



GOALS AND TARGETS FOR DIVERSITY, EQUITY, AND INCLUSION

**A HIGH LEVERAGE POINT
TO ADVANCE GENDER EQUALITY
IN THE U.S. TECH INDUSTRY**

**Iris Bohnet & Siri Chilazi
Harvard Kennedy School
April 2020**

TABLE OF CONTENTS

INTRODUCTION: THE WILL AND THE WAY OF BEHAVIOR CHANGE 1

GOALS AND TARGETS: THE RESEARCH EVIDENCE..... 2

 What are goals?..... 2

 How and why do goals work?..... 3

IN PRACTICE: DEI GOALS IN U.S. TECH AND ELSEWHERE..... 6

 DEI goals among U.S. tech companies..... 6

 DEI goals in other sectors 8

 Case study: The 50:50 Project at the BBC..... 9

 Case study: The UK’s efforts to increase women’s representation on corporate boards 11

DEI GOALS FOR THE U.S. TECH INDUSTRY: OUR RECOMMENDATIONS 13

 How to set effective DEI goals 13

 What DEI goal to set..... 23

REFERENCES..... 26

APPENDIX A. GENDER DIVERSITY IN SILICON VALLEY..... 31

APPENDIX B. RECOMMENDED DEI DATA FOR ORGANIZATIONS TO TRACK..... 33

APPENDIX C. AFFIRMATIVE ACTION AND OTHER LEGAL CONSIDERATIONS..... 34

INTRODUCTION: THE WILL AND THE WAY OF BEHAVIOR CHANGE

Making diversity, equity, and inclusion (DEI) a reality in organizations requires changing the way we behave. Humans tend to be most comfortable with others who look like them and tend to prefer people who conform to their stereotypical beliefs. We expect engineers to be men and nurses to be women,¹ and if confronted with a different picture, tend to respond with confusion or hostility. In “economics speak”, we experience costs from being exposed to difference, and such costs must be counterbalanced by benefits for us to be willing to change.

What makes this even trickier is that the costs tend to be experienced immediately while the benefits tend to accrue in the future once the DEI work has been done: diverse teams do not outperform homogenous ones immediately, but do so in the long run.² We frequently face these types of intertemporal choices – like how much to save for retirement or whether to exercise today – that require us to weigh costs and benefits occurring at different times.³ In such cases, humans consistently fall prey to cognitive biases and make suboptimal decisions.⁴

We conceptualize DEI in organizations as one such intertemporal choice problem. It has short-term costs, including the discomfort from difference and a perception that DEI could be a zero-sum game where those currently in power could only lose by being more inclusive. Besides, organizational practices and procedures need to be changed for DEI to work. But DEI also has important long-term benefits for both individuals and companies, including more creative problem-solving on teams, more objective decision-making, and greater fairness.⁵

The question, then, is this: How can companies make smarter trade-offs between the short and long term when it comes to DEI?

Research shows that behavior change requires transformation along two dimensions: the *will* and the *way*. The *will* reflects our desire, or motivation, to act.⁶ The *way* reflects our means to execute: the knowledge and skills we draw on to act.⁷ To generate lasting behavior change, it is imperative to address the *will* and the *way* by tackling both the motivational and cognitive challenges associated with new behaviors. This is, in part, why publicly reporting diversity data has not meaningfully moved the needle on gender diversity in U.S. tech. While the data are useful to illuminate the problem and garner attention – after all, what does not get measured does not count – the numbers alone are not powerful enough to increase the *will* to change DEI-relevant behaviors.

We need to find a way to overcome the short-term individual and organizational costs of DEI so that we may collectively reap its long-term benefits. This is exactly what goals and targets help us do. They provide motivation to act, increasing the *will* to change, while in themselves being a vehicle – a *way* – to change. Setting organizational DEI goals, and making oneself individually and collectively accountable for achieving them, is an evidence-based high leverage point to increase DEI in the U.S. tech industry.

The rest of this white paper proceeds as follows. We begin by reviewing the academic evidence on goals and how and why they help with the *will* and the *way* of behavior change. We then turn to practical, evidence-based advice for tech companies on how to set effective DEI goals, informed by research as well as case studies. Lastly, we recommend a specific DEI goal for U.S. tech companies – and the industry as a whole – to help increase gender balance.

¹ We acknowledge that the concept of gender is complex and does not exist on a binary, and that biological sex as assigned at birth and gender or gender identity are distinct. Nonetheless, today's academic research and popular literature on goals and targets still generally exists on the woman-man gender binary because this is how most data are collected. As such, this white paper examines gender in the binary context.

² Phillips, K. W. (2014, October 1). [How Diversity Makes Us Smarter](#). *Scientific American*.

³ Ericson, K. M., & Laibson, D. (2019). [Intertemporal choice](#). In B. Bernheim, S. DellaVigna, & D. Laibson (Eds.), *Handbook of Behavioral Economics - Foundations and Applications* (Vol. 2, pp. 1-67). Elsevier.

⁴ Bohnet, I. (2016). *What Works: Gender Equality by Design*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

⁵ Page, S. (2007). *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*. Princeton, NJ: Princeton University Press.

⁶ Willemuth, S., & Gino, F. (2013). "I'll Have One of Each": How Separating Rewards Into (Meaningless) Categories Increases Motivation. *Journal of Personality and Social Psychology*, 104(1), 1-13.

⁷ Berkman, E. (2018). [The Neuroscience of Goals and Behavior Change](#). *Consulting Psychology Journal: Practice and Research*, 70(1), 28-44.

GOALS AND TARGETS: THE RESEARCH EVIDENCE

What are goals?

A goal is at once an outcome that one aims for, and a standard for determining performance or judging satisfaction.⁸ For organizations, a goal can be defined as “an observational or measurable organizational outcome to be achieved within a specified time”.⁹ In other words, **a goal is “any desired outcome that would not otherwise happen without some kind of intervention”**.¹⁰ A diversity goal, in particular, is an “organizational objective to increase demographic heterogeneity” along a particular dimension of diversity such as gender or race.¹¹ Goal-setting, then, is the process by which individuals and organizations determine the outcomes that they want to achieve, and the associated timeframes.¹² Goals serve an inherently motivational function because they underscore the gap between the current situation and a desired future end state or outcome. As such, goals imply some level of discontent with the current situation.¹³

Academic literature distinguishes between two key types of goals: behavior or **process goals** that are defined in terms of specific behaviors, such as interviewing at least one woman for every open position, and **outcome goals** that are defined in terms of outcomes or accomplishments, such as hiring 50% women for all entry-level roles.¹⁴ Whereas outcome goals motivate people to put their existing knowledge and skills to work on a task, process goals motivate people to develop their task-related abilities by acquiring new knowledge and skills.¹⁵ Both types of goals lead to behavior change, although correlational data suggests that outcome goals are more closely related to outcomes than behaviors, and vice versa.¹⁶ Relatedly, **learning goals** focus on the skills or competencies to be developed, while **performance goals** focus on the attainment of a specific level of performance.¹⁷ For instance, a DEI-related performance goal would be to hit a particular employee engagement score on an annual survey, while a learning goal would be to discover a certain number of new strategies to help boost employee engagement scores.

Importantly, goals and targets, which are aspirational and voluntary, are distinct from **quotas**, which are mandatory requirements for specific representation of women (or another group) in particular positions. Quotas are typically imposed and enforced by a legislative or regulatory body that also has the power to deploy sanctions in case of failure or non-compliance.¹⁸ For example, political quotas that randomly assigned a third of village chief positions to women in India successfully increased the share of women in local government from 5% in 1993 to 40% in 2005, and served to permanently improve attitudes towards women as legislators, as well as community outcomes for women and girls.¹⁹ Similarly, a 2003 law in Norway mandating that both women and men be represented at a minimum level of 40% on the boards of publicly

Academic theories on goal-setting have evolved inductively over the last 50 years through empirical research in industrial/organizational psychology. They are founded upon the general premise that goals affect action. The founders of modern goal-setting theory, Edwin Locke and Gary Latham, first presented the theory in their 1990 book, *A Theory of Goal Setting and Task Performance*, based on more than 400 laboratory and field studies. Research on goals has shown them to be effective in generating positive outcomes in contexts as varied as medicine, health and fitness, negotiations, job searches, learning, and training, with time spans ranging from one minute to 25 years and subjects ranging from individuals to groups and organizational units.

⁸ Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey*. *American Psychologist*, 57(9), 705-717.

⁹ Barends, E., Janssen, B., & Velghe, C. (2016). *Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance*. CIPD.

¹⁰ Berkman, E. (2018). *The Neuroscience of Goals and Behavior Change*. *Consulting Psychology Journal: Practice and Research*, 70(1), 28-44.

¹¹ Heilman, M., & Welle, B. (2006). *Disadvantaged by Diversity? The Effects of Diversity Goals on Competence Perceptions*. *Journal of Applied Social Psychology*, 36(5), 1291-1319.

¹² Barends, E., Janssen, B., & Velghe, C. (2016). *Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance*. CIPD.

¹³ Locke, E. A., & Latham, G. P. (2006). *New Directions in Goal-Setting Theory*. *Current Directions in Psychological Science*, 15(5), 265-8.

¹⁴ Epton, T., Currie, S., & Armitage, C. J. (2017). *Unique Effects of Setting Goals on Behavior Change: Systematic Review and Meta-Analysis*. *Journal of Consulting and Clinical Psychology*, 85(12), 1182-1198.

¹⁵ Barends, E., Janssen, B., & Velghe, C. (2016). *Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance*. CIPD.

¹⁶ Harkin, B., Webb, T. L., Chang, B. P., Prestwich, A., Conner, M., Kellar, I., ... Sheeran, P. (2016). *Does monitoring goal progress promote goal attainment? A meta-analysis of the experimental evidence*. *Psychological bulletin*, 142(2), 198.

¹⁷ Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey*. *American Psychologist*, 57(9), 705-717.

¹⁸ Whelan, J., & Wood, R. (2012). *Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research*. Centre for Ethical Leadership, Melbourne Business School.

¹⁹ Pande, R., & Ford, D. (2011). *Gender Quotas and Female Leadership: A Review* (Background Paper for the World Development Report on Gender).

listed limited liability companies accomplished its representational goal while also narrowing the gender pay gap among board directors.²⁰ While the evidence is clear that quotas increase women's leadership and influence policy outcomes across a variety of contexts, they also often engender backlash, especially in the corporate sphere where evidence shows that companies sometimes try to strategically circumvent the intended impacts of quotas.²¹ The take-home lesson is that the design and implementation of a quota system, or a system of goals and targets, matters greatly for its eventual success. In organizations, some representational goals instituted by leadership – especially when tied to compensation – may be perceived more like quotas by those impacted by them, making this lesson particularly relevant.²² How goals are set and framed makes a big difference, and we discuss this further below.

Finally, the research evidence we present in this white paper has important limitations. Many of the relevant studies were conducted in highly controlled settings, such as decision science laboratories, using simple and easily measurable tasks. A large majority of the most rigorous experimental studies covered in the latest meta-analyses²³ on goals relates to health and medical goals, which are different in nature from DEI goals. To date, we have not been able to find a study that would have specifically tested the impact of organizational diversity goals on the organization's DEI metrics (other than the work on quotas discussed above). The insights presented in this paper are based on the latest and most applicable science, but we recognize that our evidence-based understanding of the effects and uses of goals continues to evolve as more research is conducted.

How and why do goals work?

Goals have the potential to be a powerful tool for behavior change because they address both the *will* (motivation) and the *way* (cognition and skills) of behavior change. Moreover, goals are an intervention both at the level of the individual or organization (the decision-maker) and the context (the environment), and research on long-term behavior change suggests that the most successful approaches deploy both of these intervention strategies concurrently.²⁴ For the decision-maker, goals serve to amplify the value of goal-related behaviors, reduce the value of goal-unrelated behaviors, or do both at the same time.²⁵ As for the environment, goals act as a situational nudge²⁶ by making beneficial behaviors more rewarding (since people are inherently motivated to achieve goals); more salient and memorable; and easier by enabling people to process information more appropriately.²⁷

Goals help motivate us toward particular behaviors by generating the *will* to do them through five mechanisms:

1. **Goals involve accountability:** Accountability, i.e., the implicit or explicit expectation that one might be required to justify one's actions to others, increases the cost of failure, and thus motivation, since no one wants to appear foolish or failing in the eyes of others (or suffer other potential negative consequences).²⁸ Research shows that people invest more effort in problem-solving, and make less biased decisions, when they expect that they will have to explain their actions.²⁹ One form of accountability is the “comply-or-explain” approach, where people are asked to either comply with a directive or publicly disclose why they chose not to follow it. Comply-or-explain acts as a “soft default” in that it introduces a reference point that people generally dislike deviating from, even though they retain the freedom to do so. This approach

²⁰ Bertrand, M., Black, S., Jensen, S., & Lleras-Muney, A. (2015). *Breaking the Glass Ceiling* (IDEAS Working Paper Series from RePEc).

²¹ Pande, R., & Ford, D. (2011). *Gender Quotas and Female Leadership: A Review* (Background Paper for the World Development Report on Gender).

²² Whelan, J., & Wood, R. (2012). *Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research*. Centre for Ethical Leadership, Melbourne Business School.

²³ A meta-analysis is a type of statistical analysis combining the results of multiple scientific studies. Meta-analyses help us to assess the overall effects of an intervention, such as goal-setting, that have been documented in a variety of studies and settings across time.

²⁴ Duckworth, A. L., & Milkman, K. L. (2018). *Changing Behavior for Good* [Unpublished working paper]. University of Pennsylvania.

²⁵ Berkman, E. (2018). *The Neuroscience of Goals and Behavior Change*. *Consulting Psychology Journal: Practice and Research*, 70(1), 28-44.

²⁶ A nudge is “any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not.” Thaler, R., & Sunstein, C. (2008). *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven: Yale University Press.

²⁷ Duckworth, A. L., & Milkman, K. L. (2018). *Changing Behavior for Good* [Unpublished working paper]. University of Pennsylvania. See also Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). *A User's Guide to Debiasing*. In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

²⁸ Experimental research has also repeatedly shown that people shift their views toward those of their audience when those audience views are known and when people expect to have to discuss their own views in front of that audience. However, if they perceive the audience to want to control their views, they assert their own, independent beliefs more vigorously. Lerner, J., & Tetlock, P. (1999). *Accounting for the Effects of Accountability*. *Psychological Bulletin*, 125(2), 255-275.

²⁹ Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). *A User's Guide to Debiasing*. In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

has been used in the UK, Australia, and many other countries to drive behavior change in areas including women's representation on corporate boards; companies' diversity policies; and corporate governance.³⁰

2. **Goals can induce personal pride and public recognition:** Goals make behavior change attractive by introducing an element of personal pride (intrinsic motivation) and public recognition (extrinsic motivation) in one's achievement of them. This, in turn, increases commitment to the goal, which is essential for goal-setting to work: if managers doubt their ability to reach assigned goals, or fundamentally do not accept the premise of the goals, they are less likely to remain committed to achieving them.³¹ Similarly, the prospect of pride and recognition helps to boost self-efficacy, or one's belief in one's ability to reach a goal, which in itself has been shown to enhance goal attainment.³²
3. **Goals may convey social norms:** Social norms are shared but often unspoken understandings of what behaviors are accepted and expected in a given context; in other words, what people do and don't do. The behavior of others – the herd – informs us as to what is normal, appropriate, and beneficial. Goals can communicate these social norms and thereby lead to herding, where people and organizations imitate others' behavior because what they are doing is seen as “the (socially acceptable) thing to do”. DEI goals can thus shift perceptions of desirable behaviors and outcomes, which is, in itself, a powerful influence on behavior. However, social norms are only positively motivating if the communicated outcome, such as increased representation of women in tech, is viewed as achievable and popular. Research suggests that it can in fact be demotivating to learn that one is too far behind to catch up to peers on desirable behaviors.³³
4. **Goals can induce competitiveness:** Humans are naturally competitive and driven to compare themselves against others whose characteristics or circumstances are relevant to theirs. Such social comparisons can have long-lasting, positive effects on behavior, such as in the context of energy consumption, where alerting consumers to the consumption habits of their neighbors induces competitiveness and leads to a sustained reduction in their own energy usage.³⁴
5. **Goals can be coupled with other motivational mechanisms:** While goals are inherently motivating, their effects can be magnified by deploying them in tandem with other motivational mechanisms or behavior change techniques. In fact, interventions that combine goal-setting with plan making (see below), feedback, and progress monitoring result in larger behavior change effects than goal-setting alone.³⁵ Financial incentives are another mechanism that can motivate people to shift into a more deliberative mindset, resist temptations, and therefore engage in desired behaviors, especially in early stage habit formation.³⁶ Repeatedly paying people to engage in a desirable behavior, even for just a month, continues to have effects on behavior months after the intervention.³⁷ Financial incentives have generally been shown to increase people's commitment to achieving a goal, especially when the goal is moderately difficult or when people are paid regardless of whether the goal is completely achieved; however, if the goal is very difficult and people are only paid for successful completion, performance can suffer due to decreased self-efficacy, i.e., a lowered belief that one has the ability to succeed and reach the goal.³⁸

Goals affect performance by helping us summon the necessary *ways* to achieve them through four mechanisms:³⁹

1. **Goals focus attention (direction):** Goals focus our cognitive and behavioral attention on key activities that will enable us to reach them (goal-relevant activities), and, by extension, away from other activities (goal-irrelevant activities). For example, people who were given feedback on multiple aspects of their driving improved their performance only on those aspects for which they had previously set goals.

³⁰ Bohnet, I. (2016). *What Works: Gender Equality by Design*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

³¹ Whelan, J., & Wood, R. (2012). *Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research*. Centre for Ethical Leadership, Melbourne Business School.

³² In organizations, leaders can raise their subordinates' self-efficacy by ensuring proper training; role modeling and sharing successful goal attainment strategies; and expressing confidence in their abilities. Barends, E., Janssen, B., & Velghe, C. (2016). *Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance*. CIPD.

³³ Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). *A User's Guide to Debiasing*. In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

³⁴ Duckworth, A. L., & Milkman, K. L. (2018). *Changing Behavior for Good* [Unpublished working paper]. University of Pennsylvania.

³⁵ Harkin, B., Webb, T. L., Chang, B. P., Prestwich, A., Conner, M., Kellar, I., ... Sheeran, P. (2016). *Does monitoring goal progress promote goal attainment? A meta-analysis of the experimental evidence*. *Psychological bulletin*, 142(2), 198.

³⁶ Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). *A User's Guide to Debiasing*. In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

³⁷ Duckworth, A. L., & Milkman, K. L. (2018). *Changing Behavior for Good* [Unpublished working paper]. University of Pennsylvania.

³⁸ Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey*. *American Psychologist*, 57(9), 705-717.

³⁹ Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey*. *American Psychologist*, 57(9), 705-717.

2. **Goals prompt effort (energy):** Goals energize us to expend (physical and/or cognitive) effort to reach them by serving as a reminder of what we want to achieve. In other words, people are inherently driven to achieve goals, with high goals prompting more effort than low ones.
3. **Goals are a commitment device (persistence):** Goals make us more likely to stick with a task, and when we are in control of the time we spend on the task, hard goals have been shown to prolong effort and thus increase persistence.
4. **Goals mobilize relevant strategies (resourcefulness):** Goals spur us to tap into and/or discover goal-relevant knowledge and strategies. When faced with a goal, we draw on our past experiences, existing knowledge and expertise, and/or external help in order to reach the target. As such, goals mobilize relevant strategies like plan making and progress monitoring, which in turn help us to achieve them.

In sum, goals work to increase task performance and promote behavior change because they simultaneously address the *will* and the *way* of behavior change. Goals generate the *will* to change because they involve accountability; induce personal pride and public recognition; convey social norms; induce competitiveness; and work in tandem with other motivational mechanisms, such as financial incentives and feedback. Goals help us tap into the necessary *ways* to change by focusing attention; prompting effort; inducing persistence; and mobilizing specific, relevant strategies to reach the target.

IN PRACTICE: DEI GOALS IN U.S. TECH AND ELSEWHERE

“What gets measured gets managed. *V.F. Ridgway, Academic*”

DEI goals among U.S. tech companies

In 2014, top U.S. tech companies led by Apple, Facebook, Google, and Microsoft started releasing annual diversity reports, detailing their workforce composition – at a high level and using idiosyncratic metrics selected by each company – by gender and race. The reports invariably revealed workforces that were overwhelmingly white, Asian, and male-dominated, especially in tech jobs. And progress has been scant: the share of women in tech jobs has grown from 15-20% in 2014 to 20-23% in 2019 at Apple, Facebook, Google, and Microsoft (for more details on women’s representation in the U.S. tech industry, see Appendix A).⁴⁰ It is worth noting that despite the perception that workforce composition data is widely shared in the U.S. tech industry, as of 2016, only 26 out of approximately 200 companies classified as Silicon Valley tech firms were voluntarily disclosing their government-mandated EEO-1⁴¹ data on workforce gender and race publicly.⁴²

Tech diversity disclosures have not included public goals or targets, with very few exceptions. As this paper makes clear, while data disclosure and transparency are important, evidence to date does not suggest that they will be enough to motivate significant and sustained behavior change on DEI. Goals, especially public goals, serve a critical function in mobilizing the *will* and the *way* to change behavior, and are thereby more likely to work in making progress on diversifying the U.S. tech industry.

For illustration, we highlight below, in alphabetical order, some of the tech companies that have set DEI goals publicly (without claiming that this is an exhaustive list). Given that there has thus far not been consistent industry-wide coordination in DEI goal-setting, these goals vary widely in nature, scope, and timelines. The one recent collective effort to advance DEI in tech was initiated by the White House in 2016, when 33 tech companies signed a non-binding and somewhat vague pledge to “implement and publish company-specific goals to recruit, retain, and advance diverse technology talent, and operationalize concrete measures to create and sustain an inclusive culture; [and] annually publish data and progress metrics on the diversity of our technology workforce across functional areas and seniority levels.”⁴³ A year later, nearly 80 companies had signed onto the pledge, but only 17 had made full or partial workforce statistics publicly available.⁴⁴ As of 2020, some of the undersigned companies still have not publicly set goals or released their full workforce demographic data.

Airbnb: Airbnb has set a goal of “gender parity at all levels across our organization”. From December 2017 to January 2019, the share of women in Airbnb’s U.S. workforce increased from 41.2% to 43.9%.⁴⁵

AOL (Verizon): In 2017, Oath (including AOL Inc.) CEO Tim Armstrong announced a goal to have women in 50% of leadership positions by 2020, along with equal pay.⁴⁶ At the time, Oath did not publish its diversity data; however, parent company Verizon did, and as of 2018, women made up 31.3% of its U.S. senior management.⁴⁷

⁴⁰ Harrison, S. (2019, October 1). [Five Years of Tech Diversity Reports—and Little Progress](#). *Wired*.

⁴¹ These one-page, federally mandated forms require companies to report their workforce composition by gender and race/ethnicity with employees divided into the three broad categories of professionals, managers, and executives. See Appendix C for more details.

⁴² Rangarajan, S. (2018, June 25). [Here’s the clearest picture of Silicon Valley’s diversity yet: It’s bad. But some companies are doing less bad](#). *Reveal from The Center for Investigative Reporting*.

⁴³ The 33 companies were 500px, Airbnb, Arimo, Box, BrightBytes, Clarifai, Color Genomics, DataSift, Distil Networks, Drillinginfo, ezCater, Gainsight, GitHub, GoDaddy, Illuminate Education, Intel, Intrinsic, Lyft, Medium, Moz, Nootrobox, Pinterest, Return Path, SAP, SkyTap, Spotify, TeamSnap, Turnitin, UnifyID, Unitrends, VMWare, ZestFinance, and Zynga. White House. (2016, June 22). [Tech Inclusion Pledge](#). See also Huang, G. (2017, February 14). [Seeking Women: 70+ Companies That Have Set Gender Diversity Targets](#). *Forbes*.

⁴⁴ Donnelly, G., & Jones, S. (2017, June 22). [The White House Tech Inclusion Pledge, A Year Later](#). *Fortune*.

⁴⁵ Airbnb. (2019, March 28). [Diversity at Airbnb](#). *Airbnb Newsroom*.

⁴⁶ In 2017, AOL Inc. was part of Oath, formed through the merger of AOL and Yahoo and owned by Verizon. Oath is now known as Verizon Media. Piper, N. (2017, February 7). [AOL Pledges Women Will Make Up 50 Percent of Leadership by 2020](#). *Bloomberg*. See also Koh, Y. (2018, October 29). [Intel Hits an Internal Goal for Workforce Diversity](#). *The Wall Street Journal*.

⁴⁷ Verizon defines senior management as Vice President and above. Verizon. (n.d.). [Verizon 2018 Corporate Responsibility Report](#). See also Draznin, H. (2017, October 16). [Oath CEO Tim Armstrong: I want women to fill 50% of our leadership roles](#). *CNN*.

Facebook: In 2019, Facebook announced that it “envisions a company where in the next five years, at least 50% of our workforce will be women, people who are Black, Hispanic, Native American, Pacific Islanders, people with two or more ethnicities, people with disabilities, and veterans.” Without specifying numbers further, Facebook stated that this would entail doubling the number of women in its global workforce.⁴⁸

GE: In 2017, GE announced a goal of attaining 50:50 gender representation for all technical entry-level programs, along with a specific numerical target of 20,000 women to fill STEM roles, by 2020.⁴⁹

Intel: In 2018, Intel announced that it had achieved “full representation” in its workforce, defined as matching the available talent pool (“market availability” based on sources including university graduation data from the National Center for Education Statistics, data from the U.S. Census Bureau, and internal company data). In practice, this translated to having approximately 27% women, 9.2% Hispanic workers, and slightly under 5% African American workers. While most tech companies use somewhat idiosyncratic metrics for their data reporting, Intel is the only one on record so far to use the “full representation” standard. The company also ties 7% of all employee bonuses to internal hiring and retention goals.⁵⁰

Pinterest: In 2015, Pinterest for the first time set annual external hiring goals, which were made public the following year. By 2019, it had achieved all three of its goals: hiring rates for women engineers reached 27% (surpassing the goal of 25%); hiring rates for underrepresented minority engineers were 9% (vs. the goal of 8%); and hiring rates for underrepresented minority employees across the company in both business and product (i.e., non-engineering) roles rose to 14%, exceeding the goal of 12%.⁵¹ Women’s representation in engineering roles rose from 19% in 2015 to 25% in 2019, and women made up 47% of Pinterest’s overall workforce in 2018.⁵²

Twitter: In 2017, Twitter set two-year diversity targets for women and Black and Latinx employees. By December 2019, it had nearly achieved its target for women’s overall representation (from 38.4% in December 2017 to 42.0% in November 2019, against a target of 43%) and Latinx overall representation (from 3.4% in December 2017 to 4.7% in November 2019, against a target of 5%) while slightly exceeding its target for Black overall representation (5.7% in November 2019, against a target of 5%). In 2018, the company had committed to setting diversity goals every two years instead of every year, and narrowing its focus to increasing the representation of women as well as Black and Hispanic workers only, instead of underrepresented minorities generally;⁵³ in 2019, Twitter indicated it was taking a “new approach to how we measure the diversity of our global workforce, set bold targets, and share our progress” with a promise of further updates in 2020.⁵⁴

While the public setting and sharing of diversity targets in U.S. tech is rare, it has been advocated by activists for some time. Project Include for years has been recommending setting demographic targets for the overall workforce as well as specifically for leadership, boards, and investors.⁵⁵ In 2019, D&I advocate and Project Include Co-Founder and CEO, Ellen Pao, suggested that Silicon Valley startups and tech companies set four D&I targets (10–10–5–45) in two years: 10% representation for Black/African American/African employees; 10% for Latinx/Hispanic employees; 5% for nonbinary employees (less as a target and more as a recognition that some percentage of an

““ Targets transform D&I from a “nice to have” to a “must have”, changing mindsets, attitudes, and behavior; they become the launchpad for doing the hard work, having the uncomfortable conversations, and making the difficult decisions. ””

*Ellen Pao, Co-Founder and CEO
of Project Include*

⁴⁸ Williams, M. (2019, July 9). [Facebook 2019 Diversity Report: Advancing Diversity and Inclusion](#). Facebook.

⁴⁹ GE. (2017, February 8). [Engineering The Future: GE's Goal To Bridge The STEM Gender Gap By 2020](#).

⁵⁰ Koh, Y. (2018, October 29). [Intel Hits an Internal Goal for Workforce Diversity](#). *The Wall Street Journal*.

⁵¹ Pinterest defines underrepresented minorities as employees of Native American, Pacific Islander, Latinx, and Black descent. Dennis, J. (2020, January 16). [What we're learning as we build a more inclusive company](#). *Pinterest Newsroom*.

⁵² Silberman, B. (2019, January 14). [Building a more diverse Pinterest](#). *Pinterest Newsroom*.

⁵³ Koh, Y. (2018, October 29). [Intel Hits an Internal Goal for Workforce Diversity](#). *The Wall Street Journal*.

⁵⁴ Brand, D. (2019, December 17). [Inclusion & Diversity Report December 2019](#). *Twitter Blog*. See also Cohen, D. (2019, March 14). [Twitter Wants Its Work Force to Be 43% Women, 5% Each Black and Latinx by Year-End](#). *Adweek*.

⁵⁵ Project Include. (n.d.). [Measuring progress](#).

inclusive workforce will identify this way); and 45% for women.⁵⁶ These specific targets are based on the diversity metrics of the top quartile of a (non-representative) sample of startups that Pao’s Startup Include and VC Include have worked with. Furthermore, Pao advocates for reinforcing targets across the talent management continuum and applying them across the corporate hierarchy at all levels, while measuring progress at least twice a year.⁵⁷

DEI goals in other sectors

Diversity goals are more common in industries outside of tech, and in countries outside the United States. According to the latest McKinsey and Lean In survey of 329 companies across the United States and Canada, 34% of HR leaders said their company sets gender targets for representation at junior levels of management, and 41% at senior levels of management.⁵⁸ The following pages lay out several particularly relevant and interesting examples, including two in-depth case studies of DEI goal-setting.

Diversity Lab: In the U.S., an interesting approach has been adopted by Diversity Lab, which focuses on advancing gender, racial, and LGBTQ+ diversity in the legal sector (both in law firms and among companies’ legal departments). Its Mansfield Rule is a voluntary, goal-based approach to increase the representation of diverse lawyers in law firm leadership by considering a minimum of 30% women, attorneys of color, LGBTQ+ lawyers, and lawyers with disabilities for leadership and governance roles, equity partner promotions, formal client pitch opportunities, and senior lateral positions. For 2019-20, 102 U.S. law firms are participating and have committed to tracking candidate pools and reporting their progress against the 30% goal at the end of the year. For the prior year, over and above merely tracking candidate pools for leadership roles, 65% of participating firms reported promoting a higher percentage of diverse lawyers into equity partnership than before.⁵⁹

Paradigm for Parity: As a coalition of business leaders dedicated to addressing the corporate leadership gender gap in the U.S., Paradigm for Parity has taken a goal- and measurement-centric approach to achieving its aims. Its five-point action plan for member companies, which number around 120 as of March 2020 (including tech companies like LinkedIn, SAP, and Salesforce), calls for setting an ultimate 50-50 goal for gender representation in senior operating roles to be achieved by 2030, with interim goals of having a single gender not account for more than 70%, then 60%, of leadership levels. Paradigm for Parity also encourages its member companies to publicly share their results.⁶⁰

Unilever: In 2010, Unilever set a global goal of reaching gender parity, or a 50-50 split, in its managerial roles, where women at the time were represented at 38%. It announced in March 2020 that it had met its 50% goal. In addition to company-wide public goals, Unilever sets more granular internal goals for every market and function, which are reviewed and tracked by the Unilever Leadership Executive every month and reported to the Global Diversity Board three times a year. One example of such goals is the Gender Appointment Ratio (GAR), developed by Iris Bohnet and Oliver Hauser, which is an internal metric capturing the recruitment, promotion, and retention track records of senior leaders over a five-year period. A GAR of one means that leaders are promoting and retaining women in proportion to their representation in the “available pool”, or among the people that report to a particular line manager. Presenting such actionable information to leaders has helped to improve awareness of DEI and spark more thoughtful decision-making around hiring, promotion, and retention.⁶¹

⁵⁶ Pao additionally suggests that the minority percentage targets should rise over time to match overall U.S. workforce percentages, i.e., 13% and 17% for Black and Latinx employees, respectively.

⁵⁷ Pao, E. K. (2019, May 2). [Roadmap to Diversity and Inclusion](#). *Medium*.


⁵⁸ McKinsey & Lean In. (2019). [Women in the Workplace](#).

⁵⁹ Diversity Lab. (2019, September 3). [Mansfield Rule](#).

⁶⁰ Paradigm for Parity. (n.d.). [The 5-Point Action Plan](#).

⁶¹ Unilever NV. (2020, March 3). [Nine ways we're making Unilever a more gender-balanced business](#). *MarketScreener*

Case study: The 50:50 Project at the BBC – goal-setting at the organizational level



I started the 50:50 Project because I felt like we had become stuck in a constant state of trying where the trying had become an end in itself: we accepted that representing women equally in our journalism was a desirable, worthy goal, but we had also accepted that it wasn't possible. This created a narrative that claimed we were 'trying and doing better', and the goal actually became secondary. We needed a change of mindset so that we thought of equal representation as non-negotiable, in the same way that we think of political balance, high production values, or hitting deadlines.

Ros Atkins, Founder of the 50:50 Project at the BBC

Data becomes powerful when it is used as an engine for change. At the BBC, a grassroots effort to increase women's representation in journalism has changed the way the organization works through a common goal and voluntary sharing and tracking of data. The BBC's story is a great example of making behavior and organizational change Easy, Attractive, Social and Timely (EAST) to make it stick.

Ros Atkins, presenter of a nightly primetime news program at the BBC, was listening to a radio show in 2016 when he made a startling observation: “There was not a single female guest on the hourlong program. It occurred to me that the editor may well not have even noticed. I realized that there was very little systematic collection of data on representation in journalism. In the absence of hard numbers, anyone could say anything about the state of gender equality in the media”.⁶²

This realization morphed into a deliberate effort to reach gender parity – 50:50 representation of women and men – as expert contributors on Atkins' own show. The premise was simple: at the end of each night's show, the production team would take two minutes to count and record the gender split of guests, with reporting taking place monthly. In January 2017, during its first month of counting, Atkins' show reached 39% women as contributors. Three months later, it hit 51% for the first time.⁶³

After proving the concept on his own show and working out the practicalities of counting and reporting the data, Atkins set out to spread the word to other shows and content teams across the BBC. From the start, he made it a point not to try to convert skeptics, but rather to empower those who already believed in the importance of the goal with a practical way to reach it. The research-based EAST framework, which suggests that behavior change should be Easy, Attractive, Social, and Timely in order for change to stick, illuminates why the 50:50 Project has been so successful.⁶⁴

Easy: Ros Atkins made 50:50 Easy by keeping the barriers to entry as low as possible. The 50:50 team shared specific instructions, guidelines, measurement templates, and checklists with all participating programs. Since the “pipeline” of qualified women came up over and over again as one of the main barriers to featuring more women on air, Atkins engaged colleagues to collaborate and create a list of women experts on various topics. The 50:50

⁶² Chilazi, S., Rattan, A., & Georgeac, O. (2020). *Ros Atkins and the 50:50 Project at the BBC (A)* (London Business School Case, Forthcoming). London, UK: London Business School.

⁶³ Rattan, A., Chilazi, S., Georgeac, O., & Bohnet, I. (2019, June 6). [Tackling the Underrepresentation of Women in Media](#). *Harvard Business Review*.

⁶⁴ Service, O. et al. (2014). *EAST: Four Simple Ways to Apply Behavioural Insights* (Behavioural Insights Team Report).

Project team committed to providing as much support as needed to every single participating team and individual. Signing up was as easy as speaking with a 50:50 team member, and teams could leave anytime. Moreover, participating teams were asked to count the number of contributors appearing on shows, rather than, for example, speaking time, to keep things simple. Lastly, the very name of the project – 50:50 – easily summarized the goal.

Attractive: Atkins purposefully kept the 50:50 Project voluntary to make it attractive, and any participating team was praised simply for signing up. Atkins appealed to journalists’ common motivation to increase the quality and popularity of their content by framing the benefits of 50:50 in those terms. Participating teams’ data was shared monthly company-wide to encourage competition, to provide recognition to successful teams, and to keep all participants accountable.

Social: Ros Atkins spread 50:50 through one-on-one conversations, leveraging his relationships built over the years. In scaling 50:50, he initially targeted influential core programs that he knew would then encourage others (essentially, by role modeling). Indeed, for the first 15 months, the 50:50 Project spread entirely through word of mouth without a top-down mandate. Atkins focused his communications on positive achievements and those teams that were doing well, which helped to create a sense that many teams were already succeeding at 50:50 and that gender equality in content was therefore a new social norm. Through data sharing and frequent updates, participating teams and individuals were made to feel part of something bigger – a collective, BBC-wide movement – which appealed to the common human Social desire to feel part of the “herd”.

Timely: Atkins built his idea on a straightforward goal – equal representation of women and men in the media – that had a specific monthly reporting timeframe attached to it. Daily counting and tallying of data, which served to prompt journalists when they were paying the most attention (typically during the daily post-show debrief), went hand-in-hand with monthly reporting, which served to keep up momentum and motivation. Timeliness also worked in Atkins’ favor given that he started to build a broader following for the 50:50 Project in the wake of two highly publicized and ongoing scandals around gender pay equity at the BBC, which made the 50:50 Project more relevant than ever for other BBC programs as well as senior leadership. In addition, the Director-General of the BBC announced a company-wide 50:50 participation challenge in April 2018, which introduced another time-bound goal that teams across the BBC strove to meet.

Per the Director-General’s challenge, in April 2019, the BBC for the first time publicly reported gender representation data for all 500 content teams participating in 50:50. Of all teams, 57% reached the goal of 50% representation of women in their content for the month of April 2019; among teams that had been monitoring their data for 12 months or more, the proportion increased to 74%. Only a quarter of those teams had been regularly reaching 50:50 when they first embarked on the project. Moreover, audiences had taken note. A third of UK respondents in a nationally representative survey noticed more women on BBC programs compared to a year earlier, and a fifth of 16-to-34-year-old respondents said they were more likely to enjoy content with a better gender balance.⁶⁵ As of February 2020, nearly 550 content teams globally are participating in the 50:50 Project, along with more than 50 external partner organizations ranging from media companies to corporations and academic institutions all over the world.

“Resistance cloaks itself in seemingly legitimate practical concerns and considerations. No one in journalism will say out loud that they don’t care about having more women on air. But they will say that their coverage is in business or politics and the pool there is mostly white men.”

Vivian Schiller, Executive Director of The Aspen Institute

⁶⁵ BBC. (2019). *50:50 Project* (BBC Report).

Case study: The UK's efforts to increase women's representation on corporate boards – goal-setting at the country level

The UK's successful efforts to significantly increase the representation of women on corporate boards and in corporate leadership are an excellent case study of the ecosystem approach to change, whereby a coalition of stakeholders comes together to agitate for change from all angles. Even without direct control or decision-making authority over women's board representation, parties like the UK Government, executive search firms, and the 30% Club were able to exert significant influence through goal-setting, monitoring, and accountability; leveraging personal networks; and psychological framing to shift the conversation and move the needle.

In 2011, women held 12.5% of the board seats of the 100 largest companies by market value listed on the Financial Times Stock Exchange (the FTSE 100) in the UK. That year, the UK government made gender balance in corporate governance a



**Hampton-Alexander
Review**
FTSE Women Leaders

priority and established a government commission, known as the Davies Review, to develop recommendations for increasing women's representation on corporate boards. The story of how the UK – led initially by the Davies Review, then the Hampton-Alexander review, and engaging a multi-stakeholder coalition – was able to increase women's representation on corporate boards first to 25% in 2015 and later to 32.4% in 2019 serves as a lesson in the power of targets as well as an ecosystem approach to change.⁶⁶

The Davies Review steering board in 2011 released a set of ten recommendations to promote gender equality in corporate leadership. The recommendations included a suggested target of 25% representation of women on FTSE 100 boards by 2015 with annual public disclosure of the share of women on the board, in senior executive positions, and across the whole company; a request for chairmen of FTSE 100 companies to sign a charter (i.e., a pledge) supporting the recommendations; a request for more transparency in board nominating committee processes; and a suggestion to seek board candidates from non-traditional sources, including outside the corporate mainstream.⁶⁷ While its recommendations were technically non-binding, the Davies Review had the power of the bully pulpit to make gender diversity a public priority while creating social pressure (through social rewards and punishments) and shifting social norms; motivating boards to act; and setting a benchmark for future measurement of progress. Importantly, the Review steering board framed gender diversity on boards as a business-led issue that companies could and should tackle voluntarily because it was the right thing and the smart thing to do. The steering board developed the economic case for increasing women's representation by discussing the reputation of British business abroad; stressing the need to be able to attract star talent; and underscoring the economic implications of wasting highly qualified and trained talent. In conversations with other stakeholders, steering board members therefore positioned gender equality as a new business opportunity and something that the business community was already achieving or striving towards. Furthermore, the Davies Review had behind it the credibility of several partners, including the UK Department of Business, Energy & Industrial Strategy; the UK Government Equalities Office; and Cranfield University.

The 30% Club, an advocacy organization helmed by several prominent businesswomen that was pushing for 30% representation of women on corporate boards, started to agitate for change concurrently with the Davies Review. It played an important facilitator role by recruiting supportive FTSE 100 Board chairs to speak with their peers

“ There were a bunch of bright people trying to address this issue, and no one was getting anywhere. I decided that I had to change course to have more impact. ”

Dame Helena Morrissey,
Founder of the 30% Club

⁶⁶ Beshears, J., Bohnet, I., & Sanford, J. (2017). *Increasing Gender Diversity in the Boardroom: The United Kingdom in 2011 (A)* (Harvard Business School Case 918-006). Boston, MA: Harvard Business School.

⁶⁷ FTSE Women Leaders. (n.d.). *The Davies Review 2011-2015*.

(mostly men) about the importance of gender diversity on boards; by helping boards to connect directly with qualified women in its network; and by feeding the press stories about companies' successes and failures to promote gender diversity, thereby raising the public profile of the issue and underscoring the urgency of the goal.

Board chairs and FTSE 100 chairmen either enthusiastically embraced the goal of increasing women's representation on boards; resisted it; or fell somewhere in between, not perceiving the issue as urgent. The most supportive chairmen, many of whom were recruited by the 30% Club or Davies Review steering board members, acted as role models for their more reticent peers, positioning gender equality as a competitive challenge and vocally cheering any peers that signed on to the movement. Through one-on-one conversations and public advocacy, this group of chairman champions helped to shift social norms among chairmen through social approval and the threat of public shaming. They were critical in engaging the large majority of chairmen who somewhat cared about gender equality but were hesitant to make it a priority until their peers did the same.

Executive search firms were an influential stakeholder in helping companies to fill vacant board seats, and were focused on catering to the desires of the companies and boards that hired them. However, they were also fiercely competitive with each other for business opportunities and reputational advantage. They soon started to try to outdo each other by placing more women onto corporate boards, influencing boards' preferences in the process while also building a broader network of potential candidates for the roles.

Academic researchers and journalists played a key role in raising the public profile and understanding of women's representation on boards by calculating and publicizing relevant statistics; advancing arguments in favor of greater gender equality; and analyzing the barriers to progress. These actions served to generate broad demand for increased gender diversity while arming advocates with evidence-based arguments they could use to build the movement. Equally importantly, journalists tracked progress toward the 25% (and, later, 33%) target and called out both exemplary firms and laggards.

Building on the tremendous success of the Davies Review from 2011 to 2015 – it exceeded its 25% target of women on FTSE 100 boards, and the share of women on FTSE 250 Boards increased from 9% in 2011 to 22% in 2015 – the Hampton-Alexander Review in 2016 continued the work, issuing a new set of five recommendations aimed at CEOs, the UK Government, investors, and executive search firms. It extended the target both numerically and in scope, setting its sights on 33% representation of women on FTSE 350 boards by the end of 2020 and newly including executive committees and their direct reports (i.e. senior corporate leadership) in that target. The Hampton-Alexander Review covers over 23,000 leadership roles in 350 of Britain's largest companies, and is on track to reach the 33% goal early (in November 2019, 32.4% of FTSE 100 board directors were women; the target is also within reach for FTSE 250 companies, who were at just under 30% in 2019).⁶⁸

“ One of the fascinating changes in organizations has been the acceptance of the use of targets. Five years ago, there was uproar about the Davies target: ‘How dare people interfere with our business!’ Now, the number of large companies that have publicly stated diversity targets is increasing. Some examples are Lloyds, Royal Bank of Scotland, KPMG, PwC, and BHP Billiton. It's not rocket science. You wouldn't make any other organizational change without a measurable target or some timeframe. ”

Ruth Sealy, Associate Professor in Management and Director of Impact at University of Exeter Business School

⁶⁸ FTSE Women Leaders. (n.d.). [Targets & Progress](#).

DEI GOALS FOR THE U.S. TECH INDUSTRY: OUR RECOMMENDATIONS

We now turn our attention to how diversity, equity, and inclusion goals might be set in the U.S. tech industry, and what those goals should be, for them to have a good chance of being effective at increasing gender diversity. We begin with general considerations for goal-setting in tech companies, and then proceed to propose a specific DEI goal for individual companies and for the U.S. tech industry as a whole.

How to set effective DEI goals

For individual tech companies, goal-setting can be a somewhat context-dependent exercise. At a high level, however, the process is as straightforward as setting goals, selecting metrics by which to track them, and holding people accountable for achieving them.⁶⁹ Below, we offer evidence-based guidance on the key considerations that companies should tackle in setting their DEI goals.

Fundamentally, U.S. tech companies should manage the challenge of increasing DEI and women's representation the same way they manage all of their other business-related challenges. Most managers are already assigned some types of business-related performance targets – sales goals, customer acquisition targets, deadlines by which to launch new products, budgets to manage – which impact their rewards and for which they are personally accountable. DEI targets should be no different. In fact, reaching DEI goals requires no more and no less than the use of the same planning, feedback, and accountability processes that are used to achieve goals in other areas, such as sales, marketing, product development, and financial planning.⁷⁰ As an exceptionally data and metrics-driven industry, tech is better set up than most to bring evidence-based rigor to the management of DEI.

Who should set DEI goals?

In terms of performance, self-set goals were initially hypothesized to be equally as effective at motivating behavior change as goals set by others.⁷¹ However, the evidence is mixed on whether participatory goal-setting improves performance. Some studies find that when employees participate in setting goals for themselves and therefore “own” the goals, performance improves; other studies find that there is no difference in performance between assigned and participatively set goals, holding constant the difficulty of the goals.⁷² In fact, experimental research, as well as a meta-analysis of 13 studies with 21 effect sizes, suggests that people's self-set goals are often not ambitious or challenging enough, and that goals set by others – whether they be experimenters or managers – therefore have a superior effect on goal attainment. The latest thinking is that self-set goals will meaningfully increase performance under two conditions: if people have sufficient knowledge about their past performance on goal-relevant tasks such that they are able to set realistic but sufficiently challenging goals (in the absence of such information, they tend to self-set goals that are too easy); and if others, such as experimenters or superiors, have access to the goals as well as the performance information. Thus, goals set by others appear to be more potent, in general, than self-set goals since they are tied to some external evaluation or expectations that appear to be more motivating than self-evaluation.⁷³

⁶⁹ Hirsh, E., & Tomaskovic-Devey, D. (2020). *Metrics, Accountability and Transparency: A Simple Recipe to Increase Diversity and Reduce Bias* [Manuscript submitted for publication].

⁷⁰ Whelan, J., & Wood, R. (2012). *Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research*. Centre for Ethical Leadership, Melbourne Business School.

⁷¹ Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Englewood Cliffs, NJ: Prentice Hall.

⁷² Locke, E. A., & Latham, G. P. (2002). *Building a practically useful theory of goal setting and task motivation: A 35-year odyssey*. *American Psychologist*, 57(9), 705-717. For example, people recognize their self-control problems and seek to mitigate them by self-imposed deadlines, i.e., goals, around the timely completion of a task. While such self-imposed deadlines are effective in improving task performance and motivating people to get the work done in time for the deadline, they are not as effective as externally imposed deadlines. Moreover, people often set self-imposed deadlines in suboptimal ways (e.g., too early or too late). See Ariely, D., & Wertenbroch, K. (2002). *Procrastination, Deadlines, and Performance: Self-Control by Precommitment*. *Psychological Science*, 13(3), 219-224.

⁷³ In experimental studies, participants are typically subjected to a “pre-test” that is equal in duration to the performance trial that follows. It is this pre-test that allows study participants to develop knowledge of their performance so that they are able to subsequently set challenging goals for themselves for the actual trial. Harkins, S., & Lowe, M. (2000). *The effects of self-set goals on task performance*. *Journal of Applied Social Psychology*, 30(1), 1-40.

In addition to performance, though, buy-in is another important dimension to consider. Indeed, humans are generally more committed to ideas, things, and goals that they own.⁷⁴ In the context of DEI specifically, there is some evidence to suggest that employees who are involved in the creation of DEI policies and practices are more likely to follow them and view them positively.⁷⁵ In companies, managers are often at the front lines of delivering on DEI goals because of the key role they play in most human capital decisions, including hiring, promotion, performance evaluation, feedback, leadership development, and retention. Therefore, making sure that managers are bought into goals and ready and willing to deliver on them is critical, regardless of who sets the goals. Involving managers at all levels to take ownership of DEI goals by counting, comparing, and tracking progress – perhaps even formulating the goals themselves – is a promising recipe to increase DEI. Furthermore, making HR and D&I real business partners in that effort is a promising strategy to prevent backlash.⁷⁶

Companies should consider the following options for setting goals:

- 1. Top-down goal-setting with no opt-out possible:** Many tech companies that have set public DEI goals have chosen to set company-wide targets from the top. While this is an efficient and consistent strategy that has the benefit of engaging the whole company in a collective endeavor, it also carries the risk of reactance. In one study, when men were told that others had hired more women, they hired *fewer* women going forward – an example of the reactance phenomenon where people deliberately behave in ways counter to what is asked of them when they perceive their group and status to be threatened.⁷⁷
- 2. Top-down goal-setting with opt-out possible:** One way to mitigate the reactance problem is to set goals top-down while allowing departments, functions, or groups to opt out of them. The downside here is the potential dilution of the goals if a large portion of the organization opts out and doesn't participate.
- 3. Top-down goal recommendation with opt-in:** Another organizational goal-setting approach is to recommend, top-down, a DEI goal that different parts of the company can opt into. Being voluntary, this approach has the benefit of potentially being more attractive than a mandate; besides, an “officially” recommended DEI goal may carry more weight and shape social norms to a greater degree than “unofficial” bottom-up goals. However, research shows that opt-in schemes generally have significantly lower participation than opt-out schemes.⁷⁸
- 4. Bottom-up goal-setting:** Finally, companies can choose to let individual managers, teams, or units set their own DEI goals in a bottom-up fashion. The challenge with this approach is making sure that the goals people or teams set for themselves are challenging enough to motivate behavior change; moreover, if each team sets different goals, keeping track of and reporting progress against all of them can be a logistical challenge. Nonetheless, this strategy was very effective at the BBC, where the 50:50 Project has been completely voluntary and bottom-up in nature from the very start.⁷⁹

How should DEI goals be framed?

The most effective goals align with individual and organizational values and principles.⁸⁰ In particular, motivation for behavior change can be increased by tying goals to important parts of one's identity, which is in itself susceptible to framing effects. For example, people are more likely to vote when questioned about their identity (“being a voter”) rather than their behavior (“voting”).⁸¹ This is especially relevant in the context of DEI goals, which – like any organizational policies – carry the potential for unintended consequences and mixed effects,

⁷⁴ Edwards, V. V. (n.d.). *Goal Setting: 5 Science Backed Steps to Setting and Achieving Your Goals*. Science of People.

⁷⁵ Whelan, J., & Wood, R. (2012). *Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research*. Centre for Ethical Leadership, Melbourne Business School.

⁷⁶ Hirsh, E., & Tomaskovic-Devey, D. (2020). *Metrics, Accountability and Transparency: A Simple Recipe to Increase Diversity and Reduce Bias* [Manuscript submitted for publication].

⁷⁷ Paryavi, M., Bohnet, I., & van Geen, A. (2019). *Descriptive norms and gender diversity: Reactance from men*. *Journal of Behavioral Public Administration*, 2(1).

⁷⁸ Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). *A User's Guide to Debiasing*. In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

⁷⁹ Chilazi, S., Rattan, A., & Georgeac, O. (2020). *Ros Atkins and the 50:50 Project at the BBC (A)* (London Business School Case, Forthcoming). London, UK: London Business School.

⁸⁰ Chowdhury, M. R. (2020, February 2). *The Science & Psychology of Goal-Setting 101*. [Positivepsychology.com](https://www.positivepsychology.com).

⁸¹ Similarly, study participants were less likely to cheat by fraudulently claiming money when the act was framed in identity terms (“being a cheater”) rather than in behavior terms (“cheating”). Berkman, E. (2018). *The Neuroscience of Goals and Behavior Change*. *Consulting Psychology Journal: Practice and Research*, 70(1), 28-44.

including backlash. Framing DEI goals as central to the organization’s identity (“we are a fair and equitable company”) may help to align them to individual and collective values and thereby minimize potential downsides.

Setting and communicating DEI goals in an inclusive and gender-neutral way is another strategy to minimize the likelihood of backlash. If organizational diversity goals are perceived to advantage one group (such as women) at the expense of another (such as men), they can be rejected on grounds of unfairness, especially in (perceived) zero-sum contexts. Even if DEI goals are actually designed to level a playing field that was previously unfairly disadvantaging women, if men perceive women’s increased representation as a threat to their current standing in the workplace, they are unlikely to buy into goals designed to increase diversity, equity, and inclusion.⁸² Such zero-sum perceptions can be persistent, even in the face of evidence to the contrary. For instance, a recent study suggests that while high-potential women are perceived to have a higher diversity value in organizations that have set diversity goals, the resulting pay premiums they receive are still outweighed by the overall female wage penalty – meaning that even explicit diversity goals do not appear to “afford widespread advantages to undeserving women”.⁸³ All in all, we recommend making DEI goals as gender-neutral and gender-inclusive as possible.

“ When you’re accustomed to privilege, equality feels like oppression. ”

Unknown

Companies also need to look out for another potential downside of goals, which is tunnel vision. In other words, what does not get measured, does not count, and vice versa. For instance, focusing exclusively on numerical diversity goals (i.e., attaining specific levels of representation) can lead individuals and organizations to neglect other important considerations, such as the quality of the employees (“any woman will do”) and the organizational climate (“only numbers count”). As much as tech companies should focus on increasing the representation of women in their ranks, they should not do so at the expense of quality or a comprehensive approach to culture improvement. DEI goals have real potential to backfire if they lead to the hiring or promotion of underprepared women, or the introduction of more and more women into a toxic work environment that does not foster their success. Therefore, companies must be careful not to frame goals as the be-all-end-all of DEI, but rather as one important component of a holistic strategy to become a better-functioning, more equitable workplace. In addition to encouraging DEI goal attainment, tech firms should also support improvement on the harder-to-measure “intangibles” related to inclusion, culture, and belonging.

What should the DEI goal(s) be?

Determine what areas require goals. Tech companies have typically set goals for metrics like overall workforce composition, representation of specific populations in specific roles, and hiring rates. However, many other metrics, such as promotion rates, retention (voluntary and involuntary exit) rates, and performance evaluation scores, feed into these aggregate numbers. Companies should therefore consider setting both high-level goals for things like overall representation, as well as lower-level sub-goals for things like time to promotion by gender and role. The following steps⁸⁴ can be helpful in determining what areas to set goals for:

1. **Analyze the organization’s DEI data** to identify any discrepancies and gaps, such as gender gaps (see Appendix B for recommended DEI metrics for organizations to track and set goals for).
2. **Prioritize** the gaps and problem areas and decide which ones to tackle first.
3. **Evaluate contributing factors** to the gaps to decide which metrics or organizational processes should have goals and sub-goals attached. For example, a gender gap in leadership (i.e., women’s numeric underrepresentation at leadership levels) may be driven by factors including slower promotion rates for women; lower external hiring rates for women at the relevant levels; higher (in)voluntary exit rates for

⁸² Bohnet, I. (2016). *What Works: Gender Equality by Design*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

⁸³ A combination of field studies and laboratory experiments showed that in settings with diversity goals in place, high-potential women (who had the ability to reach the top levels of organizations, where women remain underrepresented) were perceived as more valuable for achieving those diversity goals than high-potential men. For this so-called “diversity value”, the high-potential women received a pay premium. Leslie, L., Manchester, C., & Dahm, P. (2017). *Why and When Does the Gender Gap Reverse? Diversity Goals and the Pay Premium for High Potential Women*. *Academy of Management Journal*, 60(2), 402-432.

⁸⁴ See Appendix C for the very similar process involved in generating affirmative action plans.

women; or lower selection rates for women for leadership development programs or “high potential” tracks. A data-based evaluation of all of these potential contributing factors will help to pinpoint areas of greatest discrepancy and opportunity, which can then be targeted for goals and sub-goals.

Select meaningful benchmarks. Benchmarks are helpful in determining what goals or targets are stretching yet realistic to attain on a given metric. Below, we present some external and internal benchmarks for consideration.

External benchmarks:

- **Local labor market:** Based on census and other data, firms can assess their workforce representation relative to the population demographics of the local labor market, i.e., the country(ies), state(s), and/or city(ies) in which they are located or from which they hire.⁸⁵ With this approach, companies need to be mindful that their customer base may be significantly more diverse than the available talent pool in any given area. Moreover, by relying on skilled labor market data that does not factor in historically institutionalized inequality and inequity in opportunity, firms risk perpetuating a warped status quo.⁸⁶ Globally dispersed organizations also need to think about how to balance the differences in available talent across geographies, and how to reconcile those differences with organizational DEI goals (especially since setting different DEI goals for each office may be logistically unwieldy).
- **Future labor market:** Instead of current data, companies can base forward-looking DEI targets on forward-looking labor market projections, factoring in current trends in things like educational enrollment.⁸⁷ Invariably, the U.S. workforce of tomorrow will be more diverse on every dimension than that of today.
- **Anticipated or desired customer base:** Companies can also base their DEI goals on the demographics of their customer base, which can often be more diverse than their organization.⁸⁸
- **Peer tech firms:** The traditional approach to corporate benchmarking is to compare oneself against one’s closest peers and competitors. This approach presents particular challenges in tech, where comparable DEI data is scarcely available across firms, and where the average DEI numbers are low across the board (currently, women make up, on average, a mere 30% of employees and 21% of executives in 177 Silicon Valley tech firms; see Appendix A for more detail on the status of gender diversity in U.S. tech).

Internal benchmarks:

- **Current performance:** Companies can benchmark themselves against their own current performance and set goals based on current metrics, rather than external standards.
- **Corporate aspirations:** Leaders should ask themselves the same types of questions with respect to DEI that they would ask with respect to any other strategic aspirations, such as capital investment: “Where do we want to be a year, or two, or five from now? What stands between that vision and where we are today?”⁸⁹ Goal-setting can be a strategic tool to change the way a company operates with respect to DEI, rather than merely a tactical tool to run day-to-day operations.
- **Affirmative action plans (AAPs):** U.S. tech firms that are (sub)contractors for the federal government may already have AAPs in place to guide their DEI-related data analysis, goal-setting, and action planning (see Appendix C for more detail on AAPs and the process for identifying affirmative action targets).

Make sure goals are challenging. Research shows convincingly that challenging goals spur more behavior change than easy ones; data also reveal that individuals and companies tend to self-set goals that are not ambitious enough.⁹⁰ One example of this practice is rolling up multiple individual goals into one to maximize the chances of success, as in “our goal is to have 50% of the workforce be women *or* people of color *or* veterans *or* people who identify as LGBTQ+”. To motivate meaningful progress, each of these demographic groups should have separate, standalone representational goals that should be as challenging as possible while still being realistic to

⁸⁵ Hirsh, E., & Tomaskovic-Devey, D. (2020). *Metrics, Accountability and Transparency: A Simple Recipe to Increase Diversity and Reduce Bias* [Manuscript submitted for publication].

⁸⁶ Williams, R. (2019, April 17). [5 things you're getting wrong in setting diversity goals](#). *Fast Company*.

⁸⁷ *Ibid.*

⁸⁸ Project Include. (n.d.). [Measuring progress](#).

⁸⁹ Hirsh, E., & Tomaskovic-Devey, D. (2020). *Metrics, Accountability and Transparency: A Simple Recipe to Increase Diversity and Reduce Bias* [Manuscript submitted for publication].

⁹⁰ Williams, R. (2019, April 17). [5 things you're getting wrong in setting diversity goals](#). *Fast Company*.

be maximally motivating.⁹¹ Minimal incremental improvement over the status quo – such as aiming to increase women’s representation in tech roles from 23% to 25% in two years – does not qualify as a challenging goal.⁹² In fact, such a low goal can undermine the whole enterprise of goal-setting since it can make people feel like they don’t have to strive to reach the intended result.

Make goals salient. Salient goals are effective because they make the task and the related goal prominent and visible. Making information simple, salient, and comparative has been shown to facilitate behavior change, and the same principle applies to setting goals. Goals that are more pertinent to tasks and behaviors are more salient and therefore have greater effects on behavior. In addition, for long and potentially complicated tasks, breaking up a large goal into smaller sub-goals increases interest in a task, persistence in achieving it, as well as a sense of accomplishment.⁹³

Balance process and outcome goals. Both process goals, emphasizing the acquisition of skills or methods, and outcome goals, emphasizing results, foster behavior change.⁹⁴ When used in combination, they have been shown to have an even greater positive impact on goal attainment than either by itself.⁹⁵ For example, an outcome goal of achieving a 50:50 ratio of women to men in senior positions could be accompanied by a process goal of using structured interviews and pre-set evaluation criteria in 100% of appointment processes for those positions.

Balance individual, group-level, and organization-level goals. Large, company-wide goals should be broken down at the division, unit, department, or team level to allow everyone to participate in and be accountable for goal attainment. Group-level goals have been found to have a moderately positive effect on the group’s performance, and just like with individual goals, difficult and specific goals are correlated with meaningfully higher performance than non-specific goals. Based on a meta-analysis of 38 studies, what does not seem to matter, however, is whether the group participates in setting the goals. Task complexity and task interdependence, i.e., the degree to which group members need to share information, materials, or expertise to achieve the desired outcome, also do not matter for group-level performance.⁹⁶ Individual-level goals have different effects on group performance depending on their nature. Individual goals that aim to maximize individual performance (so-called egocentric individual goals) have a negative effect on the group’s performance, whereas individual goals that aim to maximize the person’s contribution to the group’s performance (so-called groupcentric goals) have a positive effect.⁹⁷ This is an important consideration in organizational settings where individual goals may come into conflict with group or organizational goals – for example, if a manager’s bonus is determined by the number of women they hire onto their team, but a particular manager makes only internal hires, thereby poaching women from other teams instead of contributing to the organization’s overall gender diversity. Such goal conflict undermines performance if it pulls individuals in different directions.⁹⁸

Ensure goals are SMART. The commonly used mnemonic for effective goals – Specific, Measurable, Attainable/Achievable, Realistic, and Time-bound – is supported by research and provides a useful guideline for ensuring that goals have the greatest chance of success. Specific goals are more effective than vague exhortations to “do one’s best” because they incorporate an objective, consistent definition and external referent.⁹⁹ Consciously specifying the goal, i.e., the desired performance level or target outcome, leads to less ambiguity and less variation in performance since expectations are clear. Thus, goals should be clearly articulated, focused, and achievable

⁹¹ Barends, E., Janssen, B., & Velghe, C. (2016). *Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance*. CIPD.

⁹² Note that in addition to being expressed as absolute numbers, DEI goals can also be expressed as growth rate targets, such as a goal to grow the hiring of women by 20% every year. Diversity Best Practices. (2017). [Setting and Achieving Diversity Targets](#). Diversity Best Practices.

⁹³ Bohnet, I. (2016). *What Works: Gender Equality by Design*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

⁹⁴ Edwards, V. V. (n.d.). *Goal Setting: 5 Science Backed Steps to Setting and Achieving Your Goals*. Science of People.

⁹⁵ Zimmerman, B., & Kitsantas, A. (1996). *Self-regulated learning of a motoric skill: The role of goal setting and self-monitoring*. *Journal of Applied Sport Psychology*, 8(1), 60-75.

⁹⁶ The meta-analysis examined the effects of goal-setting on group performance in 38 studies with 76 independent effect sizes. Kleingeld, A., van Mierlo, H., & Arends, L. (2011). [The effect of goal setting on group performance: A meta-analysis](#). *Journal of Applied Psychology*, 96, 1289-1304.

⁹⁷ Ibid.

⁹⁸ Locke, E. A., & Latham, G. P. (2002). [Building a practically useful theory of goal setting and task motivation: A 35-year odyssey](#). *American Psychologist*, 57(9), 705-717.

⁹⁹ The one exception are tasks that are complex and that require the acquisition of substantially new knowledge or skills in order for the task to be performed effectively. In these circumstances, setting a more general goal, such as asking people to do their best, sometimes leads to better performance than specific and difficult performance goals, which can make people so anxious that they are not able to learn what they need to in order to be successful. In these situations, a good solution is to set specific and challenging learning goals, which focus efforts on acquiring helpful skills or knowledge, rather than performance goals that focus on outcomes. Locke, E. A., & Latham, G. P. (2002). [Building a practically useful theory of goal setting and task motivation: A 35-year odyssey](#). *American Psychologist*, 57(9), 705-717.

within a specified timeframe.¹⁰⁰ Use SMART as a last check before finalizing your goals to make sure that they target a specific issue; can be measured; are realistic, yet challenging; and have a deadline attached.¹⁰¹

Incentivize goal attainment. Many experts recommend linking goal attainment to compensation, typically the performance-based or at-risk component of total remuneration.¹⁰² Financial incentives have been shown to be generally effective at motivating behavior change, and perhaps even more importantly, they signal that the organization is serious about the goals. Research also shows that separating rewards into categories, even if they are meaningless, increases motivation. Therefore, each DEI goal should have separate rewards and incentives attached to it.¹⁰³ If achieving the goals will require significant and potentially disruptive changes in processes or operating procedures, consider instituting a grace period and tying DEI outcomes to compensation starting in the second year of the goals being in effect.¹⁰⁴ Lastly, beware unethical behavior that may result when extremely challenging goals are paired with substantial monetary incentives.¹⁰⁵

How will you achieve your DEI goals?

Assign accountability for reaching each DEI goal to a specific person, group, or entity.

Accountability refers to the creation of specific positions and/or the implementation of processes to hold particular individuals responsible for achieving goals. Indeed, research shows that tasking specific people (such as a Chief D&I Officer or a departmental diversity manager) or entities (such as a diversity taskforce) with accomplishing diversity goals makes those goals more likely to be achieved and results in increased representation of women; on the flipside, research also shows that goals are more likely to be abandoned when no one is in charge of them.¹⁰⁶ Besides, accountability is a powerful tool to mitigate backlash against DEI goals.¹⁰⁷ Cross-functional diversity taskforces and committees may be particularly beneficial because they bring together people from different parts of the organization to pursue a collective goal.¹⁰⁸ In any case, companies need to ensure that a focus on the accountability for *meeting DEI goals* doesn't overshadow the focus on *improving gender diversity, equity, and inclusion itself*, which can lead to false progress (see below).¹⁰⁹

Organizational accountability exists along three dimensions. First, process accountability refers to assigning individuals or groups to be responsible for designing and implementing organizational processes and structures that will be used to make (DEI-related) employment decisions. This includes cases of distributed responsibility where, for example, all managers in a company are assigned accountability for fairness in promotion decisions within their purview. Second, outcome accountability refers to having individuals or teams be responsible for monitoring the outcomes of the processes – such as promotions – that are driving the DEI goals. It is the responsibility of these individuals to identify and escalate instances where outcomes do not match the goal. Third, the organization needs to decide *who* is accountable to *whom* for goal-related processes and outcomes, i.e., who will be monitoring overall progress, and to whom the results will be reported.¹¹⁰

“ Structures that embed accountability, authority, and expertise (affirmative action plans, diversity committees and taskforces, diversity managers and departments) are the most effective means of increasing the proportions of white women, black women, and black men in private sector management. ”

Alexandra Kalev, Frank Dobbin, and Erin Kelly in Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies

¹⁰⁰ Barends, E., Janssen, B., & Velghe, C. (2016). [Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance](#). *CIPD*.

¹⁰¹ Chowdhury, M. R. (2020, February 2). [The Science & Psychology of Goal-Setting 101](#). [Positivepsychology.com](#).

¹⁰² Whelan, J., & Wood, R. (2012). [Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research](#). *Centre for Ethical Leadership, Melbourne Business School*.

¹⁰³ Wiltermuth, S., & Gino, F. (2013). [“I’ll Have One of Each”: How Separating Rewards Into \(Meaningless\) Categories Increases Motivation](#). *Journal of Personality and Social Psychology*, 104(1), 1-13.

¹⁰⁴ Diversity Best Practices. (2017). [Setting and Achieving Diversity Targets](#). *Diversity Best Practices*.

¹⁰⁵ Barends, E., Janssen, B., & Velghe, C. (2016). [Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance](#). *CIPD*.

¹⁰⁶ Castilla, E. J. (2015). [Accounting for the gap: A firm study manipulating organizational accountability and transparency in pay decisions](#). *Organization Science*, 26(2), 311-333.

¹⁰⁷ Dobbin, F., Schrage, D., & Kalev, A. (2015). [Rage Against the Iron Cage: The Varied Effects of Bureaucratic Personnel Reforms on Diversity](#). *American Sociological Review*, 80(5), 1014-1044.

¹⁰⁸ The observational study was based on federal EEO-1 data of 708 private sector companies between 1971 and 2002, coupled with survey data on their employment practices. The study found that structures that established responsibility for diversity, such as AAPs, diversity committees, and diversity staff positions, resulted in the most significant increases in managerial diversity. Diversity trainings and diversity evaluations, on the other hand, did not result in increased organizational diversity; networking and mentoring programs had small positive effects. Kalev, A., Dobbin, F., & Kelly, E. (2006). [Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies](#). *American Sociological Review*, 71(4), 589-617.

¹⁰⁹ Temkin, R., & Itembu, T. (2020, January 29). [The Unintended Consequences of Diversity & Inclusion Initiatives: Lisa Leslie’s Recent Work & Ideas for Putting her Framework to Use](#). *WAPPP Wire*.

¹¹⁰ Castilla, E. J. (2015). [Accounting for the gap: A firm study manipulating organizational accountability and transparency in pay decisions](#). *Organization Science*, 26(2), 311-333.

Finally, true accountability means that there are consequences for not attaining the requisite performance, i.e., for not meeting the goals. These consequences could be monetary (such as missing out on a bonus); reputational (such as having your performance compared against that of your peers on a public dashboard, scorecard, or report); relational (such as being asked to explain your poor performance in front of your managers and/or peers); or punitive (such as missing out on a potential benefit). Depending on the accountability structure, these consequences could fall on an individual, on a team, or on the whole organization.

Be transparent about your goals and the process to achieve them. Organizational transparency can be defined as making accurate and goal-relevant information accessible to some audience, be it senior leaders, managers, the HR team, or even the entire workforce. Academic research shows that transparency works to reduce bias in organizational processes, such as promotions and compensation decisions: for example, when a company’s biased pay raises were disclosed internally along with performance ratings, the gender and racial gaps in raises essentially disappeared.¹¹¹ One of the reasons behind why transparency works to induce less biased behaviors at the individual level is social accountability, or our desire to look good (i.e., fair-minded) in the eyes of others.¹¹²

Akin to accountability, organizational transparency exists along three dimensions. First, process transparency is the steps that the organization takes to inform people about goal-relevant processes, such as the criteria for promotions. Second, outcome transparency is the sharing of goal-relevant outcomes, such as actual promotion decisions, with some audience. Third, organizations need to select people to make decisions about which processes and outcomes should be transparent, and to whom.¹¹³

Table 1 summarizes the three dimensions of organizational accountability and transparency, along with an illustrative example using proportional promotion (see p. 23) as the DEI goal.

	Organizational Accountability	Organizational Transparency
Processes and Criteria	Assign responsibility for the processes, systems, and criteria to be used. <i>Company makes VP of D&I accountable for reviewing and redesigning the promotion process.</i>	Determine which processes, systems, and criteria will be visible. <i>VP of D&I decides that new promotion process and evaluation metrics will be shared with the whole firm.</i>
Outcomes	Assign responsibility for which aspects or results of goal-related decisions will be measured for fairness. <i>Every manager in the company is held accountable for ensuring proportional promotion among their reports.</i>	Decide which goal-related decisions and aspects/results will be visible. <i>Each manager sees their own and their peers’ promotion track record; senior leaders see all promotion data; progress toward proportionality and aggregate metrics are reported to the whole company and externally.</i>
Audiences	Identify <i>who</i> is accountable for goal-related processes and outcomes, and to <i>whom</i> . <i>Promotion taskforce comprised of HR leaders, People Analytics colleagues, and business unit leaders reviews all promotion decisions before they are final and revises decisions or asks managers to comply-or-explain.</i>	Determine <i>who</i> makes processes and outcomes visible, <i>when</i> , and to <i>whom</i> . <i>People Analytics team creates interactive dashboard for sharing data with managers in every promotion round; HR communicates data to senior leaders and company-wide, as well as externally.</i>

Table 1. Three Dimensions of Organizational Accountability and Transparency. Adapted from MIT Sloan Management Review.¹¹⁴

¹¹¹ Castilla, E. J. (2015). *Accounting for the gap: A firm study manipulating organizational accountability and transparency in pay decisions.* *Organization Science*, 26(2), 311-333.

¹¹² Dobbin, F., & Kalev, A. (2016). *Why diversity programs fail and what works better.* *Harvard Business Review*, 94(7-8), 52-60.

¹¹³ Castilla, E. J. (2015). *Accounting for the gap: A firm study manipulating organizational accountability and transparency in pay decisions.* *Organization Science*, 26(2), 311-333.

¹¹⁴ Castilla, E. J. (2016). *Achieving Meritocracy in the Workplace.* *MIT Sloan Management Review*, 57(4), 35-41.

Make goals public. Goals set publicly were shown in a recent meta-analysis to be particularly effective at driving behavior change.¹¹⁵ Simply put, goals need to be visible to be viable, and a public (i.e., external to the organization) commitment makes it more likely that goals are achieved.¹¹⁶ It also sends a signal internally and externally that the company is serious about its DEI goals.

Monitor progress. Monitoring progress has consistently been shown to motivate people toward goal attainment. The focus of progress monitoring influences what gets done: monitoring specific behaviors has the greatest impact on those behaviors, whereas monitoring outcomes has a significant impact on those outcomes.¹¹⁷ Public monitoring, where information on progress is either generated with or in front of others (such as managers sharing with each other the number of women and men they are promoting on their teams, or making that information available on a dashboard) has a greater positive effect on goal attainment than private progress monitoring, where information on progress is not shared with anyone else.¹¹⁸

Progress against goals should be monitored as frequently as is feasible. People closer to goal-related action (such as hiring) will often be able to monitor progress more or less in real time as hires are made, whereas people further removed from those actions (such as HR executives) may monitor progress slightly less frequently. At least one person in the organization should always have a granular, real-time view of how the organization is tracking against its goal (such as holding a running tally of hires by gender against a goal of having all hires be 50-50 women and men). That person can then share monthly, quarterly, semi-annual, or annual progress updates with others. Empirical data suggests that tech companies that review their workforce diversity data at least once per month have higher representation of women than companies that review it less frequently, with effects being particularly pronounced on entry level representation of women.¹¹⁹ In any case, progress should be monitored and reported at least every six months, both in aggregate and by relevant subdivisions, such as by level or function.¹²⁰

Report results. Reporting DEI results, especially with respect to goals, is important to facilitate industry-wide learning. Tech companies should not only report their demographic data but also share learnings about which organizational strategies have been successful and unsuccessful, and what their impact has been on culture and performance (aside from mere representational numbers).¹²¹

Watch out for unintended consequences. Like any organizational policy, DEI goals can have unintended consequences. A DEI goal *backfires* when it has the opposite of the intended effect, such as if a diversity goal's singular aim is to increase the representation of women in leadership positions, and the number of women leaders decreases instead. If the presence of the goal causes men to resent women in the company – an undesirable effect on a variable, i.e., gender relations, that the goal did not set out to impact – that entails *negative spillover*. An example of *positive spillover*, by contrast, is employees gaining increased respect for the company as a result of its commitment to DEI. Finally, if the goal results in apparent change without real underlying progress – such as if it leads to more women having leadership-level titles without the accompanying scope of responsibilities – there is *false progress*.¹²² Monitoring both goal-related and (seemingly) goal-unrelated DEI data closely will allow firms to quickly spot signs of any of these four unintended consequences.

Leverage behavioral tools, strategies, and process changes for goal attainment. Behavioral science research points to various effective organizational design interventions that can help to facilitate behavior change by

¹¹⁵ The meta-analysis examined the effects of goal-setting on behavior change in 141 randomized controlled trials with 384 effect sizes. Epton, T., Currie, S., & Armitage, C. J. (2017). [Unique Effects of Setting Goals on Behavior Change: Systematic Review and Meta-Analysis](#). *Journal of Consulting and Clinical Psychology*, 85(12), 1182-1198.

¹¹⁶ Galinsky, A., Todd, A., Homan, A., Phillips, K., Apfelbaum, E., Sasaki, S., . . . Maddux, W. (2015). [Maximizing the Gains and Minimizing the Pains of Diversity: A Policy Perspective](#). *Perspectives on Psychological Science*, 10(6), 742-748.

¹¹⁷ The rationale is that a goal can generally be achieved through a range of behavioral strategies – for example, one can do many things at home to reduce energy consumption – so monitoring the outcome is more likely to influence the outcome rather than any single one of the many possible behaviors. On the flipside, monitoring a particular behavior, such as switching to energy-efficient light bulbs, is more likely to influence that specific action. Harkin, B., Webb, T. L., Chang, B. P., Prestwich, A., Conner, M., Kellar, I., . . . Sheeran, P. (2016). [Does monitoring goal progress promote goal attainment? A meta-analysis of the experimental evidence](#). *Psychological bulletin*, 142(2), 198. See also Kruglanski, A. W., Pierro, A., & Sheveland, A. (2011). [How many roads lead to Rome? Equifinality set-size and commitment to goals and means](#). *European Journal of Social Psychology*, 41(3), 344-352.

¹¹⁸ These findings are based on a meta-analysis, which examined the effect of interventions designed to promote goal progress monitoring compared to a control condition in 138 randomized controlled trials (RCTs), most of which focused on health-related goals. Harkin, B., Webb, T. L., Chang, B. P., Prestwich, A., Conner, M., Kellar, I., . . . Sheeran, P. (2016). [Does monitoring goal progress promote goal attainment? A meta-analysis of the experimental evidence](#). *Psychological bulletin*, 142(2), 198.

¹¹⁹ AnitaB.org. (2019). [Top Companies For Women Technologists – 2019 Key Findings and Insights](#) (AnitaB.org Report).

¹²⁰ Diversity Best Practices. (2017). [Setting and Achieving Diversity Targets](#). *Diversity Best Practices*.

¹²¹ Whelan, J., & Wood, R. (2012). [Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research](#). *Centre for Ethical Leadership, Melbourne Business School*.

¹²² Temkin, R., & Itembu, T. (2020, January 29). [The Unintended Consequences of Diversity & Inclusion Initiatives: Lisa Leslie's Recent Work & Ideas for Putting her Framework to Use](#). *WAPPP Wire*.

redesigning decision-making contexts to mitigate the negative impacts of biases and inadequate motivation. At their core, behavioral design tools guide people toward decisions that are better aligned with their interests, without taking away freedom of choice. Below, we offer several suggestions for companies to consider.

- **Encourage plan making.** Making a concrete plan about how, when, and where one will complete a desired action helps to mitigate procrastination and forgetfulness.¹²³ Specifically, making so-called “if-then” plans regarding intended behaviors (e.g., “If I am confronted with an all-male slate of candidates, then I will ask recruiters to send me more options before making a hiring decision”) notably increases follow-through, both on a one-off and a sustained basis. Plans act as memorable commitments and cues that reliably trigger the desired behavior.¹²⁴ Individuals, teams, departments, and whole organizations should create specific plans detailing how they will achieve their DEI goals, and what strategies they will deploy to overcome anticipated setbacks.¹²⁵
- **Provide feedback.** Feedback provides a valuable yardstick for evaluating whether one’s current efforts lead to acceptable, goal-aligned performance. It is impossible for people to adjust their effort and behavior without knowing how they are tracking against the target.¹²⁶ While self-evaluation was initially theorized to motivate people to perform better, the latest research suggests that it is actually external sources of feedback and assessment, such as supervisor evaluation, that exert a greater effect on behavior change.¹²⁷
- **Utilize tools.** Tools like checklists, reminders, scorecards, and algorithms are effective in promoting goal achievement for both individuals and teams as they mitigate the effects of forgetfulness and cognitive biases while ensuring that decisions (or situations deviating from the norm) are given appropriate attention.¹²⁸ Checklists, for instance, are a form of memory and decision aid that are particularly useful in streamlining processes, increasing consistency, and reducing errors in repeated decisions. On the one hand, checklists can be particularly valuable in settings characterized by high complexity, high stress, and high fatigue; on the other hand, checklists are also ideally suited for mundane, straightforward, and low stress settings where similar behaviors are undertaken or similar types of decisions made repetitively.¹²⁹
- **Increase transparency in internal mobility.** More transparency in hiring and promotions – for both employees and managers – can promote DEI. Internal job boards and openly accessible job postings, along with easily available position descriptions and eligibility criteria, can help to diversify the internal and external applicant pool for open positions. In addition, transparency increases accountability for (hiring) managers when the data on job availability, eligibility, the number of applications, and eventual hiring and promotion decisions are available to everyone.¹³⁰
- **Implement opt-out advancement mechanisms.** Advancement opportunities, such as stretch assignments and promotions, typically require employees to actively raise their hands by self-advocating or self-nominating (i.e., by opting in). However, a recent study shows that such systems, which default to no participation on the part of the employees, contribute to gender gaps observed in leadership positions. Opt-out systems reduce these gender gaps. In an opt-out advancement system, everyone who is qualified for an advancement opportunity – such as a stretch assignment, a promotion, or a leadership development track – is in the candidate pool by default. They have the opportunity to opt out, should they so choose, but by default, they are considered. A straightforward example is considering everyone for promotion after a set time in a particular role. Given that even high-performing women are empirically less likely to opt in and put themselves forward for advancement opportunities, opt-out advancement mechanisms can help to enlist eminently qualified women for higher-level positions.¹³¹
- **Institute active choice mechanisms.** An alternative to opt-in or opt-out schemes, active choice mechanisms force decision-makers to select one option or another, instead of accepting a default. The

¹²³ Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). [A User's Guide to Debiasing](#). In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

¹²⁴ Duckworth, A. L., & Milkman, K. L. (2018). [Changing Behavior for Good](#) [Unpublished working paper]. University of Pennsylvania.

¹²⁵ Barends, E., Janssen, B., & Velghe, C. (2016). [Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance](#). *CIPD*.

¹²⁶ Locke, E. A., & Latham, G. P. (2002). [Building a practically useful theory of goal setting and task motivation: A 35-year odyssey](#). *American Psychologist*, 57(9), 705-717.

¹²⁷ Barends, E., Janssen, B., & Velghe, C. (2016). [Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance](#). *CIPD*. This is not a unanimous finding in the research literature as one recent meta-analysis suggests that feedback and reviewing goals do not actually boost the effects of goal-setting, although the authors note that this lack of effect could be due to the small number of studies reviewed. See

Epton, T., Currie, S., & Armitage, C. J. (2017). [Unique Effects of Setting Goals on Behavior Change: Systematic Review and Meta-Analysis](#). *Journal of Consulting and Clinical Psychology*, 85(12), 1182-1198.

¹²⁸ Beshears, J., & Gino, F. (2015). [Leaders as Decision Architects: Structure Your Organization's Work to Encourage Wise Choices](#). *Harvard Business Review*, 93(5), 52-62.

¹²⁹ Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). [A User's Guide to Debiasing](#). In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

¹³⁰ Dobbin, F., Schrage, D., & Kalev, A. (2015). [Rage Against the Iron Cage: The Varied Effects of Bureaucratic Personnel Reforms on Diversity](#). *American Sociological Review*, 80(5), 1014-1044.

¹³¹ Erkal, N., Gangadharan, L., & Xiao, E. (2019). [Leadership Selection: Can Changing the Default Break the Glass Ceiling?](#) *SSRN*.

benefit of active choice mechanisms is that they induce reflection and more thoughtful decision-making, which can lead to less bias in the decision-making process.¹³² In the context of DEI, an example of an active choice mechanism is a promotion process that asks every employee to indicate whether they want to be considered for promotion in that round (a yes/no active choice).

- **Choose unbiased evaluation criteria in advance.** Selecting decision criteria in advance – whether for hiring, promotion, compensation, or other DEI-related decisions – has been shown in several studies to lead to more objective and unbiased decisions. If assessment criteria are not specified ahead of time, people tend to select candidates who are similar to them, or to the prototype, regardless of qualifications. Evaluation criteria should be reviewed regularly to ensure that they do not generate disparate outcomes.¹³³

Engage the front line. Engaging the people whose actions will determine whether a DEI goal is reached is critical to ensuring goal attainment. In most situations, managers across a company will play a pivotal role in making or breaking success – whether DEI goals are related to hiring, performance evaluation, promotion, retention, or ascension to leadership – because they are on the front lines of making people decisions. Evidence shows that employees often ignore new organizational goals and continue with old practices, especially when no one is in charge to monitor progress and institute accountability. Even when organizational processes change to support the achievement of new goals, like when a new policy of discontinuing internal referrals in hiring is formalized, employees involved in recruitment might still continue to tap their networks for leads.¹³⁴ Thus, overcoming front line resistance to new goals and new processes is vital. Research suggests that engaging managers directly in diversity-related programs and increasing their on-the-job contact with women may help to convert their resistance into ownership of DEI goals.¹³⁵ When managers personally participate in recruitment, training, and development of women, there is less resistance toward DEI goals and more resulting diversity in the firm.¹³⁶

Approach goal-setting and goal monitoring as a long-term learning exercise. Goals are an excellent vehicle for companies to reinforce a growth mindset, i.e., a belief that individual and organizational abilities can be developed and that they are not fixed.¹³⁷ Empirical studies show that organizational learning and innovation contribute positively to business performance; furthermore, organizational learning affects innovation.¹³⁸ How organizational goals are set and framed, though, affects the learning that results from them. Often, organizational efforts at increasing diversity, equity, and inclusion and preventing discrimination are framed as short-term problems to solve and crises to avert; this is especially true in the wake of discrimination lawsuits. And indeed, external pressure from litigation – in the form of negative publicity, mandated organizational changes, and lower stock prices – works as a mechanism to expand workplace opportunity for women and minorities.¹³⁹

But the learning from these types of efforts is likely to be limited to how to resolve a crisis rather than how to preempt or prevent one.¹⁴⁰ Companies would do better to emphasize the importance of learning from all the strategies that are deployed in service of reaching DEI goals. Even if a goal is not reached in time, the individuals and teams involved have certainly learned something valuable that can benefit them and the company.

“ We’re past the window dressing stage and now it’s time to talk about accountability, consequences, promotions and retention. And what it means to prioritize things to make sure the industry is not inhospitable. ”

Karla Monterroso,
CEO of Code2040

¹³² Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). [A User’s Guide to Debiasing](#). In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.

¹³³ Galinsky, A., Todd, A., Homan, A., Phillips, K., Apfelbaum, E., Sasaki, S., . . . Maddux, W. (2015). [Maximizing the Gains and Minimizing the Pains of Diversity: A Policy Perspective](#). *Perspectives on Psychological Science*, 10(6), 742-748.

¹³⁴ Kalev, A., Dobbin, F., & Kelly, E. (2006). [Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies](#). *American Sociological Review*, 71(4), 589-617.

¹³⁵ Dobbin, F., & Kalev, A. (2016). [Why diversity programs fail and what works better](#). *Harvard Business Review*, 94(7-8), 52-60.

¹³⁶ Dobbin, F., Schrage, D., & Kalev, A. (2015). [Rage Against the Iron Cage: The Varied Effects of Bureaucratic Personnel Reforms on Diversity](#). *American Sociological Review*, 80(5), 1014-1044.

¹³⁷ Dweck, C. (2016). *Mindset: The new psychology of success* (Updated ed.). New York: Random House.

¹³⁸ Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). [Innovation, organizational learning, and performance](#). *Journal of Business Research*, 64(4), 408-417.

¹³⁹ Hirsh, E., & Cha, Y. (2017). [Mandating Change: The Impact of Court-Ordered Policy Changes on Managerial Diversity](#). *Industrial and Labor Relations Review*, 70(1), 42-72. See also Hirsh, E., & Cha, Y. (2018). [For Law and Markets: Employment Discrimination Lawsuits, Market Performance, and Managerial Diversity](#). *American Journal of Sociology*, 123(4), 1117-1160.

¹⁴⁰ Wooten, L. P., & James, E. H. (2004). [When Firms Fail to Learn: The Perpetuation of Discrimination in the Workplace](#). *Journal of Management Inquiry*, 13(1), 23-33.

What DEI goal to set

As a high leverage point for increasing gender equality and the representation of women in U.S. tech, we propose to companies an outcome goal of reaching gender proportionality at all levels in five years. While this goal is not a number, it is a very specific target to reach increased gender balance in individual tech companies and across the industry. The Gender Proportionality Aspiration (GPA)¹⁴¹ stipulates that the ratio of women to men at Level X in a firm should be *at least* proportionate to the ratio of women to men at Level X-1. The GPA directs companies to use all means at their disposal – promotion, external hiring, internal (lateral) hiring, and retention – to reach this goal for all levels. Each tech company will start with its own gender composition, and the GPA should be viewed as a minimum standard that can be coupled with additional DEI goals. Since the underrepresentation of women in tech is an industry-wide problem, it will require an industry-wide solution, and we expect that a collective commitment to the Gender Proportionality Aspiration could substantially help in diversifying the tech sector.

We have deliberately chosen a high leverage point focusing on holistic career advancement, promotion, and retention. In tech, as in most other industries, demographic diversification efforts have traditionally centered on recruitment. However, while efforts to diversify the “pipeline” will remain important, the industry’s glacially changing workforce statistics and women’s higher voluntary exit rates show that if firms are not able to retain, develop, and promote the women they bring in the door at entry levels, it will be difficult for them to attract and retain the talent they need to reach gender parity, or anything close to it, throughout the organization and especially at senior levels.¹⁴² Shifting the focus from the “pipeline problem” to intentional and goal-driven fostering of in-house talent could represent a significant positive evolution in the tech industry’s approach to DEI.

The GPA is intentionally gender-neutral. Framing and communicating goals in a way that garners buy-in, acceptance, and commitment is critical if those goals are to be attained. With DEI goals in particular, it is important to model inclusion and to signal that this is truly a collective effort for everyone to partake in, and for everyone to benefit from. Gender-neutral goals that involve *everyone* – women and men and non-binary colleagues alike – reinforce the message that the work of diversity, equity, and inclusion belongs to all of us and does not exempt whoever is currently in the majority.¹⁴³ Moreover, goals that exclusively target women may carry higher legal risk. The goal of gender proportionality is legally and morally justifiable on grounds of fairness and equal opportunity: absent systematic differences in ability and competence, it stands to reason that women and men *should* hold the same share of mid-level as entry-level positions. Moreover, we expect less backlash from a proportionality goal than from interventions that could be seen to benefit one particular group only.

The GPA is designed to be salient, simple, and comparative. Humans are more likely to change their behavior when the new behavior is made easy, attractive, social, and timely (EAST) for them to stick to.¹⁴⁴ As such, goals that drive behavior change should be as easy to grasp as possible while incorporating elements of attractiveness through accountability, social comparisons, and a timeframe for completion.¹⁴⁵ The GPA checks all of these boxes. It is a simple concept that can be easily grasped by any manager, employee, journalist, academic, or lay person. It is easy to implement and track because it relies on a simple count of the fraction of women and men at each level. It can be operationalized quickly, and the five-year timeframe gives companies several promotion and hiring cycles to experiment with different strategies to reach the goal. Lastly, the GPA has the potential to deliver, in short order, noticeably positive DEI impacts for many tech companies that currently lag behind the proportional standard in their career advancement.

¹⁴¹ Bohnet, I., Hauser, O., & Chilazi, S. (2020). *Gender Proportionality Rule* [Manuscript in preparation]. Harvard Kennedy School.

¹⁴² AnitaB.org. (2019). *Top Companies For Women Technologists – 2019 Key Findings and Insights* (AnitaB.org Report). See also Appendix A.

¹⁴³ Heilman, M., & Welle, B. (2006). *Disadvantaged by Diversity? The Effects of Diversity Goals on Competence Perceptions*. *Journal of Applied Social Psychology*, 36(5), 1291-1319.

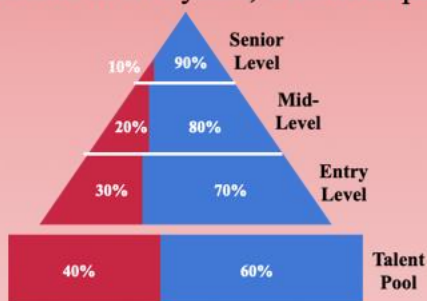
¹⁴⁴ Service, O. et al. (2014). *EAST: Four Simple Ways to Apply Behavioural Insights* (Behavioural Insights Team Report).

¹⁴⁵ Bohnet, I. (2016). *What Works: Gender Equality by Design*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

The GPA meets leaders and teams where they are. The proportionality goal is based on each company’s current representation numbers and can be adopted regardless of what those numbers are. The GPA combines a practical, gradual approach with the potential for significant strides, if followed (see illustrative example below).

HOW IT WORKS: THE GENDER PROPORTIONALITY ASPIRATION (GPA)

The GPA stipulates that the ratio of women to men at any level in the firm should be proportionate to the ratio of women to men at the level below, starting with the entry level, which should be proportionate to the available talent pool. If followed, the GPA allows companies to “pull through” the higher levels of diverse representation typically present at lower rungs of the organization all the way to top leadership using all levers at their disposal, including promotions, external and internal hiring, and retention. We suggest a time horizon of five years, with three phases as illustrated in the example below.



ILLUSTRATIVE EXAMPLE: In a given tech company, there are 30% women and 70% men at the Entry Level (i.e., a gender ratio of 30:70). The Entry Level falls a bit below the available talent pool, which has 40% women and 60% men (40:60). The gender ratios at higher levels of the company are 20:80 at the Mid-Level, and 10:90 at the Senior Level, as shown in the pyramid.

1. In Phase 1 (years 1-2), the GPA asks the company to increase gender representation such that the Senior Level should aim to look like the Mid-Level (20:80); the Mid-Level should aim to look like the Entry Level (30:70), and the Entry Level should aim to look like the Talent Pool (40:60).
2. Repeating this exercise in Phase 2 (years 3-4), we should see the following gender ratios at the end of Phase 2: Entry Level 40:60, Mid-Level 40:60, and Senior Level 30:70.
3. Repeating this exercise in Phase 3 (year 5), we should see the following gender ratios at the end of Phase 3: Entry Level 40:60, Mid-Level 40:60, and Senior Level 40:60.

The GPA has built-in flexibility for implementation. The GPA can be tracked at the organization, unit, department, or team level while leaving specific implementation details up to the relevant entities. While most companies have the kind of pyramidal structure described above, the GPA can be adapted to companies that do not. For example, companies that are already outperforming the talent pool at the entry level can focus on pulling through their existing diversity to senior levels – after all, the GPA is a *minimum* standard for fair and equitable gender representation. Companies that have an hourglass-type gender diversity structure with few women at the mid-level but more at the bottom and at the top can base their proportionality targets on the entry-level numbers. And companies that are already close to proportionality in, say, promotions, but struggle to retain women can focus their efforts there.

The five-year gender proportionality goal should be viewed as a first step. As progress is made and women’s representation numbers inch up, the initial goal should be updated, revised, and/or added to (see UK boards case study, pp. 11-12). There may well be companies that are already more or less meeting the goal of gender proportionality today; those companies should be the first to sign up and encourage others to join along. They will also likely be the ones who start experimenting with different, more targeted, and more ambitious goals on top of the GPA. These companies will be in a critical position to share their learnings and data as the industry moves toward more collective action on DEI goal-setting. It will be important for company-specific and industry-wide future DEI efforts to build on this initial goal while continuing to raise the bar so that all tech companies always have something challenging, specific, yet realistic to work towards.

Setting an industry-wide, collective goal is an important step forward for tech. Social norms are a powerful driver of behavior change. Over the last six or so years, tech firms' individual, disparate efforts to diversify their workforces have had little success, in part because there has been no shared standard of data measurement, tracking, or reporting, let alone goal-setting. By adopting the GPA, tech companies start to shift the perceptions of what organizational actions are accepted and expected, and what is seen as “the right thing” to do. While individual companies can shift these norms to some degree, collective action puts more pressure on the laggards. Besides, transparency has been shown to improve objectivity and reduce biased behaviors, so external (social) accountability around DEI goals and metrics can be particularly powerful.¹⁴⁶ People care about what others think, and so do tech companies.

“ If there was an opportunity to align on one or two tech industry-wide initiatives as it relates to XYZ, then we could have a collective impact. ”

Monica Poindexter, Head of Inclusion and Diversity at Lyft

The goal needs to come with teeth. The scientific evidence is clear that feedback, monitoring, and public accountability are key ingredients of goal attainment. The most successful cases of DEI goal-setting tend to involve some mechanism – typically, public disclosure and accountability – to incentivize participants to stay on track and to take the goal seriously (and, by extension, some mechanism to impose negative consequences when that does not happen). Therefore, we propose:

- **CEO-level buy-in from all participating companies.** While the day-to-day management of and progress monitoring against the goal may be conducted by others in the organization, the CEO and executive team of each firm should personally promote the Gender Proportionality Aspiration. Through their communications and through their own behavior, they should send the message that nothing less than successful goal attainment – i.e., reaching gender proportionality across the organization in five years – will do.
- **Public accountability through public sign-ups and annual progress tracking.** All tech companies signing onto the goal should agree to be named publicly. Companies should report their progress against the goal at least once a year – ideally, as part of their annual diversity disclosure or adjacent to their EEO-1 submission – and these individual progress reports should be compiled into an industry-wide, cross-company snapshot that highlights successes and failures and sets up a competitive dynamic between firms through mechanisms like rankings. Such celebrating (and, if necessary, naming and shaming) has been shown to be an enormous motivator for companies and individuals to achieve goals.
- **Enforcement through comply-or-explain.** The tech industry may wish to collectively introduce the comply-or-explain approach where companies that miss the gender proportionality target are asked to explain which efforts they undertook and why they did not yield the expected outcomes. Similarly, within companies, managers or units deviating from the GPA might wish to commit to explaining to their internal peers why they missed the goal and how they plan to get back on track.

¹⁴⁶ Lerner, J., & Tetlock, P. (1999). [Accounting for the Effects of Accountability](#). *Psychological Bulletin*, 125(2), 255-275. See also Bohnet, I. (2016). [What Works: Gender Equality by Design](#). Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

REFERENCES

- Airbnb. (2019, March 28). [Diversity at Airbnb](#). *Airbnb Newsroom*.
- Ambady, N., Shih, M., Kim, A., & Pittinsky, T. L. (2001). [Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance](#). *Psychological Science*, *12*(5), 385–390.
- AnitaB.org. (2019). [Top Companies For Women Technologists – 2019 Key Findings and Insights](#) (AnitaB.org Report).
- Ariely, D., & Wertenbroch, K. (2002). [Procrastination, Deadlines, and Performance: Self-Control by Precommitment](#). *Psychological Science*, *13*(3), 219-224.
- Barends, E., Janssen, B., & Velghe, C. (2016). [Rapid evidence assessment of the research literature on the effect of goal setting on workplace performance](#). *CIPD*.
- BBC. (2019). [50:50 Project](#) (BBC Report).
- Berkman, E. (2018). [The Neuroscience of Goals and Behavior Change](#). *Consulting Psychology Journal: Practice and Research*, *70*(1), 28-44.
- Bertrand, M., Black, S., Jensen, S., & Lleras-Muney, A. (2015). [Breaking the Glass Ceiling](#) (IDEAS Working Paper Series from RePEc).
- Beshears, J., Bohnet, I., & Sanford, J. (2017). [Increasing Gender Diversity in the Boardroom: The United Kingdom in 2011 \(A\)](#) (Harvard Business School Case 918-006). Boston, MA: Harvard Business School.
- Beshears, J., & Gino, F. (2015). [Leaders as Decision Architects: Structure Your Organization's Work to Encourage Wise Choices](#). *Harvard Business Review*, *93*(5), 52–62.
- Bohnet, I. (2016). [What Works: Gender Equality by Design](#). Cambridge, Massachusetts: The Belknap Press of Harvard University Press.
- Bohnet, I., Hauser, O., & Chilazi, S. (2020). *Gender Proportionality Rule* [Manuscript in preparation]. Harvard Kennedy School.
- Brand, D. (2019, December 17). [Inclusion & Diversity Report December 2019](#). *Twitter Blog*.
- Castilla, E. J. (2015). [Accounting for the gap: A firm study manipulating organizational accountability and transparency in pay decisions](#). *Organization Science*, *26*(2), 311-333.
- Castilla, E. J. (2016). [Achieving Meritocracy in the Workplace](#). *MIT Sloan Management Review*, *57*(4), 35-41.
- Chilazi, S., Rattan, A., & Georgeac, O. (2020). *Ros Atkins and the 50:50 Project at the BBC (A)* (London Business School Case, Forthcoming). London, UK: London Business School.
- Chowdhury, M. R. (2020, February 2). [The Science & Psychology of Goal-Setting 101](#). *Positivepsychology.com*.
- Cohen, D. (2019, March 14). [Twitter Wants Its Work Force to Be 43% Women, 5% Each Black and Latinx by Year-End](#). *Adweek*.

- Dennis, J. (2020, January 16). [What we're learning as we build a more inclusive company](#). *Pinterest Newsroom*.
- Diversity Best Practices. (2017). [Setting and Achieving Diversity Targets](#). *Diversity Best Practices*.
- Diversity Lab. (2019, September 3). [Mansfield Rule](#).
- Dobbin, F., & Kalev, A. (2016). [Why diversity programs fail and what works better](#). *Harvard Business Review*, 94(7-8), 52-60.
- Dobbin, F., Schrage, D., & Kalev, A. (2015). [Rage Against the Iron Cage: The Varied Effects of Bureaucratic Personnel Reforms on Diversity](#). *American Sociological Review*, 80(5), 1014-1044.
- Donnelly, G., & Jones, S. (2017, June 22). [The White House Tech Inclusion Pledge, A Year Later](#). *Fortune*.
- Draznin, H. (2017, October 16). [Oath CEO Tim Armstrong: I want women to fill 50% of our leadership roles](#). *CNN*.
- Duckworth, A. L., & Milkman, K. L. (2018). [Changing Behavior for Good](#) [Unpublished working paper]. University of Pennsylvania.
- Dweck, C. (2016). [Mindset: The new psychology of success](#) (Updated ed.). New York: Random House.
- Edwards, V. V. (n.d.). [Goal Setting: 5 Science Backed Steps to Setting and Achieving Your Goals](#). Science of People.
- Epton, T., Currie, S., & Armitage, C. J. (2017). [Unique Effects of Setting Goals on Behavior Change: Systematic Review and Meta-Analysis](#). *Journal of Consulting and Clinical Psychology*, 85(12), 1182-1198.
- Ericson, K. M., & Laibson, D. (2019). [Intertemporal choice](#). In B. Bernheim, S. DellaVigna, & D. Laibson (Eds.), *Handbook of Behavioral Economics - Foundations and Applications* (Vol. 2, pp. 1-67). Elsevier.
- Erkal, N., Gangadharan, L., & Xiao, E. (2019). [Leadership Selection: Can Changing the Default Break the Glass Ceiling?](#) *SSRN*.
- FTSE Women Leaders. (n.d.). [Targets & Progress](#).
- FTSE Women Leaders. (n.d.). [The Davies Review 2011-2015](#).
- Funk, C., & Parker, K. (2018, January 9). [Women and Men in STEM Often at Odds Over Workplace Equity](#). *Pew Social Trends*.
- Galinsky, A., Todd, A., Homan, A., Phillips, K., Apfelbaum, E., Sasaki, S., . . . Maddux, W. (2015). [Maximizing the Gains and Minimizing the Pains of Diversity: A Policy Perspective](#). *Perspectives on Psychological Science*, 10(6), 742-748.
- GE. (2017, February 8). [Engineering The Future: GE's Goal To Bridge The STEM Gender Gap By 2020](#).
- Harkin, B., Webb, T. L., Chang, B. P., Prestwich, A., Conner, M., Kellar, I., . . . Sheeran, P. (2016). [Does monitoring goal progress promote goal attainment? A meta-analysis of the experimental evidence](#). *Psychological bulletin*, 142(2), 198.

- Harkins, S., & Lowe, M. (2000). [The effects of self-set goals on task performance](#). *Journal of Applied Social Psychology*, 30(1), 1-40.
- Harrison, S. (2019, October 1). [Five Years of Tech Diversity Reports—and Little Progress](#). *Wired*.
- Heilman, M., & Alcott, V. B. (2001). [What I Think You Think of Me: Women's Reactions to Being Viewed as Beneficiaries of Preferential Selection](#). *Journal of Applied Psychology*, 86(4), 574-582.
- Heilman, M., & Welle, B. (2006). [Disadvantaged by Diversity? The Effects of Diversity Goals on Competence Perceptions](#). *Journal of Applied Social Psychology*, 36(5), 1291-1319.
- Hirsh, E., & Cha, Y. (2017). [Mandating Change: The Impact of Court-Ordered Policy Changes on Managerial Diversity](#). *Industrial and Labor Relations Review*, 70(1), 42-72.
- Hirsh, E., & Cha, Y. (2018). [For Law and Markets: Employment Discrimination Lawsuits, Market Performance, and Managerial Diversity](#). *American Journal of Sociology*, 123(4), 1117-1160.
- Hirsh, E., & Tomaskovic-Devey, D. (2020). *Metrics, Accountability and Transparency: A Simple Recipe to Increase Diversity and Reduce Bias* [Manuscript submitted for publication].
- Huang, G. (2017, February 14). [Seeking Women: 70+ Companies That Have Set Gender Diversity Targets](#). *Forbes*.
- Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). [Innovation, organizational learning, and performance](#). *Journal of Business Research*, 64(4), 408-417.
- Kalev, A., Dobbin, F., & Kelly, E. (2006). [Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies](#). *American Sociological Review*, 71(4), 589-617.
- Kleingeld, A., van Mierlo, H., & Arends, L. (2011). [The effect of goal setting on group performance: A meta-analysis](#). *Journal of Applied Psychology*, 96, 1289–1304.
- Koh, Y. (2018, October 29). [Intel Hits an Internal Goal for Workforce Diversity](#). *The Wall Street Journal*.
- Kruglanski, A. W., Pierro, A., & Sheveland, A. (2011). [How many roads lead to Rome? Equifinality set-size and commitment to goals and means](#). *European Journal of Social Psychology*, 41(3), 344-352.
- Kurtulus, F. A. (2013, October 30). [The Impact of Eliminating Affirmative Action on Minority and Female Employment: A Natural Experiment Approach Using State-Level Affirmative Action Laws and EEO-4 Data](#) [Unpublished working paper]. University of Massachusetts Amherst and Harvard Law School.
- Lerner, J., & Tetlock, P. (1999). [Accounting for the Effects of Accountability](#). *Psychological Bulletin*, 125(2), 255-275.
- Leslie, L., Manchester, C., & Dahm, P. (2017). [Why and When Does the Gender Gap Reverse? Diversity Goals and the Pay Premium for High Potential Women](#). *Academy of Management Journal*, 60(2), 402-432.
- Locke, E. A., & Latham, G. P. (1990). [A theory of goal setting & task performance](#). Englewood Cliffs, N.J.: Prentice Hall.

- Locke, E. A., & Latham, G. P. (2002). [Building a practically useful theory of goal setting and task motivation: A 35-year odyssey](#). *American Psychologist*, 57(9), 705-717.
- Locke, E. A., & Latham, G. P. (2006). [New Directions in Goal-Setting Theory](#). *Current Directions in Psychological Science*, 15(5), 265–8.
- McKinsey & Lean In. (2019). [Women in the Workplace](#).
- Niederle, M., Segal, C., & Vesterlund, L. (2013). [How costly is diversity? Affirmative action in light of gender differences in competitiveness](#). *Management Science*, 59(1), 1-16.
- Office of Federal Contract Compliance Programs. (n.d.). [Executive Order 11246 — Equal Employment Opportunity](#). U.S. Department of Labor.
- Office of Federal Contract Compliance Programs. (n.d.). [Sample Affirmative Action Programs](#). U.S. Department of Labor.
- Page, S. (2007). [The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies](#). Princeton, NJ: Princeton University Press.
- Pande, R., & Ford, D. (2011). [Gender Quotas and Female Leadership: A Review](#) (Background Paper for the World Development Report on Gender).
- Pao, E. K. (2019, May 2). [Roadmap to Diversity and Inclusion](#). *Medium*.
- Paradigm for Parity. (n.d.). [The 5-Point Action Plan](#).
- Paryavi, M., Bohnet, I., & van Geen, A. (2019). [Descriptive norms and gender diversity: Reactance from men](#). *Journal of Behavioral Public Administration*, 2(1).
- Phillips, K. W. (2014, October 1). [How Diversity Makes Us Smarter](#). *Scientific American*.
- Piper, N. (2017, February 7). [AOL Pledges Women Will Make Up 50 Percent of Leadership by 2020](#). *Bloomberg*.
- Project Include. (n.d.). [Measuring progress](#).
- Rangarajan, S. (2018, June 25). [Here's the clearest picture of Silicon Valley's diversity yet: It's bad. But some companies are doing less bad](#). *Reveal from The Center for Investigative Reporting*.
- Rattan, A., Chilazi, S., Georgeac, O., & Bohnet, I. (2019, June 6). [Tackling the Underrepresentation of Women in Media](#). *Harvard Business Review*.
- Service, O. et al. (2014). [EAST: Four Simple Ways to Apply Behavioural Insights](#) (Behavioural Insights Team Report).
- SHRM. (2018, September 18). [Managing Federal Contractor Affirmative Action Programs](#).
- Silberman, B. (2019, January 14). [Building a more diverse Pinterest](#). *Pinterest Newsroom*.

- Soll, J. B., Milkman, K. L., & Payne, J. W. (2016). [A User's Guide to Debiasing](#). In K. Gideon, & G. Wu (Eds.), *The Wiley Blackwell Handbook of Judgment and Decision Making* (pp. 924-951). John Wiley & Sons.
- Temkin, R., & Itembu, T. (2020, January 29). [The Unintended Consequences of Diversity & Inclusion Initiatives: Lisa Leslie's Recent Work & Ideas for Putting her Framework to Use](#). *WAPPP Wire*.
- Thaler, R., & Sunstein, C. (2008). [Nudge: Improving Decisions About Health, Wealth, and Happiness](#). New Haven: Yale University Press.
- Tomaskovic-Devey, D., & Han, J. (2018). [Is Silicon Valley Tech Diversity Possible Now?](#) *Center for Employment Equity at University of Massachusetts Amherst*.
- Unilever NV. (2020, March 3). [Nine ways we're making Unilever a more gender-balanced business](#). *MarketScreener*.
- Verizon. (n.d.). [Verizon 2018 Corporate Responsibility Report](#).
- Whelan, J., & Wood, R. (2012). [Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research](#). *Centre for Ethical Leadership, Melbourne Business School*.
- White House. (2016, June 22). [Tech Inclusion Pledge](#).
- Williams, M. (2019, July 9). [Facebook 2019 Diversity Report: Advancing Diversity and Inclusion](#). *Facebook*.
- Williams, R. (2019, April 17). [5 things you're getting wrong in setting diversity goals](#). *Fast Company*.
- Wiltermuth, S., & Gino, F. (2013). ["I'll Have One of Each": How Separating Rewards Into \(Meaningless\) Categories Increases Motivation](#). *Journal of Personality and Social Psychology*, 104(1), 1-13.
- Wooten, L. P., & James, E. H. (2004). [When Firms Fail to Learn: The Perpetuation of Discrimination in the Workplace](#). *Journal of Management Inquiry*, 13(1), 23-33.
- Zimmerman, B., & Kitsantas, A. (1996). [Self-regulated learning of a motoric skill: The role of goal setting and self-monitoring](#). *Journal of Applied Sport Psychology*, 8(1), 60-75.

APPENDIX A. GENDER DIVERSITY IN SILICON VALLEY

Reveal/UMass Amherst's analysis of 177 EEO-1 reports

While some of the largest U.S. tech firms have been releasing annual diversity reports since 2014, these reports do not follow a standardized format nor do they contain comparable data. A more comprehensive, if high-level, picture of the industry's diversity emerges from two independent analyses of EEO-1 reports conducted by Reveal (The Center for Investigative Reporting) and UMass Amherst's Center for Employment Equity. As federal government (sub)contractors, most large U.S. tech companies are required to annually file an EEO-1 form with the EEOC (see Appendix C); however, in 2016, only 26 Silicon Valley tech firms were voluntarily making their EEO-1 forms public. That year, the researchers surveyed 211 of the largest Silicon Valley tech firms and ultimately gained access to the anonymized, aggregate workforce data of 177 companies as reported on their EEO-1 forms after confidentiality review by the EEOC. The results reveal that U.S. big tech remains extremely male-dominated, although there is significant demographic variation across firms.¹⁴⁷

Table A1 shows that seven in ten Silicon Valley tech firm employees across all levels were men in 2016 among the 177 firms. The population of managers mirrored that of employees overall with 70% of managers being men; executives were more likely to be men (79%). White men, the single most common demographic group, made up about 41% of all workers, although the share of White men ranged from a low of less than 25% in 12 firms to a high of more than 55% in ten firms. Asian men were the next most common demographic group of workers (19% of employees overall), followed by White women (16% of all employees), who were most likely to be managers (18%), followed by executives (15%) and professionals (14%). The representation of women of color in Silicon Valley remained very low. Asian women made up just under 9% of the entire workforce and were most represented as professionals, followed by managers and executives. Black and Latina women were employed in even fewer numbers in these 177 firms: Black women made up just under and Latina women just over 2% of all employees, respectively, with the median representation of Black women close to zero across all firms.¹⁴⁸

Race	Gender	All Employees	Professionals	Managers	Executives
All	Men	69.8%	71.2%	70.7%	79.2%
	Women	30.2%	28.8%	29.3%	20.8%
White	All	57.5%	52.4%	64.7%	73.3%
	Men	41.3%	38.7%	46.5%	58.7%
	Women	16.2%	13.8%	18.2%	14.6%
Asian	All	28.1%	37.5%	25.6%	20.8%
	Men	19.2%	25.9%	17.9%	16.3%
	Women	8.9%	11.6%	7.8%	4.5%
Black	All	4.4%	2.9%	2.5%	1.4%
	Men	2.7%	1.8%	1.5%	1.0%
	Women	1.8%	1.1%	0.9%	0.4%
Latinx	All	7.3%	5.0%	5.2%	3.0%
	Men	4.9%	3.4%	3.6%	2.1%
	Women	2.4%	1.6%	1.6%	0.8%

Table A1. Gender and Race Among Employees of 177 Large Silicon Valley Tech Firms. Reprinted from Reveal.¹⁴⁹

¹⁴⁷ Rangarajan, S. (2018, June 25). [Here's the clearest picture of Silicon Valley's diversity yet: It's bad. But some companies are doing less bad.](#) Reveal from The Center for Investigative Reporting.

¹⁴⁸ Tomaskovic-Devey, D., & Han, J. (2018). [Is Silicon Valley Tech Diversity Possible Now? Center for Employment Equity at University of Massachusetts Amherst.](#)

¹⁴⁹ Rangarajan, S. (2018, June 25). [Here's the clearest picture of Silicon Valley's diversity yet: It's bad. But some companies are doing less bad.](#) Reveal from The Center for Investigative Reporting. The percentages for each race do not sum to 100% because Native Americans and multi-racial groups are not included in the table.

There were, however, significant differences in representation across tech firms that are somewhat masked by the average workforce statistics – although given the anonymization of the data used in this analysis, we unfortunately do not know which firms were which. For example, White women made up more than a quarter of executives in 18 firms, while there were 16 firms with no White women executives at all. Similarly, while over a third of firms had no Asian women executives, 22 firms had more than 15% Asian women managers. Eleven firms employed Black women as more than 3% of professionals, which is significant given that their share as professionals across the board was 1.8%. While two firms had no Latina employees, five had more than 5% Latina executives. Thus, while Silicon Valley overall presents a very demographically homogeneous picture, there are firms that do noticeably better than others on specific aspects of gender and racial representation.¹⁵⁰ These include 23andMe, PayPal, Airbnb, and Intuit, all of which have voluntarily disclosed having more than 40% women in their managerial and executive ranks – significantly above industry average.¹⁵¹

The study of 177 companies' EEO-1 reports also uncovered interesting correlations between the presence of White women managers and professional employment diversity overall. The share of White women managers was positively associated with the representation of Black and Latina women professionals: in other words, in companies with more White women managers, there were also more Black and Latina women professionals. On the flip side, having more White men as executives was associated with having fewer Asian women as both professionals and managers.¹⁵² It is important to underscore that these are simply statistical correlations and do not in themselves imply causal relationships.

AnitaB.org's Top Companies for Women Technologists

A slightly less comprehensive analysis of gender diversity in tech is published by AnitaB.org, a nonprofit working to increase the equity of women technologists in the global tech workforce. Its Top Companies for Women Technologists benchmarking program, launched in 2011, examines key trends around the equity of women technologists in the workforces of 76 companies, including Snap, Inc. Participating companies voluntarily share their data and use a standardized definition of the technical workforce. In 2019, among the 76 companies, women made up a quarter of technologists across all career stages in tech companies of all sizes. Representation was highest at entry levels (29.8%) and lowest at executive levels (18.5%). AnitaB.org has set a goal of 50/50 equity for women's representation in technology; however, at the current annual growth rate of 1.1% in women's representation, the goal may not be reached by the target date of 2025.¹⁵³

Representation in tech compared to relevant benchmarks

Silicon Valley's representation of women – 30.2% of all employees – somewhat tracks their representation in the available pool of STEM workers. While women make up 47% of the overall U.S. adult workforce and 50% of the overall U.S. STEM workforce as of 2018, their representation in STEM is largely driven by health-related jobs, where three-quarters of workers are women. In tech-relevant computer occupations, women make up 25% of the workforce (down from 32% in 1990), while in engineering, women represent only 14% of workers (up from 12% in 1990). However, women's share of life scientists (47%) and math workers (46%) is much closer to their overall share of STEM jobs, suggesting that women are not categorically missing from tech-relevant STEM occupations. Moreover, there are large variations by occupational subgroup, with women making up 29% of environmental engineers but only 8% of mechanical engineers, for example. Unsurprisingly, men in STEM occupations tend to be concentrated in computer jobs (38% of male STEM workers) and engineering (27%).¹⁵⁴

¹⁵⁰ Tomaskovic-Devey, D., & Han, J. (2018). [Is Silicon Valley Tech Diversity Possible Now? Center for Employment Equity at University of Massachusetts Amherst.](#)

¹⁵¹ Rangarajan, S. (2018, June 25). [Here's the clearest picture of Silicon Valley's diversity yet: It's bad. But some companies are doing less bad. Reveal from The Center for Investigative Reporting.](#)

¹⁵² Tomaskovic-Devey, D., & Han, J. (2018). [Is Silicon Valley Tech Diversity Possible Now? Center for Employment Equity at University of Massachusetts Amherst.](#)

¹⁵³ AnitaB.org. (2019). [Top Companies For Women Technologists – 2019 Key Findings and Insights](#) (AnitaB.org Report).

¹⁵⁴ Funk, C., & Parker, K. (2018, January 9). [Women and Men in STEM Often at Odds Over Workplace Equity.](#) *Pew Social Trends.*

APPENDIX B. RECOMMENDED DEI DATA FOR ORGANIZATIONS TO TRACK

Workforce Composition	<ul style="list-style-type: none"> • All employees by function, level/seniority, tenure (cut by gender and other demographics) • Employee status (full-time/part-time/contractor) by gender • Management and leadership (incl. CEO's direct reports and Board of Directors) by gender • Employees reporting to managers (women and men), by tenure and level/role
Hiring	<ul style="list-style-type: none"> • Number and percentage of job applicants by gender and by role/level, channel (e.g., referrals, applications through own website/LinkedIn/other job sites, campus recruiting), and application stage (e.g., resume drop, first round interview, final round interview) • Number and percentage of women and men hired, broken down by role/level, function
Promotions	<ul style="list-style-type: none"> • Number and percentage of women and men promoted, broken down by level and compared to available pool (i.e., gender composition at level from which promoted) • Tenure in previous role and at company overall before promotion, by gender, level, function
Performance Evaluations	<ul style="list-style-type: none"> • Performance scores/evaluations given to women and men by level/rank, manager, function, tenure in company, tenure in current role • Correlation between performance scores and promotions by gender • Any available qualitative data on performance (e.g., write-ups – analyze language used and length of write-ups by gender to see if there are discrepancies)
Development	<ul style="list-style-type: none"> • Number and percentage of women selected for developmental programs (e.g., leadership trainings, high-potential development track) <ul style="list-style-type: none"> – Analyze nominations, invitations to participate, and eventual attendance/participation • Number and percentage of women named in succession and talent plans (i.e., leadership pipeline by gender) • Work/project assignment by gender • Number and percentage of women participating in mentorship/sponsorship programs <ul style="list-style-type: none"> – Correlate to career outcomes like promotions, if possible
Exit Data	<ul style="list-style-type: none"> • Number and percentage of women and men leaving the organization by level, function, performance history, and tenure at company at time of exit <ul style="list-style-type: none"> – Analyze voluntary and involuntary exits separately • Any qualitative data (e.g., exit interview responses) analyzed by gender
Pay	<ul style="list-style-type: none"> • Compensation by gender, controlling for level, tenure, education, office/geography, performance scores <ul style="list-style-type: none"> – Analyze all possible components of pay: base salary, stock awards, equity grants, performance bonuses, (annual) raises, discretionary awards from peers/managers etc. – Examine pay gaps within jobs and across/between jobs and departments/functions • Starting pay for new hires in the organization, controlling for level, function, tenure, education, office etc.
Other Data	<ul style="list-style-type: none"> • Employee satisfaction/engagement scores and survey results by gender of respondent • Internal and external complaints (e.g., discrimination, bias, harassment) and resolution status

APPENDIX C. AFFIRMATIVE ACTION AND OTHER LEGAL CONSIDERATIONS

Many U.S. tech companies are subject to equal opportunity and anti-discrimination legislation under Executive Order (EO) 11246. Issued by President Lyndon Johnson in 1965 and amended by President Barack Obama in 2014, EO 11246 prohibits federal contractors and subcontractors with over \$10,000 in yearly government business from discriminating in employment decisions on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin. It also requires contractors to take affirmative action to ensure equal employment opportunity (EEO) for the above classes of workers. In particular, pursuant to the regulations implementing EO 11246, most federal (sub)contractors are required to develop written affirmative action plans (AAPs) and to file an annual EEO-1 disclosure form regarding their workforce composition.¹⁵⁵

EEO and affirmative action are related concepts in that the former refers to the need for employers to give equal consideration and equal terms and conditions of employment to all workers (with a prohibition on discriminating based on race, color, religion, age, marital status, national origin, disability, or sex), and the latter provides one specific way to do that by requiring government (sub)contractors to “take affirmative steps to develop programs, policies, and procedures for proactively recruiting, hiring, training, and promoting women [and other groups] to ensure equal opportunities in employment.”¹⁵⁶ While EEO and affirmative action are primarily matters of legal compliance and a detailed discussion of them is beyond our scope, AAPs can be a useful tool in organizational DEI goal-setting. Indeed, research has found AAP goals to be effective at increasing workforce diversity, so we review AAPs briefly here.¹⁵⁷ They come in different types for different groups (women, minorities, veterans, and individuals with disabilities) with no single mandated template, but share common characteristics:¹⁵⁸

- **An organizational (hierarchy) display** mapping organizational units, their employee composition by gender and race, and relationship to each other.
- **A full workforce analysis** listing all job titles, appropriately grouped, with incumbency by gender and race, ranked by pay level.
- **An availability determination** that estimates the percentage of women and minorities that have the skills required to perform the jobs in a given job group. The determination should be based on availability inside (through promotion, transfer, or training) and outside (e.g., in the geographic area) of the organization.¹⁵⁹
- **A comparison of availability to incumbency** comparing the representation of women and minorities in each job group to their established availability for those jobs. This comparison reveals representational gaps and thus identifies areas where placement goals are needed (see below). A common threshold for “underutilization” is 80%: if women and minorities are represented at 80% or more of their determined availability, their representation (incumbency) is considered to be at an appropriate level.
- **Placement goals** establishing “reasonably attainable” targets that should be “at least equal” to availability, with responsibility and accountability for meeting the goals assigned to a specific individual or entity. Conceptually, this is very similar to the Gender Proportionality Aspiration.
- **Identification of problem areas** evaluating impediments to EEO, including selection disparities (in personnel actions like hires, terminations, and promotions), pay disparities, and advancement disparities.
- **Action-oriented programs** detailing how problem areas will be remedied and measurable results reached.
- **An internal audit and reporting system** measuring the AAP’s effectiveness, ensuring non-discriminatory practices, and reporting progress against goals to management at least quarterly every year.

¹⁵⁵ The specific regulations governing the general obligations of contractors and subcontractors under E.O. 11246 are found at 41 C.F.R. §60-1 and 41 C.F.R. §60-2. The EEO-1 form asks for the employer's current workforce data for all full- and part-time employees, broken down by gender (sex) and race/ethnicity for each of the 10 EEO-1 occupational categories. It must be filed by federal contractors and subcontractors that employ 50 or more people and that have government contracts in excess of \$50,000 annually; it is also required of all private employers that are subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) and that have 100 or more employees (with exclusions for state and local governments, educational institutions, Indian tribes, and tax-exempt private membership clubs). Office of Federal Contract Compliance Programs. (n.d.). *Executive Order 11246—Equal Employment Opportunity*. U.S. Department of Labor. See also SHRM. (2018, September 18). *Managing Federal Contractor Affirmative Action Programs*.

¹⁵⁶ SHRM. (2018, September 18). *Managing Federal Contractor Affirmative Action Programs*.

¹⁵⁷ Kalev, A., Dobbin, F., & Kelly, E. (2006). *Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies*. *American Sociological Review*, 71(4), 589-617.

¹⁵⁸ Office of Federal Contract Compliance Programs. (n.d.). *Sample Affirmative Action Programs*. U.S. Department of Labor.

¹⁵⁹ The resources that companies can use for the availability determination include the U.S. Census Bureau's EEO Tabulation, the U.S. Bureau of Labor Statistics' Current Population Survey, and state employment service data. SHRM. (2018, September 18). *Managing Federal Contractor Affirmative Action Programs*.

The positive and negative consequences of affirmative action

With diversity, equity, and inclusion goals in place at the team or organizational level, the subjects of those goals – in this case, women – may be perceived differently than they would have in the absence of said goals, both by others and by themselves. While DEI goals specifically have not been widely studied yet, affirmative action policies and practices are a close and well-studied analog. It turns out that affirmative action has both positive and negative effects.

On the positive side, a study of several U.S. states that reversed state-level affirmative action laws showed that affirmative action does indeed increase workplace diversity: ending affirmative action led to significant decreases in the representation of Asian women, Black women, and Hispanic men in the workplace.¹⁶⁰ Furthermore, affirmative action has been shown to increase women’s propensity to enter into competitive environments: under gender quotas, women were more likely to compete than in the absence of quotas, nearly closing the initially observed gender gap in willingness to compete.¹⁶¹

On the negative side, a review of approximately 20 studies examining the effects of gender-based affirmative action practices in organizations reveals that women hired under affirmative action are viewed by others, and themselves, as less competent, less qualified, and less deserving of their positions – even when they have the required competencies.¹⁶² The mere perception that a woman has been selected because of her gender, even if inaccurate, is enough to make negative gender stereotypes more salient and to potentially trigger stereotype threat for the affected individual.¹⁶³ Similarly, in three experimental studies, women were perceived by both other women and men to be less competent and less influential than men in a group when that group was supposedly composed with a diversity (as opposed to a merit) rationale in mind. Such negative perceptions did not come into play when the group was composed based on other non-merit-based considerations, such as scheduling convenience; it was specifically the rationale of ensuring demographic diversity that triggered negative perceptions of women (though not men). It appears that prevailing negative stereotypes about women in the workforce color people’s attitudes toward women who are selected supposedly based on their gender, and these effects are particularly strong when women make up a small minority of the assembled group, as is often the case in the U.S. tech industry.¹⁶⁴ Here, it is important to note that “merit-based” decision-making criteria are not a silver bullet: research has shown that when people and organizations believe they are meritocratic, that very belief actually opens the door to *more biased* and non-merit-based behaviors.¹⁶⁵ Other experimental studies have shown that women who believe that they are beneficiaries of preferential selection, i.e., selected for a task based on gender rather than merit, assumed that others viewed them negatively for that reason. They also performed suboptimally when they were uncertain about their abilities for a given task; however, when confident about their task-related abilities, they maximized their performance.¹⁶⁶

¹⁶⁰ Kurtulus, F. A. (2013, October 30). [The Impact of Eliminating Affirmative Action on Minority and Female Employment: A Natural Experiment Approach Using State-Level Affirmative Action Laws and EEO-4 Data](#) (Unpublished Working Paper, University of Massachusetts Amherst and Harvard Law School).

¹⁶¹ Niederle, M., Segal, C., & Vesterlund, L. (2013). [How costly is diversity? Affirmative action in light of gender differences in competitiveness](#). *Management Science*, 59(1), 1-16.

¹⁶² Whelan, J., & Wood, R. (2012). [Targets and Quotas for Women in Leadership: A Global Review of Policy, Practice, and Psychological Research](#). *Centre for Ethical Leadership, Melbourne Business School*.

¹⁶³ Stereotype threat refers to situations where members of a stereotyped group are concerned about being judged in light of the stereotype. This 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 (e.g., through a gender checkbox at the start of the test). Thus, reliance on stereotypes can undermine performance through stereotype threat. Ambady, N., Shih, M., Kim, A., & Pittinsky, T. L. (2001). [Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance](#). *Psychological Science*, 12(5), 385–390.

¹⁶⁴ Heilman, M., & Welle, B. (2006). [Disadvantaged by Diversity? The Effects of Diversity Goals on Competence Perceptions](#). *Journal of Applied Social Psychology*, 36(5), 1291-1319.

¹⁶⁵ Castilla, E. J. (2016). [Achieving Meritocracy in the Workplace](#). *MIT Sloan Management Review*, 57(4), 35-41.

¹⁶⁶ Heilman, M., & Alcott, V. B. (2001). [What I Think You Think of Me: Women's Reactions to Being Viewed as Beneficiaries of Preferential Selection](#). *Journal of Applied Psychology*, 86(4), 574-582.

