Sex, Gender, and Engineering

Sex, Gender, and Engineering:

Harassment at Work and in School

By

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Cambridge Scholars Publishing

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To the women of Afghanistan.

May we someday live in a world where each person is valued for who they are and free to pursue life with the talents and passions with which they have been gifted.

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PREFACE

It was a warm summer night. Autumn had not yet encroached upon the ambient air. The windows were open and a cool but not at all chilly breeze wafted through the upper floor of the house. Not that we would know anything about that, because we were sequestered in the basement, chasing a manuscript deadline three weeks away that neither of us were certain we would be able to meet. But I digress.

The house was silent except for the distinct tap-tap of fingers on the keyboard...her on her PC and I on my Mac. As is the healthy thing to do, everyone else in the house had gone to bed. Not a creature was stirring except for two engineering professors trying to find a way to squeeze out one more paragraph, one more article read, one more intelligent thought before all the neurons responsible for putting words to the page gave up the ghost and quit for the night.

As I stared at yet another sentence written in dense academic language that needed some loosening up to be readable to more than a total of twenty people in the world, my mind wandered back to what started this whole idea of writing a book on sexual harassment. After all, we were engineers–not social scientists. What business did we have in writing an academic book on a topic that was far afield of electrons, chemical reactions, mathematical equations, and the prevailing tidy order that reigned in engineering and physical science research?

I took a sip of my favorite red wine and reflected on that question. On the one hand, we are indeed playing in someone else's sandbox. Neither of us have any formal training in the social sciences except for one M.Ed. between us. And the M.Ed. program only exposed the tip of the iceberg when it comes to the many complex pieces involved in studying people. On the other hand, we have many years' worth of experience in using the tools of social science to better understand the experiences of engineering students and engineers in the workforce through academic research. And we certainly have many years of "boots on the ground" experience. Collectively, we have over 60 years of experience working in engineering, both in academia and in the private sector. We have each been a part of the

education and professional launching of thousands of young engineers. We have done engineering for a very long time. That should count for something.

To the writing of this book, we bring personal histories that are both very similar and starkly different. One of us has been in the engineering discipline with the lowest representation of women (electrical engineering); one of us has been in a discipline with one of the highest (chemical engineering). One of us has spent a career at a small, teaching-focused institution, working closely with small groups of undergraduate students; one of us has been at a major research institution, mentoring students in both engineering and education while maintaining an active technical and education research program.

In the pages that follow, we share engineering stories: from our own experiences, from those we have known, and from those we have read about. We apply our knowledge of the research process to read and interpret a broad swath of academic articles written by experts in various areas of social science research relevant to sexual harassment. However, we cannot, by definition, provide an unbiased view of engineering, like a social scientist observer does in looking at us from the outside. We have been on the inside, enmeshed in the daily engineering experience, and looking out at the rest of the world. But our inside perspective has allowed us a unique understanding of the work and the daily realities of engineering. We are biased, intimately touched by what sexual harassment feels like and how much it hurts. But our biased lens has brought us an understanding of how different the engineering landscape is compared to harassment in Harvey Weinstein-land, and we are determined to have our voices, and the collective voices of our profession, heard. And–hopefully–heard by more than twenty people.

On that note, my mind quickly returned to the present, to the need to bridge academic language with lived reality, and the many revisions and words yet to be written that loomed as we headed toward the light at the end of the tunnel that was our manuscript deadline. Was that light a train? Hmm….

If you are now reading this preface, either we are out of the hospital after having a head-on collision with that train or the light at the end of the tunnel was simply that and the manuscript and publishing process were completed without undue stress or drama. At its core, the product of our effort is an academic book presented with a minimum of undocumented opinion and our best attempt to collect factual evidence and make sound conclusions

based on that evidence. That being said, the literature and news coverage of sexual harassment is very large, and we may have missed something in our many, many database searches. For this, we apologize.

Our overall goal has been to not only present the facts regarding sexual harassment in engineering in the larger context of sexual harassment in the U.S., but also to paint the picture of what harassment looks like when one is involved in engineering education or engineering work or both, and to look at solutions for reducing harassment. As educators, we know that humans ultimately learn best through story. In this book, Story is used to bring the landscape of sexual harassment to life. Some of the stories are (published) direct quotes from those who have experienced or witnessed sexual harassment. The other stories are vignettes (presented in italics); these are based on true stories gathered over our careers in engineering work and in academia, from our personal and professional networks and from news sources.

While sexual harassment in engineering, and in work and school at large, continues to be a problem that damages lives, hurts productivity, and holds us back as a nation, we write this book in a spirit of optimism and hope. We believe that most engineers, men, women, and other non-binary genders in between, are genuinely good guys/gals/folks/people/peeps/worker bees/ innovators/thinkers/leaders/managers with sincere intentions for a harassment-free classroom and workplace. We also believe that while strong, top level organizational leadership can have a monumental impact on reducing harassment and improving working environments of all kinds, grassroots and bottom-up efforts can also make a difference–with or without the C-suite alongside. To complement the emphasis on organizations to change climate and protect employees from sexual harassment, we focus (in Chapter 11 and 12) on solutions that emerge from employees "in the trenches" as well as solutions that can be applied equally well at the workgroup level as at the organizational level.

Any discussion of sexual harassment would not be meaningful without covering and reflecting on recent events. #MeToo, Black Lives Matter, and the roller coaster in presidential leadership have opened a window for potentially unprecedented advances in the sexual harassment panorama across disciplines, geographical areas, and demographics. That begs the question: will engineering, with its stubborn and persistent gender gaps, get on board?

Well, engineers are problem solvers. Given the tools, a moment or two to figure out how to optimize their use, and even if we as a community of engineers end up being the caboose, we'll be there on the train of progress. As a community, we will work together to move engineering forward toward a harassment-free classroom and workplace. In the end, like most optimized engineering solutions, the community of engineers will reap the primary benefits (more inclusivity, equity, and justice) of being fully invested in eradicating sexual harassment as well as other secondary but equally important benefits (a more effective, creative, productive workforce).

ACKNOWLEDGEMENTS

I am blessed to have encountered many people over the years who have provided support, inspiration, or both. Mom, thank you that during your life you taught me about the power of story, and you demonstrated the importance of being a true friend to the people who come into your life. Dad, thanks that you have always believed that I could do anything, and so I could. Daina, the first woman engineer I knew, thank you for showing me that you could fully belong to the club and yet still be kind. Sincere thanks to the incredible women who have been cheering me along in this process and assuring me this was worth doing: Jennifer, Jen, Tina, Claire, Angela, Stacy, Sue, Kim, Mary, Kerrie, Polly. And to Denise, there aren't words enough to thank you for bringing me along on this journey. Without your inspiration I never would have started; without your patience I never would have persisted, and without your leadership I certainly never would have finished. (In fact, I would probably still be in Chapter 2, caught in the thrall of reading law journals.) Denise, you have been a colleague, a mentor, and a true friend. Now you are also family, and for that alone, this book has been a worthwhile endeavor.

I have boundless gratitude to my family for all the ways that they supported me in the creation of this book. To my younger children: John, Helen, and Betsy, who not only put up with my missing their games, field trips, and bedtimes for way too many months, but even managed to show interest in my progress. To my older children: James and Meg, my two favorite engineers in training, and reason enough to write this book, thank you for thoughtful conversation, for editing assistance, and for being salt and light in engineering. To Jeremy, my husband, my favorite engineer, and indeed the most radical feminist I know: thank you for shouldering so much extra load at home for so long, and for letting me monopolize so many of our conversations while I worked out the ideas churning in my head. *-JJVA*

When I was thirteen years old, I met someone who turned my entire life around and directed my education and career first toward engineering and then toward teaching in higher education. He stood beside me, as a true best friend, through the struggles and the joys of transitioning from someone who couldn't tell the difference between a resistor and a capacitor to

someone who now enjoys sitting down at the lab bench to help students troubleshoot a circuit or to build one in whatever spare time I can find. As a teenager, I would tell anyone who asked that the last thing I would choose to do in my life would be to pursue teaching. I was too shy, too soft-spoken, and too blonde (and clearly too influenced by stereotypes). But my best friend changed that as well and helped me to become a capable, enthusiastic teaching presence in the classroom and a curious and productive researcher. He also introduced me to my husband Barry who I cannot thank enough for all the support, love, late-night conversations, snacks, completed household chores, pet-sitting, and copy editing that he has donated to the completion of this manuscript. Because I work at a public institution, I cannot talk about my best friend very much. At best, I refer to Him as dog spelled backwards. But I am nevertheless very grateful for His support, love, guidance, and strength over the years as I've navigated a field that often does not seem too thrilled to have me.

I also want to acknowledge and thank the other warm and fuzzy rocks that I have been fortunate to have alongside of me during the writing process. Jennifer, who is a brilliant writer, a talented engineer, and most importantly, a kind and caring person who can manage to be funny in the midst of stress and exhaustion. Drue, whose company in our many side-by-side work sessions has kept me motivated, encouraged, and on track. And, my sister Heidi who is willing and able to step into the big sister role when I stumble or stall out.

- DW

As a team, we also wish to acknowledge the many people and processes that have supported the completion of this project. We are fortunate to be employed as faculty at the University of Washington and Calvin University, institutions which value academic freedom and scholarship, without which we would never have been able to write this book. We also acknowledge and thank Alicia Mullen, Maria Tracy, and Eve Forward for their work in editing, recommending changes, and improving this manuscript.

And finally, we both wish to acknowledge the many engineers who have bravely shared their stories with us over the years, and the many, many engineers who are already part of the solution as they quietly and faithfully support their coworkers every day.

-JVA and DW

CHAPTER 1

INTRODUCTION

On October 5, 2017, the *New York Times* published a story that documented allegations spanning almost three decades against Harvey Weinstein, a well-known film producer. Weinstein was accused of sexual harassment and unwanted physical contact that targeted models, actresses, assistants, and other female employees of Miramax and the Weinstein Company. His actions led to at least eight settlements with the women he manipulated, intimidated, and assaulted. A 2015 memo written by literary scout Lauren O'Connor while she was employed by the Weinstein Company played a key role in the newspaper's investigation. Her words captured the helplessness experienced by many of Weinstein's victims (Kantor and Twohey 2017):

> I am a 28-year-old woman trying to make a living and a career. Harvey Weinstein is a 64-year-old, world famous man and this is his company. The balance of power is me: 0, Harvey Weinstein: 10.

Ten days after the *New York Times* published the Weinstein story, on October 15, 2017, actress Alyssa Milano responded with a post to her followers on the social media platform Twitter:

> If you've been sexually harassed or assaulted write "me too" as a reply to this tweet.

This single tweet went viral. Thousands of women replied to Milano's tweet with candid stories of how they had been sexually harassed or assaulted on the job and had remained silent in an employment system and culture that was organized to deter women from coming forward (Pflum 2018). A decade earlier, a grassroots movement called MeToo had been initiated by Tarana Burke, an activist who was subsequently named *Time* magazine 2017 Person of the Year. Almost overnight, #MeToo became a global movement to highlight and address sexual violence and harassment among all races, ethnicities, and walks of life (Langone 2018). In addition to the thousands of responses to Milano's initial tweet, many more women have since posted their stories to a wide range of other social media platforms.

A year after the #MeToo movement went viral on Twitter, the *New York Times* published an extensive follow-up article on the 201 prominent men who had lost their jobs since October 2017 as a result of allegations of sexual harassment or assault made by women who worked for them (Carlsen et al. 2018). Of these 201 men, 24% worked in government (primarily in elected positions at the federal and state level) and 17.6% worked in the film and television industry (Figure 1.1). These two employment sectors have a long history of men outnumbering and outranking women.

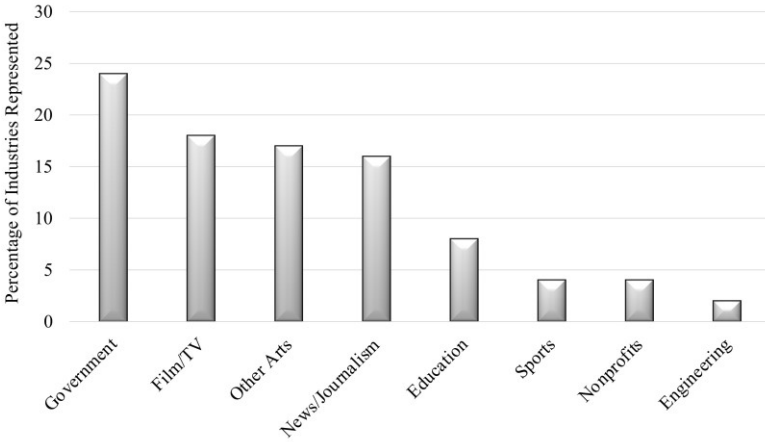

Figure 1.1: Impact of MeToo in 2017-2018
(adapted from Carlsen et al. 2018)

Almost a quarter of the 201 prominent men identified by the *New York Times* as removed from their position following the 2017 reboot of the MeToo movement were state or federal senators or representatives. The next most common employment sectors were men working in film and television (17.6%) and other arts (17.1%) including dance, music, and photography. Only four of the men on the *New York Times* list were likely to have significant exposure to engineers. Their affiliations included architecture, venture capital firms that invested in technology, and an augmented reality company.

In film and television, only 40% of top grossing films feature female protagonists and only 37% of major characters are female (Center for the Study of Women in Television and Film 2019). Behind the cameras, gender

balance is worse. For example, of the top 250 films of 2017, over 80% featured *no* females in any of the positions of director, writer, or cinematographer (Thompson 2018). Numerical male dominance is also evident in public politics, where women make up only 25% of the U.S. Senate, 23% of the U.S. House of Representatives, and 29% of state legislative seats (Represent Women 2019).

Although the representation of women in public office and in arts and entertainment is dismal, women are even more poorly represented in engineering. Women earn only 22.5% of all bachelor's degrees in engineering and 27.3% of master's degrees (American Society for Engineering Education 2020). In the workforce, they represent only 15% of engineers (Martinez and Christnacht 2021). And despite extensive efforts to reach gender parity in engineering (Muller 2003), engineering remains relatively stagnant compared to other STEM (science, technology, engineering, and math) fields (Figure 1.2). Given so many wildly male dominated engineering work environments, it is surprising that among the prominent men impacted by the MeToo movement in 2017-2018, less than 2% are from companies that are either in high tech or are likely to have significant contact with engineers (Carlsen et al. 2018). This is particularly interesting since 5% of the U.S. workforce are technical workers (engineers, computer scientists, technicians, and managers of technical workers), whereas less than 2% are in all of entertainment, arts, sports, and other media combined.

Of course, this particular one-year follow-up in the *New York Times* may have been less representative of engineering because the reporters chose to be selective toward more public figures. But even if true, this would still point to an important discrepancy. It is necessary to have a firm and public repudiation of harassment if the climate is going to change in engineering. When cases are not in the public eye, or as happens even more often, are settled in secret, it does not have the same force in preventing future behavior. Keeping quiet also does not help all engineers to understand the prevalence of harassment, nor their own need to actively work to eradicate it. Making cases public also provides important validation and support to others who have been victimized or have felt helpless in the face of harassment that they have witnessed with others. For example, after another *New York Times* article highlighted not only the offenses of former Google executive Andy Rubin but also the anemic response of Google leadership (Wakabayashi and Benner 2018), thousands of Google employees worldwide held walkouts in protest. The organizers of the walkouts expressed frustration that the real problems are bigger than a few splashy

cases with leadership. “For every story in the *New York Times,* there are thousands more, at every level of the company. Most have not been told.” (D’Onfro and Castillo 2018).

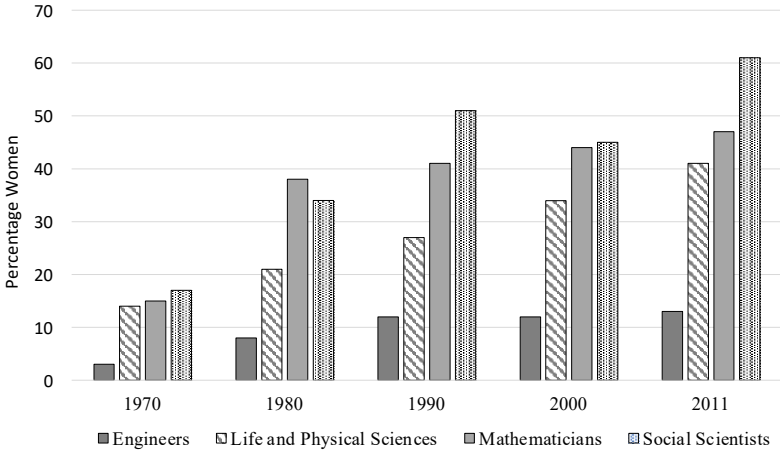

Figure 1.2: Historical Representation of Women in STEM fields
(adapted from United States Census Bureau 2013)

Whether the media reports on it or not, there is no doubt that sexual harassment remains a significant problem in engineering workplaces. In fact, in one large nationwide study, 69% of women in engineering jobs in industry (compared to 56% in science and 64% in technology) reported having experienced sexual harassment (Hewlett et al. 2008). In high tech industries, a more recent survey indicated that 37% of women in technology and technical communications industries report being sexually harassed, second only to the 41% of women in media industries who report harassment (Spangler 2018). And in college, 25% of female engineering students say they have been sexually harassed by a faculty or staff member (National Academies of Sciences, Engineering, and Medicine [NASEM] 2018).

Despite evidence that sexual harassment rates in engineering are as high as or higher than in other fields, men in engineering are not facing consequences at similar rates. Although there have been some high-profile exits of executives from the technology industry (for example, at Google (Wakabayashi & Benner 2018) and at Uber (Zacharek, Dockterman, and Edwards 2017)), they have rarely come to light until much later. In fact, in

engineering industries, even when perpetrators of sexual harassment are removed from their jobs, they often quickly get new, equally high-profile positions as part of the tolerance for "brilliant jerks" that goes on within high-tech (Mac and Alba 2019).

Those who harass in engineering are even less likely to face the consequences of their actions in the academic environment. In a public database of over 1,000 publicly documented cases of sexual harassment perpetrated by college or university faculty, only 2% of cases (Academic Sexual Misconduct Database n.d.) are in engineering whereas 5% of all U.S. faculty are in engineering (National Center for Education Statistics, n.d.). The lower number of officially documented cases almost certainly does not represent less harassment but rather represents the likelihood that women in engineering academia are much less likely to formally report sexual harassment. For example, a recent study discovered that only half of engineering students who have been harassed make a formal report to their university. Engineering students are the least likely group compared to all other students and to staff; they are 1.7 times less likely to report sexual harassment than non-STEM students (Aguilar and Baek 2020). Lower levels of reporting despite high levels of harassment strongly suggest that there are structural barriers in engineering that discourage formal reporting.

In fact, a growing number of women feel that the barriers in STEM fields are different from other workplaces. As a result, #MeTooSTEM was formed in 2018 specifically to address these issues. The nonprofit organization collected and shared stories to reduce the stigma of sexual harassment and provided referrals to support services. It also advocated for systemic change, some of which have since come to fruition. For example, the National Academy of Engineering (NAE) Code of Conduct had already prohibited discrimination, harassment, or bullying prior to #MeToo. However, the bylaws have been amended such that now, according to the NAE website, a member could now be expelled ("in extreme cases") for violating the Code. In similar fashion, the National Academy of Sciences (NAS) amended its by-laws in June 2019 to allow otherwise lifetime members to be removed for violating its code of conduct, including for discrimination and harassment (Thielking 2019). The NAS has also acted on this new policy: in the subsequent two years, there were two expulsions due to sexual harassment (Ortega 2021). Unfortunately, despite these significant gains, #MeTooSTEM has since imploded due to accusations of fraud, deception, manipulation, bullying, and hostility against its founder BethAnn McLaughlin (Aldhous 2020).

Nevertheless, evidence to date suggests that #MeToo and #MeTooSTEM have spurred changes in the engineering workplace and engineering academia. This unfortunately seems to be at slower rates than in many other areas of work such as entertainment and public office. However, this is not at all surprising given that engineering has been incredibly slow at reducing the gender gap (Figure 1.2). But however slow, positive change is still propagating among engineering disciplines and work environments. Furthermore, since the sexual harassment scandal at Google went public in 2018 (Wakabayashi and Benner 2018), internal activism at Google has grown and spread to other high-tech companies–as is apparent, for example, by the subsequent walkout of Activision Blizzard employees in 2020 in response to a pervasive culture of sexual harassment (Iyengar 2021). This is all good news and a reason for hope that in the future, sexual harassment in engineering workplaces will decline.

The extent of that good news relies not only on the longer-term impacts and evolution of the #MeToo movement but also on the intersectional impacts of other important recent events. The U.S. has experienced tumultuous shifts in cultural norms, social justice, workplace conditions, and federal policies over the last decade that have both directly and indirectly impacted the experiences of women at work. Equality and social opportunity were expanded for women during the Obama administration (2009-2017) but slid backward during the Trump administration (2017-2021) and are again expanding under the Biden administration (2021-). The Black Lives Matter (BLM) movement, initiated in 2012 after the shooting death of Trayvon Martin, expanded rapidly through nationwide demonstrations after the murder of George Floyd at the hands of police in 2020. It has directly raised awareness of the increased struggles that women of color face in the workplace compared to their White peers and indirectly stimulated organizations, both academic and non-academic, to take a closer look at the types of bias that often permeate their work cultures. Black Lives Matter has led to dramatic increases in diversity, equity, and inclusion initiatives and antibias training efforts in both academic and non-academic contexts. The COVID-19 pandemic, which shifted the entire landscape of engineering workplaces in early 2020, has also affected what sexual harassment looks like in the workplace. Lockdowns and other restrictions moved most white-collar workers home to work remotely. While harassers had little to no physical access to their targets during the pandemic, on-line harassment increased, reflecting the fact that some forms of sexual harassment can be just as easily perpetrated across Zoom (and other video work platforms) as in the traditional office environment. In the early months of the pandemic, New York state governor Andrew Cuomo became larger

than life in his daily briefings on the pandemic, providing guidance and solace to millions of New Yorkers and other Americans. Despite receiving an international Emmy for his efforts, however, Cuomo's legacy was overwhelmed by accusations of sexual harassment in early 2021, leading to his resignation in August of 2021.

So where does this leave sexual harassment in engineering? Has there been a net step forward, backward, or simply no change at all? Do future engineers now face a workplace and classroom that is freer from sexual harassment than their predecessors? Will others who are underrepresented in traditional masculine cultures like engineering–including those who are underrepresented by ethnicity, race, sexual orientation, and gender identity–benefit from the #MeToo movement? It may still be too soon to know the answer to these questions. But early evidence indicates that high tech and other engineering-heavy industries were disproportionately silent during the initial wave of the #MeToo movement despite the substantial sexual harassment experienced by women engineers in those industries.

However, recent, high-profile sexual harassment stories emerging from high-tech indicate that the tide may be turning in engineering. Scandalous sexual harassment cultures in Uber and Google have come into the public eye. This seems to have triggered an uptick in employee activism in high-tech companies that, while expressed differently than protests in arts and entertainment, can nevertheless have a profound impact on reducing sexual harassment for engineers as a whole. The recent employee walkouts at Activision Blizzard (Iyengar 2021), the sexual harassment lawsuit brought by the state of California against this highly successful gaming company (California Department of Fair Employment and Housing [DFEH] 2021), and the subsequent investigation of discrimination allegations by the U.S. Securities and Exchange Commission (Liao 2021a) speak to the fact that the momentum of #MeToo is continuing to propagate through and stimulate change in high-tech and other engineering workplaces.

Further, the policy actions and positive messaging of the Obama and Biden administrations are likely to have catalyzed and continue to catalyze and support positive changes sparked by the #MeToo movement. But the net effect may or may not nullify the negative messaging and backward steps of the Trump administration. Likewise, Black Lives Matter may reduce racial bias toward both men and women of color in the workplace, but might it also be able to impact overall *sexual* harassment? In the middle of all the turmoil of these historical social movements, did COVID-19 and the remote

work environment detract from or accelerate the positive forward momentum to reduce sexual harassment?

This book seeks to explore many of these questions alongside strategies for reducing sexual harassment in the engineering workplace (Figure 1.3). The first part provides a comprehensive background of sexual harassment as it is and as it has been–generally but also particularly within engineering. We begin by first providing a common vocabulary for discussing and describing sexual harassment as well as sex (gender) discrimination (Chapter 2). Next, Chapter 3 examines the very real costs of sexual harassment–in terms of psychological well-being, physical health, and job outcomes. Chapter 3 is followed by an examination of how some individuals are more vulnerable to sexual harassment than others (Chapter 4).

The second part of the book explores the current state of knowledge regarding sexual harassment in school (Chapter 5), at work (Chapter 6), and during the COVID-19 pandemic (Chapter 7). These chapters augment research data with a story-telling approach, providing real-world, in-context examples that paint the sexual harassment landscape as it has been experienced by engineers. All stories in these chapters and throughout the book are either direct quotations from those who have experienced or observed sexual harassment (indented and in regular font) or based on true stories drawn from the authors' reading or personal and professional networks (indented and in italics).

There is no doubt that the history and legacy of sexual harassment in the U.S. and other countries around the world is discouraging. However, there is substantial reason to hope that engineering is poised to make rapid progress in a better direction. To reflect this optimistic view, the third part of this book shifts the focus to where we go from here. We first explore the impact of recent events, including dramatic changes in presidential leadership (Chapter 8), recent social movements that are relevant to reducing sexual harassment (Chapter 9), and recent allegations that support a shift toward giving gender harassment and hostile work environment its due in the overall landscape of sexual harassment (Chapter 10).

Regrettably, there is a shortage of solutions that have been empirically *demonstrated* to be successful at curbing harassment in real-world settings. But there is no shortage of *recommendations* for reducing sexual harassment in engineering. Translating solutions, whether derived from empirical studies or from theoretical foundations, to widespread practice requires an effective approach to change. In Chapter 11, then, we explore

how to translate proven instructional, training, reporting, and activism strategies to addressing the problem of sexual harassment at work and in school. We add flesh to the model using engineering-specific examples to implement each step in the hopes that any size engineering workgroup, whether a single individual or a multinational organization, can move forward with having an impact on reducing sexual harassment in engineering. Our overarching message to engineers and others who face or study sexual harassment in the workplace is: *the problem of sexual harassment is pervasive but certainly not intractable*.

Finally, we paint a picture of hope and optimism in Chapter 12. Looking toward the future, we believe that sexual harassment (and gender harassment in particular) will slow dramatically in engineering over the short term, and in the long term become a thing of the past, with proper training, reporting, and organizational support. Not only will fewer female engineers face sexual harassment in the future but other groups of engineers who also do not conform to traditional masculine norms (such as LGBTQ persons) will face a more civil and harassment-free education and work environment. All of engineering, and all of society, stand to benefit from reducing and eradicating sexual harassment from the workplace.

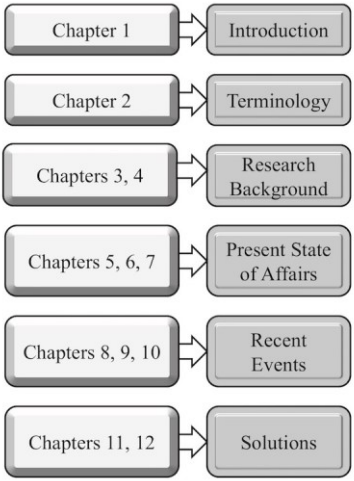

Figure 1.3: Book Structure

CHAPTER 2

THE LANGUAGE OF SEXUAL HARASSMENT

Sex, gender, sex discrimination, gender discrimination, sexual harassment, gender harassment, quid pro quo, unwanted sexual attention, sexual coercion, sexual assault, hostile environment….

Some of these terms likely seem familiar from the media or casual conversation; some less so. What does it all mean? Which of these terms refer to sexual harassment and which refer to something else? This chapter will explore the language of sexual harassment and consider such language from two primary perspectives: how sexual harassment is defined and used within social science research, and how U.S. law views sexual harassment. The legal perspective offers insight into the types of behavior in the workplace or in academia that can potentially be addressed or settled via legal action. The research perspective, which uses a broader definition, lays a necessary foundation for understanding what the peer-reviewed literature on sexual harassment is telling us about the frequency, nature, and impacts of different forms of hostile or harassing behavior in the workplace. Each of these perspectives provides useful insight for different purposes.

The language of sex and gender

Whether from a legal or a research perspective, a discussion of sexual harassment first requires that the terms *gender* and *sex* be clarified. Today, *sex* is generally understood to be a status assigned at birth based on physical appearance and genetic characteristics. Usually, an individual of the female sex is born with XX chromosomes and female reproductive organs while an individual of the male sex is born with XY chromosomes and male reproductive organs. *Gender*, on the other hand, refers less to physical and genetic characteristics and more to how an individual self-identifies. This identity is set within the culturally defined roles, or normative behavior, assigned to a gender. Unlike sex, gender identity lies on a continuum that extends from traditionally (socially constructed) feminine to traditionally masculine characteristics. Unlike sex, gender changes over time for many

individuals. Also unlike sex, the terms used to describe gender are fluid and continue to evolve over time. Some of the most common genders in modern terminology are cisgender (gender identity aligns with sex), transgender (gender identity is opposite of sex, "T"), non-binary (gender identity does not clearly align with either male or female sex, sometimes "Q"), and gender non-conforming (for individuals who exhibit behaviors that do not conform to traditional norms for their sex). Genders other than binary male or female are collectively referred to as *gender minorities*.

Sexual orientation is a distinct concept from gender; it refers to whom a person is sexually and emotionally attracted. Some examples of sexual orientation include individuals who are attracted to people of a different sex (straight or heterosexual), the same sex (lesbian or gay, "L" or "G"), or more than one sex (bisexual, "B"). Collectively, individuals who are not heterosexual are referred to as *sexual minorities* (LGB).

Sexual and gender minorities are often grouped together in research studies. This is sometimes done when an investigator believes both groups will encounter or will react to situations in similar ways. However, this is also often done for pragmatic reasons, such as when these individuals collectively still represent a small portion of a sample population. For some issues, gender and sexual orientation are important to consider separately. However, existing research is largely insufficient to discuss these groups separately within the context of sexual harassment.

While social science research language for gender and sexual minorities is quite expansive, the language used in U.S. discrimination law is not. The statutes use only the term "sex." However, since those laws were enacted, the term sex has evolved (via case law and regulation) to include both gender and sexual orientation within the already discrimination-protected class of sex.

Throughout this and subsequent chapters, gender and sex will be used interchangeably since the distinction between the two is not kept clear in the law, social science research, and popular discourse. Except when the distinction between sex and gender is critical to a particular point, sex should be read to encompass gender. Although many stories, vignettes, and other excerpts will refer to a man harassing a woman, we emphasize that this does not represent the entirety of sexual harassment. Both perpetrators and targets of harassment can be heterosexual or sexual minorities and can have gender identities anywhere along the continuum between traditionally feminine and traditionally masculine identities.

The language of social science research

Sexual harassment has been studied extensively over the past several decades. Its occurrence or prevalence has been measured using two major approaches: direct question and behavior lists. The direct question approach can be as simple as a single question such as, "Have you ever been sexually harassed at work?" Some studies modify this approach slightly by providing a simple definition as part of the question. Either way, these methods are more susceptible to bias than behavior lists because they are vulnerable to variations in interpretation by the individuals answering these questions.

Behavior lists, on the other hand, focus on identifying specific behaviors that an individual has experienced and avoid terms that are ambiguous or more subject to interpretation bias. A meta-analysis reported that when combined across more than 71 studies, people responding to behavior lists were more than twice as likely to report having been harassed than if asked to respond to a direct question about sexual harassment (Ilies et al. 2003). Because behavior lists almost always report higher levels of harassment, researchers generally agree that people are reluctant to label their experiences as harassment.

While the particular methodology (questioning strategy) varies, what is common among research studies is that the standard to evaluate the presence of harassment is from the individual respondent's subjective interpretation of their experience. In recognition of this, researchers have employed different ways to clarify survey responses. In the modified direct question, for example, the short, provided definition of harassment might include the term "unwanted." When using a behavior list, an additional direct question will sometimes be added to the *end* of the behavior list. (For example, "Have you ever been in a situation where a supervisor has sexually harassed you?") The intention is to avoid biasing individuals in their responses to prior items from the behavior list while still providing some assessment of how the participant thinks about those experiences. Berdahl and Moore (2006) introduced a different way to evaluate the individual's perception, for use with a behavior list research design. Participants who said they had experienced an item on the behavior list were asked to also indicate how negatively or positively particular behaviors made them feel; these responses were then used to modify the strength of the reported behavior (such as counting it as less severe harassment or completely removing that response from the sexual harassment count). This approach is less common but adds helpful nuance. It avoids the inherent variability in how different individuals define "sexual harassment" as a term, while still acknowledging