New Affirmative Action Federal Contractor Regulations: An Opportunity for All Engineering Organizations to Broaden the Participation of People with Disabilities

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Abstract
The business case for diversity and inclusion has been made across many fronts. Company leaders have realized that performance, customer satisfaction, and the overall bottom line are improved when the workplace is inclusive of individuals with diverse perspectives and experiences. The vast majority of diversity and inclusion efforts have focused on gender, race, and ethnicity. By comparison, relatively little emphasis has been placed on people with disabilities, especially in engineering.

Roughly 13% of people in the United States have disabilities; this fraction is steadily increasing. It is imperative that perspectives of engineers with all types of disabilities - visual, auditory, ambulatory, cognitive, and others - be included in design and problem-solving processes to meet societal needs. This can only happen when academic and workplace environments are accessible to and inclusive of all.

The relevancy of this topic extends to Federal contractors as well. The Office of Federal Contract Compliance Programs (OFCCP) has made regulatory changes that require contractors to significantly revise affirmative action strategies to ensure equal employment opportunities for veterans and individuals with disabilities. In this paper, we provide an overview of the recent regulations and ways they differ from the earlier versions. Furthermore, we look at ways it can be used to broaden the participation of people with disabilities in engineering organizations to improve upon this overlooked dimension of diversity.

Introduction

Wulf (1998) wrote that the engineering “profession is diminished and impoverished by a lack of diversity. It doesn’t take a genius to see that in a world whose commerce is globalized, engineering designs must reflect the culture and taboos of a diverse customer base.” The business case for diversity is clear in Wulf’s statement; including people from all walks of life in the engineering of products means better designs that address all the needs and constraints that come from differences in social identity.

While Wulf’s statement has been published now for 20 years, engineering still struggles from a lack of diversity in specific populations. In order to avoid conflation between diversity in how it is being used in this paper and other forms of diversity such as ideology, nationality, or culture that when we are talking about lack of diversity in engineering, we are talking about the lack of representation of people with disabilities, Black, Latinante, and Native American and Pacific Islander racial minorities, and women.

The National Science Foundation (2017) statistics on the representation of Black, Latinante, and Native American racial minorities and women depicts the disparity that still exists in science and engineering quite starkly. While in 2014 women comprised 51% of the overall population in the United States, in 2015, they constituted only 13% of all employed engineers (National Science
Furthermore, while about 31% of the overall 2014 population consists of Black, Latinante, Native American, and Pacific Islander racial minorities, these groups comprised only 12% of the workers in engineering in 2015 (National Science Foundation). Similarly, people with disabilities composed about 13% of the population in 2014, they composed 9% of employed engineering labor in 2015 (National Science Foundation).

While it is crucial that these forms of lack of diversity be addressed, it is also important to acknowledge that the level of attention given to the underrepresentation of people with disabilities has been much lower than the level of attention given to other underrepresented populations like women (Fitzpatrick, 2014). This lack of attention can be seen in the numbers of articles published about people with disabilities compared to articles about women. For instance, in their online bibliography of the topic of diversity in engineering, Jesiek and Beddoes (2012) have cataloged 636 articles. Of those 636 articles, only one features a keyword related to disability such as “accessibility”, “blind”, “deaf”, “disability/ies”, “visually impaired” and no keywords denote any relationship to learning disabilities. With regards to just the keyword “women” alone, 55 hits resulted. For “gender” alone, 95 hits resulted. One of the consequences of the inattention to the lack of diversity with regards to disability is that people with disabilities largely think that the responsibility of addressing disability issues are individual ones, not recognizing that accessibility is an institutional responsibility individuals (Madriaga, 2007).

Due to the lack of attention given to disability in conversation about diversity, affirmative action policy has been a very important tool. Affirmative action policy is important because it is one of the few times where institutional decision-making takes into account the inclusion of people with disabilities. As such, it is a crucial tool in growing and maintaining diversity in the workforce by providing a basis from which to attenuate bias against people with disabilities. In this paper, we will discuss affirmative action in greater detail as well with emphasis on regulatory requirements instituted by the Office of Federal Contract Compliance Programs (OFCCP) to better ensure that affirmative action is enforced to assure equal employment opportunities.

**Updated OFCCP Affirmative Action Guidelines**

Affirmative action is policy instituted to address historical discriminatory practices in employment around four major goals (Willis, 1997) affecting employment practices related to hiring, retaining, and promoting employees from certain marginalized groups. The goals of affirmative action include addressing the consequences of historical employment discrimination, creating fair employment practices in the present, creating a discrimination-free workplace, and promoting people equitably along dimensions of ability, race, and gender.

Part of the OFCCP mission is to ensure that outside businesses that provide services and goods to the federal government comply with federal affirmative action policy (OFCCP, 2017a). Because many contractors provide the federal government with engineering support, such as in defense, where according to Government Executive (2010), the top 200 defense contractors received well over half a trillion dollars in government money, the OFCCP’s mission has an effect on the diversity of the engineering profession.

In 2014, the OFCCP began enforcing a mandate for government contractors relating to Section 503 of the Rehabilitation Act of 1973 (OFCCP, 2017b). Section 503 is an important regulation
that protects people with disabilities from discriminatory employment practices (OFCCP). The updated compliance measures dictate that companies adopt new employment practices such as creating plans to have a workforce where all job groups have at least 7% representation of people with disabilities, documenting and updating the number of people with disabilities who have applied for jobs, and inviting employees to self-identify as people with disabilities (OFCCP).

There have been instances when the OFCCP has been involved in legal actions to enforce the new Section 503 mandate, demonstrating the importance of the new regulation in creating diversity in the workplace. For instance, in March 2017, American Ordnance was fined 50,000 USD for failure to comply with Section 503 by not providing appropriate accommodations for two employees with disabilities at the company (OFCCP, 2017c). The Section 503 regulation is important because it enforces the requirement of institutional commitment in making the workplace accessible for all employees, something that not all employees were even aware of in the American Ordnance case.

In March 2014, Associated Builders & Contractors, a lobby representing over 19,000 construction companies, attempted to prevent the OFCCP from enforcing the updated Section 503 regulation in the construction industry by filing a civil suit in federal court to create an exception for the construction industry from the updated law (Associated Builders, 2014). Up until 2014, construction companies had not kept records related to the hiring, retention, and promotion of people with disabilities, however the OFCCP changed the policy to be effective over all industries because as they wrote, “[T]he regulations implementing Section 503 have not sufficiently advanced the employment of qualified individuals with disabilities because the percentage of people with disabilities in the labor force in March 2010 was 22.5 compared with 70.2 for persons with no disability and the unemployment rate for those with disabilities was 13.9 percent, compared with 10.1 percent for persons with no disability (Associated Builders).”

In the case, the Associated Builders argued that the 7% utilization goal of workers with disabilities was “arbitrary and capricious” and “did not consider the unique nature of the construction industry (Associated Builders, 2014).” They further argued that construction jobs should be exempted from Section 503 compliance because of its seasonal nature, as well as because of the common physical hazards associated with construction work (Associated Builders). However, the court found in favor of the OFCCP who argued that the 7% goal was necessary both to counter the continued wage and employment rate gap between construction workers with disabilities and workers without them as well as that working conditions should not disqualify any person with disability from a job (Associated Builders, 2014). The case demonstrated again the OFCCP’s role in assuring equal opportunities for people with disabilities by enforcing policy in a way that makes clear affirmative action policies can be enacted no matter the nature of work contracts or nature of the work itself within a field. Whether an industry, like construction, with the reputation of being tough and physical, must also – and can – be accessible to people with disabilities. Although the case invoked a strong bias against individuals with physical disabilities, the case also is relevant for all types of disabilities. Not all disabilities are physical, nor are they all visible, but all disabilities must be accommodated.
**Best Practices**

While OFCCP regulations apply only to companies that do business with the federal government, all engineering organizations can benefit from using the regulations as a model for increasing inclusion of people with disabilities. For instance, creating a goal of establishing a company workforce of 7% could be adopted by engineering organizations not yet operating at that level. While the average proportion of engineers with disabilities in 2015 was 9% of all engineers, several engineering occupations are operating below or just at the 7% threshold including aerospace engineer (7%), chemical engineer (4%), civil engineer (7%), and industrial engineer (6.1%) meaning that there is great work still needed within these occupational working groups from engineering organizations across the US. The statistics available also do not give information about the amount of variation in the employment of people with disabilities across all engineering working groups so that there may be a large number of companies with engineering working groups still below the 7% threshold in all engineering occupational types. Companies with engineering working groups below the 7% threshold can easily identify companies through the OFCCP and create employment practices that mirror those of companies that have demonstrated the commitment to hiring, retaining, and promoting engineers with disabilities.

One way companies can work with the OFCCP is through the creation of affirmative action plans. [Sample affirmative action plans](#) can be found on the OFCCP website. The sample plan contains policies that companies must follow to be in compliance with the updated Section 503 mandate and can aid any companies looking for employment practices that will lead to greater proportions of engineers with disabilities.

Collecting data about applicants for engineering positions can also help companies boost the numbers of engineers with disabilities. Tracking the number of applicants that do apply can help companies understand if they need to take greater responsibility in recruiting and advertising positions that qualified applicants with disabilities should know about. Simply advertising that a company is committed to accommodating people with disabilities goes a long way towards motivating people with disabilities to apply to companies, given the lack of attention to issues related to disability.

Companies should also encourage people to self-identify disabilities to create a workplace culture where disability is no longer an individual concern. As Fitzpatrick (2014) wrote, learning disabilities are underreported and people often do not know that they even have them. Combined with the view that engineering is a profession where intellect is highly valued, people may want to hide learning disabilities because they may be viewed from a deficit perspective (Fitzpatrick). Rather than further an atmosphere where disability is hidden, companies can use the new provision as a way to create a positive conversation around disability as an institutional responsibility. Hence, invitations to self-identify should also be paired with company commitments that self-identification is an opportunity to help the company improve its own employment practices.

Workplace education can help both administrators and workers learn about the institutional responsibility of accommodating people with disabilities and the improvement of employment
practices. For instance, Baggett (1994) found in a study of 422 university faculty and administrators, 74% were not knowledgeable of the Americans with Disability Act of 1990 passed to fully protect all people with disabilities for discrimination in the workplace and public services like education. Workplace education about legislation is likely needed to help people understand the types of legislation that both institutions are responsible for enforcing and the that protect workers from discrimination.

Workplace education about disabilities would also help people learn about important practices that people should adopt to improve inclusive communications between people with and without disabilities that affect their ability to communicate. Inclusive communication is a framework for communication with the goal of making “a supportive and effective communication environment, using every available means of communication to understand and be understood (Royal College of Speech and Language Therapists, 2017).” In practice, inclusive communications differ based on the diversity of disability, but examples include: Sitting when in a conversation with a wheelchair user, speaking in the line of sight with a person who is hearing impaired, or describing things in a detailed and specific manner to someone who is visually impaired (Pacific Lutheran University). Educating the workplace can heighten inclusive communication and improve the employment practices of an institution.

Companies can also learn from recent legal action that has involved the OFCCP. For instance, in their settlement, American Ordnance was ordered to provide all workers with knowledge on how to ask for reasonable accommodations. All companies should provide workers with this knowledge so that workers know that disability is not an individual concern, and that they can request accommodation before it affects their ability to be a contributing member of a work group. The ruling in favor of the OFCCP over Associated Builders, together with Wulf’s (1998) speech about the benefits of diversity for engineering, should be a signals to all industries that employ engineers that people with disabilities can do any type of job once reasonably accommodated and employing greater proportions of people with disability should be an eagerly accepted challenge.

**Conclusion**

Non-discriminatory employment practices are an institutional responsibility. Due to the lack of attention given to the lack of diversity concerning people with disability, affirmative action policy is one of the few places where employers know to consider how their employment practices affect the inclusion of people with disabilities. Employers should consider the new OFCCP affirmative action policy as an opportunity to encourage greater diversity as well as a way of changing institutional culture where workers my hide disability due to lack of knowledge about institutional responsibilities.
Bibliography


