (2006): 197–213.

16   Lori Beaman et. al., "Powerful Women: Does Exposure Reduce Bias?" *The Quarterly Journal of Economics* 124, no. 4 (2009): 1497–1540.

helped to increase the proportion of women on the corporate boards of FTSE 100 companies from 12.5 percent in 2011 to more than 30 percent in 2019.[17] Such group proportions matter. To maximize the benefits and minimize the drawbacks of social diversity, demographic minorities should be included in sufficiently large numbers—a critical mass of around 30 percent—so that they do not fall prey to tokenism.

In the absence of dramatic changes in representation, the second solution is to make representative examples of the existing sample more available by increasing the visibility of small-N members and thereby changing what is salient. Role models—be they in the form of real-life leaders, speakers on panels and at events, characters represented in films and media, portraits on walls, or names of buildings, streets, and conference rooms—are powerful influences on behavior and help to counteract stereotype threat.[18] The "This Girl Can" campaigns in Australia and the United Kingdom, for example, provided realistic role models representative of the general population to encourage sport among women and girls.[19] In the absence of counter-stereotypical role models, other creative approaches can work. In computer science classrooms, replacing male-stereotyped Star Wars images with more gender-neutral nature landscapes on the walls has been shown to equalize female undergraduates' interest in computer science with that of their male counterparts.[20]

The third solution entails changes in decision-making processes. Joint evaluation whereby multiple candidates are assessed comparatively against each other, as opposed to individually in isolation, has been shown to reduce bias in decision-making.[21] Joint evaluation focuses evaluators' attention on individual-level information about each candidate and decreases their reliance on stereotypes. Similarly, simultaneous decisions whereby multiple candidates are selected at the same time rather than one at a time—whether in hiring, promotion, or election contexts—have been shown to lead to more diversity in outcomes.[22] Thus, instead of hiring for one open position in March, one in May, and one in October, companies would do better to hire for all three open positions at the same time, thereby benefiting from the ability to evaluate a larger pool of candidates comparatively and make three simultaneous hiring decisions.

17 John Beshears, Iris Bohnet, and Jenny Sanford, "Increasing Gender Diversity in the Boardroom: The United Kingdom in 2011 (A)," Harvard Business School Supplement 918-006, July 2019.

18 Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova. "Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India," *Science*, 335, no. 6068 (February 2012): 582–586.

19 "This Girl Can," Sport England, accessed January 27, 2020, http://www.thisgirlcan.co.uk; "This Girl Can," Victorian Health Promotion Foundation, accessed January 27, 2020, http://www.thisgirlcan.au.

20 Sapna Cheryan et. al. "Ambient Belonging: How Stereotypical Cues Impact Gender Participation in Computer Science," *Journal of Personality and Social Psychology* 97, no. 6 (2009): 1045–1060.

21 Iris Bohnet, Alexandra van Geen, and Max Bazerman, "When Performance Trumps Gender Bias: Joint Versus Separate Evaluation," *Management Science* 62, no. 5 (2016): 1225–1234.

22 Edward H. Chang et. al., "The Isolated Choice Effect and Its Implications for Gender Diversity in Organizations," forthcoming in *Management Science* (n.d.).

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Chapter 6
Context Matters: Moving beyond "Best Practices" to Creating Sustainable Change

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SUMMARY

Enhancing diversity and inclusion are priorities for many organizations, yet leaders often lack a clear direction as to how to create the desired change. The aim of the Stanford VMware Women's Leadership Innovation Lab is to combine academic and real-world insights to develop strategies that will help organizations make their workplaces more diverse and inclusive. To gain this insight, we lead research at companies from a range of industries, including technology and professional services, and meet with leaders at all levels of the organizations. Our findings demonstrate that taking local context into account when formulating a plan to increase diversity can improve the likelihood of motivating sustainable and meaningful change.

KEY FINDINGS

- Diagnosing the local context can provide the essential foundation for a change effort to create more inclusive workplaces.

- Starting with the most engaged and willing departments or teams can help build momentum that sparks additional efforts to change at the company.

- Involving organizational actors—notably managers—in the design process can increase the likelihood that the tools developed to create more diverse and inclusive work processes will be effective and sustainable over time.

Individuals who strive to improve the diversity and inclusion (D&I) at their organizations often face limited budgets, few dedicated staff (if any), and incomplete data or insights into where or why their teams and organization needs to change. Despite these hurdles, leaders often press D&I leaders for immediate impact and sweeping change. Change agents must navigate between their goal of fostering sustainable, realistic change and leaders' push to show swift, outstanding results on many dimensions of diversity and inclusion, including culture, retention, employment, brand, etc. If D&I leaders approach change methodically, ensuring that the building blocks are in place, their performance might be criticized for lack of momentum. If they push for sweeping change, the organization may not be ready and their efforts might fail, possibly generating backlash in the process. Thus, change agents are under pressure to move quickly by seeking best practices or tried-and-true programs that can be quickly and successfully implemented at any organization with little or no customization and at low cost. In short, they want to know how to accelerate the process.

Our team at the VMware Women's Leadership Lab works with a range of organizations to diagnose barriers to change and pilot solutions. We created the Corporate Program to bridge the gap between theory and practice to help women from diverse backgrounds advance within their field and organizations. Change agents often join our program asking if we know of "best practices" they can employ; we often tell them, "It depends." While often initially puzzled at this response, they usually come to understand that this seemingly vague answer is not intended to thwart their actions but, instead, to inform their success. By sharing research-based insights and strategies, we aim to support them in building programs that can succeed in their local context.

A "Small Wins" Model of Change

Figuring out where to start to make his company more diverse and inclusive was the exact issue the CEO of MidTech[1] faced when we met in 2014. He spoke earnestly about working to change the company's culture, which was, as one manager described it, the "wild west." Upon hearing about our research, the CEO proposed that we apply our change model at MidTech.

We agreed to move forward.

Our first step was to make the case for our "small wins" change model to MidTech executives, many of whom were hungry to move forward with a more radical approach that would "blow up" the system. We explained that our approach is based on a focused, strategic pilot program that serves as a starting point for building sustainable momentum. A pilot would enable us to understand MidTech's context in order to co-design and test a plan that is likely to work. If done well, the pilot would ignite a process leading to sustainable change across the organization. A small wins pilot includes these steps[2]: 1. Diagnose; 2. Co-design; 3. Pilot; 4. Evaluate and identify key learnings; 5. Move to the next pilot. While some MidTech leaders were initially skeptical, the small wins approach ultimately aligned well with their approach to innovation.

Ann Brown stepped up as the key change agent leading the process at MidTech. After the team was in place, we completed our diagnosis[3] and met with the leadership team to present our findings and identify a change target: the talent review process. In less than one year, Brown and her team created and ran a successful pilot that implemented strategies for reducing bias in their talent review process. The strategy included intentionally defining and using criteria to evaluate performance and holding one another accountable for consistently using those measures. Our team evaluated the pre- and post-intervention results and found key improvements to reducing bias that benefitted all employees. Importantly, Brown's

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1   The names MidTech and Ann Brown are pseudonyms.

2   A complete description of the small wins model is available from Shelley J. Correll, "Reducing Gender Biases in Modern Workplaces: A Small Wins Approach to Organizational Change," *Gender and Society* 31, no. 6 (December 2017): 725–750.

3   A guide to diagnosis is available at "See Bias / Block Bias: A Methodology to Diagnose Bias," VMWare Women's Leadership Innovation Lab, Stanford University, accessed January 29, 2020, https://stanford.box.com/s/kfkad624p3xg09ytt0nyb31zuv3dlwen.

team has continued to roll out improvements leveraging the insights from the initial pilot in important ways, carefully considering every aspect of their people processes from hiring, performance evaluations, promotions, and even assignments.

Did the small wins produce big wins at MidTech? We believe so, and the company was recently recognized by the industry as a leader in creating a great workplace for women.

Building a Model of Change

The success at MidTech may appear to provide a road map that others can simply replicate. Could this be the best practice we have been looking for? Our answer is, again, "It depends." Rather than trying to find a one-size-fits-all solution, change agents need an honest assessment of what is going on in their organizations, one that considers the perspectives of employees across departments and levels, to truly understand the pain points for different groups of employees. For instance, consider the target of change. It is not enough to assume that programs will be equally beneficial to all men, women, or people of color in the organization. Research shows that "one-size-fits-all" diversity approaches often benefit only a subset of employees,[4] and efforts directed at women broadly can result in advancing white women at the expense of women of color.[5] Our research shows that taking the time to explore data illuminating the experiences of specific groups of underrepresented minorities, such as black men or Latinx women, will provide more useful information about diversity and inclusion than looking at more aggregate data.[6]

Furthermore, when designing a change effort, change agents should also consider the ways that changes are deployed in their organization, both formally and informally. Formal mechanisms might include change-management systems[7] led by a company's project managers. Informal mechanisms, or *unwritten rules*, might include the need to socialize ideas first in order to get employees onboard. Starting with the internal local processes is more likely to successfully integrate inclusion efforts into the business than deploying a cookie-cutter formula.

Think Locally when Identifying a Target of Change

Even a proven strategy can fail if it doesn't consider the local context, the way in which work gets done *here*. In fact, identifying the "right place to start" depends largely on understanding the local context.

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4   Evan P. Apfelbaum, Nicole M. Stephens, and Ray E. Reagans, "Beyond One-Size-Fits-All: Tailoring Diversity Approaches to the Representation of Social Groups," *Journal of Personality and Social Psychology* 111, no. 4 (2016): 547–566.

5   Erin Carson, "Tech Industry Is Leaving Behind Women of Color, Report Shows," CNet, August 7, 2018, https://www.cnet.com/news/tech-leaving-behind-women-of-color/.

6   Katie Wullert, Shannon Gilmartin, and Caroline Simard, "The Mistake Companies Make When They Use Data to Plan Diversity Efforts," *Harvard Business Review*, April 16, 2019, https://hbr.org/2019/04/the-mistake-companies-make-when-they-use-data-to-plan-diversity-efforts.

7   https://en.wikipedia.org/wiki/Change_management_(engineering).

As an example, Harvard Business School professor Leslie Perlow worked with the Boston Consulting Group (BCG) to better understand employees' challenges with their work-life balance. She discovered that long hours and intense work were not the main issue, but rather, the lack of predictability to their schedules was. Repeatedly missing a child's sporting event or class show because something came up at work caused tension between work and family. The solution? Each consultant would schedule one day off a week, chosen in advance, thus it was predictable. What started as a small experiment later scaled broadly throughout BCG. This seemingly simple initiative[8] of predictable time off improved employee satisfaction and likelihood of staying at the firm, and importantly, it also improved business outcomes.

Again, this might seem like Perlow and BCG have identified a "best practice" that other consulting firms can copy. But not necessarily. An insider in another consulting firm revealed to us that when her firm tried to implement an identical program, it failed. The difference? Structure. At BCG, consultants tend to work in one intact team through the completion of a project. By contrast, many consultants in her firm split their time between multiple simultaneous projects. Thus, building schedule predictability across numerous teams and projects was too complex. Instead, her firm implemented a different means of providing predictability that worked within their own structure. In other words, a winning strategy must be adapted to the unique organizational structure and context of each firm.

Identifying Where Change Is Likely to Stick

In addition to considering organizational structure, it is important to identify organizational will and passion to address diversity and inclusion.

In another project, we worked with a biotech firm with an active group of women leaders who wanted to push the organization toward culture change. As part of their change management process, these women realized that presenting published research on bias would not be effective with their fellow scientists, who primarily thought of science as a meritocracy; company-specific data would be more convincing. So we dove into their employee engagement survey[9] data, identifying areas with a meaningful gap in the ways men and women scored their responses. We noted a few possible target areas: the distribution of work, work resources, the culture of team meetings, and recognition of achievement. To better understand the local context, we hosted focus groups. We discovered that team meetings and recognition of achievement inspired intense reactions and very specific, emotional examples from employees, suggesting these areas as possible targets of change. Respecting the company's culture of debate, we presented our findings to the leadership team, suggesting several possible target areas as a series of options instead of a single recommendation. We outlined research-based strategies that could help them address each one. In the end, the group decided to focus on the dynamics of team meetings. The leaders

8   Leslie A. Perlow and Jessica L. Porter, "Making Time Off Predictable—and Required," *Harvard Business Review* 87, no. 10 (October 2009): 102–9. https://hbr.org/2009/10/making-time-off-predictable-and-required.

9   Robert S. Teachout, "Viewpoint: Carefully Craft the Employee Engagement Survey," Society for Human Resource Management, (August 2017): https://www.shrm.org/resourcesandtools/hr-topics/employee-relations/pages/employee-engagement-survey.aspx.

could see from their engagement data and focus group comments that this issue affected not only productivity and innovation but employee morale as well. Through this process, the leaders' commitment to take part in the program was in place, and the process was set in motion.

Engage Organizational Actors

A skilled change agent is essential for any project to successfully achieve change. In the MidTech case, Brown strategically engaged leaders in the process in order to achieve success across the organization. Distributing the responsibility among the leaders who will implement the intervention in their everyday work flow is a critical step. Not only does it ensure that the new process fits into managers' everyday work, but the very act of co-designing the solution distributes important skills across the organization instead of centralizing the expertise with the change agents. One of our colleagues researched what happened in two organizations after the key change agent left.[10] When efforts were centralized with the change agent and her team, the initiative lost momentum after she left. By contrast, embedding the efforts in various departments led to ongoing success after the change agent left.

While the realization that there is no plug-and-play solution to implementing meaningful change at your company may be discouraging at first, customizing to the local context and engaging organizational leaders may actually lead to more effective and sustainable change—which is the ultimate goal anyway.

10 Alison Wynn, "How to Save Your Diversity Program from an Untimely Demise," *Behavioral Scientist*, August 5, 2019, https://behavioralscientist.org/how-to-save-your-diversity-program-from-an-untimely-demise/.

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