

CES323573

## Why Diversity and Inclusion in the AEC Industry are Necessary and How to Achieve them

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### Learning Objectives

- Discover why diversity and a sense of belonging matter
- Diverse perspectives lead to better designs
- How to speak more confidently about diversity, equity, inclusion, and belonging
- How to foster a diverse and inclusive work environment

### Description

Did you know that 70% of women engineers leave the field before they have 20 years of professional experience? Only 13% of engineers are women, and only 20% of engineers are disabled. Plus, 19% of engineers are underrepresented minorities, and only 2% of engineers are women of color. Why are these numbers so low? Why are women leaving before retirement? Why are some soap dispensers racist? We'll talk about the factors that lead to these issues and what each of us can do to improve these numbers. Inclusion is one of the key mechanisms for reaching a more diverse workforce. When we all feel included, we'll see an increase in the diversity of our teams. Inclusion is also necessary in our projects. We'll talk about how a diverse team leads to designs that are inclusive of all people. And if that wasn't good enough, we'll also look at how diverse teams perform better, are happier, and will improve your bottom line.

## About the Speaker



Danielle is a professional civil engineer with over ten years of experience in the AEC industry. For much of that time, she worked as a transportation engineer working on roadway reconstruction, site design, rail design, and construction phase services. The latter part of her career has been in a CAD management role where she manages the design software corporately at VHB. With experience in Civil 3D and much of the AEC suite, she provides support and improved workflows to the design teams. Additionally, she works closely with the Civil 3D product design team at Autodesk to provide feedback and test new solutions. She has attended the Inside the Factory event twice with the Autodesk Civil team in NH. Danielle is passionate about helping others become proficient in the design software through innovation and training.

She is equally motivated to improve the AEC industry in the areas of diversity, equity, and inclusion as co-founder of the DE&I Employee Resource Group, VHB IDEAL. Danielle draws upon her own experiences as "one of" in most of her professional career; one woman of ten people, one queer woman of a room full of professionals, etc. After years of spending more time explaining or proving why she is qualified to do her job than should ever be necessary, she decided to do whatever she could to challenge the industry to be better; for herself and for generations to come.

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## Definitions

**Diversity** – the condition of having or being composed of differing elements: VARIETY especially: the inclusion of different types of people (such as people of different races or cultures) in a group or organization

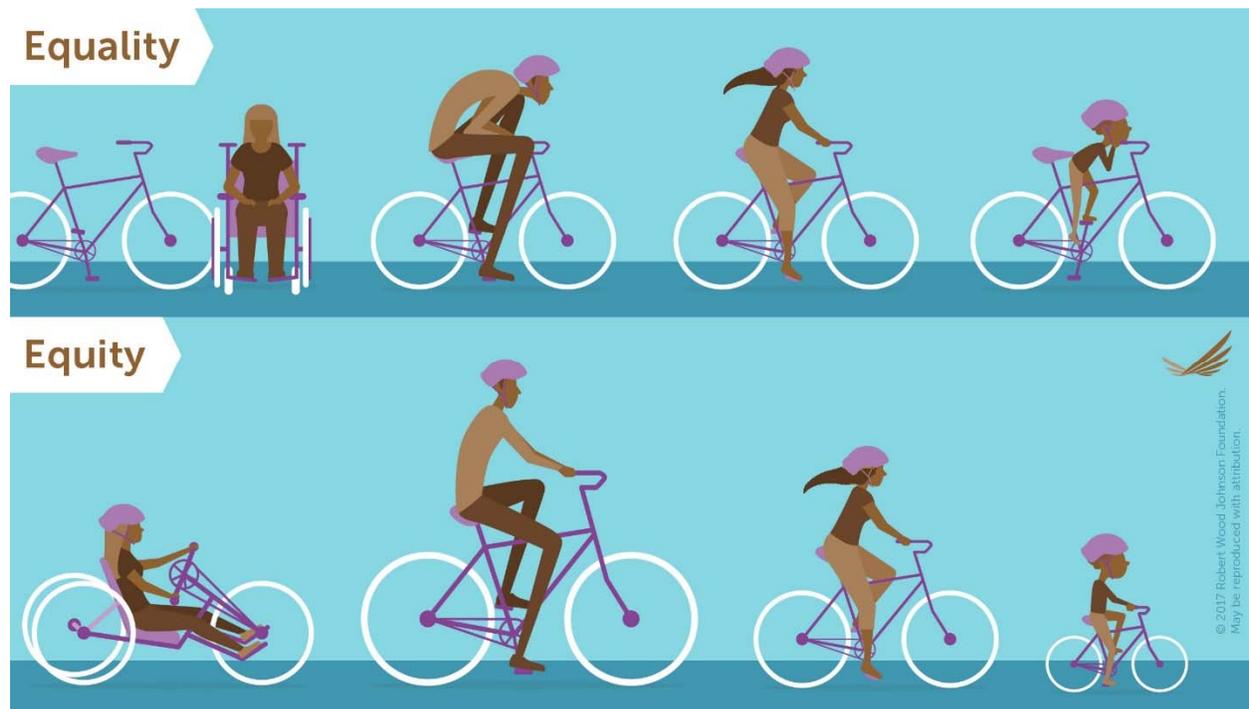
Diversity is often thought of as race and gender. These are two of the most common categories we, as a society, use to quickly judge and categorize other humans. We make these judgments quickly when first meeting someone. But someone's race and gender aren't all that makes up a person and can't always be assumed based on physical appearance. Weight, age, religion, political affiliation, disability, sexual orientation, socioeconomic class, your hometown, family status, etc. These pieces of ourselves need to be celebrated and embraced for all of the wonderful ways in which we can contribute unique solutions because of our lived experiences.

**Inclusion** – the act of including: the state of being included

**Include** – to take in or comprise as a part of a whole or group

**Equity** – the quality of being fair and impartial

**Equality** – the state of being equal, especially in status, rights, and opportunities.



**Belonging** – the **innate human desire** to be part of something larger than us. Because this yearning is so primal, we often try to acquire it by fitting in and by seeking approval, which are not only hollow substitutes for belonging, but often barriers to it. Because **true belonging** only happens when we present

our **authentic, imperfect selves** to the world, our sense of belonging can never be greater than our level of self-acceptance - Brené Brown

**Intersectionality** – A term coined by black feminist scholar Kimberlé Williams Crenshaw in 1989 to describe the complex, cumulative way in which the effects of multiple forms of discrimination (such as racism, sexism, and classism) combine, overlap, or intersect especially in the experiences of marginalized individuals or groups

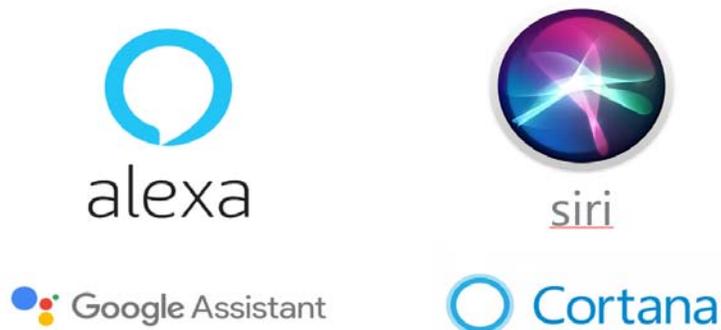
Examples:

- Black women
- Lesbian women
- Disabled person of color

**Microaggressions** – a comment or action that subtly and often unconsciously or unintentionally expresses a prejudiced attitude toward a member of a marginalized group (such as a racial minority)

Examples:

- To POC - “you are so articulate”, “I don’t see color”
- Assuming women will do the planning, baking, cleanup, etc for office events
- Telling a disabled person that they “look normal/healthy”



*THE LOGOS FOR THE PHONE ASSISTANTS TO ILLUSTRATE THAT ALL OF THE ASSISTANTS’ VOICES ARE FEMALE BY DEFAULT.  
THE IMPLICATION IS THAT WOMEN ARE HERE TO ASSIST.*

Source of all definitions except Belonging, additional examples, and additional commentary: Merriam-Webster

### **Useful Abbreviations**

**AEC** – Architecture, Engineering, Construction

**ERG** – Employee Resource Group

**POC** – Person/People of color

**WOC** – Woman/women of color

**LGBTQ+** - Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, etc.

**NB** – Non-Binary

**GNC** – Gender Non-Conforming

**CIS** – Cisgender = A person whose gender identity corresponds with their assigned sex at birth

## Why Diversity and a Sense of Belonging Matter

In the course of preparing this presentation, I learned something myself. In fact, I learned a lot of things. That's the key to success when it comes to diversity and inclusion; continued learning. But one of the major things I learned is that we need to be centering these conversations around a sense of belonging. If you don't feel like you belong, then you aren't bringing your best self to work and contributing your best ideas. Diversity, inclusion, and equity are all important as well, but it's that sense of belonging that wraps it all together and yields the most positive change.

We'll start our 'why' section with how D&I relates to retention and then follow up with the results and analysis of a survey I conducted for this presentation.

### Retention

Recruiting in the AEC industry right now is difficult. There are more jobs than applicants so retaining folks is more important than ever. If employees do not feel respected or valued at work, then there is little incentive to stay at their current position or company. By making our workspaces more welcoming and diverse, we retain talent better.

Studies show that employees' relationships with their coworkers are a leading contributor to their happiness at work. With this comes higher job satisfaction, commitment to their work, and retention. A study by the ADP Research Institute found that being part of an inclusive team was the largest driver of engagement. Employees who identified as being part of a team were 2.3 times more likely to be fully engaged. Even *more* telling is that workers are twelve times more likely to be fully engaged if they trust their team leader. (source: [ADP: the Global Study of Engagement Technical Report](#)) Team managers and leaders should be aiming for an inclusive environment so that their teammates feel that sense of belonging and are less likely to look elsewhere for work.

A survey from Zweig Group, as reported in the [July 2019 Zweig Letter introducing ElevateHer](#), showed that 100% of women principals surveyed had considered leaving the AEC industry compared to only 49% of men principals. This is a staggering difference and one that needs to be further investigated. Of course, there are many contributing factors to why these numbers are so drastically different. We cannot overlook "traditional gender roles" and how they guilt both men and women into making choices about how much time they spend, and in what capacity, at work in the home. However, I also just know from experience that women are less likely to feel like they belong in this industry than men. How do I know this? Because I am one and every time I am in a meeting, I count the people in the room and usually find that I'm the only woman or one of two – typically in a room of 10-20 people. The same is true when you are the only person of color or the only LGBTQ+ person in the room. Nothing says "you don't belong here" more than being the only one.

If employers in the AEC industry want to retain their top talent, then they have to take diversity, inclusion, and belonging seriously. It cannot be a box that gets checked off. Meaningful changes to the organization must happen if folks are not already feeling that sense of belonging.

## **DE&I in the AEC Industry Survey**

Inspired by the ElevateHer statistic, explaining that all women principals surveyed had wanted to leave the AEC industry at some point in their career, I decided to create a targeted survey to get some more statistics. The goal was to correlate demographics with experiences in the workplace in the AEC industry. I knew in my heart why diversity and belonging mattered, but I wanted numbers to prove it; especially knowing my target audience would appreciate the data.

The survey is still open if you would like to participate in it or view the questions that were asked. It can be accessed by going to <http://bit.ly/dandiaec2019>

### **Method**

This survey was created by me with input from trusted colleagues in the AEC industry who also have a background in social justice / D&I work. The survey was open to any current or former employees of the AEC industry. The first section focused on demographics and collected information such as gender identity, sexual orientation, race/ethnicity, where they lived, immigration status, age, disability status, and whether or not the respondents considered themselves religious.

The following section asked about their experience in the AEC industry. Questions in this section asked about the respondents' place of work and their specific experience related to D&I. Such questions asked whether the respondent had been passed up on opportunities or promotions due to reasons related to bias (such as gender, age, race, sexuality, etc)

The survey was circulated on LinkedIn and shared by colleagues. It was also shared to the D&I ERG at VHB and non-VHB colleagues via email. I also asked these colleagues to share them with their networks. In total, the link was accessed over 180 times with 102 responses collected.

### **Results**

I wasn't able to exactly replicate the results from the survey that inspired mine – reporting that 49% of men principals and 100% of women principals had considered leaving the industry during their careers. My question specifically asked if folks had considered leaving “for reasons related to D&I?” and may have caused the difference. However, it's still worth noting that zero principals who identified as men and 38% of women identified principals indicated that they had considered leaving the AEC industry. While the results are not a replica of the original survey, they do indicate a similar conclusion; that women are more likely to leave or consider leaving the AEC industry than men.

**Gender:** Of the 102 respondents, 56 identified as women, 45 identified as men, and 1 person identified as non-binary. According to the NCSES, in 2017, women made up 29.5% of the architecture field and 13.9% of engineering. The responses, therefore, oversample women and under sample men. One theory for this is that women are more affected by the lack of D&I and are therefore more likely to spend time responding to a survey about it. At least 80 people saw this survey and decided not to take it. It's possible that more than half of them were men who did not feel they could respond to, or were not welcome to take, this survey.

Zero respondents identified as transgender.

**Sexuality:** 83% of respondents identified as straight/heterosexual. 6% gay/lesbian. 5% bisexual. 3% preferred not to say and 3% self-described. Most used "queer" to self describe.

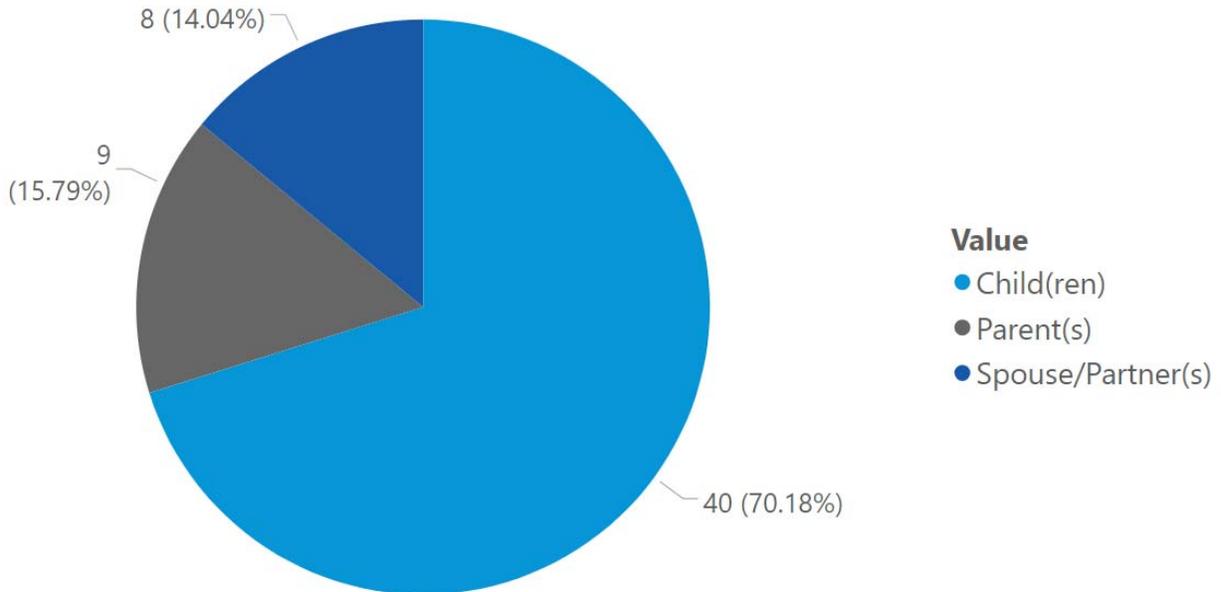
**Race/Ethnicity:**

African American	3%
American Indian / Native American / Indigenous Person	1%
Asian American / Asian	4%
Caribbean (Jamaican, Bajan)	1%
Caucasian	1%
European	1%
Filipino Canadian	1%
Hispanic	3%
Middle East North Africa (MENA)	1%
Indian	1%
South Asian/Indian	1%
White	82%

**Citizenship:** 89 of the 102 respondents live in the US. Of the 89 US citizens, only 5 (~6%) are immigrants. 8% of the US citizens are first generation (neither parents were born in the US) 30% are second generation (One or Both parents and some or no grandparents were born in the US) 62% are third or later generation (both parents and all grandparents were born in the US)

**Caregiver:** 46% of respondents are caregivers.  
 Of the 46% of respondents, here is how they identified as caregivers

**For Whom do you Provide Care?**



**Have you ever considered leaving the AEC industry for reasons related to D&I?**

- 36% of the respondents that answered that they had considered leaving the AEC industry due to bias indicated that caregiving, parenting, or pregnancy were factors in that consideration
- Of the respondents that said yes, 86% were women.
- Of these women, 89% said that gender was a factor in considering leaving
- Not a single white man said they had considered leaving the industry due to reasons related to D&I
- Not a single man said that caregiving in any form was a factor for considering leaving the industry

**Does the Presence of a D&I Program Make you Feel More Included?**

Not a single POC answered no to this question.  
 Of the respondents who chose 'yes' or 'I'm not sure', 94% said that the change was a positive one.

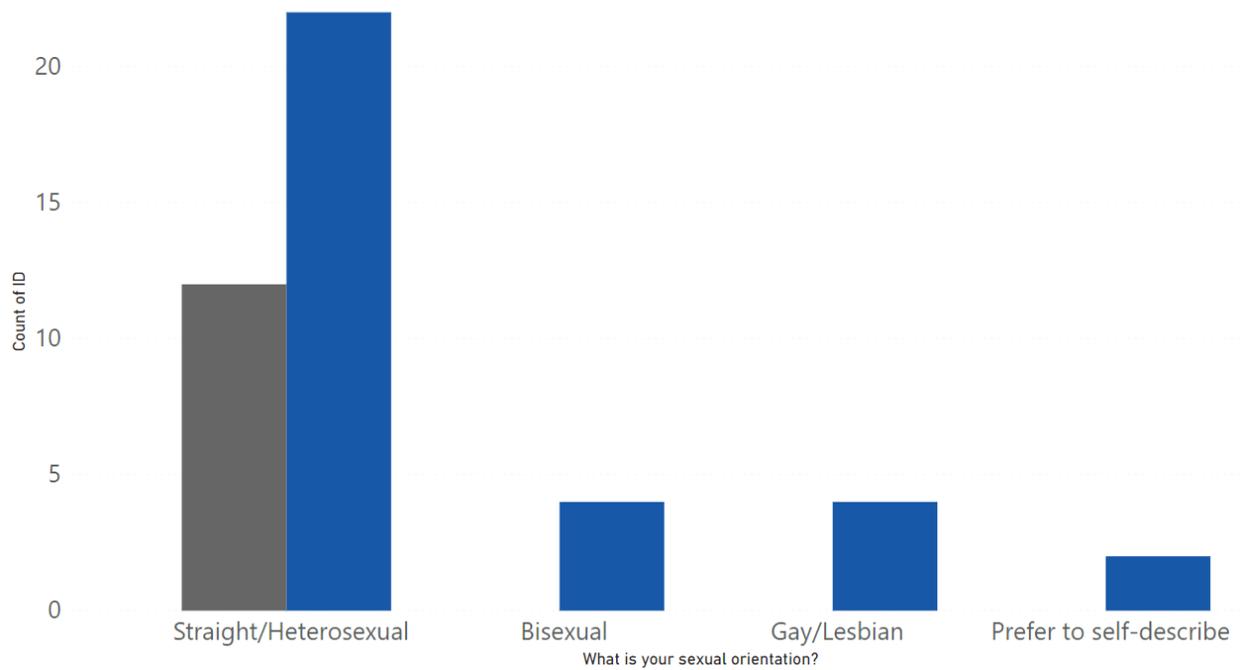
**Are you a Member of a D&I Group at your Organization?**

- Not a single POC answered no to this question.
- Not a single person who identified as gay/lesbian, bisexual, or queer answered no to this question

Noted takeaway:

We unfairly place the burden on already marginalized employees to educate the majority – usually for free – as part of these D&I programs. Another reason that folks from marginalized groups are more likely to join a D&I committee is for that sense of belonging we all crave so deeply.

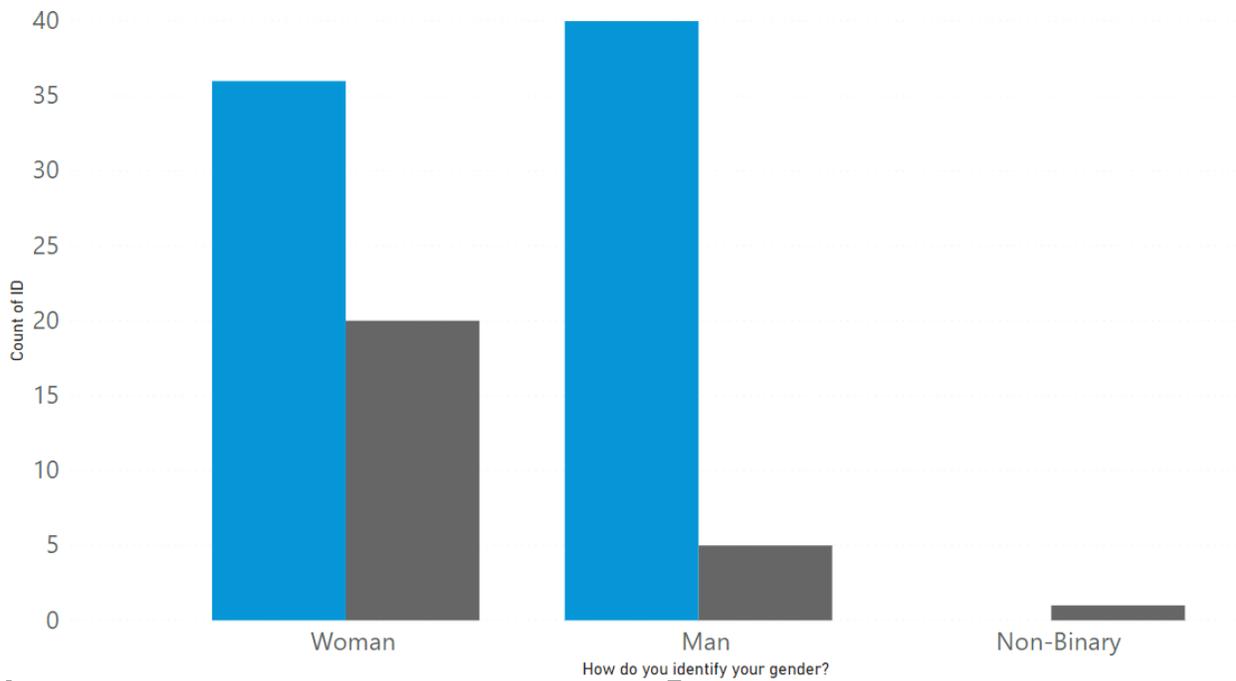
**Are you a member of any o...** ● No ● Yes



**Have you ever been - or do you suspect you have ever been - passed up for a promotion or raise due to bias?**

- 36% of women answered yes/most likely while only 11% of men did
  - The only non-binary respondent answered yes to this question
  - 17% of POC answered yes to this question compared to 27% of white/Caucasian respondents.
- One possible reason for these results differing from what we might typically expect could be due to the very small sample size of respondents of color for this survey. With such a small pool (18 POC out of 102 total respondents) it is difficult to draw conclusions about the larger industry.

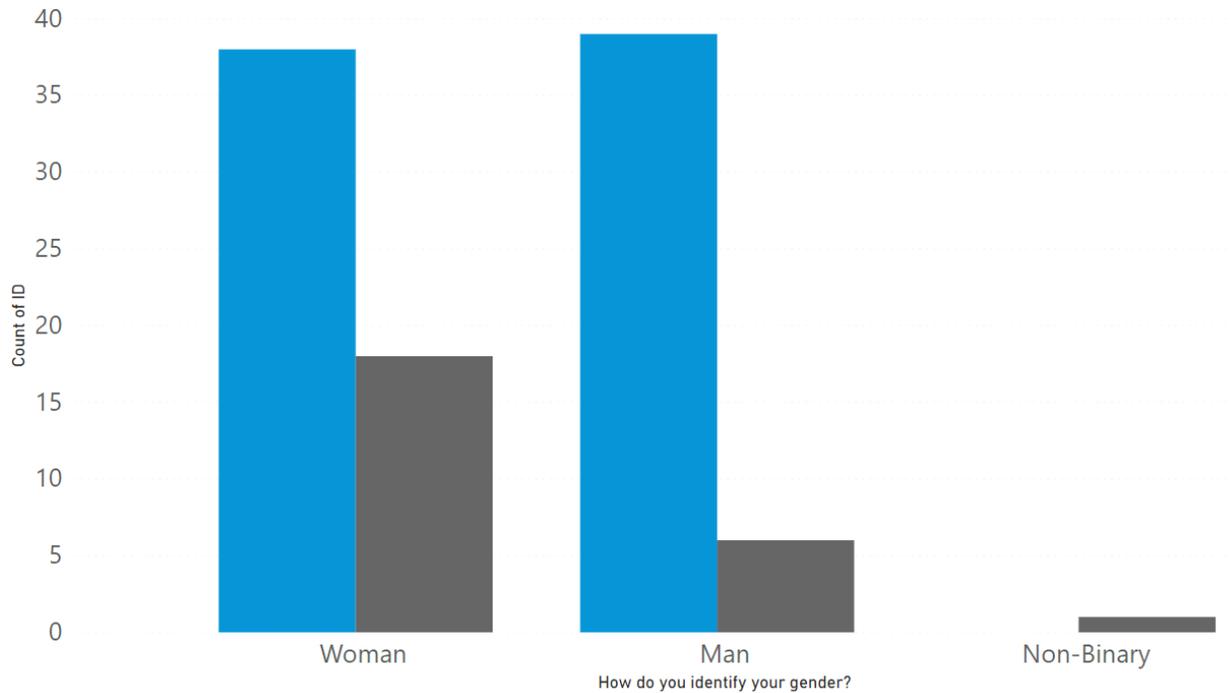
**Have you ever been - or do...** ● No / Not that I can tell ● Yes / Most Likely



**Have you ever been passed up on a project, task, meeting opportunity, field visit, etc due to bias?**

- 32% of women and 13% of men answered yes/mostly likely
- The one non-binary respondent answered yes to this question

**Have you ever been passed...** ● No / Not that I can tell ● Yes / Most Likely



**When asked to rank the most important conversations we should be having in the AEC industry:**

1. Inclusion and belonging in the workplace
2. Mental health and burnout
3. Diversity in our hiring and recruiting methods
4. The importance of diversity of thought in the types of projects we design and build
5. How to improve the diverse makeup of our graduating STEM professionals

**Training**

Training is a major gap in our industry. Only 20% of respondents indicated that managers at their place of employment received diversity and inclusion training. 19% of respondents answered yes when asked if their employer provided unconscious bias training. Many people assume that the answer to more diversity is to change how we recruit. While that is certainly one piece of the puzzle, it can only get you so far. If a hiring manager exhibits unconscious bias in their application review process, it is likely that they will seek others who they feel are most “like” themselves, perpetuating the issue. Similarly, if people managers are not trained in D&I, they run the risk of mismanaging their employees. If an employee does not feel included, especially by their

manager, then there is a greater risk of that person leaving – thus increasing the turnover rate. Unconscious bias and D&I training can help address issues that lead to an employee feeling so out of place or undervalued that they leave.

### **Quotes from the Survey**

Some of the questions asked respondents to share a story that corresponded with how they responded to a question. For example, if they said they had suspected that they were discriminated against due to bias, they had the option of expanding on that by describing the situation. Here are some stories that are especially telling and important to share when we talk about why diversity, inclusion, equity, and belonging matter.

All responses included here are as written with small edits to shorten some stories to focus on the important message

### **For folks with a disability who did not disclose it during or after the hiring process:**

What is your reason for not disclosing your disability?

- fear of being fired or unconsidered for job not being seen as competent or reliable
- Fear of major mental health issues not being understood or recognized.
- Firstly because mental illness is rarely considered a disability, even though it is often disabling. Secondly because I'm not disabled to an extent that is recognized in the traditionally black/white able/disabled system we have developed.
- I felt if I revealed this then have my manager possibly think it would impair my ability to do my work

### **For folks that indicated they have thought about leaving the AEC industry for reasons related to D&I:**

Interesting notes about this set of responses:

- Not a single straight, white, man answered yes to this question.
- All respondents that chose to add an anecdote are either women (gay or straight) or gay/queer/bisexual men.

Would you like to add more detail about why you have thought about leaving the industry or why you have left a job related to D&I reasons?

- no black woman was in any position at leadership at my old firm. I constantly brought it up and during acquisitions and new hires NO black women in leadership were hired
- The culture of AEC industry is conservative and often time regressive and oppressive to some identities.
- When I first started college in the Architecture degree, I was the only female student... There were also instances where the professor would make jokes about women or zip up his fly in front of me and others in the class would laugh or find it funny. I found it unprofessional and didn't want to deal with this even though I was interested in this field. I left college until I was in my late 20's and when I went back - things were much different.
- I've been working for 20 years and have thought about leaving for gender/family related reasons for more than half of that time.

- I was told directly by a previous supervisor, whom I respected, that I should "find a new career" because of my disability. I have watched as men are promoted based on their potential, while I needed to fight tooth and nail for months with lists and lists of my accomplishments to be considered. It's maddening and frustrating to work in an industry that has for so long refused to welcome women and disabled folks.
- It's exhausting being "the only" in most of my professional interactions. In meetings I'm usually the only woman out of 10 people. Or the only out/openly gay individual in the room. And the microaggressions are exhausting. The lack of diversity is exhausting.

### **For employees who work at a company with an established D&I program:**

Has your place of employment's D&I program changed how you feel about working there?

- **Yes, positively**- It shows that they do care at least a little. Not just a number. More connections and sense of belonging.
- **Yes, positively** - It does help me be much more empathetic and patient with people who have very different priorities and struggled outside the office. I deeply need this insight and appreciate my employer for creating a program to guide me to that place, rather than just shout at me about how to be more inclusive.
- **Yes, negatively** - It seems as though the employer is taking credit for the activities/efforts of the diversity committee that are spearheaded by the employees. It is revealing a lot of biases and issues related to D&I across the company and its leaders.
- **Yes, positively** - I feel more comfortable working in a diverse environment.
- **Yes, positively** - I feel any company/org should be actively discussing and addressing these issues. If not, that would be a red flag to me as a potential workplace
- **I'm not sure, positively** - At times I feel as if the group is more of a side project rather than something to prioritize to create a more dynamic and inclusive environment
- **I'm not sure, Negatively** - Until actual changes are made at the corporate level that lead me to believe this is more than a PR stunt, I will likely continue to feel slightly negative about it. The fact that there is a program at all is great and certainly better than nothing, but it needs to be more intentional with less stress put on employees who already have full-time jobs to come up with programming and be the leaders of the change.

Does the presence of the D&I program make you feel more included?

- Yes - It's good to know that there are other people in the company that care about the same things that I care about.
- No - I think the program is a start, but it would be greater to see more diversity celebrated instead of just marketed.
- No - I think being a white cis-female I would feel included anyways but I am proud that my company has one
- Yes - it's good to be able to take a leadership role in this, but it also feels like a bit of a facade-- we're putting up a front and talking big about this group, but the problems persist.

These quotes reveal a few key takeaways.

- Employees take notice when their company's efforts around D&I seem insincere. The presence of a group or program is not good enough for many people. Folks are looking for action and engagement from leadership that lead to meaningful change for the company.
- Candidates are looking for these types of groups when searching for and deciding on their next career opportunity.
- Comfort and a sense of belonging are important to employees

### Final Thoughts From the Respondents

I asked if folks wanted to add anything that wasn't already said or asked. Here is a sampling of responses that tell their own stories about the importance of diversity, inclusion, and a sense of belonging.

- I think many organizations attempt to have D&I programs because they think "it's the right thing to do", but the programs may be ineffective if not properly led by someone entirely dedicated to the initiative. There must be metrics, tracking, reporting, transparency, and accountability if the program is going to be impactful.
- From what I have heard from my peers, my experience has been uniquely positive. A huge draw for my peers to apply to my company is my relaying the numbers of women in different roles and levels from entry level to positions of leadership.
- I'm a middle class, white, cis, hetero, male in the US in an engineering roll. When it comes to diversity, I've won the lotto. I also grew up ultra conservative and fundamentally religious. I have very little experience with folks different than me (which is a shame). At my first employer, there was a gal who had a girlfriend and that was the first time I had ever been exposed to anyone in the LGBTQ+ community. I didn't know how to engage with her (I know now that I should engage with her the same as anyone else). I need diversity training for sure, just to be a better person.
- At a previous employer, I was told they could not fire a certain toxic employee because of the risk of an age discrimination lawsuit. One older person who didn't respect people of different races, genders, etc. apparently had a higher priority than the multiple people who were made to feel uncomfortable and unwelcome. They felt like it was a "no win" situation, but it was more likely the old guy would sue than the offended people. I planned my exit.
- I think getting buy in from everyone, not just the leaders or visible allies, is the key to shifting the culture. Finding ways to meet folks where they are and engage them in the conversation is a huge challenge for our industry. The cultural norms of the industry are deeply entrenched and designed to make certain groups very comfortable. Shifting towards a predominant culture in the industry that is welcoming and comfortable for a more representative cross-section of the population will help our industry to create designs that are better for everyone.
- Women are at the core of so many of our projects, and they're often invisible. Our company doesn't understand how vital we are, and they don't see the building anger and resentment at that invisibility. Our leadership are almost entirely male. The only women who have been elevated to top leadership are in marketing and hr and other traditionally 'pink collar' positions.

- The small injustices are just as harmful as the blatant ones. Microaggressions, lack of empathy, and lack of awareness place the burden back on POC, women, lgbt folks, etc to grin and bear it when coworkers say or do something insensitive. If we all educated ourselves and if our employers prioritized unconscious bias and D&I training for managers, we could make great strides toward a more inclusive and productive workplace
- I think there is a significant lack of awareness among AE professionals in general about the existence and effects of unconscious bias.

In a later section I will make an argument for employee engagement surveys. If the results of this survey are any indication, I believe folks are looking for an opportunity to provide feedback on the ways that their employers, managers, and supervisors can make changes that improve their work experiences.

## Diverse Perspectives Lead to Better Designs

The AEC industry is responsible for designing and building the world's infrastructure. Our designs are used every day by everyone. As such, we have a responsibility to make sure that our designs work for everyone. The best way to do this is to make sure that our teams reflect the communities we serve. When we introduce different perspectives into our teams, we end up with smarter, more innovative, and better designs. As an added bonus, diverse teams are also more profitable.

### Cases for Increased Diversity

There are countless examples of products, services, and infrastructure that were not built or designed to work for everyone. Thankfully the Americans with Disabilities Act (ADA) signed in the '80s has helped us all be more aware of the ways in which our designs directly impact people with disabilities. However, without that requirement, I would venture to guess that unless a team had someone with, or related to a person with, a mobility restriction, that team might not have immediately considered the needs of these folks in their designs because they wouldn't have lived those experiences every day.

This has become something I am acutely aware of when I walk around cities or public spaces. Somehow, even with the ADA in effect, there are still spaces that are not traversable in a wheelchair. Take for example this hotel that I stayed at in Atlanta. The sidewalk that is directly adjacent to the semi-circle for dropping passengers off is probably five feet wide, which passes ADA minimum requirements for sidewalk width. But nowhere is it flush to that paved surface. Then they framed the entrance with decorative planters that extend into the sidewalk leaving less than three feet of clearance, as is required by law. This is all probably the least worrisome element of accessibility though, considering you can't get into the building unless you go up a few steps.



*DECORATIVE PLANTER AT AN ATLANTA HOTEL REDUCING THE SIDEWALK WIDTH TO LESS THAN THREE FEET*

In regards to mobility, it's not just about ability. Take, for instance, city planning. A team with individuals from all different backgrounds with a diverse set of experiences will undoubtedly consider the needs of a broader array of folks than one that is homogenous. As a middle-class white American, I lived in the suburbs my entire childhood and went with my parents via car to the grocery store, mall, school, and anywhere else we needed to go. This is certainly not unique, but it is very different to the experiences of folks that require public transit to get to their destinations. If the needs of all people are not represented and advocated for in our teams, then we risk missing critical decisions in our designs that could have otherwise made the final product better for everyone.

### **When Our Products Become Racist**

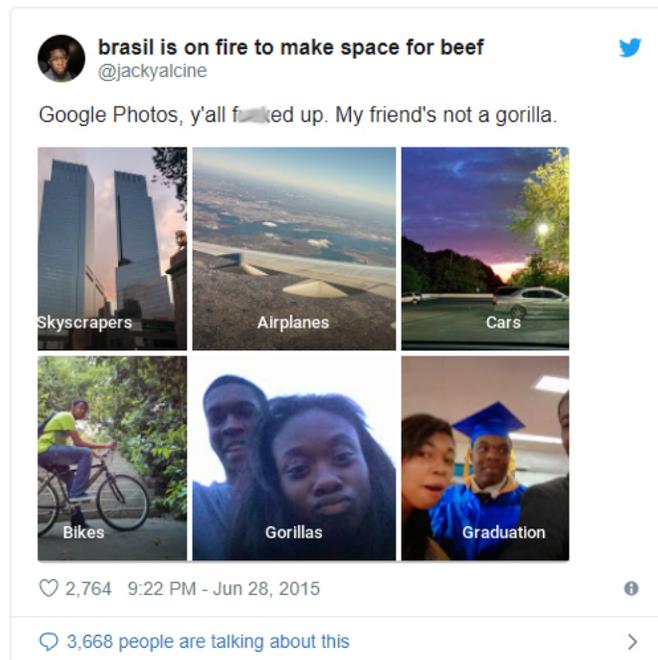
Another of the more famous examples of a lack of diversity in our teams is the "racist" [soap dispensers](#) that don't work well, or at all, for darker skin colors. There are multiple documented examples of a white person using an automated soap dispenser with positive results only to be followed by a black hand and suddenly the device stops working. This isn't just about small devices that make our lives easier either. Until the 1990s, white skin was considered the default skin tone for film used in cameras. If you had darker skin tones, the film could not pick up your features properly because it was not designed and manufactured with people of color in mind.

In 2009, it was suggested that HP's webcams were racist because the feature that was supposed to follow an individual's face and keep it centered in the frame did not work for black skin. With no change in lighting, the camera worked for a white coworker but failed to work properly for the black colleague. Not until additional lighting was added did it work properly for the man with the darker skin. If this technology was developed by, or at the very least *tested* by, a diverse team of engineers, this would have been caught before HP ultimately had to address a damaging claim against their product.

I'm not suggesting that the designers of these products maliciously decided to exclude darker skin tones. However, if our teams do not reflect our intended consumers, then stories like this will continue especially as we incorporate and use Artificial Intelligence (AI) and Augmented Reality (AR) in our designs.

AI can be especially dangerous if we do not take diversity in our teams seriously. AI is not self-made. It uses machine learning to understand how something should work and then applies that knowledge as it makes certain decisions asked of it by the programmers. If the information that we feed these machines is biased or incomplete, then our results will be as well. Have you ever noticed that all of the AI assistants on our phones and similar devices are given female voices by default? This sends and enforces a message that women are here to serve and assist whenever we need anything. If you're feeling especially feminist, go ahead and change your assistant to a male voice to fight against the notion that only women can and should be assistants.

Another more serious example of biased AI is from 2015 when Google was called out for a mis-categorization in its Google Photos app. A photo of two black people showed up under a bucket labeled "Gorillas". Had the team included more photos of POC, specifically of black people, in the data that was used for their AI training, this likely would not have happened. It also suggests that the data they did include had more photos of gorillas than of black people. This is obviously one of the worst comparisons that the program could have made given the disgusting history of black people being compared to monkeys and apes.



*PROOF OF THE GOOGLE ALGORITHM MISLABELING A BLACK WOMAN AS A GORILLA*

*(SOURCE: [HTTPS://WWW.THEVERGE.COM/2015/7/1/8880363/GOOGLE-APOLOGIZES-PHOTOS-APP-TAGS-TWO-BLACK-PEOPLE-GORILLAS](https://www.theverge.com/2015/7/1/8880363/google-apologizes-photos-app-tags-two-black-people-gorillas))*

My argument is that all of these examples could have been avoided with diverse teams. By employing people that think about different issues than you or that had different lived experiences, you add an additional perspective that can improve the designs of your products.

## Smarter, Innovative, Profitable

I intentionally chose to lead this section with examples of how diversity in our teams, or a lack thereof, affects our society and consumers. While it's also true that diversity leads to smarter, more innovative, and therefore profitable teams, I don't think any business should lead their decisions with profits. We should make our decisions based on what is best and right and when we do that, the profits will come organically.

### Smarter

Small errors in engineering can turn into expensive change orders in construction. Small errors in construction can lead to big issues years later. We all want to work more efficiently and smarter so we can reduce the likelihood of any errors; big or small. Studies have shown that diverse teams are less likely to make errors. I draw a comparison here with rail safety training. In the rail safety training, the instructors always tell us that most of the accidents that happen involving trains are with employees that have been working on the tracks for a long time. The idea being that as we get more comfortable or complacent, we don't pay as close attention to things. By definition, diversity means something that is different than what we are used to. Therefore, if you are working on a diverse team, you are more aware of your biases and less complacent leading to less errors. You're also less likely to make biased judgements when you are on a diverse team.

Another benefit of a diverse team is that they process information more carefully. When someone that is different joins the team, existing team members are more likely to consider the perspectives of this new person. A study in 2006 sought to find the link between diversity and decision making. The results of the experiment were clear; teams with two white participants and one non-white teammate significantly outperformed the all-white teams. The author concludes, "Being with similar others leads us to think we all hold the same information and share the same perspective. This perspective, which stopped the all-white groups from effectively processing the information, is what hinders creativity and innovation." (source: [Scientific American - How Diversity Makes Us Smarter](#))

### More Innovative

Innovation is key in the AEC industry. With autonomous vehicles on the horizon and technology that seems to be changing by the minute, we have to adapt our designs to meet the changing landscape. Our traffic signals will need to change to accommodate self-driving and traditional vehicles as well as pedestrians and bicyclists. We will need to get creative with the materials we use in construction as our climate changes. All of this requires innovation. The organizations that are able to shift with the cultures we serve and come up with the most innovative solutions will be the most successful in the years to come.

Diversity has a direct link to innovation according to multiple studies. To demonstrate this, I would like to draw your attention to a [study done in 2016](#) by BCG and the Technical University of Munich which surveyed HR executives, managing directors, and managers at 171 German, Swiss and Austrian companies. The analysis of their data led to some significant insights about diversity and its affect on innovation.

They were able to prove that there is a direct relationship between management diversity and innovation by showing that companies with more diverse management see more revenue. And this is true for diversity in gender, race, industry expertise, and so on. It is crucial to also note that tokenism does not equate to innovation. Hiring one woman or one person of color does not automatically lead to innovation. The study showed that innovation only increased in a meaningful way when the workforce had a “nontrivial percentage of women in management positions. **Having a high percentage of female employees doesn’t do anything for innovation, the study shows, if only a small number of women are managers.**” (emphasis mine)

### **Profitable**

In case it wasn’t immediately obvious; when our teams are smarter and more innovative, our businesses will be more profitable. Innovation and efficiency generally go hand-in-hand and of course efficiency leads to profit. We also talked about the effects of D&I on that sense of belonging which in turn leads to better retention. The less your organization experiences turnover, the more profitable it will be.

I’m going to intentionally leave this short because I don’t think it should be your main reason for taking D&I seriously. Let’s call this piece your performance bonus; it’s not why you work, but it is a nice addition. And just like that, profitability shouldn’t be why you take D&I seriously, but it is a nice bonus.

## How to Speak More Confidently about Diversity, Inclusion, Equity, and Belonging

This is where the hard work starts. If anyone has told you it's easy, they are lying. You will need to get really comfortable with being uncomfortable at first. When you think about the payoff though, it's all worth it. That discomfort, though, is why we are still talking about this decades after the civil rights movement. By getting over our own insecurities and setting the expectations that we will likely make mistakes, we open ourselves up to a world of learning and growth.

### Start with an Open Mind and Don't Get Defensive

If you are a person coming from a place of privilege; for example, a white person or a cisgendered person, this process will lead to experiences that will challenge your ability to avoid centering yourself in the discussion. You will read about or listen to stories that will instinctually make you feel like you need to defend yourself. This isn't about blame. This is about learning and educating. The goal is to approach this learning through an understanding that you are not necessarily the one to blame for all of the inequalities and biases that marginalized groups of people face. However, if you continue to ignore these inequalities and instead use your energy to prove that you are not to blame, then nothing will change and true inclusion of diverse perspectives cannot be reached.

If you feel yourself starting to get defensive, take that moment to reflect on why you feel that way but try not to act on it. Remember, the goal is to expand your understanding of the different perspectives so that you can work toward whatever needs to happen at your organization to reach a diverse and inclusive workplace.

### Intent vs. Impact

AKA "I didn't mean it that way!"

How you intended something is essentially irrelevant if the impact it had on a person or group was harmful or offensive. This is why it is so important that we educate ourselves and understand the perspectives of different groups of folks. What may be completely innocent to say as a white person to another white person, might have different implications when a white person says it to a person of color. These impacts differ based on the historical events that shaped the lived experiences of marginalized groups of people.

If someone tells you that what you said or did was offensive, these are the appropriate ways to react:

- Apologize to this person or group. If the person is someone you already have a relationship with or is indicating that they are willing to explain why, then ask them if they could explain how your actions were hurtful so that you can learn from your mistakes and not do it again.
- If the person you offended is not a friend or willing to explain why, apologize to this person and then do some research to better understand why they were hurt or offended.
- Listen calmly and remember, do *not* get defensive
- Do NOT try to make excuses or explain to the offended party that they are wrong
- Reflect on what you said or did and why that was offensive now that you have listened to or researched the answer
- Use your new knowledge to avoid the same mistake twice

## Read, Read, and Read Some More

This can't be stressed enough. You don't know what you don't know, and that phrase is never truer than when it comes to what makes us all diverse. In fact, that's a strong argument for why diversity in our organizations is so important. There are so many books and articles out there about diversity and inclusion that we can continue to learn from. There are also a lot of books about specific marginalized groups of individuals and their histories from which we can learn a lot.

By gaining a new perspective, we can start to understand why we carry the unconscious biases that we do. Ultimately, we want to shed those unconscious biases but the first step is to be aware when we are experiencing them so we can ask ourselves why and try not to do it again.

The appendix has a list of books that I recommend. You can choose to read these, or any books of your choosing on the subject of D&I, on your own or look for opportunities to read them in groups. Group settings will afford you the opportunity to discuss the literature as you read. You can look on social media for D&I book club spaces or on a community site like Meetup. Or you can start your own book club with coworkers or friends that are also interested in reading about D&I.

One last thing about reading. These books will challenge us, as already discussed. The best books will help us relearn history and force us to examine how we navigate the world and what impact that has on others. It can be easy to burnout on the massive amount of information around diversity and inclusion. There are books that I will recommend that are still relevant to the subject of D&I but are presented in a lighter/funnier way that are also good to keep on hand. It is also okay to read books for pleasure and I highly recommend doing that regularly as well.

For a list of books and articles I recommend to folks who are serious about putting in the work and making D&I a priority in their lives and at their place of work, please see Appendix A.

## Leverage Social Media

Social Media. Yes, it can be such a container of useless or downright wrong content. But it can also provide you a front seat to current activists and social justice advocates right from the comfort of your couch. Because there is a lot of misinformation, this can be a tricky place to navigate. However, you can usually find a network of people that you can trust by paying attention to who your already-vetted activists also share space with.

A few disclaimers about engagement with social media activists:

1. They do not speak for the entire group of people that they appear to represent. For example, just because one black woman you follow has one opinion, it does not mean that opinion speaks for the entire community. It's best to follow different people who focus on the same topics so you can get some *diverse perspectives* on said topic.
2. Fact check. Don't automatically assume everything you hear or see is correct.
3. Don't comment on a post that you are not well versed in or qualified to discuss unless you want to get schooled by other followers or the original poster. If you are thinking something, check out the comments and see if someone else has already asked it. Chances are they have, and they got called out. Learn from that discussion and continue to observe in this way.

4. When given the opportunity, pay these activists that you follow for their work. If they are coming to town to do a talk, buy a ticket. If they have Venmo, PayPal, etc. and you have been following them and gaining knowledge from their time and effort, pay them.
5. And related to that, always credit them if you are sharing their thoughts or information.

Some activists I follow and recommend on Instagram are:

- **Rachel Cargle** (she/her) – Writer & Lecturer, Public Academic. @rachel.cargle
- **Ericka Hart, M. ED.** (she/they) – Sex Educator, Racial/Social/Gender Justice Disruptor, Writer, Breast Cancer Survivor, Model. @ihartericka
- **Ashtin Berry** (she/her/hers) – Hospitality Activist, Consultant, Writer, Professional Reader - @thecollectress
- **Anonymous** (she/her/hers) – Essayist. Fat queer white cis lady. - @yrfatfriend
- **Lindy West** (she/her) – Writer, Feminist, Comedian - @thelindywest
- **Benjamin O’Keefe** (pronouns unknown) – Creative Director, Producer, Speaker, Activist, Trans-Inclusive Intersectional Feminist - @benjaminokeefe
- **Indya Moore** (they/them/theirs) – Actor on Pose, Model, Activist - @indyamoore

A quick reflection of my list shows me that I have some of my own biases when deciding who I trust with information. Most of the people I follow are women or femme presenting, people of color, and/or queer. I have blind spots around folks with disabilities. In an effort to make sure my perspectives are influenced by a wider variety of people, I will make it a priority to research and follow activists who have physical and mental disabilities as well.

### Get Involved and Practice with People you Trust

What do you do with all this new knowledge you gained from reading the books and articles and following the activists? I recommend joining a D&I focused group at work or in your community. If one doesn’t exist, create one. Discuss what you have read and how it changed or reinforced your perspectives. Ideally, you would want a diverse group of folks in your circle that you could talk to and gain insights from or share your own with. These relationships take time to build and a lot of trust. However, you should never try to build a relationship with someone for the sole purpose of discussing D&I topics. It would quickly become obvious that you were using that person if that is all the relationship amounted to. This is called tokenizing.

The ‘practicing’ part of the process will be when you are most challenged and when the conversations about defensiveness and intent vs impact are most important. Say you are a white person conversing with a person of color about why there are less POC in leadership positions at your office. You may ask a question or take a position that comes out wrong or that is met with a passionate response. In my experience, if you prove to the person you are conversing with that you are listening to, and learning from them as they speak, and don’t make attempts to defend your original position on the subject, the conversation will go much better. You may even be forgiven for whatever you said that had come out wrong and sparked the response.

How ever you go about this step, it’s crucial that you don’t skip it. The more you discuss what you’ve learned, the more perspectives you will gain and it will make you better able to advocate for what’s right.

## **How to Foster a Diverse and Inclusive Work Environment**

This is probably a misleading headline. I don't think anyone has the magic answer for this yet. But what I can do is give examples of things that have worked in my experience, things that I believe would help even more, and what not to do.

### **Employee Engagement Surveys**

I am a big proponent of employee engagement surveys. Developing a baseline and learning what employees need in order to feel valued and respected are benefits of regularly distributed surveys. Many folks do not feel comfortable speaking up for fear of losing their jobs or being treated differently by their supervisors or colleagues. A survey is an outlet for them to get their point across without that fear. People want to be given the chance to be heard and provide feedback. These surveys provide another way that you can influence your D&I programs and educational seminars as well. But most importantly, if you allow folks the chance to lend their voices, and especially if you make changes based on their feedback, you will be more on your way to fostering an inclusive environment where folks feel like they belong.

### **Publish Your Diversity Statistics**

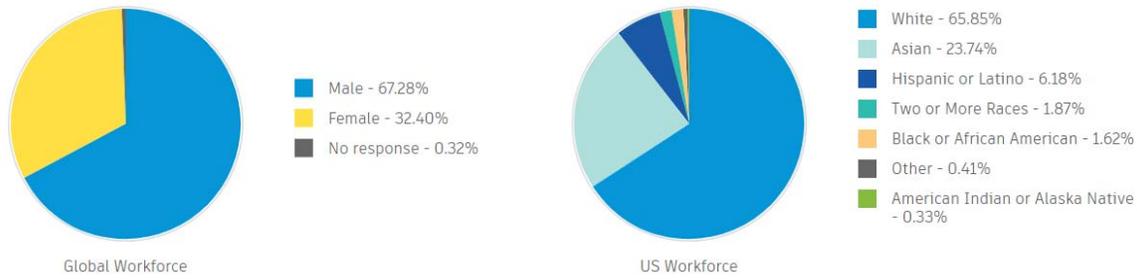
Prospective employees are looking for a company's diversity statistics during the application process now. Some companies think that they should hide their statistics because the numbers are not where they want to be. The survey proved it, and it's no secret, that the AEC industry is overwhelmingly white. Publishing those statistics won't surprise anyone but what they will do is signal to an applicant that you at least care enough to acknowledge the problem and work to change it.

I'm not just saying this because this is an Autodesk University presentation, but I do think that Autodesk has a great, public facing website that shows their commitment to increasing the diversity of their staff. While their numbers are still not ideal, what they have done is show the statistics for their company as a whole and then they show the statistics for their recent hires over the last twelve months. This tells the story that Autodesk recognizes that they have changes to make and proves they are doing it. At a glance we see that the numbers of female employees is only 32% but 42% of their recent hires are female. Similarly, their global racial makeup indicates 67% of their employees are white but their recent hires dropped to 59% white. It's not good enough to say you are committed to D&I. You have to show that commitment and publishing your diversity statistics is one way that you can do that.

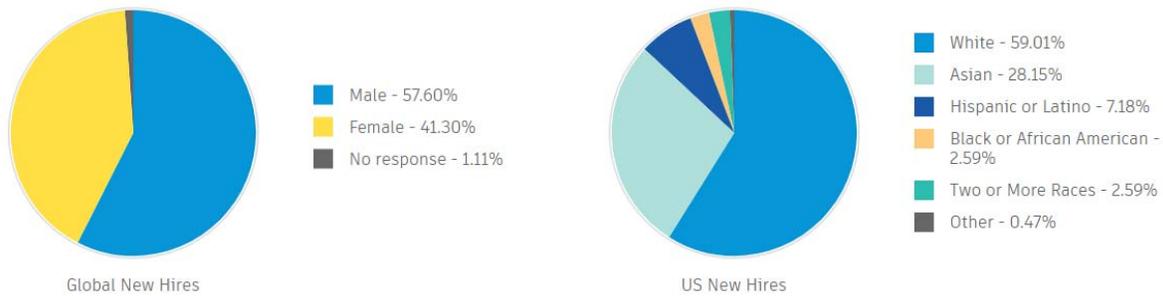
## Our workforce

Here's what our workforce looks like today.

### — OVERALL WORKFORCE



### — WORKFORCE HIRED IN LAST 12 MONTHS



CHARTS FROM AUTODESK'S DIVERSITY AND INCLUSION WEBSITE AS OF OCTOBER 2019  
[WWW.AUTODESK.COM/COMPANY/DIVERSITY-AND-INCLUSION](http://WWW.AUTODESK.COM/COMPANY/DIVERSITY-AND-INCLUSION)

### Elements of a Successful ERG

As previously defined, an ERG is an Employee Resource Group. I will tell this story from my perspective but do understand that this is just one experience. If you read nothing else in this section, please make sure that you take away this one piece of advice; ask around to folks that are in or have started an ERG before taking the leap. There are many different ways to go about the structure of the ERGs and their missions so I would recommend doing some research in this area and asking other folks what they have found to be successful as well.

Here is my experience. I approached our head of HR in 2017 to point out that we had not done anything for International Women's Day, MLK Jr Day, or other widely celebrated days of recognition in the US. At the advice of a friend, I researched ERGs and suggested to our HR lead that we introduce ERGs at VHB. The first milestone was a success because she was incredibly supportive and excited about the idea. Leadership buy-in has been the most important piece in bringing this idea to fruition over eighteen months. We discussed together whether we should try separate ERGs based on affinity groups or start with one ERG that addresses D&I for as many represented groups that we have at VHB. We decided on

the latter because we had no idea whether folks would want to join the ERGs and our diversity statistics indicated that we might not have the numbers to support targeted affinity groups across the company. We then set expectations and I was told this would be an employee-led initiative with support from leadership. We also discussed how, in addition to the ERG, there would be work from the corporate leadership team to look into policy changes where necessary.

At the same time, two other employees were approaching their HR contacts about starting a group around D&I at VHB. The three of us teamed up and with the support of HR, we put together a plan around launching the ERG of the organization. Our CEO helped us launch it via a companywide communication and he and our Chief People and Culture Officer spread the word at every office event they attended. At the first stockholder's meeting to take place after the launch of the ERG, we were invited to participate in the part of the agenda that was reserved for a presentation by the CEO, and breakout discussions, on D&I. No one could question where our leadership stood on the importance of D&I at our company and this was the next piece that fell into place and helped us gain traction.

### **Support**

VHB made sure we had access to our communication and graphics teams to help us brand our efforts and reach both our internal and external colleagues via social media. It is important that we communicate our efforts externally because part of our mission is to drive diverse recruiting. By making it known to prospective applicants that we value D&I, have an ERG for it, and are creating programming around it, we hope to attract more diverse applicants. It's equally important that our existing employees get communications around the ERG's programming as well for the sake of retention.

### **What We Have Accomplished with our ERG**

The goal of the ERG is to focus on education and awareness for the company and to act as a space where folks can discuss the topics around DE&I that are important to them. In fourteen months, we created internal and external facing awareness and educational campaigns that align with the "national \_\_\_ day/month". The following are a few of the major events we celebrated.

We started with Hispanic Heritage Month where we featured VHBers that identified as Hispanic and wanted to share their stories. Then we celebrated Veterans and Military Families month in November with an internal panel discussion and a social media campaign that highlighted some of our folks who identified as veterans, family members of veterans, or active service members and their families.

In February we celebrated Black History Month with an internal communication about notable black engineers in America and did a smaller social media campaign featuring black VHBers. March was Women's History Month and International Women's Day. One of our most attended events was a panel discussion with some of our women senior leaders at VHB. And in June we celebrated LGBTQ+ Pride month with rainbow flags in our offices for the first time, an external speaker who was an out lesbian teaching us all how to be happier, and an internal educational piece on why we were celebrating LGBTQ+ Pride month.

## Challenges

Leading an ERG comes with its own challenges. Engagement is difficult because people are so busy. We have over 140 members who have joined our Microsoft Teams group but at our monthly meetings, we have about 20 people that attend; 10-15 of whom are regulars. We haven't been able to pinpoint the exact reason for the low engagement and will likely send out a survey, now that it has been over a year, to get a better understanding of what our members want to get out of their involvement in the ERG.

Another challenge we face is in the kind of messaging we are allowed to discuss or promote across our company's footprint. Many of the topics that we discuss in this DE&I ERG are new or intimidating for folks. When we do programming that extends beyond our members and impacts the entire company, we have been met with "no's" from the leadership due to a concern that we might alienate some of our employees. The rate at which the organization wants to change might not always match our vision and expectations so it can be frustrating. This is where patience and persistence come into play. In order for anything to change, we have to continue to push for it even when it feels impossible. When I am met with these situations, I ask myself and others, "who are we trying to protect?" For true D&I to be successful, the answer should never be "the majority" or the people who already have the power.

As a baker, I thought I would have some fun and write out a recipe for success for folks that are looking to start an ERG. Given that the ERG I started is only fourteen months old, it remains to be seen how successful we are in the long term, but I do think that we have made some wonderful initial strides.

### Recipe: Start and Maintain your own ERG

#### Ingredients:

- 12 oz Good Quality Passion
- 8 oz Unwavering Dedication
- ½ cup Genuine Leadership Support
- 1 Tbsp Trust
- 1 tsp Dedicated Annual Budget
- chopped nuts (optional)

#### Instructions:

1. Find or be the passionate and dedicated person(s) in your organization
2. Mix together in a larger bowl with the genuine leadership support
3. With the mixer still running, gradually build trust between the ERG leaders and the organization's leaders
4. Swirl in the annual budget making sure to cover all of the educational and awareness initiatives for the year
5. Add the chopped nuts before baking, if using
6. Bake slowly on a low temperature – being careful not to rush the process or expectations

Without passion and dedication, a group like this cannot succeed. It is hard work with a lot of pushback, so you need people who are dedicated to seeing the goals through for it to remain active. The organization's leadership has backed us up and proven that they have a vested interest in our success. I

would challenge anyone who reads this, and is a leader at their organization, to support your ERGs with more than just words. If the ERG becomes a check box on a form that proves that D&I is important to your company, it will fail. The members will see through it and engagement will drop. And your employees – current and potential – will catch on if nothing at the company changes despite the presence of the ERG. If that happens, then the message you have sent is that you don't actually want your company to be more diverse or inclusive rather to give the illusion that it is.

### **Unconscious Bias Awareness**

Unconscious bias was mentioned in the survey results section and the reading recommendation section because it's a key piece of D&I. We all have biases – consciously or unconsciously – and we need to be aware of them so that we are actively working against them in our personal and work lives. First let's define unconscious bias and then talk about how to educate folks about it.

#### **What is Unconscious Bias?**

Unconscious bias – also sometimes called implicit bias – is what happens when we, without realizing it, favor or prejudice a person, thing, or group compared to another in a way that is usually unfair. These biases can have positive or negative consequences and are often held by individuals, groups, or organizations and institutions. Stereotypes about groups of people are unconscious biases.

Some examples of unconscious biases are:

- Always, or almost always, hiring people that graduated from your university or from certain universities and colleges only
- Assuming someone's political affiliation because of the color of their skin, where they live, their sexuality, etc.
- Preferring thinner candidates to fat candidates when interviewing job applicants
- The halo effect: when someone does something great once and you assume that everything else they do is also amazing.
  - We are all guilty of this. Think of a singer whose album you loved. Was the next album really all that good or have you just placed them on a pedestal?

Here's the thing about unconscious biases; we all have them. They may often be at odds with our values and can be more prevalent when we are stressed. That's why it's important that we deal with them instead of pretending they don't exist. By reading and listening more, especially to the perspectives of people that are different than us, we are exposed to more examples of unconscious bias. Awareness of the biases is the first step in combating them.

Education around unconscious bias is important because many folks don't even know they have these biases. And as we have discussed, they impact the hiring process, who is up for promotion, and the overall happiness and wellbeing of employees; especially those in marginalized groups.

I suggest that you hire a professional D&I consultant that can guide you through this process from inception to practice. Unconscious bias is not an easy subject, so hiring a professional consultant who has studied this topic can yield much more favorable results. Consider taking it one step further and instead

of a consultant, hire a full-time employee (or a few!) who is responsible for the organization’s D&I programs.

In an ideal world, every employee would be required to take unconscious bias training. However, some research shows that making it mandatory and calling it ‘training’ can have an adverse effect. I recommend anyone that is considering programs around unconscious bias read [this article about diversity training](#) written with the help of Harvard University Professor of Psychology Dr. Mahzarin Banaji. Dr. Banaji calls her sessions “educational seminars” so as not to align with the stigmas against forced training in the workplace.

These seminars or educational sessions should be tailored to your organization. The consultant or full-time diversity strategist can help you develop these sessions through a number of ways. But at the core, an understanding of the employees’ needs and perception of the organization is a must. This can be achieved through focus groups, as my company did, or via employee engagement surveys.

**What Not to Do: Pandering**

Social media and hashtags have become very powerful tools in marketing and influence. Many corporations have latched on to that power by pandering to their consumers with meaningless hashtags purporting to support groups of people. Or by changing their logos to incorporate a rainbow to celebrate Pride month. This is not a blanket statement that says you can’t change your logos to celebrate Pride month. The issue is when a company does this with the expressed interest in profiting off of that change. If you are not using your influence and profits to donate to LGBTQ+ organizations or otherwise benefit the LGBTQ+ community, then you are pandering.

The very brilliant and funny Katie Martell, a Boston based business-to-business (B2B) marketing truth-teller, published a blog article about this very issue. The following graphic is from her post about rainbow-pandering, specifically. But this definition can be applied to any marginalized community that has its moment in the spotlight. When businesses invoke quotes from MLK Jr or other civil rights activists, what are they trying to gain? And if that business donates to organizations that are racist or they themselves have been known to be racist toward employees or consumers, then their homage is meaningless other than to try to get some free publicity while the hashtag is trending.



EXAMPLES OF RAINBOW-WASHING FROM KATIE MARTELL  
[WWW.KATIE-MARTELL.COM/BLOG/2019/6/27/PRIDE-OR-PANDERING](http://WWW.KATIE-MARTELL.COM/BLOG/2019/6/27/PRIDE-OR-PANDERING)

Honestly, I have struggled with this issue when we do programming within the ERG. On the one hand, I want to celebrate an otherwise marginalized group of people but on the other, I have to ask, 'what we are trying to gain?'. I try to make sure that we are always coming from a place of awareness and education and never from a place of pandering. Before you align yourself with a national holiday, an influential activist, or a marginalized group of people, ask yourself:

- Who benefits most from this post, logo change, etc?
- Are we being hypocritical by aligning with or celebrating this group of people while not employing a significant number of people who identify as the celebrated group?
- Are we being hypocritical by aligning with or celebrating this group of people after we have had problematic relationships with them? (i.e. supporting International Women's Day while your male executive is accused of sexual harassment toward women)

When in doubt, do what feels genuine. If your hashtags or logo-change feel like a stretch, don't do it. There are ways you can celebrate internally with your organization without announcing it to the world. When you are pandering to your consumers, potential employees, or clients, the truth will come out. The internet has a way of flushing out the organizations that are genuine in their celebrating of a national holiday versus those that are simply trying to align with the next trending hashtag.

## **What to do Next**

We all love a good list of action items, right? Here is what you can start doing immediately. The order is intentional and will help you ease into this challenging but rewarding work.

### **Read All the Things**

Go to Appendix A and consult the list of recommended books. Also make sure to read through the articles and papers that were used as points of research for this handout and presentation. Don't forget that you can learn a lot from watching others converse in forums or on social media posts. The challenging piece is knowing when something is true or not so question everything. However, do pay close attention to when multiple people from the same marginalized community are speaking up about an important topic. That is not to say that everyone in that community will have the same lived experiences. However, you can usually stand to learn a lot by listening to each of those experiences, learning where the commonalities are, and asking yourself why that is.

### **Talk About What you Learned**

The best way to retain the information you learned and to spread that knowledge is by talking with others. The discussions don't always have to be productive in the moment. Sometimes you will find yourself debating lightly with the other person, but this is good. We need to be open to others' perspectives and that needs to be a two-way street.

It can be intimidating to talk about some of these topics so start with people you are comfortable with and who you can trust not to judge you if you say something that might be problematic. Use this time to practice humility and your ability to listen without getting defensive.

### **Join or Start an ERG at your Place of Employment**

Employee Resource Groups are wonderful spaces for folks to come together around topics that are important to them. The survey results show that 72% of respondents, whose place of employment have a D&I program, feel more included because of it. If that ERG can then influence change at the organization, then its members will feel even more included and less likely to look for work elsewhere. The sense of belonging and inclusion are keys to greater retention.

As a leader, join and/or support the ERG by encouraging employees to join and by stressing its importance in your organization. Your influence and the value you bring to the group are very important.

## Do the Work

This is where you take everything you have learned and put it into action.

- Hire a professional D&I consultant
- Develop and distribute the employee engagement survey
- Hold sessions to educate your employees on unconscious bias
- Implement policy changes that promote diversity and inclusion
- Change your hiring and recruiting practices
- Set hiring and recruitment goals that prioritize bringing diverse candidates into the company
- Can you modify the criteria that you ask for in your job applications to reflect a more diverse pool of candidates?

Our industry and the people we serve (everyone!) are counting on us to get this right. We can solve much of our infrastructure issues, transit problems, and economic vitality through city planning with smarter teams. The way to get there is to diversify our teams to ensure that we are considering more than one perspective. Our teams also benefit from higher retention and one key element to increasing retention rates is that sense of belonging. If we take D&I seriously in the AEC industry, we will see higher rates of retention, smarter designs, and truly innovative solutions to the world's changing problems.

## **Appendix A – Book Recommendations**

Coates, T.-N. (2017). *Between the world and me*. New York: Spiegel & Grau.

DiAngelo, R. J. (2019). *White fragility: why its so hard for white people to talk about racism*. London: Allen Lane, an imprint of Penguin Books.

Eddo-Lodge, R. (2017). *Why I'm no longer talking to white people about race*. London: Bloomsbury Circus.

Irving, D. (2014). *Waking up white: and finding myself in the story of race*. Cambridge, MA: Elephant Room Press.

Oluo, I. (2019). *So you want to talk about race*. New York: Seal Press.

Taylor, K.-Y. (2017). *How we get free: black feminism and the Combahee River Collective*. Chicago, Illinois: Haymarket Books.

Wilder, C. S. (2014). *Ebony & ivy: race, slavery, and the troubled history of Americas universities*. New York: Bloomsbury Press.

### **The “Lighter” Reading**

Bennett, J., Wariner, S., & Campbell, H. F. (2017). *Feminist fight club: an office survival manual (for a sexist workplace)*. New York: Harper Wave, an imprint of HarperCollins Publishers.

Robinson, P. (2016). *You cant touch my hair: and other things I still have to explain*. NY, NY: Plume Book.

Solnit, R., & Fernández Ana Teresa. (2015). *Men explain things to me*. Chicago, IL: Haymarket Books.

West, L. (2017). *Shrill*. New York: Hachette Books.

## Appendix B – Research Resources

General D&I

### Microaggressions:

[Examples of Racial Microaggressions](#)

### Statistics:

[NCSES – Women, Minorities, and Persons with Disabilities in Science and Engineering](#)

Society of Women Engineers (SWE) [Research](#)

Diversity and a Sense of Belonging Matter

### Retention:

[The Zweig Letter: ElevateHer](#)

McKinsey & Company: [Why Diversity Matters](#)

WorkHuman - [The ROI of Inclusion and Belonging](#)

Diverse Perspectives Lead to Better Designs

BCG – [The Mix that Matters; Innovation Through Diversity](#)

Forbes – [Diversity, Innovation and Opportunity: Why You Need a Diverse Product Engineering Team](#)

Re:Work - [Creating A High-Trust, High-Performance Culture](#)

Re:Work – [Guide: Understand Team Effectiveness](#)

[The Unfortunate History of Racial Bias in Photography](#)

[How Diversity Makes Us Smarter](#)

Fostering a Diverse and Inclusive Work Environment

### Unconscious Bias:

Lattice – [How to Reduce Unconscious Bias at Work](#)

UCSF Offices of Diversity and Outreach - [Unconscious Bias](#)

Talent Culture – [The Truth About Unconscious Bias in the Workplace](#)

Social Talent – [9 Types of Unconscious Bias and the Shocking Ways They Affect Your Recruiting Efforts](#)

[Outsmarting Human Minds](#) – from Dr. Banaji at Harvard University

Outsmarting Human Minds – [Traditional Diversity Training is Out. Now What?](#)

[The Stroop Test – YouTube](#) (5min)

Re:Work – [Guide: Foster an Innovative Workplace](#)

The Zweig Letter – [Cultural Fit vs Cultural Add](#)

Harvard's Project Implicit: Implicit Association Test (IAT) to help you identify where your biases are -

<https://implicit.harvard.edu/implicit/takeatest.html>

### Employee Engagement Surveys

Harvard Business Review – [Employee Surveys Are Still One of the Best Ways to Measure Engagement](#)