Equity, Diversity and Inclusion in A/E/C/D:

An Industry Overview

by

DesignIntelligence®

Sponsored by

Tarkett

Letter of Introduction

There are few topics of greater importance to firms and organizations in architecture, engineering, construction (A/E/C) and design for the built environment than talent. What is a professional service firm other than the people who populate it? In order to remain relevant, the A/E/C and design professions must keep pace with the growing diversity of society, clients, and building users. As an industry, we have fallen far too short of this goal for far too long.

Equity, Diversity and Inclusion in A/E/C/D: An Industry Overview is the first step in a much broader initiative that is sponsored by Tarkett and supported by DesignIntelligence and IIDA. The full program will include additional research, active cultivation of a public discussion, and the development of programs to help professional service firms in A/E/C and design to create positive change in the culture and composition of their organizations.

As a first step, the report is an overview of the landscape of equity, diversity and inclusion in A/E/C and design. At its heart are two questions: what applied research has been conducted so far, and what is being done to create positive change? Its primary job within the broader scope of the initiative is to raise additional questions that can guide future research and the development of actionable insights.

Our focus began with A/E/C and design but grew to include knowledge and examples from other relevant industries. The specter of missing something important accompanies researchers on their journey through any project. This is particularly true in the case of complex subjects, and there is far more to cover than we captured here.

It is our hope that this report and the wider program will help broaden the view of what is possible and accelerate progress toward a more equitable, diverse and inclusive industry.

From the researchers and editors at DesignIntelligence

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Equity –justice according to natural law or right specifically; freedom from bias or favoritism

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

Inclusion – the act of including; the state of being included

Commonly heard at conferences, meetings and even the proverbial water cooler, are conversations about a major problem in the design industry today: equity, diversity and inclusion. Over the last 50 years, discussions have grown concerning the presence–or lack thereof–of minorities and women in A/E/C. Yet in those five decades of discussion, a single solution has yet to be found. Private firms and professional associations alike are still searching for the best strategies to help them increase equity amongst their workforce. (And sadly, it seems, there are still organizations that are failing to take any actions at all.)

For those looking to increase their diversity, the available information can seem overwhelming or even confusing. Because of this, Tarkett has partnered with DesignIntelligence to conduct a secondary research study and determine not only what information is currently available, but also what themes can be found within that information, and what is still missing.

INTRODUCTION

The Diversity Problem

As with any study, the first step is to identify the problem. In our case, the problem is one facing organizations around the country and globe: how do we improve diversity? Yet that question alone is not enough. To really understand the situation, it is crucial to dive deeper.

Several recent studies have found that the A/E/C field in particular struggles with hiring and retaining a diverse workforce. According to the US Census in 2010, the architecture field is 78% Caucasian. This makes it, as Brenden Jackson wrote for [GenslerOn](#), "among the least diverse professions in America." Why? Why do the demographics of firms and associations differ from the communities they serve and the nation as a whole? These questions bring up questions of barriers to employment and access to opportunities.

In addition, diversity itself takes many forms. Some aspects of diversity can be considered "visible" in that they are easier for an outsider to identify, such as gender or age. Yet others fall into the "invisible" aspects of diversity, such as veteran status or sexual orientation. In its industry roundtable report from 2016, IIDA refers to "inherent" traits (gender, race) and "acquired" traits (veteran status, worldview). How can organizations address both types of diversity?

Equally as challenging is determining how to define and measure the solution to the problem. What does the future of diversity in A/E/C look like and how can we measure success? The answer will largely depend on the organization.

"... diversity traits fall into two camps: inherent—those we were born with (gender, race)—and acquired, referring to characteristics like work style and worldview that are shaped by our life experience. Studies reveal that organizations are at their best, operating at maximum creativity and critical thinking, when they have both types of diversity in their ranks. One or the other is not good enough." — [*IIDA Industry Roundtable Report, 2016*](#)
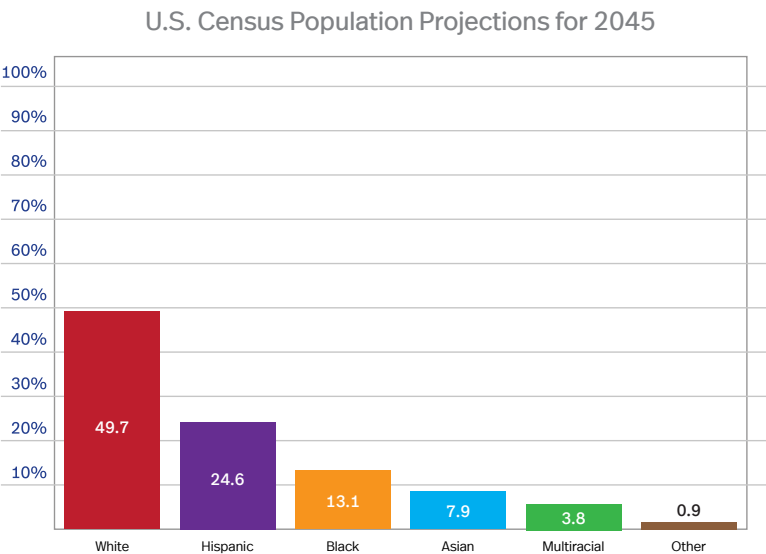
Our Study

What is clear is the need for firms to diversify their workforce to stay relevant to an increasingly diverse market (see the Research section for more detail). However, to take on such a broad endeavor is no small feat. Ideally, diversity will eventually become part of a firm's culture, its standard operating procedure. But how do they get there?

To these ends, DesignIntelligence has conducted a secondary research project to better understand the current diversity and inclusion landscape within the A/E/C and design fields. The goal of the project is to create an inventory of the existing non-academic research into diversity and inclusion, as well as interventions (meaning actions undertaken) to promote positive change. These interventions include such methods as partnering with nonprofits or educational institutions, hosting events and gatherings to discuss diversity issues, implementing internal policies to promote inclusion, advocating, inspiring or assisting future designers through education and scholarship, mentorship programs, and recognizing those who excel in encouraging diversity.

DesignIntelligence has examined research published and interventions undertaken by A/E/C and design organizations, as well as non-profit and professional associations. Additionally, to understand what fields outside of A/E/C and design are doing to confront the issues surrounding diversity, we also researched human resources and talent organizations, consulting practices, and think tanks.

Ultimately, this inventory will create more context for understanding diversity in the design and construction professions today. It highlights important themes, issues and concepts that are critical for any firm hoping to be more inclusive and equitable. It will also identify gaps in our current knowledge. Based on the findings of this paper, a steering committee made up of members from Tarkett, IIDA and DesignIntelligence, as well as leaders in architecture, engineering, construction, design and building product manufacturing, will determine subsequent research projects.

U.S. Census Population Projections for 2045

White 49.7	Hispanic 24.6	Black 13.1	Asian 7.9	Multiracial 3.8	Other 0.9

Source: U.S. Census Bureau, Brookings Institute

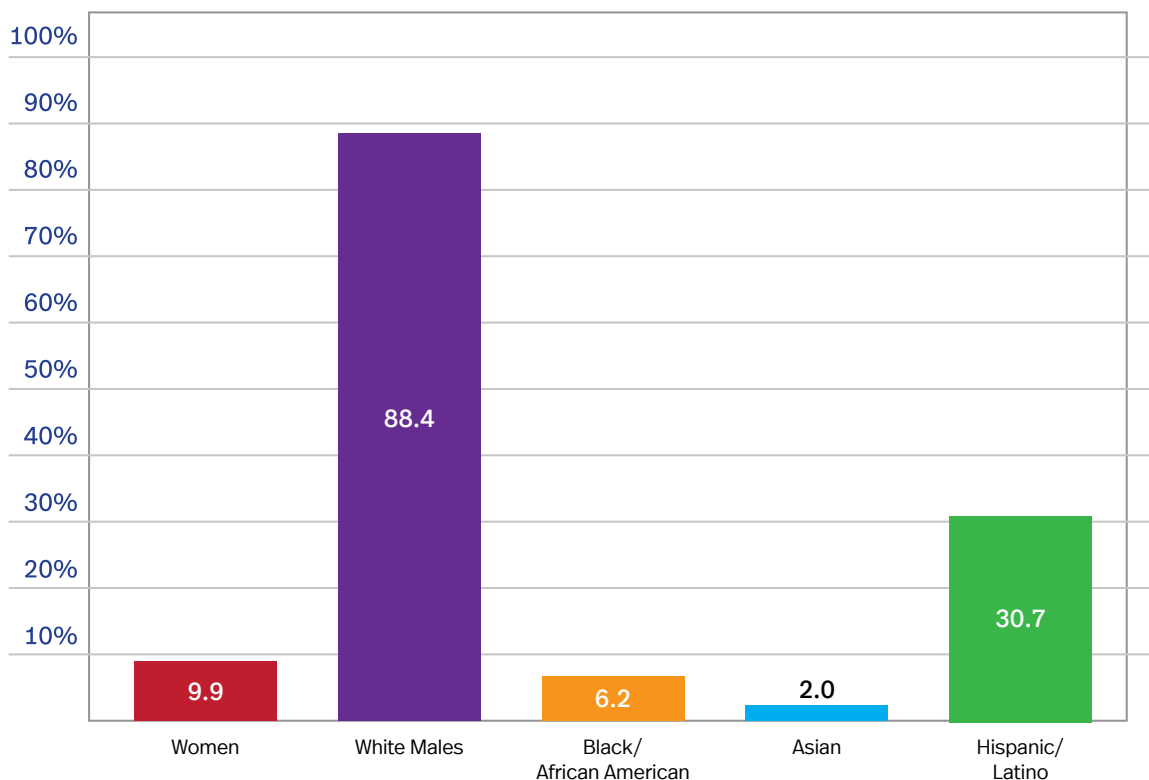# RESEARCH

Research–What Do We Know?

Before we can examine what design firms and organizations are doing about the lack of diversity in the industry, we have to understand the state in which they are currently operating. In essence, how bleak is the outlook? Studies and statistics from the last few decades paint a picture of small change, with much greater change still needed.

Businesses are not alone in trying to understand this problem. The Annual Review of Psychology, as well as the Annual Review of Organizational Psychology and Organizational Behavior, have published several articles in the last few years examining equity, diversity, and inclusion. As one such article noted,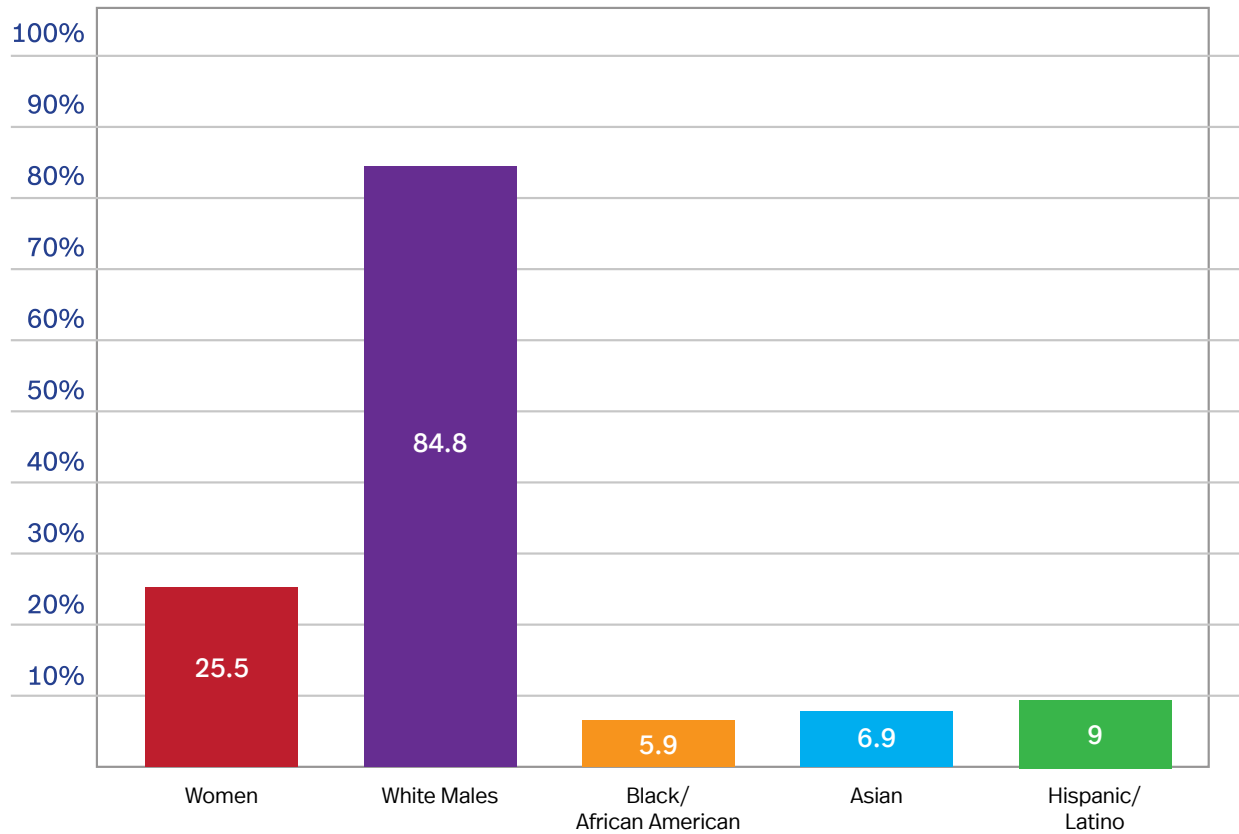 "Fueled by socioeconomic trends that changed the composition of organizational workforces, the term workforce diversity was coined in the 1990s. Since then, both researchers and practitioners have strived (and struggled) to understand the concept, its effects in and on organizations, and strategies for managing such effects."

The research we uncovered from organizations like AIA, Harvard Business Review, Deloitte, McKinsey & Company and others can be divided into those focused chiefly on women in the workplace, other studies on diversity, root causes of the lack of diversity, the impact of diversity on business, and why diversity programs sometimes fail.
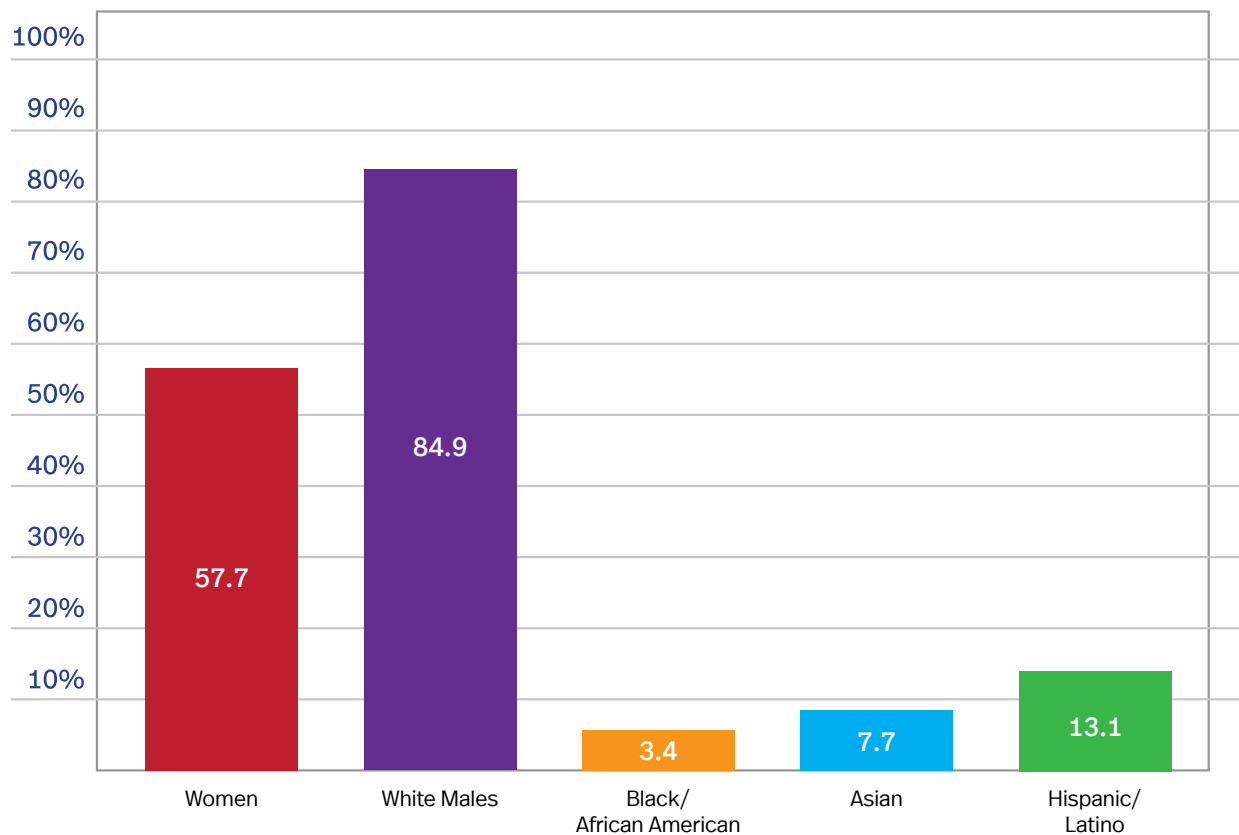
U.S. Bureau of Labor Statistics
Construction

Category	Value
Women	9.9
White Males	88.4
Black/African American	6.2
Asian	2.0
Hispanic/Latino	30.7

U.S. Bureau of Labor Statistics
Architectural, Engineering and Related Services

Women	White Males	Black/ African American	Asian	Hispanic/ Latino
25.5	84.8	5.9	6.9	9

U.S. Bureau of Labor Statistics
Specialized Design Services

Women	White Males	Black/ African American	Asian	Hispanic/ Latino
57.7	84.9	3.4	7.7	13.1

Women in Business

The vast majority of the diversity studies we found dealt with the issue of gender parity and inclusion. This issue is particularly relevant in today's society, with efforts like Time's Up and #MeToo bringing greater attention to the experiences of women in the workplace. Yet it is also a divisive topic; for example, a survey conducted by AIA found that while most women believe they are underrepresented in the architecture industry, men are much less likely to say that gender disparity is a problem at all.

Worldwide management consulting firm McKinsey & Company has devoted a series of studies specifically to the issue of women in the workforce. They note in one review essay that women generate only 37% of the global GDP, despite making up half the population. The review also notes that if the gender gap were narrowed, the global GDP could increase by $12 trillion by 2025.

Global talent consultancy Heidrick & Struggles examined the issue, and along with other research, published a presentation on their website with the data and recommendations. They found that despite efforts in recent years, women still lag behind in business, particularly in executive teams. On a positive note, only 12 of the Fortune 500 companies have no women on their executive boards. However, only three companies out of the 500 have actual gender parity on their boards. At this rate, women will not hold an equal number of positions with men until 2025. (The presentation's recommendations are discussed later.)

A 2018 article called "Women in the Workplace" from McKinsey & Company and LeanIn.Org opened with a shocking quote: "Progress on gender diversity at work has stalled. To achieve equality, companies

must turn good intentions into concrete action." Their research drew from 279 businesses and surveys of more than 64,000 people. They found that for the fourth year in a row, women were underrepresented in senior management to such a degree that it could not be explained simply by retirements and resignations. Additionally, for every 100 men promoted to management positions, only 79 women were promoted. Moreover, two-thirds of women reported experiencing microaggressions from their male colleagues, and women of color were especially likely to experience the behavior. Lastly, one in five women report being an "only," meaning the only woman at their management level.

In 2018, a committee called Equity by Design (EQxD), which was started several years before by the AIA San Francisco chapter, released the results of a survey of more than 14,000 architecture alumni around the country. The goal was to "identify how equitable the design profession [is]." It is the largest data set collected to date of the architecture profession. The committee

is set to release their findings based on the data in early 2019, though they did remark at the 2018 EQxD symposium that white women are making progress in taking more leadership positions and closing the pay gap. Women of color, though, are still not seeing "movement in a positive direction." They also found that women with master's degrees are still on average making less than men with bachelor's degrees at every level of an organization.

This data is supported by surveys conducted by the Girl UNinterrupted project. The goal of the project was to focus on "bridging the gap between emerging professionals and leaders in the field." According to surveys conducted in five major cities in 2017 and 2018, women typically earn smaller salaries than men, particularly at the start of their careers and after 10 or more years. Survey respondents in Boston noted that in the first two years of their careers, 35% of women earned between $40,000 and $50,000, but 49% of men were earning the same salary in that period. After 10 years, 58% of women were earning more than $81,000

U.S. Bureau of Labor Statistics
Percent of those over 20 who are employed
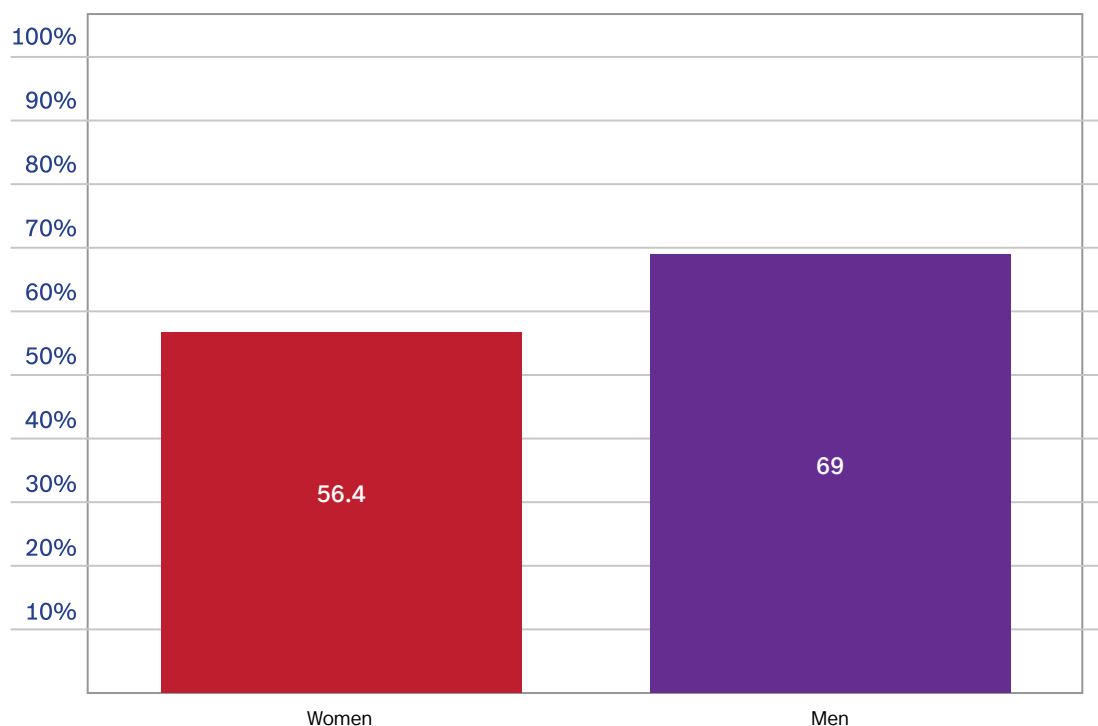
annually. For men, that number is 86%. One exception to this finding was in Los Angeles, where 47% of women reported earning $56,000–$60,000 starting out, while 57% of men reported earning $31,000–$45,000.

Of course, the lack of gender inclusion and pay parity is not limited to one industry or another, but rather a continuing global phenomenon. As one Rand publication points out, the technology industry is one of the worst in terms of female inclusion. Women make up only 30% of the workforce in the technology sector, and only 20% of graduates in IT are women. As the article notes, "just 9% of senior IT roles are held by women." Another article published by CNBC noted that a survey of nearly 4,500 CIOs found that there has been little change in the amount of female leadership in IT, despite many companies adopting diversity initiatives. Both of these reports used data from a Harvey Nash and KPMG study in 2017. As the tech industry tackles issues of diversity and inclusion, it might behoove design and architecture firms to watch their actions and results.

Global recruitment and management consulting firm Egon Zehnder created the Global Board Diversity Tracker to study diversity on company boards for the last 14 years. They note that "more and more women are joining boards—but that the progress is both insufficient and inconsistent." Many countries now have females on the boards of their top traded companies, but the majority do not. Still, "just 5.6 percent of all board seats are held by women in leadership roles." They note that quotas are somewhat effective in improving this situation, but only until the goal is reached—from there, few companies aim to surpass it.

In January 2018, McKinsey & Company released a study of organizations in Australia that are working to increase gender diversity. As with U.S.-based studies, progress toward gender equity in Australia is slow—the average annual growth rate for females entering leadership roles is just 2.8%. However, the study was able to isolate 10 practices of organizations that were decreasing the gender disparity:

- Build a strong case for change.
- Role-model a commitment to diversity, including with business partners.
- Redesign roles to enable flexible work and normalize uptake across levels and genders.
- Actively sponsor rising women.
- Set a clear diversity aspiration, backed up by accountability.
- Support talent through life transitions.
- Ensure the infrastructure is in place to support a more inclusive and flexible workplace.
- Challenge traditional views of merit in recruitment and evaluation.
- Invest in frontline-leader capabilities to drive cultural change.
- Develop rising women and ensure experience in key roles.

Other Studies on Diversity

Curiously, while a large number of studies have been conducted about women in the workplace, our research found far fewer sources that isolated other dimensions of diversity, such as race, ethnicity, age, sexual orientation or people with disabilities. The studies that we found focused almost entirely on two topics: women and gender parity, or diversity broadly (as evidenced in the Business Case for Diversity section).

In 2015, the AIA published the results of an industry-wide survey they conducted, called "Diversity in the Profession of Architecture," which provided both statistical data and information on common perceptions. The survey covered issues of gender inclusion, but also the struggles of people of color and other minority groups. The report found that most people, despite gender or ethnicity, agreed that minorities were underrepresented in architecture firms around the country. The survey also noted that women and people of color both believed they were less likely to be promoted and more likely to be paid less than their white male counterparts.

A report by Heidrick & Struggles published in December 2018 points out that organizations frequently talk about increasing diversity in terms of gender, ethnicity, age or sexual orientation. But few make a point to include people with disabilities in that equation. They note that although three in 10 employees have a disability, "to succeed, many leaders with disabilities have had to hide their disability and its extent for as long as possible." They argue that the inclusion of people with disabilities deserves much greater attention across industries.

The U.S. government's Bureau of Labor Statistics tracks many aspects of the country's labor force, including demographic information such as age, disability, race, ethnicity, veteran status and gender. Clearly, there are many other avenues to explore in this field of research. Would a study specifically on one group be important? Or should future studies focus on intersectionality? These questions warrant further consideration.
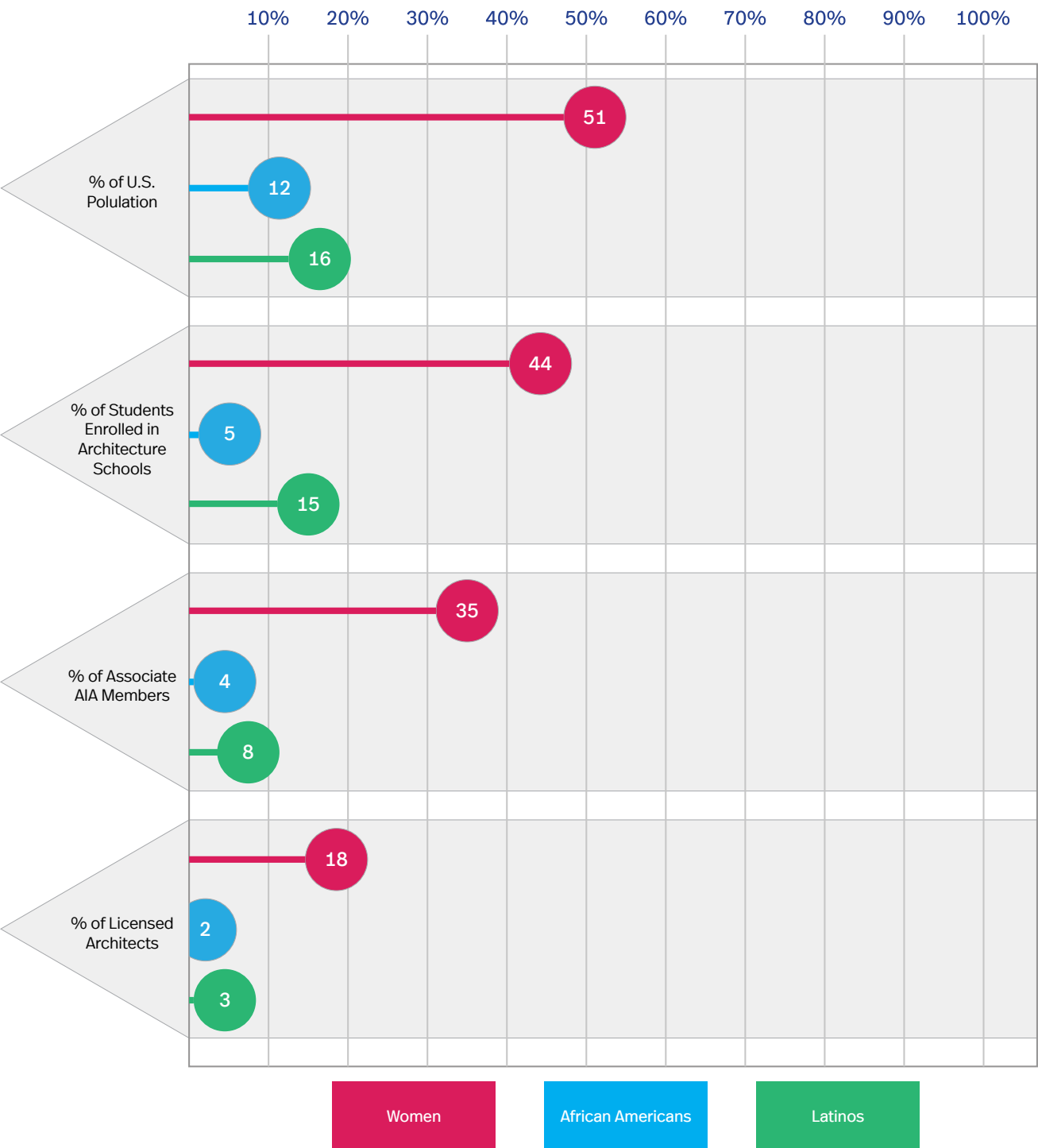
"Bias—explicit or implicit—creates circumstances that impede working relationships, lead to exclusion, contribute to unfair advantages of certain groups, and limit the benefits of diversity, inclusion, and equity."—AIA Guides to Equitable Practice

Root Causes

Also conspicuously absent from our findings is a thorough discussion of the problem of bias, particularly in hiring and promotion. No study that we found specifically examined the history or scientific basis of bias in the workplace and the role it plays in preventing diverse groups from achieving equity and

The AIA Diversity in the Profession of Architecture Report

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

% of U.S. Polulation
- Women: 51
- African Americans: 12
- Latinos: 16

% of Students Enrolled in Architecture Schools
- Women: 44
- African Americans: 5
- Latinos: 15

% of Associate AIA Members
- Women: 35
- African Americans: 4
- Latinos: 8

% of Licensed Architects
- Women: 18
- African Americans: 2
- Latinos: 3

Legend:
- Women
- African Americans
- Latinos

inclusion. Almost universally, in both the research and interventions, bias is an unspoken assumption. It seems that both organizations and researchers consider bias (unconscious or otherwise) to be one of the fundamental root causes—if not THE cause—for today's lack of diversity. However, we did not uncover any deep research into how bias specifically impacts organizational hiring and promotion.

Nevertheless, some recent surveys of industry professionals did focus on perceived reasons for the lack of diversity in design, as well as employment more broadly. The AIA's "Diversity in the Profession of Architecture" asked survey respondents to list what they believed to be the root causes for the lack of diversity in their organization. In the case of gender equity, the most common explanations were concerns for work-life balance and a lack of flexibility. Others mentioned lower pay, a lack of female role models, fewer opportunities, and trouble returning to the field after having children.

In comparison, the hypotheses given for the lack of minority representation in the industry include:
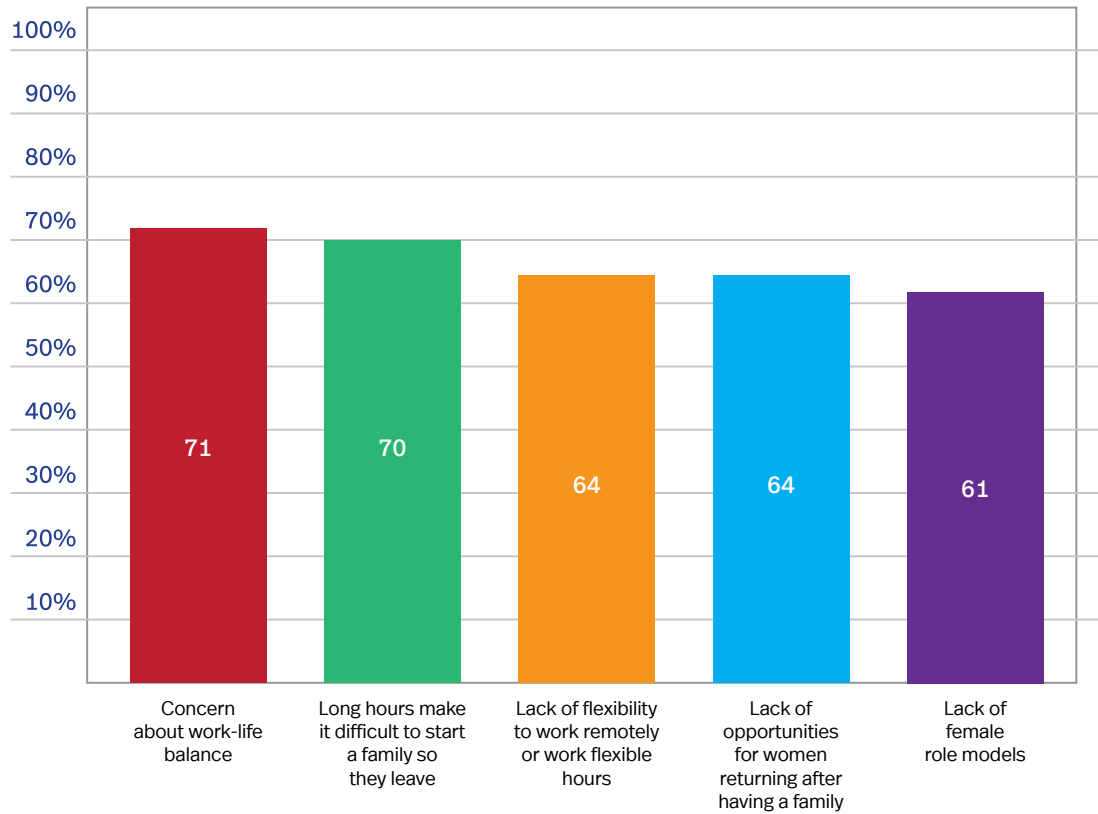
difficulty for many minorities (especially those in inner cities) in affording college degrees in the field, a lack of role models, a lack of awareness of the field, and a need to enter into careers with higher earning potential to support parents and families. The study also notes that both women and minorities report lower job satisfaction that white males.

Talent acquisition and management software firm ClearCompany published an article in 2016 (which they updated in 2017) with incredible statistics concerning diversity and equity in business. They found that 57% of employees think that their company should have greater diversity, and 40% of people believe there is a double standard when hiring women. They also provide a few statistics demonstrating why diversity continues to be a problem. They found that African Americans are 16% less likely to be invited for job interviews, and a study by Harvard and Princeton noted that when using blind applications, women were five times more likely to be hired. These figures clearly make the argument that the hiring process is a barrier for diverse candidates.

"In the competition for talent, companies are struggling to attract and retain skilled employees. From 2017 to 2027, it's predicted the U.S. will face a shortage of 8.2 million laborers—the most significant deficit in the past 50 years."— Gensler Research Institute
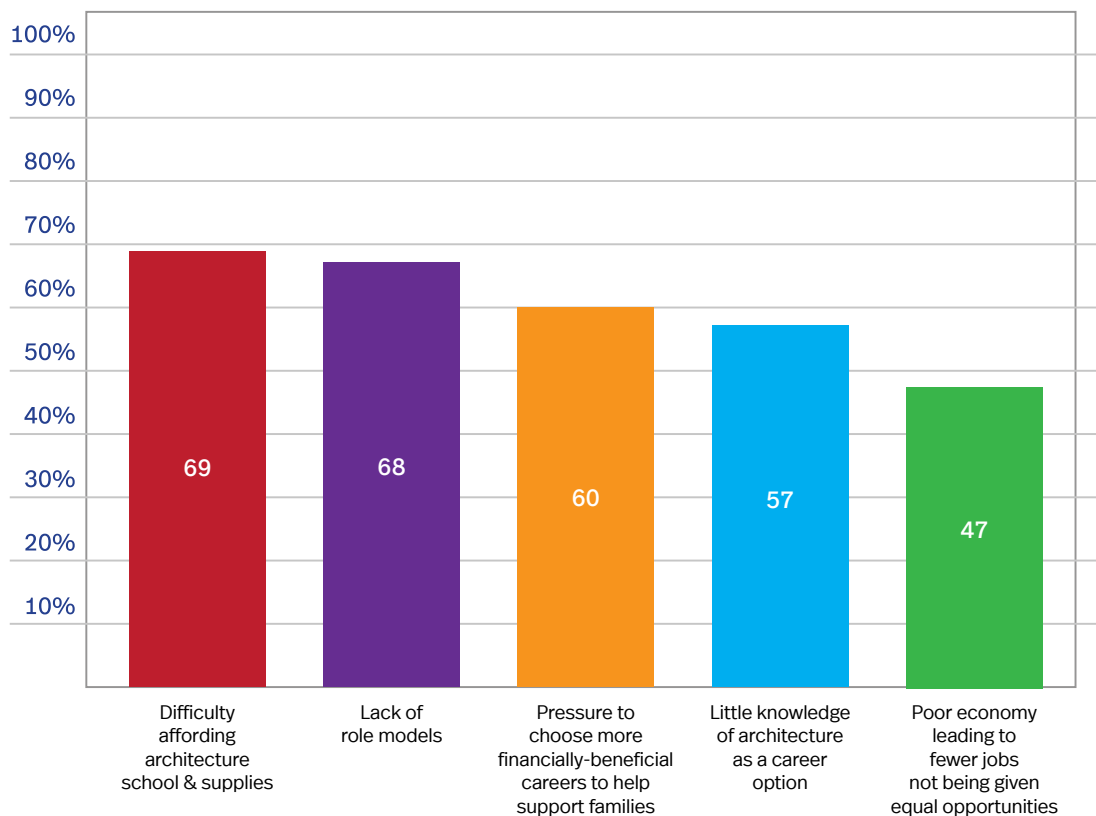
The AIA Diversity in the Profession of Architecture Report
Perceived Factors Contributing to Underrepresentation of Women

Concern about work-life balance	Long hours make it difficult to start a family so they leave	Lack of flexibility to work remotely or work flexible hours	Lack of opportunities for women returning after having a family	Lack of female role models
71	70	64	64	61

The AIA Diversity in the Profession of Architecture Report
Perceived Factors Contributing to Underrepresentation of People of Color

Difficulty affording architecture school & supplies	Lack of role models	Pressure to choose more financially-beneficial careers to help support families	Little knowledge of architecture as a career option	Poor economy leading to fewer jobs not being given equal opportunities
69	68	60	57	47

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The Business Case for Diversity

In addition to the research into the actual state of diversity, many firms and organizations have undertaken studies to see what impact diversity and inclusion have on a business. Based on these various works, it becomes clear that not only is diversity a moral and ethical obligation for today's society, it also improves business performance.

(For those needing a more concise summary, Michelle Kim compiled a list of research data supporting the "business case for diversity" argument in 2018 for Medium's Awaken blog. Awaken focuses their efforts on diversity workshops and other services.)

In 1990, Harvard Business Review published an article by R. Roosevelt Thomas, Jr. called "From Affirming Action to Affirming Diversity." In it, Thomas writes that the problem of diversity is not failing to hire women and minorities, it is what he calls "premature plateauing." He says that after they are hired, women and minorities "plateau and lose their drive and quit or get fired. … their managers' inability to manage diversity hobbles them and the companies they work for." While more recent studies might disagree with the notion that there is nothing wrong with hiring processes currently, they would agree with another of Thomas's assertions: "Learning to manage that diversity will make you more competitive" because the American population is already diverse. Similarly, a 1991 study by the Academy of Management called "Managing Cultural Diversity: Implications for Organizational Competitiveness" noted that managing cultural differences within an organization has a direct link to competitiveness in business.

Nearly 20 years later, a new wave of research was published that made a case for diversity in business. The American Sociological Association published a study claiming that diversity is one of the key predictors of sales revenue. The study, called "Does Diversity Pay? Race, Gender, and the Business Case for Diversity" found that "companies reporting the highest levels of racial diversity brought in nearly 15 times more sales revenue on average than those with the lowest levels of racial diversity." The following year, a study by Katherine W. Phillips, Katie A. Liljenquist and Margaret A. Neale in the Personality and Social Psychology Bulletin looked into the connections between diversity in the workplace and innovation. Though this idea had been commonly assumed, this was the first study to demonstrate concrete links.

An influential study published by professional services network Deloitte in 2013 provided even more evidence for diversity's positive impact on business performance. They found that when employees believed their organization supported diversity and made them feel included, the ability to innovate increased 83%. Diverse and inclusive teams were found to be 31% more responsive to customer needs and 42% better at team collaboration. That same year, the Center for Talent Innovation issued a report called "Innovation, Diversity, and Market Growth," in which they found that employees working for companies with both innate and acquired diversity were 70% more likely to report that they captured new markets. Even more staggering, when teams have at least one member representing the target audience or end user (in age, gender, ethnicity or sexual orientation), the team reported feeling up to 158% more likely to understand the target.

Yet, as a 2014 Deloitte article explored, most businesses were not capitalizing on diversity as a business benefit. They found that 61% of employees were "covering" some aspect of their background or personal life to better fit in with the organization. Deloitte spoke of business diversity not as an option, but an "imperative." That same year, Stephen Frost published his book "The Inclusion Imperative," in which he argued that "discriminating against women, homosexuals, and disabled people is costing $64 billion a year in the U.S. alone." He also argues for using a similar method for inclusion as the one developed for the 2012 Olympic Games in London.

One of the most widely cited studies of the business case for diversity that we saw during our research is a 2015 study published by McKinsey & Company, "Diversity Matters." In it, they found that companies with the greatest gender diversity earn up to 15% more than the median, and those with the greatest racial and ethnic diversity earn up to 35% more than the median. They also found that only 3% of companies in the United States have senior leadership teams that reflect the demographics of the country.

By 2017, it seemed that companies were starting to make small, but noticeable, changes. Nordic financial group Nordea analyzed 11,000 publicly traded companies for more than eight years and published the results. They found that companies with female CEOs or a female head of the board of directors realized more than double the annualized returns than the global average (25% compared to 11%).

By that year, diversity and inclusion initiatives had become a key issue for more than two-thirds of the executives surveyed by Deloitte for their "Global Human Capital Trends" study. Boston Consulting Group published research that argued that businesses have a statistically significant impact on society, especially when it comes to elements like hiring practices and job creation.

Finally, in January of 2018, both Deloitte and McKinsey & Company published important updates to their research. McKinsey & Company issued a follow-up to their 2015 study, titled "Delivering Through Diversity," which added even more support to the idea that diversity is linked to positive financial performance. They also note that ethnic and cultural diversity on executive teams remains low, despite efforts to the contrary.

Of 1,000 companies studied, those in the top quartile for executive-level gender diversity were 21% more likely to outperform 4th* quartile companies in long-term value creation.*
— "Delivering Through Diversity," McKinsey & Company

The recent Deloitte article, "The Diversity and Inclusion Revolution: Eight Powerful Truths," served as both a of review of current research and a case study on what seems to be working. They examined 50 companies around the world, totaling more than one million employees. In particular, they highlight the case of Qantas airlines, which turned itself around after major losses in 2013—and they largely credit diversity for the change. Using their responses and major research studies, they established eight "powerful truths" about diversity and inclusion:

- Diversity of thinking is the new frontier
- Diversity without inclusion is not enough
- Inclusive leaders cast a long shadow
- Middle managers matter
- Rewire the system to rewire behaviors
- Tangible goals make ambitions real
- Match the inside and the outside
- Perform a culture reset, not a tick-the-box program

Many design firms have adopted this language of the "business case" for diversity in their organizations. For example, the Design Management Institute, Gensler, ASCE, Perkins + Will, AECOM and AGC all devote space on their website to acknowledging that diversity is good for business. Similar statements can be found on the sites of human resources and consulting organizations like the Society for Human Resource Management.

Why Are We Failing?

Yet many of these studies we found also acknowledge that the pace of change is very slow, and that companies are regularly not meeting targets for increased diversity. An article published in the Harvard Business Review in 2016 noted that most diversity programs are not having any measurable impact on the problem. In "Why Diversity Programs Fail," authors Frank Dobbin and Alexandra Kalev published the results of 30 years of data gathering from 800 U.S. companies. They note:

Despite a few new bells and whistles, … companies are basically doubling down on the same approaches they've used since the 1960s—which often make things worse, not better. Firms have long relied on diversity training to reduce bias on the job, hiring tests and performance ratings to limit it in recruitment and promotions, and grievance systems to give employees a way to challenge managers. … Yet laboratory studies show that this kind of force-feeding can activate bias rather than stamp it out.
— "Why Diversity Programs Fail"

Instead, the authors recommend greater management engagement and training, voluntary training for other employees, and programs like mentoring, diversity task forces, and greater college recruitment of minority groups. These actions, they argue, are more likely to encourage positive diversity change than attempts to suppress unconscious bias.

The 2017 Deloitte study mentioned above found that education and training is not enough to create meaningful change within an organization, noting that instead firms should "focus on measurement, transparency, and personal accountability." In their 2018 article in the Annual Review of Organizational Psychology and Organizational Behavior, authors Karen S. Lyness and Angela R. Grotto look at the limited success of diversity programs on improving the gender pay gap. Similarly, an article by global executive search and leadership consulting firm SpencerStuart called "The Culture Factor" discusses how culture is one of the most influential factors in the success of an organization. Firms whose cultures emphasize flexibility also typically place more emphasis on diversity.

Conversely, the ClearCompany article mentioned earlier provided another staggering statistic related to diversity in business: according to a survey conducted by the Society for Human Resource Management in 2016, 41% of managers say they do not implement diversity programs because they are "too busy."

Observations & Questions

- Generally, our research uncovered far more intervention programs than applied research efforts. More information to support better understanding of equity, diversity and inclusion might be found in academic literature, which was beyond the scope of this study.

- Of the research we found from professional organizations, private firms, educational publications and think tanks, a substantial majority focused on gender issues in the workplace. Other studies tended to consider a much broader scope of diversity generally (rather than considering a different single dimension of diversity, such as race or ethnicity). Which approach—focusing on a single dimension or considering a broader set of dimensions—provides more insight? Would the industry be better served by a combination?

- Many of the studies note that progress toward increasing diversity is slow, and that meeting diversity goals is a challenge. What is a reasonable timeframe for expecting notable results? What are the social, organizational, and psychological factors that slow change? How could we increase the pace of positive change?

- When considering why we are failing as an industry to diversify at the rate of society, many sources recommended actions and approaches that are already in place. What other approaches might work better?

INTERVENTIONS

Interventions

Knowing that the lack of diversity is a challenging problem to solve, and that many traditional ideas about increasing diversity are not working, what are firms and organizations doing now to spark change? The other half of our research was devoted to discovering and cataloging what people are doing in the present to encourage and celebrate diversity. We examined professional associations such as AIA, IIDA, ASIS, ASLA, ASCE, ABC, AGC, ASME, NOMA, and others. We also looked into private firms, including the top 25 "giants" in the industry, as ranked by the [Interior Design Research Group](). For perspective, we also considered the actions of consulting and human resources groups, such as the SHRM, McKinsey & Company, Egon Zehnder and ClearCompany.

The picture painted by these institutions is not altogether clear, though there are reasons to be optimistic. For nearly every type of intervention, we found several firms and associations engaged in that effort. However, most companies limit themselves to one or two types of interventions, and most have not created measurable goals to track their progress. While there are a few shining stars who appear to be devoting great time and resources the issues of diversity and inclusion, many are doing far less.

Goals & Measures

As we conducted our research into the problem of equity, diversity and inclusion, it became apparent that interventions to improve the problem were not applied uniformly. Many organizations have limited goals or measures to mark change, and some have no goals or measures at all. This led us back to our early questions prior to beginning research: what does diversity look like, and how do you measure it?

What Does Diversity Look Like?

When examining diversity, how do we judge what a successful organization looks like? Do they have quotas for various groups? Does their organization try to mirror the local, regional, or national population? Or do they set relative measures, in which improvement is judged in comparison to the current demographic profile? So far, it appears that most companies follow the latter path, though some have instituted quotas or goals to mirror the population.

In January 2018, five organizations (American Society of Landscape Architects, the Council of Landscape Architectural Registration Boards, the Landscape Architecture Foundation, the Landscape Architectural Accreditation Board, and the Council of Educators in Landscape Architecture) committed to a series of steps to bring the industry closer to population demographics. They pledged, "By 2025, we will endeavor to achieve a professional profile that correlates with the 2012 population-share estimates, while working toward the longer-term goal of parity with 2060 projections for the nation as a whole."

AECOM has also set "targets" for the number of women in their organization, including the number of women in leadership positions, though it is unclear what those target numbers are based on.

In June 2018, Perkins + Will's Director of Global Diversity, Gabrielle Bullock, became IIDA's International Board President. In her speech at the swearing-in ceremony, she said, "The work we do is directly tied to cultural differences. That's why the design profession should mirror the community and clients we serve. We change what we design by who designs it."

Professional service firm KPMG's United Kingdom branch published their organizations diversity data, including women, minority ethnic groups, people with disabilities and members of the LGBT community. Along with this data, they compared the percent of their population to the country's general population distribution. In that way, they are creating subconscious (if not openly stated) measurable markers for progress. Similarly, KPMG issued the "Global inclusion and Diversity Report" in 2018 that examined the number and responsibilities of women as compared to men throughout the entire organization. Here too they included the percentages of men and women globally for comparison.

Other organizations point out that diversity is dependent on location and community. In 2016, consulting group ArchPoint published an article, "The State of US Workplace Diversity in 14 Statistics." They included guidelines to building a more diverse organization. The first step they list is to "define diversity." They point out that "there is no one-size-fits-all solution and diversity needs to be defined for your organization. The workforce should reflect the community it serves."

Removing Barriers

Beyond deciding how to measure diversity, firms have to understand what barriers to diversity are currently in place at their (or any) institution. Brenden Jackson noted in his article for GenslerOn that in order for the world of architecture to become more diverse, organizations need to "examine the socio-economic factors that serve as barriers to the profession within minority communities." Architecture and design magazine DeZeen published an article of the top trends in architecture and interior design for 2018, one of which was "action to address gender imbalance." Author Tom Ravenscroft notes that though "architecture's focus was placed firmly on the actions [needed] to address the profession's continuing gender imbalance," the issue runs deep and will take great effort to improve.

Several organizations have noted that there are not enough diverse graduates in the hiring pool. Michael Page wrote in his BISNOW article that in construction specifically, access to education is one of the biggest barriers to minorities trying to enter the workforce. Similarly, an article for AECOM noted that in the United Kingdom in 2014, only 14% of engineering graduates were women, despite the fact that nearly half of all the physics general certification exams in high school were taken by women.

To address barriers in hiring, Heidrick & Struggles created the Infinity Framework for Assessment of candidates. They note that this tool "helps prevent qualified candidates with uncommon backgrounds from being screened out." However, tools like these do not tackle the issue of access to education, just greater inclusivity in the hiring process itself.

To address the barriers that specifically limit women in business, SpencerStuart published a long report called "Solving the Disappearing Women Problem: Lessons from Companies that Prioritize Diversity." They note several studies that show at every level of an organization, women are "disappearing." They recommend a few steps to resolve this issue: have top leadership emphasize the importance of gender diversity, remove bias in assessment, rely on data not assumptions, support women already in leadership roles, allow for work/life flexibility for everyone, and be bold.

In September 2018, SpencerStuart published a video and transcript of the Gentherm's Women Network panel discussion on organizational culture and the impact on women. The panel discussed one issue in particular, the issue of diversity in hiring. They note that perhaps the solution is not a quota for female employees, but insuring that female candidates are considered in equal measure during the hiring process itself.

Creating Opportunities

One might consider "creating opportunities" to be the flip side of the coin to "removing barriers." Not only do companies need to remove limitations on diversity, they also need to actively encourage and embrace new opportunities for diversity.

In 2015, when NARI elected new officers, incoming president Judy Mozen publicly stated that her goal was to "focus on recruiting and training a viable workforce through inclusion and diversity."

Stantec has published several articles on creating greater opportunities and inclusion for women. One article promoted flexible working arrangements for parents as a means of keeping women with a firm during and after parental leave. Another discussed how to "change the equation" and bring more equality into the workplace through actions like encouraging women to find a "brag buddy," providing more sponsorships for women, and encouraging women to believe that they are good enough for the job. A final example argued that the real factor in changing the status quo for women in business is to face the biases that still run through the industry.

In 2018, HGA published the results of a nationwide survey in a white paper titled "National Workplace Forecast: Talent, Experience, and Constant Change." They found that when organizations were asked, "What is most important to you in preparing your organization for the future?" the top three answers included "Knowledge Transfer," "Employee Engagement" and "Diversity and Inclusion." They note that the "process of innovation and creativity occurs when we nurture diverse points of view. … The ability of the work experience to support diversity and inclusion of people and ideas is core to keeping up with the speed of change." One of the key trends that they highlight was increasing diversity so that organizations can "move at the speed of change."

Outside of A/E/C, a few consulting groups have created or joined initiatives to increase opportunities for minorities. UK recruitment firm PageGroup launched the Women at Page Initiative in 2012 to "improve gender imbalance and inclusion at all levels." Soon, the company noticed a decrease in turnover for female employees and an increase in females in management. The success was so apparent, PageGroup began another program, OpenPage, to increase diversity and inclusion in other areas, including age, race, sexual orientation and disabilities.

Finally, in 2014, Egon Zehnder publicly committed to 25x25, an initiative to have 25 female chief executives in UK companies by 2025. This would be a five-fold increase in the current number of women in top leadership positions.

Systems & Standards

A few organizations have taken the push for diversity a step further, creating scorecards and other tools by which they can measure inclusion. These tools provide an opportunity to track progress toward equity in the design field. However, as it stands now, these resources do not appear to be used widely throughout the industry. To many in the A/E/C field, scorecards are controversial. These tools can be expensive, and some consider them tools to improve perception, rather than to fulfill a moral or ethical obligation for real change.

The International Living Future Institute created the JUST label for organizations, what they call a "nutrition label for socially just and equitable organizations." It is a voluntary disclosure program that judges an organizations equity and diversity over six major categories, that also include workers benefit, local benefit, stewardship, and safety. A list of organizations that have chosen to take part in the JUST program can be found on their website. However, some organizations may find the cost to take part in the JUST program preclusive. The price ranges from $500 for organizations with 5 to 24 employees to $25,000 for organizations with 10,000 or more.

The APWA's Committee for Diversity and Inclusion has created a Diversity Toolkit for members and chapters hoping to increase inclusiveness. However, only organization members can access it. The AIA has created an online salary calculator based on surveys of its members so that employees and managers have a better understanding of the range of pay at each level of an organization. Similarly, Archinect has created an online salary poll that is entirely anonymous and ongoing, providing up-to-date information on current compensation in the field of architecture.

In the field of consulting, PwC has created the Global Inclusion Index by which to judge their 21 largest firms. Based on the results of the index, the firms then create and apply a diversity strategy for the next year. At the end of the year, the firm is then required to report on their progress under the strategy. This process is unique to others in that not only is it a tool to judge diversity, but it also incorporates steps for improvement in the process. Some of the data on gender equity has also been published on their website in an effort at greater transparency. (See the Transparency section for more.)

Similarly, Culture Amp, a company specializing in employee feedback, has created a diversity and inclusion survey to understand how employees feel about their workplace environment. This tool also provides comparisons to other companies and suggestions for intervention strategies. The global analytics firm GALLUP also offers solutions to measure and improve diversity.

From the information garnered above, it is clear that firms and organizations are striving to understand the problem of diversity, what limitations exist, and how they might overcome them. Yet, several questions remain:

◆ We found several examples of approaches to assessing progress (from quotas to progress-based to arbitrary goals). Which are more effective at real-world positive change?

◆ Do measurement systems support achieving goals? Why are firms not adopting tools and measures?

◆ What are the upsides and potential downsides of measurement systems like JUST or the Global Inclusion Index? Can these approaches be adapted to remove potential negative effects?

◆ Are barriers like access to education better overcome by more effort using existing approaches, or by new approaches not yet attempted?

Policies

Many organizations in the A/E/C field have acknowledged that equity, diversity and inclusion are a problem. More than that, though, a large number have instituted internal policies to try to address the problem head-on. Unfortunately, these approaches often appear scattered, and are typically not based on the most effective policies as outlined in current research.

Codes of Conduct

So how do organizations and firms take steps to achieve their goals? There are many different ways to approach the issue. Unsurprisingly, many organizations and firms include some form of diversity and inclusion statement on their public sites, emphasizing their commitment to improvement:

A/E/C:
- AGC
- F.H.Paschen
- Gilbane Building Company
- HKS
- Jacobs
- NARI
- Nelson
- Perkins + Will
- SmithGroup
- Stantec

Consulting and HR:
- Accenture
- Egon Zehnder
- Ernst & Young
- Harvey Nash
- Heidrick & Struggles
- Korn Ferry
- PageGroup
- Rand
- SpencerStuart

However, it is not clear if the creation of these diversity and inclusion statements has any measurable impact on the firm or organization itself. While it is an excellent first step, it is likely that more is needed to implement real change.

Advisory Councils

As the task of creating greater equity, diversity and inclusion is so large, many organizations have created advisory councils to focus their attention on the issue. The following list includes all the firms and associations that publicly note their advisory or diversity councils, illustrating how widely adopted this initiative is:

- AGC
- ASCE Boston
- ASCE Kansas City
- ASCE Maine
- ASME
- APWA
- CannonDesign
- Gilbane Building Company
- HOK
- Perkins + Will
- Stantec
- Egon Zehnder

While each of these councils have unique qualities, the overall mission remains the same: to increase awareness of equity, diversity and inclusion problems within the organization, and provide strategies, such as networking and training, to improve them. Some, like HOK, are setting metrics for the company to meet or surpass. As mentioned previously, the APWA has created a Diversity Toolkit for its members. In 2018, CannonDesign's Diversity & Inclusion Council invited architectural historian Despina Stratigakos to give a lecture on her book "Where Are the Women Architects?" Perkins + Will claims to have created the design industry's first Diversity Council.

Best Practices

To take the question of how to become more diverse further, many organizations have created recommendations and best practices reports, though a comprehensive look at the commonalities between recommendations has yet to be performed. One document in particular has been cited by many organizations, demonstrating a major impact on the field: AIA's "Guides for Equitable Practice." Published with the University of Minnesota, the document was created based on AIA's "Equity in Architecture Commission Report." (The "Equity in Architecture Commission Report," it is worth noting, makes 11 recommendations for AIA to boost its internal commitment to equity, diversity and inclusion over the next three years.) The "Guides" is an extensive work, covering topics from workplace culture and intercultural competence to compensation and

"We are deliberate and intentional in our commitment to diversity and inclusion. Because if we're not intentionally inclusive, we risk being unintentionally exclusive." — Gabrielle Bullock, Director of Global Diversity, Perkins + Will

recruitment. Also included in the "Guides" is a section on ways to assess and measure equitable practice. (Only the table of contents and the first three chapters of the "Guides" have been released so far, though more are on the way.) Interestingly, the "Guides" makes recommendations not just for managers and firms broadly, but also for individuals within firms and professionals in relation to the broader design community.

Notably, the first topic tackled by the "Guides" is bias and the creation of "intercultural competence" within the firm or organization. It notes, "Just like learning a language, [intercultural competence] is a skill that is developed over time with practice, by anyone who chooses to make the effort." As a result, they include a number of recommendations to create a more inclusive environment and reduce bias, including increasing feelings of social belonging, increasing the representation of minority groups, and publicly recognizing individuals committed to diversity.

After the 2017 Diversity SuperSummit (discussed in more detail in the Events & Gatherings section), the ASLA published a report of the summit. The report notes that it is designed to be both an accountability measure for the ASLA itself as well as a set of recommendations for other organizations. Major takeaways from the report include the importance of using digital content and hands-on tools for exploration, rethinking how to market landscape architecture, showing diversity in context, and teaching students about diversity within the profession.

In December 2018, Heidrick & Struggles published a presentation called "Meeting the Demand for Women Directors." In it, they provide five steps for attracting more female directors:

① Lead, don't follow

② Drive board diversity from the top

③ Look beyond the usual candidate pool

④ Develop a game plan

⑤ Stay the course

Lastly, the ASCE's Committee on Diversity and Inclusion published an e-book titled "Diversity by Design: Guide to Fostering Diversity in the Civil Engineering Workforce." The book provides hands-on resources and "highlights the aspects of the current civil engineering workplace that are not conducive to diversity, and then gives suggestions … for how to create a more diverse workplace."

Not all organizations and firms create and publish guides to increasing diversity, though many do publicly display their organizations strategy for becoming more inclusive. For one, AECOM published an article on their blog in 2017 in which they highlighted their implementation of a new diversity strategy with tangible goals and actions. Their efforts include unconscious bias training and reverse mentoring; the latter, the article notes, has seen particular success.

Similarly, ASID has published their 2017–2020 strategic plan online. Diversity and inclusion makes up one of their five strategic pillars. They also note that the changes in population makeup have impacts on the design community, and that in order to remain relevant, they need to address the issue head-on. They also have given themselves specific actions ("activities") to take by 2020, such as ensuring that all chapters adopt the society's diversity strategy.

Stantec, which is involved in many other interventions, is following several paths to create more equity, diversity and inclusion in their organization. They are decreasing pay disparities between genders, providing tools to employees to promote more inclusion, and employing unconscious bias training.

Lastly, SmithGroup has established an internal Equity, Diversity and Inclusion (EDI) program to "engage in deeper and more meaningful conversations, initiatives and actions that minimize barriers, foster deeper understanding and promote the values we want to see."

Unsurprisingly, many consulting firms and human resources organizations have made recommendations for—public announcements of—their diversity strategies. Shirley Davis, who spoke at the 2018 SHRM Conference, argued that there are several key groups an organization needs to make diversity initiatives work: the CEO, unit or section leaders, Human Resources, a Diversity Council, technology officers and ERGs and BRGs. She also encouraged more firms to partner with nonprofit organizations like the NAACP and the Human Rights Campaign.

SHRM also has several articles on their site devoted to creating diversity strategies, including "3-Pillar

"Although our work helps to create physical communities,

our ultimate goal is to create something far more

meaningful—a sense of community."—Stantec

Approach to Diversity: A Q&A with Amy Cappellanti-Wolf" and "How to Develop a Diversity and Inclusion Initiative," though the latter is only available to members. Likewise, ClearCompany has published several articles on their site, including "How to Build Diversity Hiring into an Existing Process" and "Diversity Sourcing: 5 Best Practices to Keep in Mind." In the 2016 Archpoint article (mentioned in Goals & Measures), in addition to defining diversity, they also recommend other steps for increasing inclusion. Some of the other steps include setting realistic goals, building in metrics and making diversity a part of the brand. PageGroup has developed the "Diversity and Inclusion Guide for Businesses" in partnership with the Professional and Business Services Council.

SpencerStuart has specifically examined the issue of the dearth of women in leadership positions, and made four recommendations to speed up the process: 1) actively increase the channels for women in middle and senior management roles to take on more leadership, 2) improve the culture of the organization to be more positive toward women leaders, 3) develop new ways of structuring jobs that typically hold women back, and 4) move more women into general management roles.

Finally, Harvey Nash has worked for more than a decade to improve their diversity and inclusion internally. Recently, they developed a program called Inclusion 360 to work with partners and organizations to learn more about positive inclusion practices, measure progress, produce 'how-to guides" and make inclusion commonplace in the organization. (Harvey Nash has won recognition for these efforts, as covered in the Awards section.)

Culture Change

One common theme that frequently appears both in research and in private firm policies is the idea that organizations have to change their culture to bring about greater inclusion and diversity. Not only will a more inclusive culture attract more diverse employees, they argue, but it will also retain those employees who already work at the firm.

The AIA "Guides to Equitable Practice" includes a diagram they call "Architecture's Cultural Iceberg" which demonstrates that the objective or "seen" aspects of culture (such as dress, language, and tools) pales in comparison to the subjective or "unseen" aspects of culture (such as ethnicity, gender roles, personality, work ethic, and authorship). They recommend that firms use the diagram to help them identify their firm's culture and ways in which they can improve.

The Design Management Institute has particularly emphasized this issue. Shirley Davis (who also spoke at the most recent SHRM conference) wrote an article titled "Dear CEO: Culture Transformation is the Solution, Not Training" for DMI's Review issue "Making Diversity & Inclusion a Reality in Design." In August 2018, DMI published a feature called "Designing a Diversity and Inclusion Plan that Works." The author, Patricia Pope, writes, "'Should we focus on improving representation, or should we create a more inclusive culture first?' According to… D&I leaders, it's not 'either/or'—it's really 'both/ and.'" The feature includes five steps that firms can take to improve their plan: assess the current state, prepare the leadership, educate the workforce, build the infrastructure and institutionalize accountability. Finally, one of the keynote sessions at the dmi: Design Leadership Conference last year was a panel discussion on "Building a Winning and Inspiring Culture."

Interior Architects believed so strongly in this idea of positive culture change that when they redesigned their 15-acre Irvine, Calif., campus, they added more open gathering spaces to create a sense of community. They note that the inspiration for this redesign came from companies like Microsoft, IBM, Deloitte, and SVM that have created co-working communal spaces within their companies and subsequently seen an increase in collaboration and problem-solving.
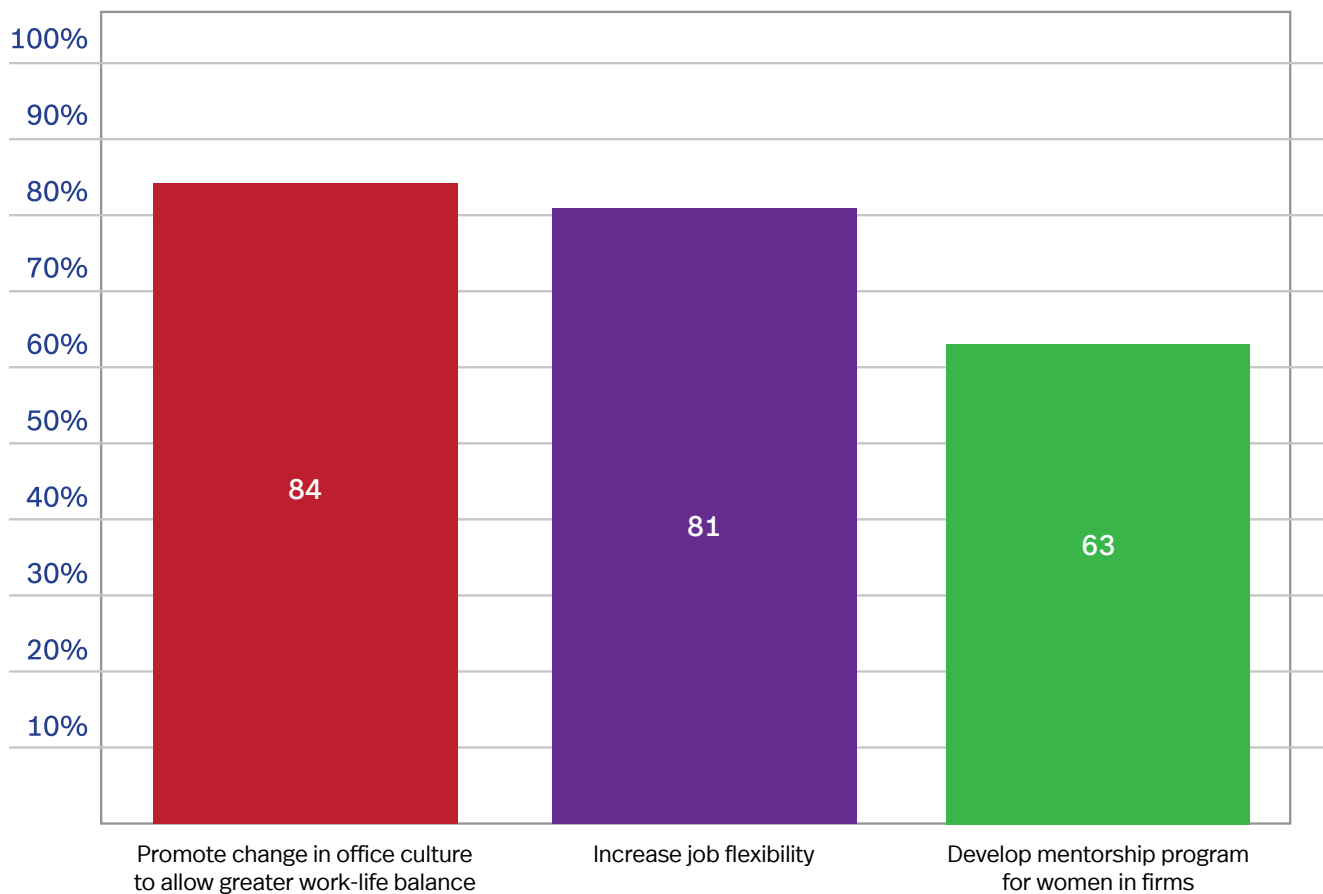
Heidrick & Struggles has actually created tools to measure their organization's culture. One, called SYNAPP, looks at internal networks within the organizations to see "invisible patterns of information flow." The other tool, called the Team Accelerator Questionnaire (TAQ), provides an "empirically robust" assessment tool to measure team performance. While these tools might not change culture themselves, they might be able to pinpoint where it is failing to include certain people or groups.

"Diversity is about counting heads. Inclusion is about making heads count. Building an inclusive workplace where people can perform at their best is a super important job of a CEO."—Chip Bergh, CEO of Levi Strauss & Co, at the Leaders & Daughters Conference

As part of their diversity and inclusion statement, Stantec makes a point to discuss "cultural redefinition." They note that in order to build for a diverse community, they must be made up of one as well. The goal, they say, is to "[shape] a culture where everyone can bring their whole selves to work in an environment that is welcoming, accepting, safe, supportive and free of judgement." Mott MacDonald created an EDI Action Plan that specifically targeted workplace culture and inclusivity to enhance collaboration.

In fact, many of the recommendations for improving diversity from consulting and human resources firms relate to the issue of changing the culture. Consulting firm N2GROWTH recently published a white paper on organizational culture, noting that culture is not created but designed, that "[it] is more than just the sum of the parts; it's not only what holds the parts together, but it's what unlocks hidden value and drives innovation." Korn Ferry writes on their website that they make a point of helping leaders "create cultures

The AIA Diversity in the Profession of Architecture Report
Strategies for Attracting and Retaining Women in the Field

Promote change in office culture to allow greater work-life balance	Increase job flexibility	Develop mentorship program for women in firms
84	81	63

of inclusion where diversity is intrinsically valued." Ernst & Young have created a "roadmap for success" for changing organizational culture, which includes identifying current dynamics and practicing inclusive teaming and leadership.

An article in DiversifiedSearch called "Diversity Done Better" pushed back on the idea that unconscious bias trainings and hiring tests are enough to create a diverse organization. They cited the McKinsey & Company 2018 report and write that "[having] omnipresent conversations occurring at every echelon of the organization is key. The only way to ensure that strides on diversity are more than ephemeral is to make sure that the priorities of fostering a multicultural workplace are baked into everything a firm does."

For their part, SpencerStuart has made the influence of culture on business performance one of their major focuses. They recently published a study called "The Leader's Guide to Corporate Culture" that Harvard Business Review included as one of their 10 Must Reads for 2019.

So, at least in the realm of culture change, many organizations have recognized its importance and are working towards improvement. However, there still seems to be some disagreement about how to implement culture change. Undoubtedly, it is one of the more difficult interventions to tackle.

Transparency

Some organizations are putting their commitment to diversity and inclusion front and center, quite literally, through transparent displays of their company's demographic records. As an example, ASID has

published their JUST program label on their website. Many smaller A/E/C organizations are listed on the JUST website as well.

However, it seems much more common for human resources and consulting firms to publish their demographics online. As noted before, KPMG published their demographic data online. Rand and Accenture have done the same. PwC has published the number and job distribution of females at their organization for the last three years.

Some believe organizations should go even further. At the Egon Zehnder Leaders & Daughters 2018 Conference, speaker Natasha Lamb, Managing Partner at Arjuna Capital, recommended that organizations publish their gender pay gap and set a goal to close it. (We have yet to see this action taken, however.)

Sourcing & Contracts

A few organizations have also dedicated themselves to hiring or contracting with Minority Business Enterprises (MBEs). One such firm is F.H. Paschen, who made it their goal to grant 20% of their contracts to diverse businesses. They also note that they work with contractors to find areas in which more minority candidates can be hired for a project. Emily Peiffer of Construction Dive also noted a push for using MBEs as an intervention strategy in two of her three takeaways from the ABC Diversity & Inclusion Summit. She writes that working with MBEs can help boost both businesses, and though MBEs have more obstacles to face, their opportunities are expanding.

Observations & Questions

When considering equity, diversity and inclusion, the concept of culture is in a unique position. It is both a tool of change, and the object of change.

- What are the most effective strategies for changing organizational culture?

- How does one know positive change when one sees it?

- How can transparency best be leveraged to promote greater diversity? Does knowing the firm's demographics push people to create change?

- What are the potential downsides of transparency? Could a transparency about a non-diverse company unintentionally discourage diverse candidates from applying? What can be done to mitigate any potential downside of transparency?

- Intuitively, diversity statements seem like a powerful commitment of belief. How do they function with other elements in a diversity program? Do the statements alone have a real impact on the diversity of a firm?

- What is the commonality amongst proposed recommendations? What is working?

Advocacy

One could argue that all of the initiatives undertaken by organizations to increase equity, diversity and inclusion might be considered advocacy efforts. And many organizations—for example AIA, ASID, ASME, and IIDA—have robust advocacy programs that work on issues such as regulation of the design and construction of the built environment, sustainability, and more. Such advocacy efforts take many forms, though generally they include traditional efforts like lobbying. Additionally, many firms participate in efforts to educate the general public about A/E/C and design as well as the pertinent issues in those fields.

Moreover, there are a few organizations using advocacy efforts to bring more widespread attention to the issue of equity, diversity and inclusion in design. One such organization started small and has grown to be a major force in the design industry is the AIASF Equity by Design (EQxD) Committee (mentioned in Research above). Formed in 2011, the group was originally called the Missing 32% because women made up only 18% of AIA's licensed architect members, despite being 50% of the general population. Since that time, the organization has moved from hosting one annual conference to regular meetings of members nationwide. They conducted a survey of the architecture profession in 2018 and published their preliminary data at a conference later that year.

Some organizations are helping support EQxD's initiatives. CannonDesign was one of the sponsors for the 2018 survey. SmithGroup's Equity, Diversity & Inclusion Director Rosa Sheng is also the founding chair of EQxD. SOM's Director of Urban Design and Planning in San Francisco Ellen Lou spoke in one of EQxD's lecture series in 2016.

In March, Dezeen began an initiative called Move the Needle, in which they spent a week publishing articles to bring more attention to gender inequality, particularly in the realms of "Conferences, awards juries, prizes and boardrooms" where women are often excluded. Recognition of the problem, they argue, will "start to shift the balance of power." As part of their Move the Needle Initiative, Dezeen published an online pay gap calculator.

The Society for Diversity is a professional organization that strives to advocate for workplace inclusion. They also offer educational programs and customized solutions to increase an organization's diversity.

◆ **In what new ways can organizations use their well-developed advocacy platforms to achieve progress in equity, diversity and inclusion?**

◆ **In what ways are organizations working together to leverage their collective influence to further the cause of equity, diversity and inclusion?**

◆ **Are organizations directly involved in lobbying for legislative or regulatory change regarding equity, diversity and inclusion?**

Partnerships

In several cases, firms and associations have joined in partnerships to tackle issues of diversity and inclusion together. These groups are reaching beyond the scope of their own organization to deal with the large problem of equity, diversity and inclusion.

Educational Institutions

Some design firms have partnered with educational institutions to provide greater insight into their studies of diversity. For example, AIA partnered with the University of Minnesota to create their "Guides for Equitable Practice."

In a similar vein, Perkins + Will has partnered with Tuskegee University to create a Professional Visiting Scholars program, and Gensler works with Morgan State University in an advisory and mentorship capacity. (See the Education section for more details.)

Lastly, Egon Zehnder has launched the Independent Women Directors project with Sabancı University in Turkey. The fundamental goal of this project is to create a database of women in business who are looking to take on board leadership positions.

Associations

More examples can be found of associations partnering together or with private firms to work toward diversity and inclusion. The [50K Coalition](#) is a collaborative effort by the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE), the Society of Women Engineers (SWE), the American Indian Science and Engineering Society (AISES) and the ASCE. Their goal is to institute programs that lead to 50,000 diverse graduates in engineering by 2025 (see the Education section).

At a regional level, the Construction Employees Association of Cleveland has created a Diverse Worker Program. The idea of this program is to better connect contractor members of [CEA](#) to diverse job candidates.

In the broader fields of science and human resources, diversity is very important for the creation of and partnership with diversity associations. The mission of the [American Association for the Advancement of Science](#) (AAAS) includes several points concerning diversity, such as objectives to "strengthen and diversify the science and technology workforce" and "foster education in science and technology for everyone." In Italy, [Egon Zehnder](#) works with Valore D, which is an association of businesses supporting women in leadership. Together, they have created the In the Boardroom program to train young women in leadership to gain non-executive director positions. Finally, Harvey Nash was one of the founding members of [ARA](#), a group pushing to Attract, Retain, and Advance women in information technology.

Community

In September 2018, [McKinsey & Company](#) published another report detailing how corporate social responsibility (CSR) and other efforts at philanthropy will help close the gender pay gap in the tech industry. While the report focuses only on tech and not on design, both fields suffer from similar problems of disparity in pay and opportunities for females.

The design field could use a push to increase their partnerships with nonprofit organizations focused on diversity. Outside the realm of A/E/C, [Heidrick & Struggles](#) supports [Paradigm for Parity](#), a coalition of businesses that pledge to achieve gender parity in their firms by 2030. [Egon Zehnder](#) has also joined the Paradigm for Parity. They also work with [Catalyst](#), a nonprofit whose mission is "to accelerate progress for women in the workplace through inclusion."

◆ Still, it remains to be seen how effective joint efforts and coalitions are at making change. Is partnering a more effective intervention approach than individual action?

◆ When is it reasonable to expect results after an initiative begins? What is a realistic rate of change?

◆ Many of the organizations founded on increasing diversity and inclusion provide little evidence of their metrics for judging progress. That information, if discovered, could inform future steps.
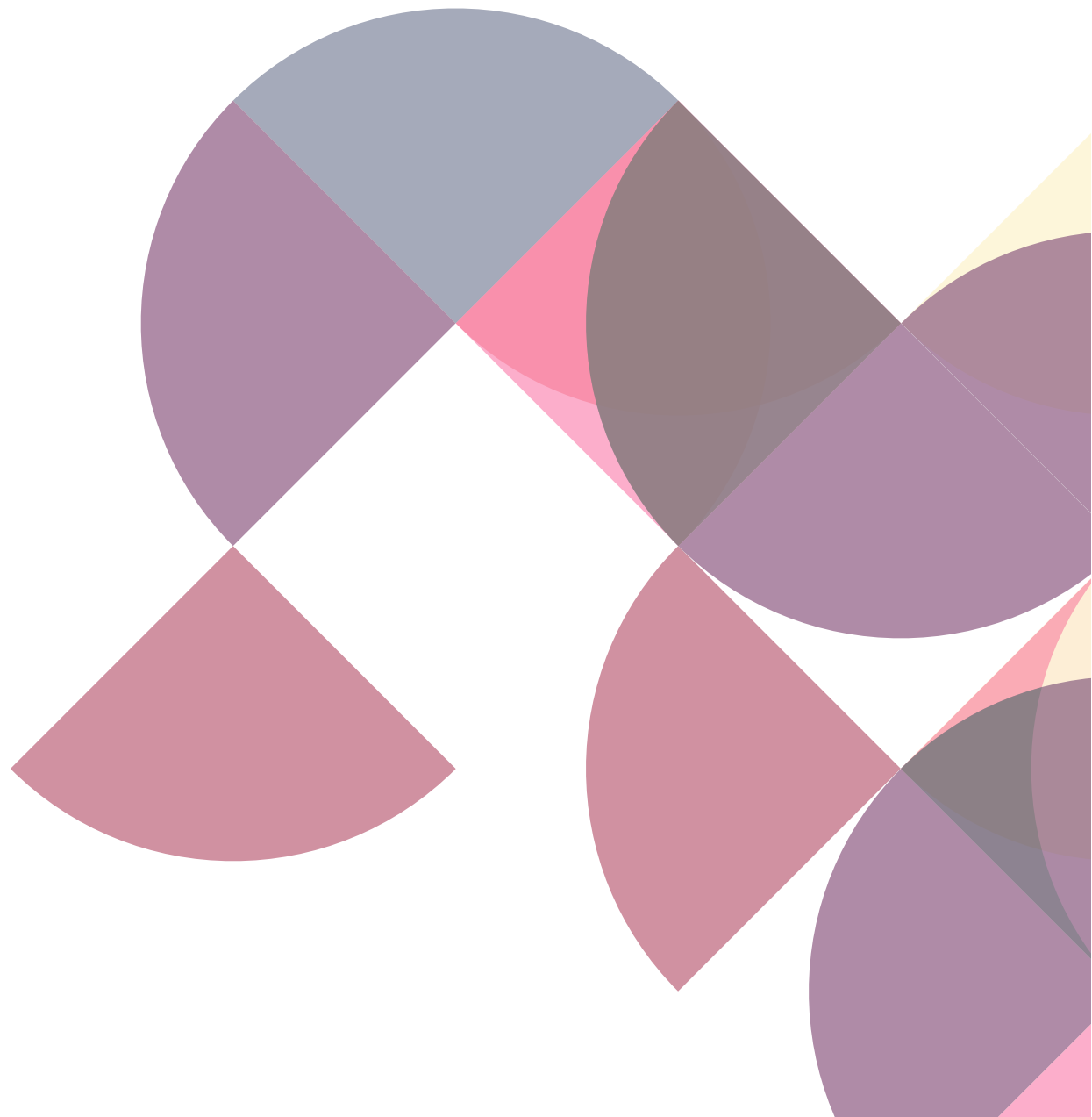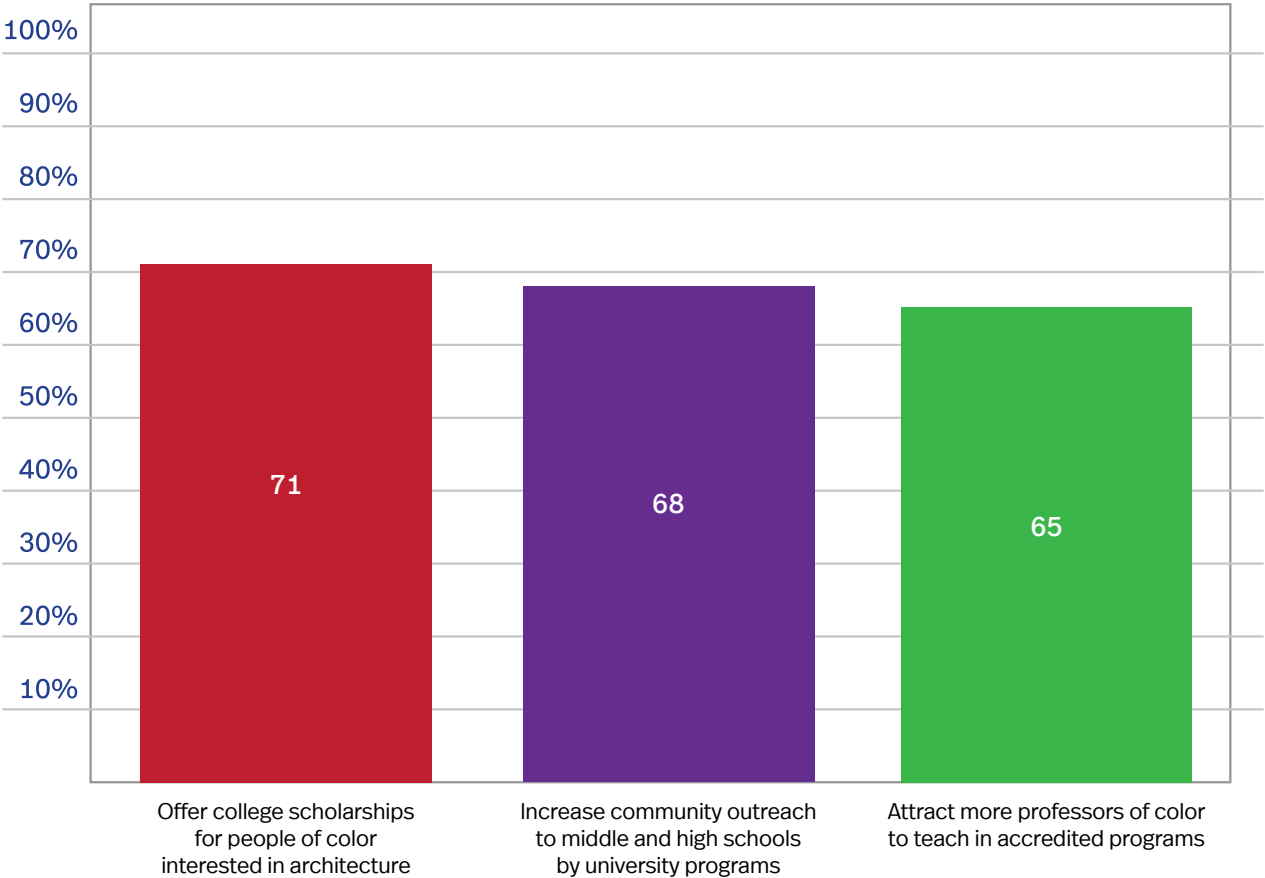
Education

Another area in which many organizations seem eager to be involved is education. As several research studies pointed out, in order for A/E/C and design to continue to become more diverse, they need a more diverse pool of candidates from which to hire. One of the barriers to diversity is the small number of minority graduates in the field. So, from K-12 to continuing education, many firms and associations are contributing to an effort to increase minority students in A/E/C.

K-12 Outreach

Quite a few groups have established programs to encourage those young students to pursue architecture, engineering and design. They hope that early education in design and architecture will inspire a greater number of minority students to pursue degrees in those fields.

For example, the AIA has begun an initiative to introduce architecture and design topics into the K-12 curriculum to instill in students "an appreciation for architecture and the role that architects play in

The AIA Diversity in the Profession of Architecture Report
Strategies for Attracting and Retaining People of Color in the Field

Offer college scholarships for people of color interested in architecture	Increase community outreach to middle and high schools by university programs	Attract more professors of color to teach in accredited programs
71	68	65

shaping the environment." They surveyed schools and outside programs across the country to determine opportunities for introducing students to architecture as well as potential gaps in curriculum. Their findings, known as "The Scan," led to the AIA K-12 Initiative, which will develop partnerships and share resources with educators.

Construction associations, too, are working to bring more interest by young people to their industry. One of the largest K-12 programs found in our research is the ACE Mentorship Program. The goal of the program is to engage mentors and sponsors with high school students to inform them about careers in design and construction, and ultimately encourage them to follow that path. The program has been running for nearly 20 years, and more than 9,000 students participate annually. They also provide scholarships ($15 million to date) to exceptional participants in the program. Unlike some other programs, the ACE Mentorship Program also tracks its successes: most ACE students are minorities and about 40% are female, and these students enter engineering and architectural programs at "significantly higher rates" than their peers nationwide, according to the ACE site.

In another example, the CEA started a program with the Contractors Assistance Association and the Cleveland Metropolitan School District to educate middle school students about the variety of careers in construction.

These efforts are not limited to professional associations, though. Industry giant Gensler has established a program with the Baltimore Design School that introduces "local disadvantaged—and primarily minority—students" to the design and architecture profession. In addition, CannonDesign works with the Buffalo Architecture Foundation on the Architecture + Education (A + E) program, which brings design professionals to the classrooms of Buffalo public schools. CannonDesign also works with the Archeworks Chicago Studio to educate Chicago high school students about design, which they believe will lead to greater diversity in the long run.

Outside the realm of A/E/C, the AAAS provides many programs to help schools and educators develop students' interest in STEM subjects. They note that the United States is struggling to stay competitive in these fields, and the key to success is to support an interest in STEM in students from a young age.

"Diversity isn't just about engaging more people for balance – it's about opening us up to exciting new ideas from every corner of society."—
David Dewane, Community Director of Archeworks

College & Scholarships

Naturally, this drive to promote diversity in students of design continues at the college level. Several associations (such as AIA, IIDA, ASCE), firms (such as Gensler, Perkins + Will, IA Interior Architects, and CannonDesign), and building product manufacturers (Benjamin Moore) provide scholarships to support diversity in design education. These awards range from $4,000 to $20,000. The Benjamin Moore Foundation has partnered with the Architects Foundation to award two minority students $25,000 over five years to pursue their degrees. Two scholarships target specific minority groups: the Payette Sho-Ping Chin Memorial Scholarship provided by the AIA is awarded to female students, and the John J. Nelson Sr. Scholarship by the IIDA Foundation is awarded to African American students. In 2018, SmithGroup launched its first Equity, Diversity and Inclusion Scholarships, which also included an internship component.

Interestingly, only one group has given itself a goal of increasing the specific number of graduates in the field: the 50K Coalition (described earlier in the Partnerships section). Using a grant from the United Engineering Foundation, the coalition is working to produce 50,000 engineering graduates with diverse backgrounds by 2025. It will be interesting to see the steps taken to achieve this goal.

Gensler and Perkins + Will have taken other steps to increase minority graduates in design fields by working with Historically Black Colleges and Universities (HBCUs). Gensler serves as in advisory and mentorship roles at Morgan State University. Perkins + Will has created an annual Visiting Scholar Program with Tuskegee University, which includes career development workshops and mentorship.

In addition, the IIDA also offers a Diversity Award to an educator from a diverse background who is making a meaningful contribution to interior design education.

Lastly, EYP has taken an entirely different approach. Rather than promoting individual students, they have analyzed how STEM buildings on college and university campuses impact the student body. Interestingly, they have found that the overall design of such buildings can increase student interest in the STEM programs themselves.

Outside the A/E/C field, David Wang gave $500,000 to the Pardee RAND Graduate School to create diversity scholarships and increase efforts to attract diverse graduates. This is by far the largest figure found in our research, though it is unclear how the funding will be divided amongst scholarship recipients.

Continuing Education

Compared to the offerings for college and university education, the support for continuing education from private and nonprofit A/E/C organizations is considerably smaller. ASCE's Committee on Diversity & Inclusion offers several webinars on addressing diversity. The subjects include addressing subtle biases in the workplace and overcoming unconscious bias.

There are many more opportunities to continue one's education in the field of diversity, though none are directed specifically at the A/E/C field. Several universities provide courses and certifications in diversity. The University of Wisconsin-Madison's School of Continuing Studies offers two classes in diversity and inclusion, one of which addresses working on cross-cultural and global teams. The other emphasizes the role of leadership in encouraging diversity in the workplace. Georgetown University offers an executive certificate program in Strategic Diversity & Inclusion Management, which includes six courses over a six-month period. They note that those who complete the program will be able to

implement diversity and inclusion best practices, as well as measure and report on the impact of diversity initiatives. The Yale School of Management offers a three-week online program called "Fostering Inclusion and Diversity." The goal is to help workplace leaders build more inclusive teams, which leads to improved business performance, innovation and effectiveness."

Cornell University offers several options for those interested in learning more about diversity issues. They offer a four-course online certificate program that includes such subjects as Improving Engagement and Fostering an Inclusive Climate. The Industrial and Labor Relations (ILR) School offers a Diversity and Inclusion Professionals Certificate, which is made up of a series of workshops including a session on emerging trends. For those looking to continue further, the ILR School also offers the Cornell Certified Diversity Professional/Advanced Practitioner (CCDP/AP) Certification. This is awarded to those who have at least three years' experience in diversity and inclusion initiatives and who pass the culminating exam.

In the realm of professional associations, the [Society for Diversity](#) offers a certificate program through its Institute for Diversity Certification. This rigorous program provides certification for three years, after which participants must demonstrate continued learning in order to renew their certification.

More opportunities are offered through human resources and consulting firms. For example, the [SHRM](#) offers diversity training programs with options to complete the training in-person or virtually. This diversity training focuses on the topic "Building a Culture of Excellence." HR consulting firm [OperationsInc](#) offers an interactive online training program called "Unconscious Bias, Diversity and Sensitivity in the Workplace for Management." They note that the purpose of the course is to "empower our students to embrace diversity in the workplace through understanding and respecting others' differences, as well as increase awareness of tolerance and sensitivity." In a similar vein, the [Management and Strategy Institute](#) offers a Diversity Management Certification, a self-paced course with a timed culminating exam.

This course counts toward credits for other programs, including SHRM certification.

[Korn Ferry](#) has created a Leadership Accelerator, a series of courses to assist organizations looking to more quickly move employees showing leadership potential into higher-level positions. One of the specialties of the accelerator is Diversity & Inclusion, which includes categories such as Advancing Women Worldwide, Conscious Inclusion, Inclusive Recruiting, and Appreciating Differences eLearning.

[Cornerstone](#) provides training and education for human resource organizations specifically. They have created several diversity and inclusion lessons that can be viewed online at any time. [The Muse](#), a company specializing in job searches and career advice, gathered a list of nine free online classes for managers interested in learning more about diversity and inclusion. These include courses offered by Coursera, edX, and Microsoft.

Additionally, our research found numerous private firms that provide training materials to improve diversity.

Taking all of these examples together, it appears that there are quite a few initiatives to increase interest in A/E/C and design fields for K-12 students and to provide greater funding for minority students once they reach college and graduate school.

◆ However, are there other situations in which the design industry is losing potential students? The scholarships offered at present almost universally apply to students who are already in design, architecture, or engineering programs. What about those students for whom the ability to go to college depends solely on outside support?

◆ What are the barriers to introducing architecture and design to K-12 curriculum?

◆ How can design organizations in particular encourage continuing education? Are there any issues specific to diversity in design that warrant continuing education programs?

Mentoring & Other Strategies

The challenges to minority groups in any profession do not stop once they receive their degrees. As noted in the Research section, minorities and women face a greater struggle to find positions in their chosen field, and often do not have a professional network to assist them as they navigate their career. As such, several organizations are adopting intervention strategies that include mentorship and networking opportunities.

Mentorships

Firms like LEO A DALY, SOM, and HGA have all created internal programs to encourage and train future leaders within their organizations. SOM established the Women's Initiative in 2011 to encourage continued development for women in design. The SOMWI has also created an opportunity for undergraduate and graduate students to shadow professionals at SOM for perspective on careers in the field. The LEO A DALY Leadership Institute is meant to "prepare talented employees for leadership roles," and includes a training program, followed by mentorship in their chosen office. HGA also began its own mentorship program in 2016, though details on their site are limited. However, it is worth noting that the latter two programs are not specifically aimed at minority candidates.

Internships & Apprenticeships

As seen above, one of the biggest barriers to minority participation in construction and design is access to education. Aside from sponsoring educational programs, another intervention to combat this issue is through internships and apprenticeships. As Michael Page noted in his BISNOW article, real-world programs like apprenticeships can "bridge the knowledge gap." He recommends that the construction industry in particular adopt apprenticeships for women and minorities.

The Los Angeles chapter of AIA is also using internships to support minority students. They have created a program in partnership with local architecture firms that specifically targets architecture students facing housing insecurity. They note that as many as 20% of architecture students in the city are living in shelters, cars, or couch-surfing while they complete their degrees. Their goal is to bring together at least 25 architecture firms that will commit to hiring these students as interns with a living wage, and at time of publication that list includes: KFA, MATT Construction, Assembledge+, Frederick Fisher and Partners, Gruen Associates, SOM, Koning Eizenberg Architecture, and Rios Clementi Hale Studios.

Sponsorships

Still, mentorships and apprenticeships may not be enough to bring about significant progress in diversity in design. Christiane Bisanzio and Maria Mihailevscaia write in their article for Heidrick & Struggles that sponsorship is a highly effective tool for promoting women leaders, though it is often overlooked. In this case, sponsors are those people in leadership positions who can advocate on behalf of those they sponsor, introduce them to new opportunities, and help them make connections with other leaders. This requires a greater commitment on the part of the sponsor, though, than traditional mentorship. They write, "To be clear, mentors are very useful in helping women navigate the early and middle stages of their careers. … But to reach the height of management, talented managers—women and men—need more than guidance; they need the helping hand that sponsorships can provide."

To that end, Heidrick & Struggles has been sponsoring the Fortune Most Powerful Women Summit since 2015. While this is not the individual sponsorship recommended by the article, it does demonstrate an effort on the part of the firm to provide capital resources to back female leadership. Similarly, CannonDesign co-sponsored the National Organization of Minority Architects conference in Chicago which focused on providing greater opportunities for minority architects.

Like the A/E/C organizations above, Egon Zehnder sponsored the global Women's International Networking conference from 2013 to 2015. They also serve as speakers and host workshops.

◆ How widely known (and implemented) is the individual sponsorship concept?

◆ Only the ACE Mentorship program has shown that it increases the chances of participating students to enter design programs in college. How can other programs better communicate their success?

◆ Why are there not more firms providing mentorship and internship opportunities for diverse candidates?

◆ At what stage in the hiring process are minority candidates being excluded, and why? What potential solutions would that information suggest?

Events & Gatherings

Though it is still unclear which interventions are the most effective at producing measurable change toward increased diversity, what is laudable are the efforts around the country to share information. From regional events to conferences to employee networks, professionals in A/E/C are working together to promote awareness of and share strategies for equity, diversity and inclusion.

Regional Events

Several associations and organizations host regular events in their community to discuss themes of equity and inclusion. One such group is BEAT, Building Equity in Architecture, based in Canada. BEAT hosts monthly discussions with architecture firms on various topics. In January 2019, the HOK Architects hosted a BEAT Talk in which they discussed their Diversity Council and how they are working to create an inclusive workplace and culture. BEAT also hosts networking events for women and minorities.

Back in 2015, DLR Group hosted a roundtable discussion for AIA Seattle called Diverse Works in Design. The discussion was part of a series of roundtables focusing on how architects from diverse backgrounds can contribute to office culture.

Focusing specifically on gender equity, the SOM Women's Initiative (discussed in Partnerships) held a panel discussion in San Francisco in February 2018. They noted that the gap between the genders in terms of pay and presence in leadership is "especially evident at the highest levels." One of the goals of the discussion was to discuss "strategies that can continue to support equitable career development within the firm."

In 2018, ASID Wisconsin hosted its sixth annual WHAT'S NEXT event, the topic of which was "Design for Everyone: Diversity and Inclusion in the Built Environment." The event was sponsored by Tarkett, Schroeder Solutions, and Teknion, and focused on another aspect of diversity in design: how to create spaces that are beneficial for and supportive of the local community. The description of the talk asked people to consider the question, "What are you doing as an individual and a professional to include people of different gender, race, age and culture in your life and work?" One of the speakers at this event was HGA's Design Anthropologist Adaheid Mestad, who joined the panel discussion on gender neutral design.

Conferences

The number of regional events discussing diversity is not insignificant, but it pales in comparison to the amount of national and global conferences held exclusively on issues relating to diversity and inclusion.

Beginning in 2013, the ASLA has held summits on diversity. Four years later, they hosted what they called the Diversity SuperSummit to address diversity and inclusion, particularly for African Americans and Latinx employees, who make up less than 10 percent of students graduating from landscape architecture programs. Collectively, attendees created an action plan with concrete milestones for the next six, nine, and 12 months. They later issued a report that detailed their action plan and goals. SmithGroup also published a summary report of the conference on their website, writing that "statistical numbers of racial representation in landscape architecture are staggering and haven't changed very much over the last 10 years. With the

U.S. population shifting to one that is more racially and ethnically diverse, the field of landscape architecture remains stagnate and ultimately risks maintaining itself as a long-term forward-thinking profession."

In 2015, the Los Angeles chapter of AIA began an annual symposium focusing on women in architecture known as POWERFUL: Women Leading Design. Female leaders from several design firms, including Virginia Marquardt and Andrea Cohen Gehring from DLR Group and Garbielle Bullock and Leigh Christy from Perkins + Will, took part in this symposium, which was sponsored by MATT Construction. The following year, the chapter created a Women in Architecture Committee to lead the POWERFUL conference series and encourage other

networking and career growth opportunities. In 2018, the focus of the conference, known that year as POWERFUL V, was Equity.

Erin Gehle wrote a summary of this POWERFUL V conference for the journal assembly, run by Rios Clemeti Hale Studios, notNeutral, and Guillermo. For her, one of the main takeaways was that part of progress is simply showing up. She also writes that design is not a luxury, but something that should offer support and dignity. Lastly, she says that women are fighting for equity, but also inclusion.

Each year, IIDA hosts its Industry Roundtable in Chicago, a gathering of leaders in design and building product manufacturers to discuss pertinent issues

Women in Architecture
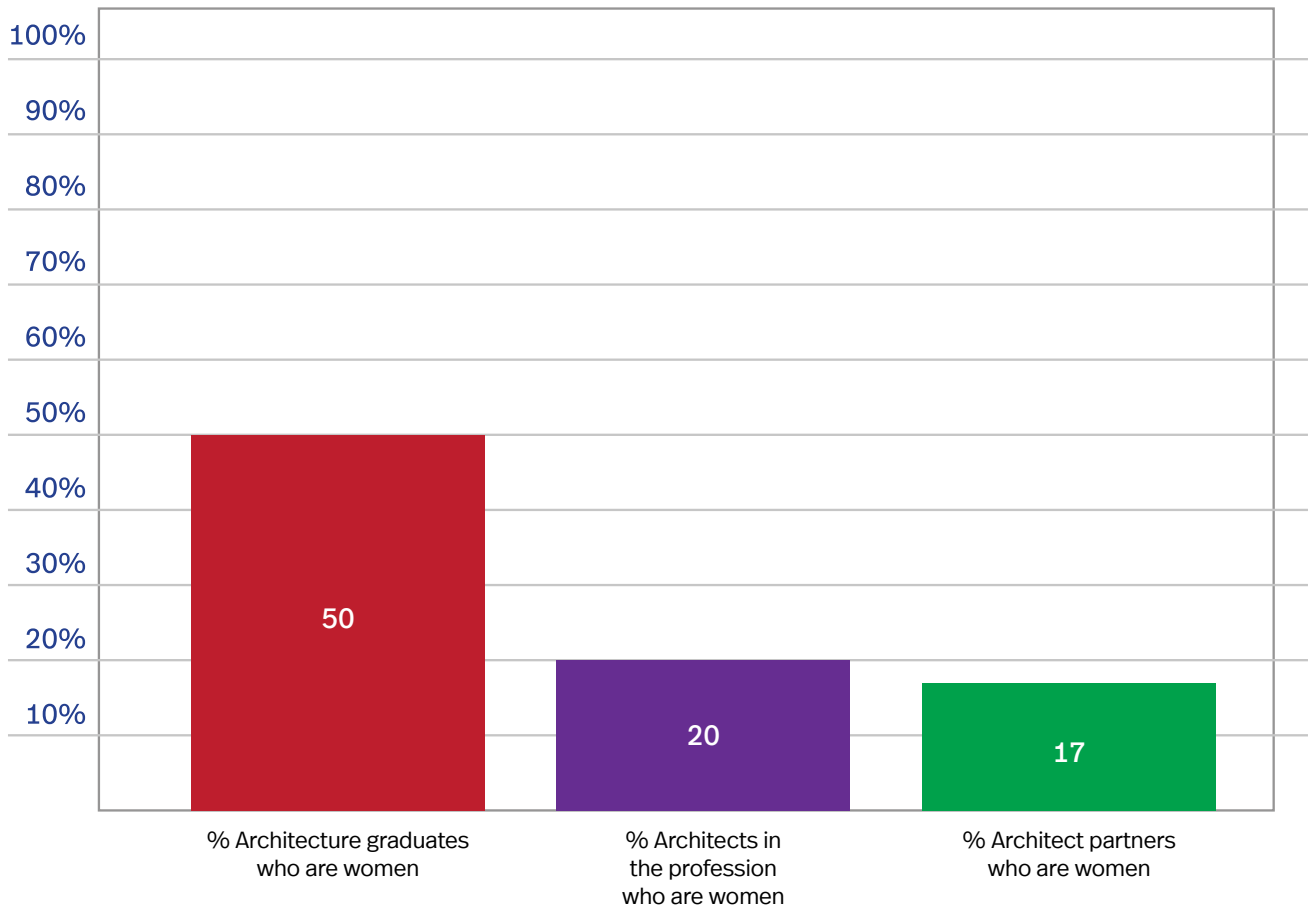
in the field. In 2016, the topic for discussion at the roundtable was "Design & Diversity." They note in the roundtable report that "… despite awareness of diversity's social and monetary value, many firms and organizations don't do everything in their power to both engender and support it— particularly with respect to racial and ethnic diversity." As one survey ultimately uncovered, participants believed the design industry to be fairly diverse, though that perception does not reflect the demographic reality. Participants also emphasized the importance of engaging K-12 students to create greater equity in the future. Discussions ultimately led to the creation of the IIDA Diversity Council.

In 2018, the Design Management Institute hosted its Design Leadership Conference in Cincinnati, Ohio, and its theme was "[Innovative Thinking on Diversity and Inclusion.](#)" At the conference, participants began to develop a "Diversity in Design Manifesto," which would call out key areas of interest for greater discussion and advancement amongst the global design community. Interestingly, the keynote sessions were devoted to creating a "winning and inspiring culture" in an organization. In the subsequent issue of dmi:review, they published a report of the conference, called "[Making Diversity & Inclusion a Reality in Design](#)."

[ABC](#) also hosts an annual Diversity and Inclusion Summit. After the 2016 summit, Emily Peiffer wrote

in [Construction Dive](#) that one of the biggest takeaways of the event was how diversity can offer firms a "competitive edge."

Though not specifically concerned with diversity in the workplace, two gatherings of advocates pursued a similar question to that being asked at the ASID Wisconsin WHAT'S NEXT event: what responsibility does A/E/C have to the community in which they are building and designing? [ASID](#) and IDC partnered to host the Impact Summit 2017: Migration, Culture, and Diversity in the Built Environment. Their goal was to call greater attention to how design can impact, positively and negatively, the stability of surrounding communities. Later in 2018, the [AIA](#) hosted the Design Justice Summit in New Orleans to discuss how architects, engineers, and designers can "create dignified spaces and living conditions for people in communities" like those still recovering from Hurricane Katrina.

More broadly, human resource and talent recruitment firms are also focusing increasingly on diversity and inclusion. The [SHRM](#) hosts an annual conference devoted exclusively to those topics. [Egon Zehnder](#) hosts an annual conference called Leaders and Daughters to encourage industry leaders to address challenges and obstacles to women and "pave the path for positive change."

Employee Networks

One especially popular means of encouraging greater discussion on diversity is the creation of employee resource groups, or ERGs. Shirley Davis of SHRM described ERGs as "your [organization's] accountability partners."

In A/E/C, Jacobs has several employee-organized groups, including those for members of the Latino community, for LGBT or African American talent, for veterans, and for women. Stantec and Heidrick & Struggles offer many of the same ERGs, though Heidrick & Struggles also offers an ERG for people with disabilities (in following with their article mentioned in Research) and Stantec offers one for people of indigenous descent. For Stantec, an ERG is "…a place where you can be yourself and talk about your challenges and experiences with people who know where you're coming from—because they've been there."

ABC encourages its members to join Diversity Resource Groups, or DRGs. Like ERGs, they are groups of people with common interests, like race/ethnicity or gender. ABC notes that DRGs are a great source of input for their organization on increasing diversity and inclusion, for promoting their diversity awards, and recruiting minority businesses into the association. CannonDesign created a Women's Forum in 2018 to help the firm become a leader in gender equity.

Interestingly, one firm outside the A/E/C field, Capgemini, is using a common consulting model (the 4C Model) to measure the impact of ERGs. This provides a potential scorecard for organizations to better utilize ERGs to make real steps toward improving diversity. This might be a good strategy for design organizations to adopt as well to measure the impact of ERGs in this field.

Diversity Week

Curiously, only one organization that we researched—Gilbane Building Company—hosts a "Diversity Week" to call more attention to the issue, though they provide no details as to what is involved. Perhaps there are others doing this kind of initiative, though not making that information public.

All in all, both private firms and professional associations seem to encourage increased information sharing amongst and between their employees. Still, questions of efficacy remain.

◆ National and regional conferences clearly create value by bringing people together to share ideas and inspiration. Are there new models that will extend the reach and influence of these conferences beyond the event? A few have issued reports, but few aside from the ASLA have given concrete benchmarks for future steps.

◆ What is the most effective way organizations can work with ERGs and DRGs to actually increase diversity?

◆ Clearly, ERGs and DRGs can play a significant role in retaining diverse employees once they have positions in a firm or organization. Are ERGs and DRGs being fully leveraged in recruiting diverse talent into the firm?

◆ What is the measurable effect of ERGs and DRGs? Implementation of the 4C model, as started by Capgemini, might provide more answers there.

Awards & Recognition

One final way in which members of the design field are attempting to encourage equity, diversity and inclusion is through recognition. This recognition, either through awards or through public accolades, might endorse people within an organization or they might be awarded to those doing excellent work in diversity broadly.

Leadership

Diversity in leadership is a recurring theme in recent research—especially how women and people of color have decreased chances of being offered leadership positions in their organizations. In this case, many organizations are following the recommendations of current research and supporting individuals from diverse backgrounds taking on leadership positions. For example, ASID has created the Ones to Watch program, which "identifies and recognizes rising leaders in the interior design industry who demonstrate exceptional leadership potential and a willingness to push the boundaries of the profession." Twenty of these awards are given out, and eight of those award winners also participate in a leadership training program. ABC awards the National Diversity Excellence Awards in several categories to those that show "exemplary diversity leadership" within their organization, including "best-in-class recruitment policies, retention practices and training and mentoring programs."

In some cases, leadership awards focus even more specifically on women in A/E/C. The Beverly Willis Architecture Foundation gives out an award, known as the Tribune Award, to young leaders working to improve gender equity in the building industry. In 2018, that award went to Julia Murphy of SOM. LEO A DALY and Lockwood Andrews and Newnam, Inc. have started a blog focusing on calling attention to women in leadership positions at the company. The goal is to tell of both "achievements and resiliency" of these women to encourage others.

Uniquely, Egon Zehnder has taken to the press, partnering with Valor Economico in Brazil to recognize female CEOs there. They hope these women leaders will serve as role models for later generations. They also support the Rising Talents Program, which recognizes the future female leaders.
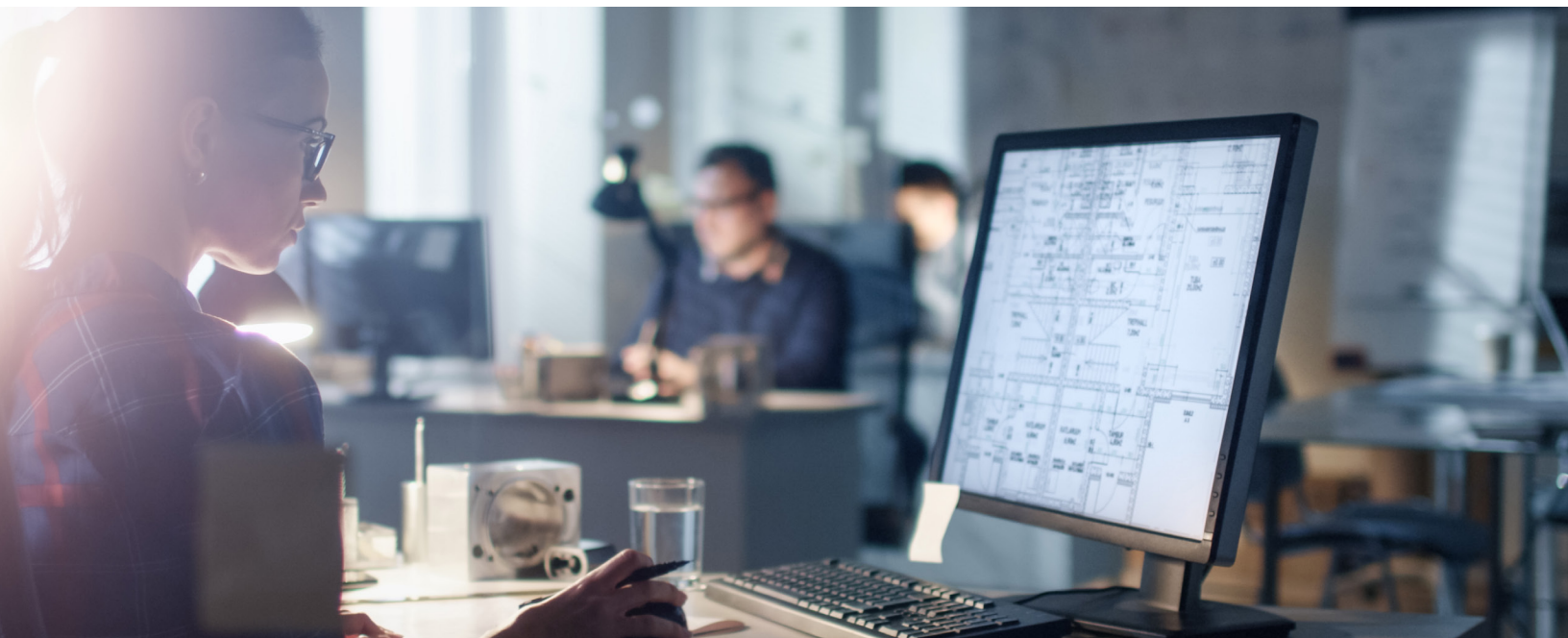
Individual Accomplishment

Fewer organizations take a more focused approach, recognizing individuals for their outstanding efforts within their organizations. As mentioned previously, the IIDA Foundation provides an award for diverse educators in interior design. AGC also awards general or specialty contractors who show Diversity & Inclusion Excellence, who are "champions in advancing diversity and fostering a culture of inclusion." However, in the A/E/C and design fields, these are the only awards in our survey that recognized individual accomplishments.

More generally, the AAAS provides awards to members of many different professions, including scientists, engineers and public servants for "contributions to science and the public's understanding of science." Though these awards are not designed specifically for diverse groups, the application site notes their commitment to equal opportunities for all people.

Business Practices

Professional associations play a major role in this category of interventions. Both the AIA and the AGC award firms that show a commitment to diversifying the profession. The AGC awards Diverse Business of the Year to the firm that is "committed to achieving business success in the construction industry." The AIA gives awards in five categories, including K-12 initiatives, community engagement, citizen architects, knowledge-sharing initiatives, and inclusive firm policies. According to the award description, "a diverse profession mirrors the society it serves and celebrates the contributions of all architects, regardless of race, ethnicity, national origin, gender identity, age, sexual orientation, physical ability, religious belief, geographic location or practice." In fact, HOK earned AIA's Award for Diversity Excellence in 2009 for its efforts in "recruitment, retention, advocacy, community involvement and partnering with organizations such as the National Organization of Minority Architects."

Outside of A/E/C, recruitment firm Harvey Nash won the Diversity and Inclusion Initiative Award at the Business Culture Awards for their 10-year effort to diversify their workforce. This included a program called Inclusion 360, a tool they developed to help outside firms achieve similar progress in diversity. The National Science Foundation began a program in 2016 to award grants to institutions that encouraged diversity. These large grants, up to $300,000, also allow the participants to apply for even greater funding in future years. However, the grants require "a specific goal and measurable objectives" for increasing diversity, which has proven challenging for many institutions seen in this survey.

Observations & Questions

◆ Clearly, there is power in celebrating success and building awareness of the people and organizations recognized for their diligent work to promote diversity and inclusion. However, it is unclear from the research to date as to the impact of these awards beyond the initial recognition they give deserving people and organizations.

◆ As with events, how can the positive impact and influence of these awards extend past the time in which they are given? What new models can be explored?

◆ How can we best assess the effectiveness of awards and recognition on inspiring real change in firms and organizations?

CONCLUSION

Conclusion

Considering all of the above information together, how can we make sense of it? Keeping in mind the two fundamental goals of the secondary research (determining what research exists and what people are doing to affect positive change), simple questions arise that have quite complex answers:

- Do we know the extent of the diversity problem?
- Do we understand the drivers of the problem?
- How do we determine effectiveness?

Measuring the Problem

From all of the sources compiled, we have yet to find a baseline demographic profile for all of the industries we wish to measure. Without it, we do not know how representative the professions are (or are not) of the U.S. population. The available information is at best uneven regarding the demographic profile of architecture, engineering, construction and other disciplines of design that focus on the built environment, such as interior design and landscape architecture.

Much of what we know is from Bureau of Labor Statistics data, which is categorized in such a way that their information is of limited use. Example: the BLS does not report demographic data for interior design, though it does for the wider employment category of "Design," under which the BLS classifies interior design along with disciplines as diverse as commercial and industrial designers, fashion designers, floral designers, graphic designers, and others. The BLS reports limited demographic characteristics or group options (e.g., for race, only white, black or African American, and Asian. For ethnicity, only Hispanic/Latino. For gender,

only female [with the assumed only alternative being male]). These descriptors do not even cover all of the "visible" or intrinsic dimensions of diversity, let alone the "invisible" or acquired dimensions.

Only a few attempts have been made by A/E/C and design organizations to survey their fields (chiefly by AIA and Girl UNinterrupted), and many acknowledge that these surveys are incomplete or intentionally overrepresent minority groups for the purpose of gathering other information.

Therefore, in order to develop an effective approach, we must have a better baseline measure of the extent of the diversity problem in A/E/C and design today.

Problem Drivers

As evidenced by our research, the cluster of issues that comprise equity, diversity and inclusion are extraordinarily complex because they deal with how humans behave individually and in groups of widely differing scales and contexts. Even the issue of bias, which many consider to be the central issue, is so complicated that many treat it as an assumption rather than a point of greater exploration.

Additionally, the scientific and academic understanding of these issues is continuously evolving, further complicating our efforts to understand the sociological, psychological, and biological factors in equity, diversity and inclusion.

This focus on understanding the drivers of the diversity problem assumes that it will inform better choices and actions, which in turn have the chance to improve the lives and experience of so many in our society. And yet, many firms have not taken on many diversity initiatives (and some not at all.) While there are many examples of firms who invest in improving equity, diversity and inclusion, many firms do not make it a priority. Therefore, we must ask: what are the barriers to adoption?

From that line of thinking, other practical questions come to mind:

- Should a lack of information or understanding preclude us from taking action?
- If not, how much do we need to know before being able to take responsible and effective action?
- What will further knowledge provide us?

The flip side of this attempt to understand the drivers of the problem is understanding motivators to change. What motivates organizations to change—morality, ethics, business considerations, or a combination of all of these factors? Despite the research currently available on issues of diversity and inclusion, most of the interventions out there do not seem to be based on scientific or empirical evidence, though many include discussion of general concepts such as unconscious bias. Instead, most interventions seem to take "common sense" approaches based on an organization's philosophy and commitment to doing the right thing.

Determining Effectiveness

Lastly, the sources we uncovered came to no consensus about how effectiveness can be measured. The challenge of measurement is a complex one because it requires the establishment of an "ideal" outcome (e.g., a population that mirrors the demography of community versus relative goals). Organizations have to determine what criteria should be used to measure their success. In developing these criteria, firms and associations also have to consider how they account for "invisible" or "acquired" diversity, in addition to "visible" or "inherent" traits.

Despite the challenge of doing so, there are compelling reasons to develop measurable goals and science-based approaches. The more we understand the social science behind intervention options, the greater our ability

to design effective approaches. Moreover, the more we can tie empirical evidence to our interventions, the greater our ability to demonstrate our progress, determine the effectiveness of one approach versus another, and begin to address questions such as:

- Are multiple approaches needed?
- What combinations are most effective?
- How much effort is enough? Is there a point of diminishing returns?

These remaining questions on the diversity problem, its drivers, and measuring effectiveness provide potential avenues of future inquiry, to be determined at a later date by a committee created by Tarkett, IIDA, and DesignIntelligence.

Equity, Diversity and Inclusion in A/E/C/D:

An Industry Overview

by

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