THE ROLE OF SEXUAL HARASSMENT IN ACADEMIC AND OCCUPATIONAL SEX-SEGREGATION

A DISSERTATION

SUBMITTED TO THE DEPARTMENT OF SOCIOLOGY

AND THE COMMITTEE ON GRADUATE STUDIES

OF STANFORD UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

EMMA TSURKOV

AUGUST 2024

This dissertation is online at: https://purl.stanford.edu/bq746tj7154

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

David Grusky, Primary Adviser

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

Michael Rosenfeld, Co-Adviser

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

Shelley Correll

I certify that I have read this dissertation and that, in my opinion, it is fully adequate in scope and quality as a dissertation for the degree of Doctor of Philosophy.

David Pedulla

Approved for the Stanford University Committee on Graduate Studies.

Stacey F. Bent, Vice Provost for Graduate Education

This signature page was generated electronically upon submission of this dissertation in electronic format.

Acknowledgments

I would like to express my deep gratitude to the members of my dissertation committee for guiding me through this very long journey, and not giving up on me. Your feedback made this work sharper, better and more insightful.

I am also grateful to the larger sociology community at Stanford; from faculty to students who for years sharpened my analytical thinking, helped hone my skills as a scholar and made me the researcher I am today.

To Prof. Michle Dauber I owe an immense debt of gratitude for mentorship, friendship and extraordinary support. Every graduate student would be lucky to have a Michele in their life.

To my ADL colleagues who gave me time and space to finish this dissertation, your kindness is deeply appreciated.

To my partner in marriage and in life, Dr. Dapo 😊 For being loving and supportive, for encouraging me to set on this journey and for being an amazing father to Daniel. To Daniel, my little sunshine, apple of my eye, you are the only thing in the world I am prouder of than this dissertation. Wanting to be the type of Ima you can be proud of was a strong source of motivation for me.

Finally, to Elizabeth, not a day goes by without me wondering in anguish where you are and what you are going through. All the milestones of finishing this huge endeavor seem tasteless without you. I love you and miss you so much. My biggest wish is for you to get to read these words.

Contents

Paper #1

Intersectionality in Rates of Sexual Harassment in Institutions of Higher Education

Introduction

In this paper, I lay the foundation for a broader discussion of the impact of sexual harassment on the gender composition of college majors. First, I focus on the rates of sexual harassment experienced by different groups of students and how these disparities can be understood through the framework of intersectionality. In the next paper, I will focus on the potential of sexual harassment to alter the academic paths of some students, so it is crucial for my argument to first describe the scope of the phenomenon of sexual harassment in higher education.

Sexual harassment in institutions of higher education has long been the focus of academic inquiry (Wood et al. 2021). However, accurate rates of sexual harassment in institutions of higher education have been difficult to establish because of limitations on sample size. The same limitations also prevent any substantive cross-tabulations to examine sub-groups among students who might be more impacted than others by sexual harassment.

Theoretical Background

Intersectionality: A Framework for Understanding Power and Inequality

Intersectionality is a conceptual framework that examines the interconnected nature of various social and political identities, such as race, class, gender, sexuality, and disability. It posits that these identities are not isolated but rather mutually constitutive, creating complex and overlapping systems of privilege and oppression (Collins 2019).

Coined by Kimberlé Crenshaw (1995), an intersectional lens reveals how individuals experience discrimination and advantage in multiple, simultaneous ways. Rather than viewing social categories as independent variables, intersectionality emphasizes their interconnectedness. At its core, intersectionality provides a robust analytical tool for examining how multiple forms of discrimination and privilege intersect to shape individuals' lives, thereby contributing to a more comprehensive understanding of structures of inequality (Zinn and Dill 1996).

For instance, Collins (2002) explains that the experiences of a black woman cannot be fully understood by examining only race or gender in isolation. Intersectionality, as a theoretical framework, rejects the conceptualization of gender and race as individual attributes to be measured and assessed for their separate contributions in explaining social outcomes. Rather, race and gender are conceptualized as interlocking systems producing a matrix of domination constructing social hierarchies. The importance of intersectionality is demonstrated in the analysis of the racially gendered way that black women in the United States are stereotyped using images of the promiscuous Jezebel and the profligate welfare queen (Collins 2002). These stereotypes are not just gendered as they do not apply to all

women, and they are not just racialized either as they do not apply to all black people; they are unique to black women specifically because they are both black and women.

With regard to sexual violence broadly, previous literature applied an intersectional lens to shed light on the elevated risk of sexual violence among women of color (Raj et al. 2021), individuals with disability (Basile et al. 2016), women in poverty (Tjaden and Thoennes 2006), and members of the LGBTQ+ community (Wirtz et al. 2018).

Particularly noteworthy is the extremely high rates of sexual violence experienced by transgender and gender-nonbinary individuals (Wirtz et al. 2018). Because these communities often exist in the intersection of additional axes of oppression, such as poverty and homelessness, the power imbalance with most other members of society creates opportunities for sexual exploitation (Wirtz et al. 2018).

Members of marginalized communities, especially those with compounding axes of oppression, not only suffer higher rates of sexual violence but also struggle to obtain the resources they need to recover from such violence. For example, black trans women not only experience sexual violence at alarmingly high rates but also are less likely to have access to health care, housing, and family support that can aid the recovery process (Braveman and Egerter 2008).

Sexual Harassment in Institutions of Higher Education

A vast body of literature has documented the widespread occurrence of sexual harassment in institutions of higher education (Wood et al. 2021). For decades, research has found that more than 50% of undergraduate women and 20% of undergraduate men experience sexual harassment while attending college (Cantor et al. 2017; Hill and Silva 2005; Yoon, Funk, and Kropf 2010). The type of sexual harassment experienced by students varies in severity, from sexist remarks, experienced by close to 60% of female respondents in one study, to sexual assault, experienced by close to 30% of female respondents in the same study (Hill and Silva 2005). In the most recent survey of sexual harassment on campuses, 59% of undergraduate women and 37% of graduate women experienced some form of sexual harassment compared to 23% of male students (Cantor et al. 2020).

Attempts to discern which students are at higher risk for sexual harassment fell short of finding academic consensus. A 2005 report by the American Association of University Women found that LGBTQ+ students experienced higher rates of sexual harassment than did heterosexual students. In one study, white students reported sexual harassment at rates higher than black or Hispanic students (Hill and Silva 2005). However, a 2010 study found the contrary: non-white students experienced higher rates and more severe forms of sexual harassment (Yoon, Funk, and Kropf 2010). In a comprehensive study of sexual harassment on campuses conducted by the Association of American Universities (AAU) in 2015, queer students reported rates of sexual harassment 30% higher than those reported by heterosexual students. With respect to racial disparities, the 2015 AAU Campus Climate Survey found similar rates of sexual harassment across different

racial groups, with the exception of Asian students, who reported lower rates of victimization than all other racial groups (Cantor et al. 2017).

Title IX, the Clery Act, and guidance from the Office of Civil Rights in the Department of Education all require colleges to address sexual harassment on their campuses (Cantalupo 2015; Dunn 2013). Nevertheless, universities continuously fail to prevent or properly respond to sexual harassment occurring on their campuses (Dauber and Warner 2019). When institutions of higher education fail to address sexual harassment, the betrayal by the institution only exacerbates the trauma experienced by the victims from the harassment itself (Parnitzke, Smith, and Freyd 2013).

Data and Method

In this paper, I use the 2019 Campus Climate Survey conducted by the AAU to explore the prevalence of sexual harassment in institutions of higher education through an intersectional lens.

AAU Campus Climate Survey Dataset[1]

In 2018, the AAU and 33 member colleges and universities (for a full list of the participating institutions, see Appendix A) designed and implemented a survey on sexual assault, other forms of sexual misconduct, and campus climate. The primary goal was to inform school policies that would prevent and respond to sexual assault and sexual misconduct on their campuses.

[1] Association of American Universities. Campus Climate Survey on Sexual Assault and Sexual Misconduct, 2014–2019. Inter-university Consortium for Political and Social Research [distributor], 2020-10-21. https://doi.org/10.3886/ICPSR37662.v1

The AAU contracted with Westat, a private research firm, to plan for and implement the 2019 survey. Westat then collaborated with a team of university researchers and administrators to develop and refine the questionnaire. The survey assessed the incidence, prevalence, and characteristics of incidents of sexual assault and other forms of sexual misconduct. It also assessed the overall campus climate with respect to student perceptions of risk, knowledge of resources available to victims, and perceived reactions to an incident of sexual assault or misconduct.

The survey was conducted during the spring 2019 semester at 33 institutions. All undergraduate, graduate, and professional students aged 18 years and older enrolled in one of the 33 participating schools were invited to complete the AAU survey. The total sample size was 830,956. To encourage participation, many schools offered the students a variety of incentives, which ranged from $5 to $20. Data collection began on February 1, 2019, and continued over a 14-week period. Seventeen schools launched the survey in February (including six that launched on February 1), nine schools launched it in March, and seven schools launched it in April. The last launch date was April 10, and the last group of surveys closed on May 10. The average field period for the survey was 30 days (the range was 14–49 days). A total of 181,752 students from the 33 participating schools completed the survey.

The survey was conducted online. The use of merge fields (a tool by which the respondents received questions customized to their campuses) throughout the instrument allowed for frequent referencing of the respondent's school within questions and framing language to personalize the experience for the students.

Invitations to participate in the survey were sent to the students' school email addresses—21 by the school and 12 by a Westat email account—on the school's survey launch date. Each email included a unique link to the student's online survey and was signed by a high-ranking official at the university (e.g., president, provost). The school or Westat sent reminder emails, also signed by the official, to prompt completion of the survey before the deadline. Each school determined the number and timing of reminder messages sent to the students, which ranged from three to eight emails during the survey's field period.

The final response rate was 21.9%. This rate varied by gender (17.5% men, 26.1% women) and affiliation status (20.4% undergraduate students, 24.5% graduate and professional students). Private schools had a response rate of 30.8%, and public schools had a response rate of 16.5%.

Data Use Access

After data collection was completed and the participating universities received their reports, the data was anonymized by Westat and transferred to the Inter-university Consortium for Political and Social Research (ICPSR). Access to the de-identified data is restricted to researchers who receive approval from the National Archive of Criminal Justice Data (NACJD), the criminal justice archive within the ICPSR. The approval process required a background check, IRB approval, and an institutional contracting of a data use agreement, which took almost 12 months to complete. Even after approval was received, the restricted dataset was limited for use by researchers from AAU member institutions for the first year.

Terminology

As mentioned earlier, previous studies of sexual harassment were limited by sample size, constraining the application of an intersectional lens to examine how positions of marginalization converge to a higher risk of sexual harassment. Notably, the relatively small groups of gay and, to an even greater extent, transgender and gender-nonbinary students have received insufficient attention from researchers.

The survey questionnaire offered the respondents six response options to the question about their gender: (a) man, (b) woman (c) transgender man, (d) transgender woman, (e) nonbinary/genderqueer, (f) gender questioning; there was also an implicit seventh response option of not answering the question and continuing to take the survey. Despite the wide variety of response options, in the dataset available to researchers, categories (c)–(f) and the non-response option were all collapsed into a single category, labeled as "TGQN." Accordingly, the somewhat counterintuitive term "TGQN respondents" refers to students who listed their gender identity as one of the following categories: (c) transgender woman, (d) transgender man, (e) nonbinary/genderqueer, (f) gender questioning, and (g) gender not listed (non-response).

The last category, "gender not listed," which could be an oversight or inattentive questionnaire completion, complicates the analysis of the entire TGQN group. The TGQN group includes some students marginalized for their gender expression, intermixed with cisgender students who did not pay attention to this section while completing the questionnaire. Unable to separate groups (c)–(g), I am regrettably limited in how much this study can advance the severely lacking research on the experiences of sexual assault by non-cisgender people.

Results

As described above, this chapter applies an intersectional framework to rates of sexual harassment in institutions of higher education. Accordingly, it explores the following research questions:

(a) *Are some students more vulnerable than others to sexual harassment?*

(b) *Are there disparities in the types of sexual harassment that different student groups experience?*

Intersectionality in Experiencing Sexual Harassment in Institutions of Higher Education

Table 1 summarizes the rates at which different groups of students report experiencing sexual harassment.

Table 1. Percentage of Undergraduate Students Experiencing Sexual Harassment Since Enrolling in College

	Type of harassment[2] / Type of student	% of student group experiencing any sexual misconduct (1)			% of student group experiencing an incident of sexual touching (2)			% of student group experiencing an incident of penetration without consent[3] (3)		
	Gender	Women	Men	TGQN[4]	Women	Men	TGQN	Women	Men	TGQN
Sexual orientation	Hetero	59.14	36.79	43.42	28.79	6.92	11.45	13.07	2.37	5.34
	(N)	(36,143)	(14,424)	(66)	(15,257)	(2,333)	(15)	(6,926)	(800)	(7)
	Queer	71.93	58.85	69.66	39.50	21.05	32.53	21.11	9.74	19.53
	(N)	(10,986)	(3,619)	(1,488)	(5,388)	(1,133)	(610)	(2,880)	(524)	(366)
Disability status (binary)	Disabled	73.15	49.84	73.53	43.27	15.27	36.38	23.57	6.82	22.84
	(N)	(17,445)	(4,517)	(1,161)	(9,132)	(1,185)	(510)	(4,975)	(529)	(320)
	Able-bodied	56.24	37.07	54.70	24.64	7.06	17.96	10.17	2.44	7.92
	(N)	(27,905)	(12,549)	(355)	(10,702)	(2,092)	(102)	(4,417)	(722)	(45)
Race	White	64.49	41.05	68.57	33.70	9.68	32.67	16.39	3.76	19.67
	(N)	(29,519)	(11,175)	(938)	(13,417)	(2,250)	(392)	(6,524)	(874)	(236)
	Hispanic	61.27	42.06	70.55	32.01	10.30	33.73	15.41	4.10	21.96
	(N)	(5,093)	(2,135)	(206)	(2,301)	(458)	(86)	(1,108)	(182)	(56)
	Black	57.10	42.44	72.73	26.14	9.95	26.87	11.42	3.75	17.91
	(N)	(2,257)	(752)	(56)	(884)	(151)	(18)	(386)	(57)	(12)
	Asian	52.58	31.24	59.01	21.02	4.59	18.39	8.57	1.50	6.66
	(N)	(7,066)	(2,672)	(178)	(2,524)	(334)	(55)	(1,043)	(107)	(21)
	Other race/ multiracial	64.90	44.01	62.38	33.94	10.55	31.47	16.35	4.25	20.32
		(3,748)	(1,540)	(189)	(1,715)	(318)	(79)	(826)	(128)	(5)
	All students	61.51	39.66	67.37	30.87	8.86	30.97	15.64	3.4	18.49
	(N)	(47,683)	(18,274)	(1,567)	(20,841)	(3,511)	(630)	(9,887)	(1,348)	(376)

(Source: 2019 AAU Campus Climate Survey)

As can be gleaned from Table 1, rates of experiencing sexual harassment vary greatly across different student groups. When examining the rate of sexual harassment across intersections of social positioning, it is clear that gender is an important (but not the only) axis of variation; other significant axes include sexual orientation and, even more so, disability. In fact, disabled women reported the highest rates of victimization across all

[2] Reflecting the definitions used in the survey, the categories of harassment are on a scale of severity mirroring federal law. Verbal sexual harassment is at the bottom of the scale. Sexual assault that includes touching but does not include penetration is the middle tier in that scale. Penetration without consent is the most severe form of sexual harassment.

[3] This category includes both incidents of penetration without voluntary consent and incidents of penetration involving coercion.

incident categories. It is worth mentioning that disability is self-reported in this dataset and includes disabilities not easily noticeable by others.

Gender Gaps in Rates of Experiencing Sexual Harassment

Consistent with previous research, I find that women experience significantly higher rates of all types of sexual harassment across all intersectional identities. The more severe the incident, the more pronounced the gap. For example, 40% of men report having experienced some type of sexual harassment compared with 61% of women. Although the gap is statistically significant ($p < .000$), women's reported rates are 50% higher than those of men. When looking at the most severe form of sexual harassment, 15.6% of women experienced penetration without consent compared with 3.4% of men, putting the gender gap in rates of this type of victimization at 460%.

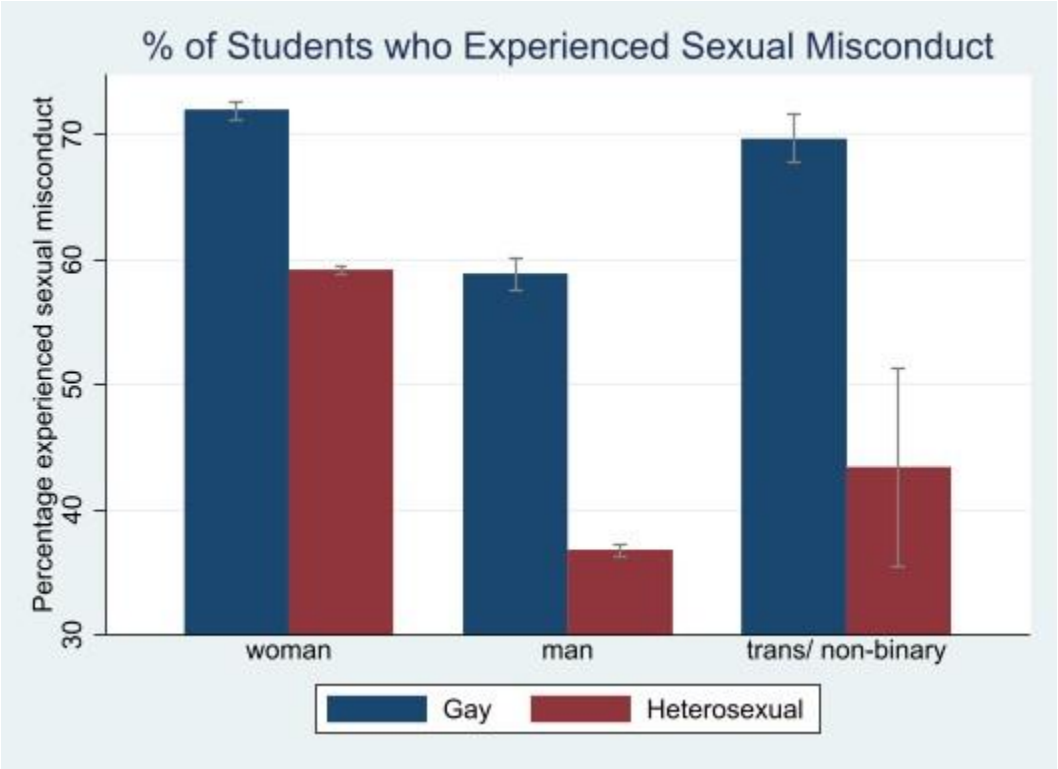
Gaps in Rates of Experiencing Sexual Harassment Based on Sexual Orientation

Consistent with previous research (e.g., Cantor et al. 2017), I find that heterosexual-identifying students reported experiencing significantly ($p<.000$) lower rates of victimization across all incident types than did queer students. This gap is particularly pronounced when comparing across sexual orientations among men. Gay women reported rates of victimization around 40% higher than did heterosexual women across all types of sexual misconduct. However, gay men reported victimization rates 300% higher than did heterosexual men; in fact, gay men experienced victimization at rates more similar to heterosexual women than to heterosexual men.

Comparing across just one axis of marginalization, sexual orientation, or gender obfuscates the importance of the intersection of gender with sexual orientation to reproduce

a highly unequal college experience, as shown in Chart 1. It is not sufficient to compare men to women or queer students to heterosexual ones. In fact, the intersection of gender identity and sexual orientation is what makes gay men highly vulnerable to sexual assault.

Chart 1. Percentage of Students within Gender Identity and Sexual Orientation Groups Who Experienced Any Type of Sexual Misconduct Since Entering College



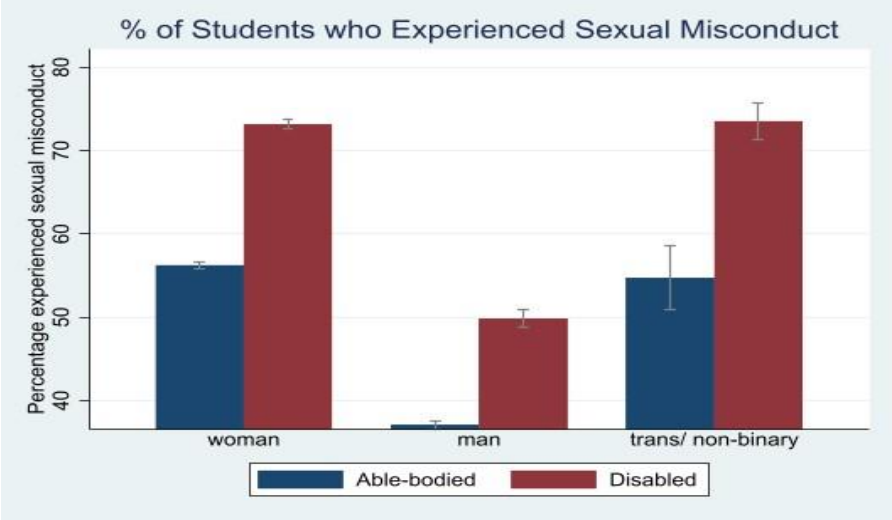
Confidence intervals represent a $p < .05$ level.

Gaps in Rates of Experiencing Sexual Harassment Based on Disability

Though it is less frequently addressed in research on campus sexual assault, I find disability to be a crucial axis of variation. Close to 73% of disabled women experienced some sort of sexual misconduct, while the rate among able-bodied women was 56%. The gap between able-bodied women and disabled women was statistically significant across all incident types ($p<.000$), as was the gap between able-bodied men and disabled men.

Chart 2 shows that among students who self-identified as having a disability, gender differences persist and are statistically significant. About 50% of disabled men and 72% of disabled women experienced sexual misconduct (p<.000) while attending college. The statistical significance of the gap between men and women holds across all three types of sexual harassment. The difference between disabled women and disabled TGQN students was not statistically significant, which may be due to a relatively small TGQN sample and its internal heterogeneity.

Chart 2. Percentage of Students within Gender Identity and Disability Status Who Experienced Any Type of Sexual Misconduct Since Entering College



Confidence intervals represent a p < .05 level.

Gaps in Rates of Experiencing Sexual Harassment Based on Race

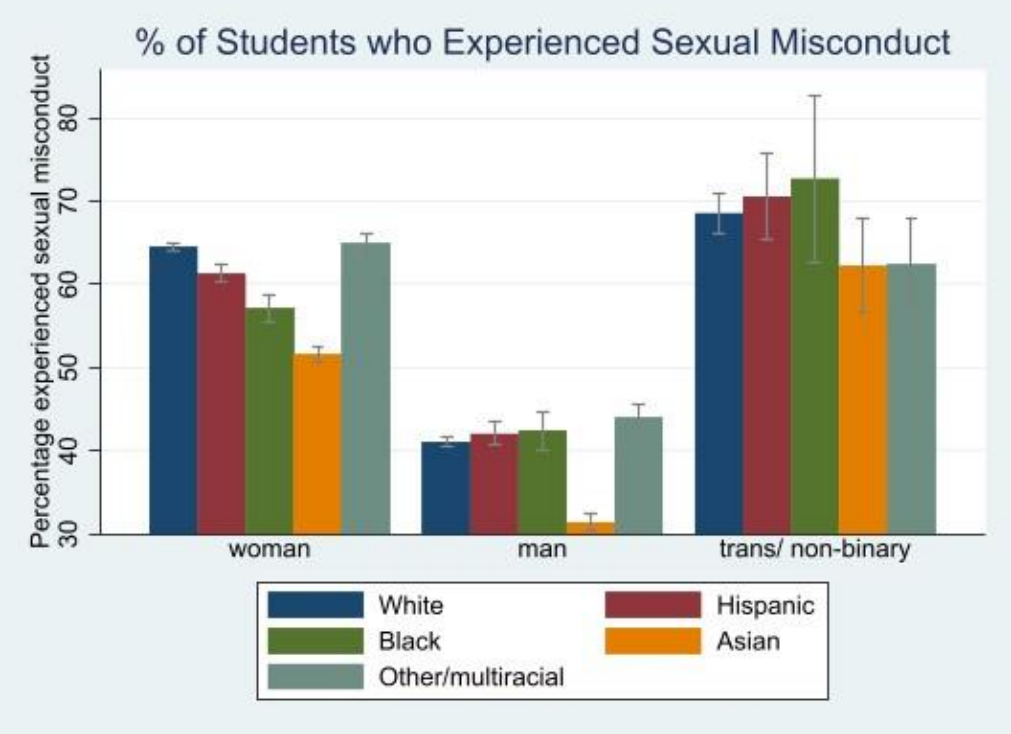
The evidence from previous research on this subject is contradictory, with some studies documenting the highest rates of victimization among white students (Hill and Silva 2005), while others found that non-white students experienced higher rates and more severe forms of sexual harassment (Yoon, Funk, and Kropf 2010).

As can be seen in Chart 3, consistent with the results of Hill and Silva's (2005) study, white women report some of the highest rates of victimization of any gender by race student group.[5] Importantly, the size of the AAU dataset, an order of magnitude bigger than those of previous studies, allows for a more nuanced analysis of the different non-white student groups. When comparing among women-identifying students, multiracial students report the highest rates of victimization, followed by white students, Hispanic students, and then black students ($p<.000$). Broadly speaking, Asian students report the lowest rates of victimization of any student group. Specifically, Asian men report the lowest rate of victimization of any group in the survey. This gap is particularly pronounced when looking at the most severe type of sexual misconduct: 16.4% of white women report experiencing penetration without consent compared to 1.5% of Asian men having the same experience. When considering this gap among student groups, it is evident that even students who share a campus may have very divergent college experiences.

The gender gap in rates of victimization persists when looking within other marginalized identities: men of all racial groups experience lower rates of victimization within that racial category (e.g., white men are victimized at lower rates than white women, black men report lower rates than black women, and so on). Nevertheless, the racial gaps in rates of victimization are uniquely concentrated among women (e.g., white men report rates of victimization similar to those reported by Hispanic and black men).

[5] Although TGQN students reported the highest rates in an absolute sense, their small sample size resulted in the differences in means when comparing to other student groups not being statistically significant. Accordingly, I refrain from discussing them.

Chart 3. Percentage of Students within Gender and Race Categories Who Experienced Any Type of Sexual Misconduct Since Entering College



Confidence intervals represent a $p < .05$ level.

Regression Analysis of the Prevalence of Sexual Harassment

To further investigate the relationship between demographic characteristics and rates of sexual harassment, I use logistic regression to predict the binary outcome of experiencing sexual assault while attending college. The regression results are presented in Table 2.

Table 2. Odds Ratio of Experiencing Sexual Assault While in College by Student Characteristics

Variable	Model 1	Model 2
Gender (ref: Man)		
Woman	4.41***	4.34***
	(0.09)	(0.09)
TGQN	2.28***	2.19***
	(0.13)	(0.12)
Race (ref: White)		
Hispanic	0.99	0.99
	(0.03)	(0.03)
Black	0.82***	0.83***
	(0.03)	(0.03)
Asian	0.61***	0.61***
	(0.02)	(0.02)
Other/multiracial	1.03	1.03
	(0.03)	(0.03)
School year	1.34***	1.34***
	(0.01)	(0.01)
Heterosexual	0.63***	0.65***
	(0.01)	(0.01)
Having a disability (binary)	1.99***	
	(0.03)	
Type of disability (ref: no disability)		
Attention-deficit		1.69***
		(0.08)
Chronic mental health condition		2.16***
		(0.04)
Chronic medical condition		1.16*
		(0.07)
One or more types of disability		1.32***
		(0.07)
Other type of disability		2.26***
		(0.06)
International student	0.69***	0.70***
	(0.03)	(0.03)
Constant	0.05***	0.05***
	(0.00)	(0.00)
Observations	102,086	102,086
Pseudo-R^2	0.12	0.11

Standard errors in parentheses
*** p < 0.001, ** p < 0.01, * p < 0.05
All student characteristics in the model were self-reported, including disability status.

Table 2 provides an odds ratio for chances of experiencing sexual assault while attending college by different student characteristics. This analysis is not meant to prove a causal relationship. The first, last, and only cause of sexual assault are perpetrators. This analysis is meant to descriptively show the variation in vulnerability to sexual assault across different groups of students.

As can be seen from Table 2, being a woman, compared to being a man, is associated with an increase in chances of experiencing sexual assault in college by a factor of 4.4, net of race, nationality, sexual orientation, and disability status. Put differently, cisgender women are four times more likely to experience sexual assault in college than cisgender men. TGQN students have an increased chance of campus sexual assault by a factor of 2.3, net of race, nationality, sexual orientation, and disability status. This may be a conservative estimate because the TGQN category includes not only transgender students and nonbinary students but also students who did not answer the survey question about their gender or skipped it. Accordingly, it might be the case that inattentive respondents cause attenuation bias to the estimate of the chances of campus sexual assault among the most vulnerable to sexual assault—trans and nonbinary students. This hypothesis cannot be tested using the restricted AAU data provided to researchers.

Looking at the coefficients for race in Table 2, the only statistically significant findings are that black and Asian respondents have a lower risk of experiencing sexual assault in college, net of the other variables included in the model. Heterosexual students have a lower risk of experiencing sexual assault than queer students, all other characteristics controlled for in the model being equal. Similarly, international students are

less likely to experience sexual assault in college when compared to American students, holding all the other demographic characteristics constant.

The results in Table 2 show that every additional year in college is associated with a 30% increase in chances of having experienced sexual assault in college. This finding is hardly surprising if we consider campus sexual assault a risk that students take while attending college. The longer the risk exposure, the higher the chances of the risk manifesting into the negative outcome. If every year of smoking increases the chances of lung cancer, then smoking for one year results in having a lower risk of lung cancer than smoking for four years.

While previous literature on campus sexual assault has largely overlooked disability as an important axis of vulnerability, the results in both models in Table 2 highlight its role in describing the risk of campus sexual assault. It is clear that any discussion of campus sexual assault that ignores disability, as most current discussions do, cannot come close to addressing the problem.

The difference between Model 1 and Model 2 in Table 2 is the level of detail of the disability variable. Model 1 in Table 2 shows the logistic regression results in the more parsimonious model with a binary disability variable. When collapsing all types of disability into a single binary variable, having a disability is associated with a doubled risk of campus sexual assault when compared to being able-bodied, net of all the other characteristics controlled for in the model.

Model 2 in Table 2 shows the logistic regression results in the less parsimonious model with a more detailed, six-category disability variable. All types of disability are associated with an increased risk of experiencing campus sexual assault. However, not all

disabilities are made equal. A chronic medical condition is associated with a 16% increase in chances of experiencing campus sexual assault when compared to having no disability. A chronic mental health condition, on the other hand, is associated with a 116% increase in chances of experiencing campus sexual assault when compared with having no disability, net of all the other controls in the model. Interestingly, having an attention-deficit disability is associated with a 69% increase in chances of experiencing campus sexual assault when compared to having no disability. While a chronic medical condition might or might not be visible and might impair a victim's ability to resist or run away, attention-deficit and chronic mental health conditions are unlikely to be visible. The mechanism by which an attention-deficit disability is salient for vulnerability to campus sexual assault is unclear. Nonetheless, this novel but clear finding is deserving of future research.

Overall, these results show that not all disabilities are made equal, an aspect of intersectionality completely unaddressed by current understandings of campus sexual assault.

Conclusion

This study has demonstrated the significant disparities in the prevalence of sexual harassment across different student demographics within institutions of higher education using an intersectional framework. The findings underscore that gender, sexual orientation, disability status, and race all intersect to influence the vulnerability of students to sexual harassment. Women, queer and disabled students experience higher rates of campus sexual harassment and its most severe forms, including penetration without consent. These disparities contribute to uneven educational experiences and outcomes, impacting the most marginalized communities on college campuses.

The implications of these findings are profound, suggesting that institutions of higher education must not only recognize the pervasive nature of sexual harassment but also address the compounding effects of intersecting identities on students' experiences. The current lack of attention to the importance of disability as a significant risk factor for experiencing sexual harassment is detrimental to any efforts to address campus sexual harassment.

Effective policies and interventions need to be informed by this intersectional understanding to better support the most vulnerable populations and create safer, more equitable educational environments. The next paper of this dissertation will explore the long-term impacts of sexual harassment on students' academic trajectories by examining the role of sexual harassment in explaining gender-segregated college majors.

References

Alon, Sigal, and Dafna Gelbgiser. 2011. "The Female Advantage in College Academic Achievements and Horizontal Sex Segregation." *Social Science Research* 40(1):107–119.

Basile, Kathleen C., Matthew J. Breiding, and Sharon G. Smith. 2016. "Disability and Risk of Recent Sexual Violence in the United States." *American Journal of Public Health* 106(5):928–933.

Cantalupo, Nancy Chi. 2015. "Institution-Specific Victimization Surveys: Addressing Legal and Practical Disincentives to Gender-Based Violence Reporting on College Campuses." *Trauma, Violence, & Abuse* 16(4):358–372.

Cantor, David, Bonnie Fisher, Susan Chibnall, Reanne Townsend, Hyunshik Lee, Carol Bruce, and Gail Thomas. 2015. "Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct." *The Association of American Universities*.

Cantor, David, Bonnie Fisher, Susan Chibnall, Reanne Townsend, Hyunshik Lee, Carol Bruce, and Gail Thomas. 2020. "Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct." *The Association of American Universities*.

Cech, Erin. 2015. "Engineers and Engineeresses? Self-conceptions and the Development of Gendered Professional Identities." *Sociological Perspectives* 58(1):56–77.

Ceci, Stephen J., and Wendy M. Williams. 2010. "Sex Differences in Math-Intensive Fields." *Current Directions in Psychological Science* 19(5):275–279.

Ceci, Stephen J., Wendy M. Williams, and Susan M. Barnett. 2009. "Women's Underrepresentation in Science: Sociocultural and Biological Considerations." *Psychological Bulletin* 135(2):218.

Charles, Maria, and Karen Bradley. 2002. "Equal but Separate? A Cross-National Study of Sex Segregation in Higher Education." *American Sociological Review* 67(4):573–599.

Collins, Patricia Hill, Elaini Cristina Gonzaga da Silva, Emek Ergun, Inger Furseth, Kanisha D. Bond, and Jone Martínez-Palacios "Intersectionality as critical social theory" *in* "Intersectionality as critical social theory" Patricia Hill Collins, Duke University Press, 2019.

Correll, Shelley J. 2004. "Constraints into Preferences: Gender, Status, and Emerging Career Aspirations." *American Sociological Review* 69(1):93–113.

Crenshaw, Kimberlé, Neil Gotanda, Gary Peller, and Kendall Thomas (Eds.). 1995. *Critical Race Theory: The Key Writings That Formed the Movement*. The New Press, NY.

Dauber, Michele L., and Meghan O. Warner. 2019. "Legal and Political Responses to Campus Sexual Assault." *Annual Review of Law and Social Science* 15:311–333.

Dunn, Laura L. 2014. "Addressing Sexual Violence in Higher Education: Ensuring Compliance with the Clery Act, Title IX and VAWA." *Georgetown Journal of Gender and the Law* 15:563.

England, Paula, and Su Li. 2006. "Desegregation Stalled: The Changing Gender Composition of College Majors, 1971–2002." *Gender & Society* 20(5):657–677.

Fitzgerald, Louise F., Sandra L. Shullman, Nancy Bailey, Margaret Richards, James Swecker, Yvette Gold, and Mary Ornstein. 1988. "The Incidence and Dimensions of Sexual Harassment in Academia and the Workplace." *Journal of Vocational Behavior* 32(2):152–175.

Greifer, Noah, and Elizabeth A. Stuart. 2021. Choosing the Causal Estimate for Propensity Score Analysis of Observational Studies. *arXiv preprint arXiv:2106.10577*.

Hill, Catherine, and Elena Silva. 2005. "Drawing the Line: Sexual Harassment on Campus." *American Association of University Women Educational Foundation*.

Hill-Collins, Patricia. 2002. "Learning from the Outsider Within: The Sociological Significance of Black Feminist Thought." *Gender: A Sociological Reader* 93(6):69.

Holland, Paul W. 1986. "Statistics and Causal Inference." *Journal of the American Statistical Association* 81(396):945–960.

Huerta, Marisela, Lilia M. Cortina, Joyce S. Pang, Cynthia M. Torges, and Vicki J. Magley. 2006. "Sex and Power in the Academy: Modeling Sexual Harassment in the Lives of College Women." *Personality and Social Psychology Bulletin* 32(5):616–628.

Hyde, Janet S., Sara M. Lindberg, Marcia C. Linn, Amy B. Ellis, and Caroline C. Williams. 2008. "Gender Similarities Characterize Math Performance." *Science* 321(5888):494–495.

Mann, Allison, and Thomas A. DiPrete. 2013. "Trends in Gender Segregation in the Choice of Science and Engineering Majors." *Social Science Research* 42(6):1519–1541.

Ming, Jennifer S., and Jessica L. Degol. 2017. "Gender Gap in STEM: Examining the Social-Cognitive Factors across Multiple Cultures." *Educational Psychology Review* 29(4):847–871.

Parnitzke Smith, Carly, and Jennifer J. Freyd. 2013. "Institutional Betrayal." *American Psychologist* 68(6):575–587.

Raj, Anita, Nicole Johns, and Rupa Jose. 2021. "Racial/Ethnic Disparities in Sexual Harassment in the United States, 2018." *Journal of Interpersonal Violence* 36(15–16).

Sassler, Sharon, Jennifer Glass, Yael Levitte, and Katherine M. Michelmore. 2017. "The Missing Women in STEM? Assessing Gender Differentials in the Factors Associated with Transition to First Jobs." *Social Science Research* 63:192–208.

Tjaden, Patricia, and Nancy Thoennes. 2006. *Extent, Nature, and Consequences of Rape Victimization: Findings from the National Violence Against Women Survey* (No. NCJ210346). Washington, DC: National Institute of Justice, U.S. Department of Justice.

Wirtz, Andrea L., Tonia C. Poteat, Mannat Malik, and Nancy Glass. 2020. "Gender-Based Violence against Transgender People in the United States: A Call for Research and Programming." *Trauma, Violence, & Abuse* 21(2):227–241.

Wood, Leila, Sharon Hoefer, Matt Kammer-Kerwick, José Rubén Parra-Cardona, and Noël Busch-Armendariz, N. 2021. "Sexual Harassment at Institutions of Higher Education: Prevalence, Risk, and Extent." *Journal of Interpersonal Violence* 36(9–10):4520–4544. https://doi.org/10.1177/0886260518791228

Wynn, Alison T., and Shelley J. Correll. 2018. "Puncturing the Pipeline: Do Technology Companies Alienate Women in Recruiting Sessions?" *Social Studies of Science* 48(1):149–164.

Yoon, Eunkyung, Roni Stiller Funk, and Nancy P. Kropf. 2010. "Sexual Harassment Experiences and Their Psychological Correlates Among a Diverse Sample of College Women." *Affilia* 25(1):8–18.

Zheng, Haowen, and Kim A. Weeden. 2023. "How Gender Segregation in Higher Education Contributes to Gender Segregation in the U.S. Labor Market." *Demography* 60(3):761–784.

Appendix **A: Participating Institutions in the 2019 Association of American Universities Campus Climate Study**

1. Boston University
2. Brown University
3. California Institute of Technology
4. Carnegie Mellon University
5. Case Western Reserve University
6. Harvard University
7. Iowa State University
8. Massachusetts Institute of Technology
9. Northwestern University
10. Rice University
11. Stanford University
12. Texas A&M University
13. The Johns Hopkins University
14. The Ohio State University
15. The University of Arizona
16. The University of Chicago
17. The University of Kansas
18. The University of North Carolina at Chapel Hill
19. The University of Wisconsin-Madison
20. University of Florida
21. University of Michigan
22. University of Minnesota, Twin Cities
23. University of Missouri
24. University of Oregon
25. University of Pennsylvania
26. University of Pittsburgh
27. University of Rochester
28. University of Southern California
29. University of Virginia

30. Vanderbilt University
31. Washington University in St. Louis
32. Yale University
33. Georgetown University

Paper #2:

Connecting Sexual Harassment and the Gender Segregation of College Majors

Introduction

The gender segregation of college majors in the US is commonly understood as a crucial driver of occupational gender segregation and the inequalities that stem from it (Zheng and Weeden 2023). In this paper, I investigate whether sexual harassment helps explain the gender composition of college majors. In the first part of the paper, drawing on the 2019 Campus Climate Survey conducted by the Association of American Universities (AAU), I investigate whether *past* experiences of campus sexual harassment can help explain the gender composition of college majors. In the second part of the paper, I look at the way fear of *future* sexual harassment can manifest in the academic trajectories of women.

By combining a quantitative analysis of the AAU survey data with qualitative insights from interviews with college students, this study aims to elucidate the mechanisms through which fear of sexual harassment contributes to gendered educational choices. It explores whether students' self-perceived risk of harassment can explain their likelihood of entering female-dominated majors and how trust in institutions to handle harassment reports may mitigate these effects. The focus on the ex-ante costs of sexual harassment—the opportunities women forgo to avoid sexual harassment—adds a novel potential explanation for the limited success of past attempts at reducing the gender segregation of certain fields of study.

Theoretical Background

The Gender Segregation of College Majors

Women surpassed men as the majority of BA recipients in the US in 1982 (England and Li 2006) but are still only 19% of degree earners in engineering (Ming and Degol 2017). The gender segregation in fields of study has remained stagnant since the 1990s, after two decades of slow improvement in the 1970s and 1980s (Alon and Gelbgiser 2011; Charles and Bradley 2002). Different explanations for this gender segregation in fields of study have been offered over the years. One such explanation has been the gender gap in favor of men when it comes to math testing (Ceci and Williams 2010), but this gender gap has shrunk in recent decades (Hyde et al. 2008), and women who are high performing in math are less likely than men who are high performing in math to choose STEM majors (Ceci, Williams, and Barnett 2009). Mann and DiPrete (2013) found that the gender gap in math testing explains less than one third of the variation in field of study choices.

Furthermore, even when women do obtain degrees in STEM, they are 14% less likely than their male counterparts to enter STEM careers afterwards (Sassler et al. 2017). One possible explanation for this "leaky pipeline" from STEM degrees into careers in STEM is the hostile climate to women in sectors like the tech industry, which signals to women they do not belong (Wynn and Correll 2018). Correll (2004) offered another potential explanation for women's lower participation even when capabilities are held constant: women's professional preferences are shaped by constraints on self-perception of competence. Net of performance, women were shown to be less likely to believe their own competence, which led them to avoid developing aspirations for careers requiring such

skills. Accordingly, women have a low sense of competence in math, dampening their aspirations for careers in STEM.

Consequences of Sexual Harassment

Research going back more than three decades has documented the myriad negative psychological, physical, social, and professional consequences that sexual harassment has on its targets (e.g., Gross et al. 2006; Ho et al. 2012). Sexual harassment has been shown to be associated with an increase in post-traumatic symptoms and decreased well-being (Avina and Donohue 2002); an increase in depression, sleeplessness, and overall emotional distress (Ho et al. 2012; McDermut, Haaga, and Kirk 2000; Roosmalen and McDaniel 1999); and an increase in self-blame and a decrease in self-esteem (Neville et al. 2004).

In the specific context of higher education, more than three decades of literature has documented the damage sexual harassment causes to victims' educational opportunities and progress (Cantor et al. 2015; Fitzgerald et al. 1988; Hill and Silva 2005; Huerta et al. 2006; Wood et al. 2021; Yoon, Funk, and Kropf 2010). As early as 1982, researchers documented that 15% of graduate student victims of sexual harassment and 12% of undergraduate student victims at Harvard University changed their educational program or major because of the harassment (Fitzgerald et al. 1988).

Victims of sexual harassment at institutions of higher education report using coping strategies that are harmful to educational pursuits, such as dropping classes, changing advisors, changing majors, and even dropping out of school altogether (Cantor et al. 2020). Students who experienced sexual harassment reported both low academic satisfaction and heightened psychological distress, which led to academic disengagement and, ultimately,

lower academic performance (Huerta et al. 2006). Due to the power disparity and the sense of betrayal by the institution itself, sexual harassment by faculty is particularly harmful to students and their academic careers (Rosenthal et al. 2016).

The Long Shadow of Sexual Assault

Although women's fear of sexual harassment has not been studied as a consideration for choosing a college major, broader fears of gender-based violence have received noteworthy academic attention. Researchers have long established that women often worry that a non-sexual crime might escalate into a sex crime, and they accordingly develop a stronger fear of all crimes than men do (Stanko 1995; Tuerkheimer 1997). Essentially, women's fear of all crimes is more accurately described as a disguised fear of sexual assault (Choi, Yim, and Lee 2019). The fear of sexual assault stems from women's assessment of it as a crime that causes particularly severe psychological harm, even when compared with other violent crimes (Gordon and Riger 1989). Additionally, sexual assault victims are seen to be blamed and stigmatized for the crime committed against them, more so than victims of other crimes are (Gordon and Riger 1989). Correspondingly, studies have repeatedly shown that women in the United States are more frightened of sexual violence than death (Ferraro 1995; Fisher and Sloan 2003; Hickman and Muehlenhard 1997).

From a young age, women are advised to avoid walking alone at night, to refrain from trusting strangers, and so on, thus learning that it is their responsibility to avoid being sexually assaulted. Women internalize these messages well into adulthood, with some surveys showing that over 60% of American women feel unsafe in their own

neighborhoods after dark, and over 30% reported thinking about the possibility of being sexually assaulted on a daily basis (Gordon and Riger 1989).

To manage this prevalent fear, women develop an elaborate system of constant risk assessment and risk management. In their seminal study, Gordon and Riger (1989) used both quantitative and qualitative methods to illustrate the role that fear of sexual violence plays in women's daily lives. They show that many women experience a general sense of alertness when they are outside of their home, followed by a barrage of avoidance strategies both big and small (Gordon and Riger 1989). These avoidance strategies themselves can be cognitively taxing and restrictive. Even the third of participants who reported thinking about the possibility of sexual assault the least—once a week or less—still reported taking daily precautions to avoid sexual assault, such as carrying keys between their fingers when walking through a parking garage or carrying mace in their purse.

In addition to the restrictive nature of certain avoidance strategies, women often reported adopting strategies that were themselves dangerous. One of the clearest examples is the frequently mentioned strategy of walking on the road rather than on the sidewalk in poorly lit areas (Gordon and Riger 1989). While this can certainly achieve the desired goal of making it harder to be grabbed off a poorly lit street, it also creates a great danger of being struck by a car. The many women using this tactic were fully aware of the risk of bodily harm they were bringing to themselves, but they consciously chose the risk of a vehicular accident over the risk of sexual assault. When Gordon and Riger (1989) asked men who lived in the same neighborhoods as the women in the study whether they fear being sexually assaulted, the men reported having not thought about it, let alone taken precautions to avoid it.

More recently, Bitton and Shavit (2015) established that women are willing to pay more for transportation to reduce the danger of gender-based victimization. Wesely and Gaarder (2004) documented how "the long shadow of sexual assault"—the fear of being assaulted due to perceived vulnerability—makes women avoid outdoor recreational activities. Given women's greater fear of sexual violence when compared to men, strategies to avoid sexual assault are a burden borne primarily by women.

This body of literature clearly depicts how prevalent and cognitively taxing the fear of sexual violence is for women. However, such research focused on sexual violence in public places—on the street, in public parks, and downtown areas. This understanding of the heavily gendered limitations on women's participation in public life is important, but so is realizing the ways in which the same fear impacts women's educational choices.

College students are clearly aware of sexual harassment as a potential threat. In a study as early as 1988, researchers found that 15% of undergraduate women and 21% of graduate women avoided professors who had a reputation for sexually harassing their students (Fitzgerald et al. 1988). A more recent study found that 54% of women students worry about sexual harassment, while less than 20% of men do (Hill and Silva 2005). However, this research did not follow up by asking how such worry impacted the students' academic choices.

Data and Methods

This paper aims to connect past experiences of sexual harassment and fear of future sexual harassment with the gender segregation of college majors. Accordingly, it asks the following research questions:

(a) *Can **past** experiences of sexual harassment help explain the gender segregation of college majors?*

(b) *Can fear of **future** sexual harassment help explain the gender composition of college majors?*

(c) *What are the mechanisms by which fear of sexual harassment can factor into choices about which academic fields to enter?*

To answer these questions, I use quantitative and qualitative analysis. In the quantitative part, I analyze the 2019 Campus Climate Survey conducted by the Association of American Universities (AAU). The previous paper of this dissertation provided a detailed description of this survey, its fielding process, and its limitations on access. This survey is a unique opportunity to investigate the relationship between sexual harassment and students' educational and career choices for several reasons. It is the largest survey on campus sexual harassment ever conducted, with over 180,000 completed student responses from thirty-three institutions of higher education varying in size, selectivity, location, and being public vs. private. For a full list of participating institutions, see Appendix A. In addition to the impressive sample size, the 2019 AAU survey is also uniquely detailed. Most importantly, all respondents were asked how likely they think it is that they will be sexually harassed before they graduate from college.

Results

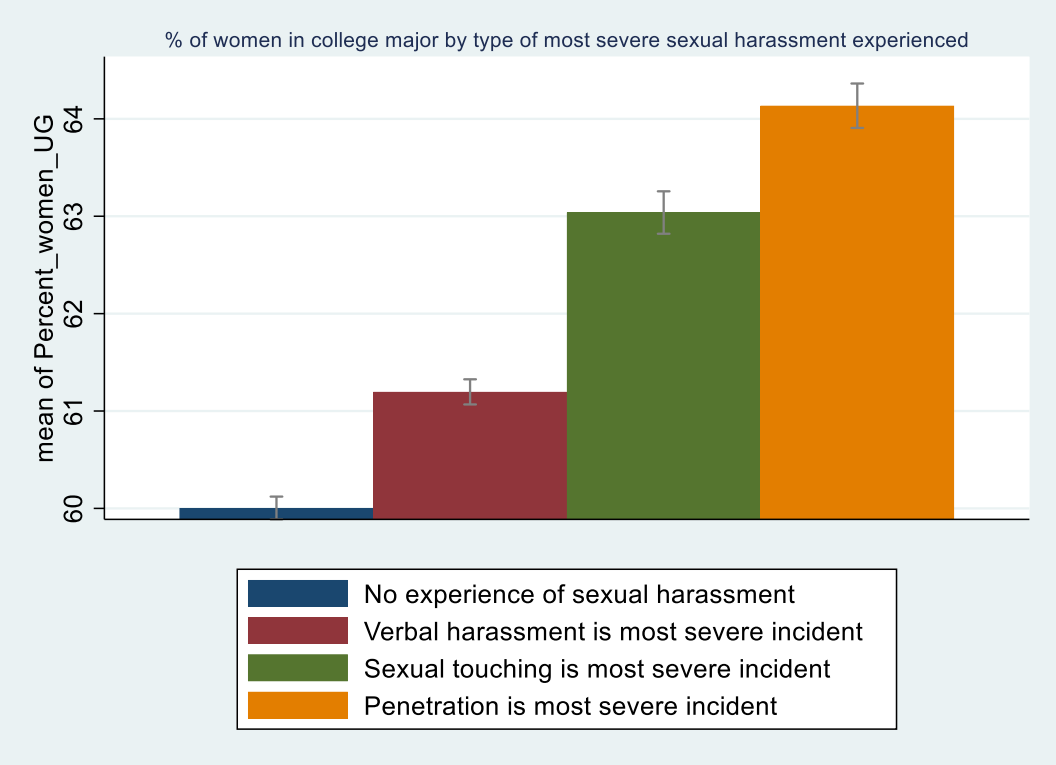
In this paper, I investigate the novel proposition that sexual harassment and the gender composition of college majors are connected both through past experiences of harassment and fear of future harassment. I start by outlining the relationship between experiencing sexual harassment while attending college with the gender segregation of college majors. Put differently, I examine whether victims of campus sexual assault are more gender-segregated in their college majors than those who have not been victimized. I then discuss how fear of sexual harassment can be used to explain the gender segregation of college majors.

The Gender-Segregated College Majors of Campus Sexual Assault Victims

The physical, emotional, psychological, and educational toll of sexual harassment on victims has been documented in the past (Huerta et al. 2006), focusing on repercussions for the individual victim. However, insufficient attention has been paid to the way these individual-level impacts reinforce and reproduce structures of inequality. If the majority of sexual harassment victims are women, and if many victims change their professional aspirations after being harassed, I hypothesize that campus sexual harassment plays a role in the gender segregation of college majors.

In this analysis, the gender composition of a college major is operationalized as the weighted percentage of women within the major within each of the 33 universities that participated in the 2019 AAU survey. This variable includes 260 unique values ranging from 0% women to 100% women. The percentages of women in all college majors are normally distributed, with a mean of 62.65% women. Chart 1 illustrates how victims of sexual harassment are more gender segregated than the student body in general.

Chart 1. Average Gender Composition of College Major by Experience of Sexual Harassment Since Entering College



Confidence intervals represent the p<.05 level.

As can be seen from Chart 1, students who reported experiencing sexual harassment in college were concentrated in more female-dominated college majors. Moreover, the gradation in severity of type of sexually harassing experience matched a gradation in the gender segregation of the college major. Put differently, the more severe the experience of sexual harassment reported by a student, the more female-dominated their college major is. To further investigate the relationship between experiences of sexual harassment in college and the gender segregation of college majors, I use ordinary least squares (OLS) regression. Table 1 presents the results of the OLS analysis.

Table 1. OLS Coefficients Modeling the Percentage of Women in Respondents' College Majors

Variable	Model 1	Model 2
Race (ref: White)		
Hispanic	0.25	0.25
	(0.13)	(0.13)
Black	1.75***	1.79***
	(0.19)	(0.19)
Asian	-1.39***	-1.34***
	(0.11)	(0.11)
Other/multiracial	-0.14	-0.14
	(0.15)	(0.15)
Heterosexual	-0.29**	-0.20
	(0.10)	(0.10)
Having a disability	2.18***	2.00***
	(0.09)	(0.09)
International student	-1.78***	-1.77***
	(0.17)	(0.17)
Experience of sexual misconduct since entering college		
Experiencing any type of sexual misconduct (binary variable)	1.74***	
	(.08)	
Type of most severe sexual misconduct experience (ref: no experience of sexual misconduct)		
Verbal harassment is most severe incident		1.09***
		(0.09)
Sexual touching is most severe incident		2.68***
		(0.13)
Penetration is most severe incident		3.29***
		(0.14)
Constant	66.80***	66.75***
	(0.14)	(0.14)
Observations	116,829	116,829
R^2	0.086	0.111

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Model 1 in Table 1 shows the relationship between the demographic characteristics of the students, whether they experienced sexual harassment since entering college, and

the percentage of women in their college major. It is noteworthy that black students were more concentrated in female-dominated majors than any other racial group, even after controlling for sexual orientation, disability, citizenship, and experiencing sexual harassment. In contrast, Asian students were concentrated in less female-dominated majors, even after controlling for all the variables detailed above. Disabled students were also concentrated in more female-dominated college majors compared to able-bodied students, even after controlling for sexual orientation, citizenship status, race, and experiencing sexual harassment. Since STEM degrees traditionally train in skills that are more transferable across borders and cultures than the social sciences or the humanities; it is unsurprising that international students were concentrated in more male-dominated college majors than were American students, net of the controls described above.

Most interestingly, experiencing any type of sexual harassment in college was associated with an increase of 1.7 percentage points in the percentage of women in one's college major, after controlling for race, citizenship, sexual orientation, and disability. Put differently, students who experienced any type of sexual harassment while in college were more concentrated in female-dominated college majors, net of the demographic characteristics accounted for in this model.

Model 2 of Table 1 includes the same demographic variables as Model 1 (race, sexual orientation, citizenship, disability, and sexual orientation). The main addition is the use of a categorical variable for the severity of sexual misconduct rather than a binary variable. Model 1 includes a binary variable of experiencing any type of sexual harassment, ranging from witnessing a derogatory remark of a sexual nature being made about someone else to being the victim of penetrative sexual assault. Model 2 includes a categorical

variable for the severity of the most severe incident reported by each respondent ranging from verbal harassment to penetration without consent.

I hypothesize that, to the extent that experiencing sexual harassment during college is associated with concentration in female-dominated majors, the more severe the sexual harassment, the stronger the gender segregation should be. The results in Model 2 support this hypothesis. Experiencing verbal sexual harassment is associated with a college major that is one percentage point more female-dominated than not being sexually harassed at all, net of the demographic controls. Similarly, experiencing sexual harassment that includes touching (but no penetration) is associated with a college major that is 2.7 percentage points more female-dominated when compared to not being sexually harassed at all, net of the demographic controls. Finally, experiencing the most severe form of sexual harassment—sexual assault with penetration—is associated with a college major that is 3.3 percentage points more female-dominated when compared to not being sexually harassed at all, net of the demographic controls.

It is worth noting that sexual assault including penetration is the most severe form of sexual assault, but it is by no means rare. As detailed in the first paper of the dissertation, 15.6% of women students reported experiencing sexual harassment that included penetration, and 31% of women students reported being the targets of sexual harassment that included touching. One cannot avoid the realization that large swaths of the student body on university campuses have had their academic experiences damaged by sexual assault.

The Burden of Fear: Who Fears Campus Sexual Harassment?

Having briefly described the ways in which being sexually harassed can impact the academic trajectory and college experience of victims, I now turn to an even more pervasive factor—the fear of future sexual harassment. As a baseline for this discussion, I first lay out the rates of self-perceived risk of being sexually harassed before graduating.

Table 2. Rates of Experiencing Sexual Assault vs. Perceived Risk of being Sexually Harassed

	Type of student	% of student group experiencing an incident of sexual assault			% of student group who think it is at least somewhat likely they will experience sexual harassment		
	Gender	Women	Men	TGQN[6]	Women	Men	TGQN
Sexual orientation	Hetero (N)	28.79 (15,257)	6.92 (2,333)	11.45 (15)	39.35 (23107)	8.09 (3023)	14.67 (22)
	Non-hetero (N)	39.50 (5,388)	21.05 (1,133)	32.53 (610)	52.91 (7861)	18.49 (1096)	46.75 (965)
Disability status	Disabled (N)	43.27 (9,132)	15.27 (1,185)	36.38 (510)	52.18 (12126)	12.75 (1110)	51.69 (795)
	Able-bodied (N)	24.64 (10,702)	7.06 (2,092)	17.96 (102)	37.03 (17763)	8.65 (2825)	27.53 (174)
Race	White (N)	33.70 (13,417)	9.68 (2,250)	32.67 (392)	44.54 (19679)	8.88 (2310)	45.31 (599)
	Hispanic (N)	32.01 (2,301)	10.30 (458)	33.73 (86)	43.65 (3465)	11.26 (544)	47.16 (133)
	Black (N)	26.14 (884)	9.95 (151)	26.87 (18)	38.85 (1465)	11.24 (188)	52.70 (39)
	Asian (N)	21.02 (2,524)	4.59 (334)	18.39 (55)	32.56 (4276)	9.75 (784)	36.40 (103)
	Other race/ multiracial	33.94 (1,715)	10.55 (318)	31.47 (79)	45.17 (2509)	10.98 (364)	42.96 (122)
	All students (N)	30.87 (20,841)	8.86 (3,511)	30.97 (630)	42.10 (31,394)	9.55 (4190)	44.37 (996)

[6] As explained in the first paper of the dissertation, the TGQN category is somewhat counterintuitive. The survey questionnaire offered the respondents six response options to the question about their gender: (a) man, (b) woman (c) transgender man, (d) transgender woman, (e) nonbinary/genderqueer, (f) gender questioning; there was also an implicit seventh response option of not answering the question and continuing to take the survey. Despite the wide variety of response options, in the dataset available to researchers, categories (c)–(f) and the non-response option were all collapsed into a single category, labeled as "TGQN." Accordingly, the somewhat counterintuitive term "TGQN respondents" refers to students who listed their gender identity as one of the following categories: (c) transgender woman, (d) transgender man, (e) nonbinary/genderqueer, (f) gender questioning, and (g) gender not listed (non-response). The last category, "gender not listed," which could be an oversight or inattentive questionnaire completion, complicates the analysis of the entire TGQN group. The TGQN group includes some students marginalized for their gender expression, intermixed with cisgender students who did not pay attention to this section while completing the questionnaire. Unable to separate groups (c)–(g), I am regrettably limited in how much this study can advance the severely lacking research on the experiences of sexual assault by non-cisgender people.

As can be seen from Table 2, students are generally well-aware of the possibility of sexual harassment in college. Overall, 30.3% of students thought that it is at least somewhat likely that they would experience sexual harassment before graduating. However, as is the case with the rates at which students experience sexual harassment, there is great variance between different student groups. Of women students, 42% thought it is at least somewhat likely that they will experience sexual harassment in college—dramatically higher than the 9.5% of men students who feel the same way.

When comparing the self-perceived risk with the actual rate of sexual assault, the overall pattern is one of acute self-awareness and surprisingly accurate risk perception. Students with disabilities and gay students are assaulted at higher rates than able-bodied and heterosexual students. The same groups report higher self-perceived risk of sexual harassment. When examining the correlation between rates of experiencing sexual assault and self-perceived risk of sexual assault, a surprisingly high correlation coefficient emerges: 0.35 ($p<0.001$). In other words, women, gay students, and disabled students are more vulnerable to sexual harassment, and they know it.

Ex-post to Ex-ante Costs: Fear of Sexual Harassment and Gender Segregated College Majors

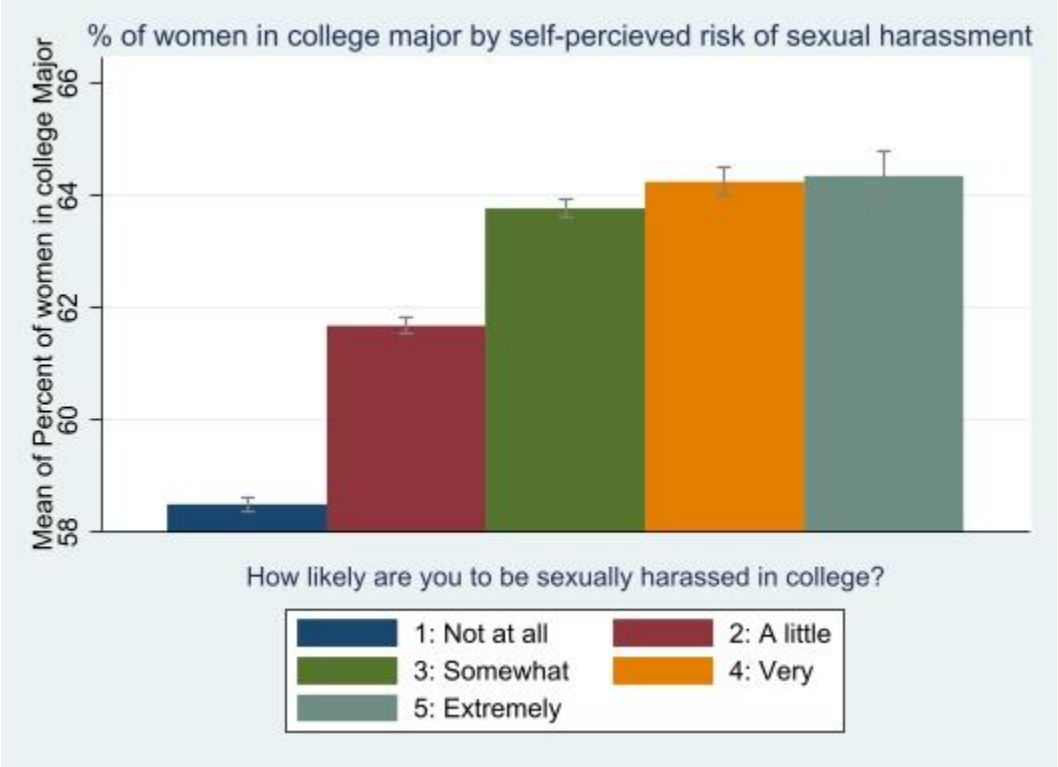
The research on the toll that sexual harassment takes on victims' physical, psychological, and educational well-being is extensive (Huerta et al. 2006). However, this line of inquiry is focused on the ex-post cost of sexual harassment—the harmful impact on those who have already experienced it. In this paper, I argue that the full cost of sexual harassment is far broader than the ex-post costs to victims. We must also attend to the ex-ante costs of sexual harassment, conceptualized as the opportunities women choose to

forgo out of the desire to avoid environments they perceive as entailing a significant risk of sexual harassment.

Ex-ante costs are elusive by nature, as we do not get to see the choices that women *would* have made if not for the fear of sexual harassment. The counter-factual scenario is particularly hard to measure, since strategies to avoid sexual harassment might be a series of small and intuitive decisions about risk management (Hart 2021). While ex-ante costs are harder to quantify, their wide applicability to both victims and those who will not experience sexual harassment makes them crucial to understanding the full costs of sexual harassment. The opportunity cost of even successful attempts to avoid sexual harassment is, in fact, part of the total cost of sexual harassment, which is disproportionately shouldered by women. Since women are more fearful of sexual harassment than men are, and because male-dominated spaces are perceived as entailing a higher risk of sexual harassment,[7] I hypothesize that fear of sexual harassment plays a role in the gender segregation of college majors. Chart 2 shows the average percentage of women in a college major distributed across the response options to the question about fear of sexual harassment.

[7] See paper #3 of this dissertation for broader discussion and data analysis on the perception of male-dominated environments as entailing a higher risk of sexual harassment.

Chart 2. Mean Percentage of Women in a College Major by Fear of Sexual Harassment



As can be seen in Chart 2, the higher the self-perceived probability of being sexually harassed, the higher the gender segregation of one's college major. In other words, those who fear college sexual harassment more, gravitate towards more female-dominated college majors. Notably, the differences in college major gender composition between those who think it is somewhat likely, very likely, or extremely likely that they will experience campus sexual harassment are small. Accordingly, in the rest of the analysis, I treat the fear of future sexual harassment as a binary variable with the "somewhat likely" response option serving as the cut off. To further examine the potential relationship between self-perceived risk of sexual harassment and the gender segregation of college majors, I use OLS regression; Table 3 presents the results.

Table 3. OLS Coefficients Modeling the Percentage of Women in Respondents' College Majors

Variable	Model 1	Model 2
Race (ref: White)		
Hispanic	0.104	0.041
	(0.138)	(0.141)
Black	1.575***	1.415***
	(0.202)	(0.208)
Asian	-1.423***	-1.551***
	(0.120)	(0.123)
Other/multiracial	-0.173	-0.273
	(0.160)	(0.164)
Heterosexual	0.005	0.094
	(0.108)	(0.111)
Having a disability	1.819***	1.702***
	(0.096)	(0.099)
International student	-1.620***	-1.491***
	(0.178)	(0.182)
Experience of sexual assault since entering college	1.540***	1.363***
	(0.106)	(0.111)
Self-perceived risk of being sexually harassed (binary variable)		
At least somewhat likely to get sexually harassed before graduating (ref: unlikely or very unlikely to get sexually harassed)	2.807***	2.505***
	(0.097)	(0.102)
Trust in the institution to take a report of sexual harassment seriously (binary variable)		-1.486***
		(0.090)
Very or extremely likely that campus officials would take a report of sexual harassment seriously (ref: unlikely or very unlikely that a report of sexual harassment will be taken seriously)		
Constant	66.479***	67.524***
	(0.143)	(0.157)
Observations	102,242	96,980
R^2	0.101	0.104

Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05

As can be seen in Model 1 of Table 3, net of race, sexual orientation, citizenship, disability, and experiencing campus sexual assault, assessing one's individual risk of sexual harassment before graduation as at least somewhat likely is associated with a college major that is three percentage points more female-dominated. Put differently, those who fear sexual harassment are more concentrated in female-dominated college majors, even after taking into account demographic variables and even past experience of campus sexual assault. This finding points to, descriptively, the existence of a relationship between fearing sexual harassment and the gender composition of college majors.

It is worth noting that my analysis of the self-perceived risk of sexual harassment and its association with gender-segregated college majors is purely descriptive rather than normative. On an individual level, the measure of self-perceived risk of sexual harassment might be accurate or not, in the sense that some respondents probably overestimate while others underestimate their risk of sexual harassment. I make no claim as to whether women and other marginalized groups should avoid male-dominated college majors or whether it is a successful strategy for avoiding sexual harassment. I am simply describing the pattern that women fear sexual harassment more than men and that fear of sexual harassment is associated with choosing more female-dominated college majors.

It is my view that the most helpful question to ask is how the link between the fear of sexual harassment and the gender segregation of college majors can be disrupted to usher in a future with less gender segregated college majors. Model 2 in Table 3 takes a step in this direction by considering the potential for institutions to intervene in this vicious cycle. Specifically, for the analysis modeling the gender composition of college majors, I added a variable measuring trust in institutions to handle reports of sexual harassment seriously.

As can be seen from Model 2, even after accounting for all the demographic variables in the model, previous experiences of sexual harassment, and fear of future harassment, respondents who believed a report of sexual harassment will be taken seriously were concentrated in college majors that were less gender segregated by 1.5 percentage points than those who did not believe the institutional response would be appropriate.

Finding that institutions can alleviate part of the damage caused by sexual harassment aligns with the research on institutional betrayal. Institutional betrayal refers to institutional action and inaction that exacerbates the impact of traumatic experiences (Smith and Freyd 2014). Actions and inactions associated with institutional betrayal include minimizing the severity of a victim's experience, refusing to take proactive steps in preventing traumatic events, responding inadequately to claims of trauma, creating an environment in which similar traumatic events seem more likely, making it difficult to report traumatic experiences, and punishing trauma victims in some way for coming forward (Smith and Freyd 2013). Institutional betrayal by universities is both common and deeply damaging to victims of sexual harassment on college campuses (Bedera 2021). However, institutions have the opportunity to take reports of sexual harassment seriously, thus reducing the harm caused by sexual harassment while alleviating a persistent form of inequality. Taking reports of sexual harassment seriously is not just a morally desirable step for universities to take but is also a wise policy for purely instrumental reasons.

Examining the Mechanism of Fear

Having established the existence of a relationship between the gender composition of college majors and fear of sexual assault, I try to understand how fear of sexual assault would factor into the decision making of college students. The causal mechanism

connecting professional harm with experiencing sexual harassment is rather clear and well-documented (Huerta et al. 2006). Victims of sexual harassment often experience shame, anger, and depression and develop coping strategies that include social withdrawal and academic decline (Cantor et al. 2020). The causal mechanism for fear of potential *future* sexual harassment, meanwhile, is much more complicated. To try and understand it, I conducted preliminary semi-structured interviews with college students at an elite university on the West Coast of the US in the winter of 2019.

By examining how previous theories on the behavior-altering effect of the fear of gender-based violence play out in college women's career choices, I take an extended case method approach to ethnographic research (Burawoy 1998). I conducted interviews with nine undergraduate students who were recruited through an on-campus sports class popular among undergraduate women. When recruiting the participants, I described my project as "research on college major choices" without mentioning sexual harassment. The interviews lasted 45–75 minutes and were conducted in different campus locations: coffee shops, benches outside of a library, and a sitting area in an undergraduate dining hall.

Table 4. Composition of the Interviewees' Pool

Characteristic	**Composition**
School year	3 senior 3 junior 2 sophomore 1 freshman
Academic status	6 declared major 3 have not declared major yet (2 will declare by the end of the quarter)
Majors (declared or seriously planned)	1 Computer Science + Feminist, Gender and Sexualities Studies (minor) 1 Symbolic Systems 2 Human Biology 1 Feminist, Gender and Sexualities Studies + Pre-med 1 Bioengineering 1 Political Science 2 still considering a variety of options
Parental socio-economic status	2 upper class 3 upper-middle class 3 middle class 1 working class
Racial composition	5 white 4 non-white

I have avoided cross-tabulating the different characteristics of my respondents to protect their anonymity. I asked them a series of questions about why they chose their college major and what factors they considered when making this decision. I then asked about the potential obstacles they expect to encounter in their career. I intended to ask directly about sexual harassment if it did not come up organically, but all of the respondents brought up the possibility of sexual harassment before I had a chance to mention it. When they brought it up, I asked them to elaborate. For a full list of the interview questions, see Appendix B.

It is important to note that the small sample size and preliminary nature of these interviews means that these data cannot be understood as representative or as proving a

causal path. To the extent that a qualitative project can do that, this is not that project. Given the lack of literature on even the existence of a relationship between fear of sexual harassment and women's willingness to enter male-dominated college majors and workplaces, simply understanding how these two phenomena converge in college women's decision making is, in my opinion, valuable.

Qualitative Findings

All the respondents were aware of the possibility of encountering sexual harassment in a workplace:

> "And **I kind of know that's coming** in terms of going into academic medicine. Like, being a medical student, **I've heard horror stories about that**." (J[8], senior)

> "**All of them** [lucrative occupations] **have harassment**." (K, sophomore)

> "You hear all the stories about women in the workplace and what happened, things like that. I read it and I understood that, **I'd say it's a pretty ubiquitous problem**." (C, junior)

> "So it's **just one of those things** [instances of sexual harassment] **that I know I'm going to be hit with and can't really avoid**. Some things I'll be able to resist and push back on. And some I'm going to have to **just kind of, like, bite the bullet and take it. You know, that's just the way the cookie crumbles**." (N, sophomore)

Dual Narratives of Sexual Harassment

[8] To protect the respondents' anonymity, a random letter was assigned to each of them. It does not represent their first or last names.

Although all of the respondents were aware of sexual harassment as a possible obstacle in the workplace, they varied in the way they conceptualized addressing it. Interestingly, respondents often described seemingly contradictory strategies of dealing with sexual harassment. For example, respondent A, a junior, described wanting to fight against the injustice of sexual harassment, saying:

> "There is some part of me that's like, **fight the man**. Be a computer science/physicist/neurosurgeon. All of them."

This was said after she explained that male-dominated occupations are hostile to women, forcing women to endure frequent sexual harassment—particularly computer science, physics, and neurosurgery. However, a few sentences later, A said:

> "Anything that is harassing, I would **want to get out of there and make an exit as soon as possible**."

Respondent A points to a tension between the urge to "fight the man" by increasing women's representation in lucrative and male-dominated fields and the understanding that doing so requires enduring sexual harassment, which A wants to avoid. While A alludes to this conflict by describing the opposing urges as different sides, other respondents seemed less aware of this contradiction.

Respondent J, a senior, described her deliberations regarding a specialty in medical school:

> "**I won't be pigeonholed into being a vagina doctor** [OBGYN]. **I don't want to be pushed** [...] And **that** [sexual harassment] **doesn't really bother me** too much as long as I value the work."

J described obstetrics as a devalued specialty because it is female-dominated and because it focuses on the female reproductive system. Because it is a female-dominated field, J felt that choosing it would be succumbing to patriarchal social pressure that devalues women's work. Although J is aware of the potential for sexual harassment in more male-dominated fields, she says she does not mind it if the work is valuable to her. In other words, the trade-off to J is between female-dominated specialties that are socially devalued and male-dominated specialties that have higher rates of sexual harassment. She described deciding to enter the male-dominated specialties despite the sexual harassment because she does not mind it. However, a few minutes later, she said:

> "I think that's [being an OBGYN] really cool and **I might actually end up being a vagina doctor. Vaginas are very important.** There are lots of female role models in obstetrics [...] **So yeah, I want to do that** [become an OBGYN]."

Here, J, who is on her way to start medical school in a few months, seems to say the opposite from the previous quotation. She describes OBGYN as a desirable specialty because it focuses on the female reproductive system and has a lot of senior women who can serve as role models.

Both A and J recognize the tension between the urge to resist patriarchal norms that divert women into female-dominated occupations and the desire to avoid sexual harassment in male-dominated fields. While they try to rebel against the injustice of sexual harassment, they already display narratives of succumbing to it by declaring that they might choose a female-dominated specialty (OBGYN) or leave a workplace with sexual harassment.

An even more stark example of the dual and often inconsistent narrative around the avoidance of sexual harassment comes from K, a sophomore, who said that she is well aware of the risk of sexual harassment in lucrative—and hence male-dominated—occupations, but she also described sexual harassment as a hypothetical situation she will have to fight against in the future. However, fifteen minutes after she proclaimed, "I haven't really encountered that [sexual harassment] so far," she tearfully described a difficult experience she had during a summer internship at a large tech company. To maintain her privacy, I will avoid going into the details; suffice to say, the experience she described clearly falls within the legal definition of sexual harassment.

K comes from a middle-class family that was very proud of her admission to an elite university and even more proud of her securing a well-paid internship with a large tech company. Despite the sexual harassment she experienced during her internship, she has accepted an offer to return to the same tech company for an advanced internship program in the next summer. She was proud of her accomplishment but spoke of the upcoming summer with tears of agony. Here, again, emerges the tension between safety from sexual harassment and the aspiration to beat the odds and further a feminist dream of being a successful woman of color among men. However, K did not define this tension as such; she avoided calling her experience sexual harassment and thus allowed herself to hold on to her initial plan of breaking glass ceilings, despite the clear unease and agony this is causing her.

Strategies of Avoidance Masked as Narratives of Agency

While some respondents broadly described or implied a tension between their aspirations for gender equality and their desire to avoid sexual harassment, other

respondents had concrete plans for how to strike that balance in a way that still allows them to reclaim their agency. Respondent C, a junior, took AP-level computer science classes in the public high school she attended and excelled in them. She comes from a working-class immigrant household, and her admission to an elite university was the culmination of her dreams and those of her entire extended family. Coming into college, her dream has been to get a job at a technology giant and be able to financially support her family. She secured an internship at the tech giant she had dreamed of for years—a highly competitive position that was heavily skewed in favor of men. However, her summer experience was a disappointment. She describes an environment in which men interrupted her, talked over her, and said degrading things about women in general and women of her ethnicity in particular. After that experience, she said, she wanted to work for a company with more women. She is well aware that she is making a trade-off:

> "**The big companies, it's all dudes so you can't really get that** [gender parity]. **You can get it at smaller companies, like startups**, which is better because there [at startups], **your work feels more meaningful than just optimizing one tiny feature** [like the internship she had]. It feels so 'cog in a machine.' The small companies pay less. But **I'm getting an** [elite university] **degree either way, so I feel like I will be financially stable enough. So, I would take a pay cut to work at a startup with more women**."

C is acutely aware of the risk of sexual harassment in male-dominated spaces. She is convinced of a trade-off between pay and safety from sexual harassment, but she is not willing to describe this decision as a compromise. Instead, she has an agency narrative, according to which she is not forced out of the tech giant by sexual harassment but is

actively choosing to change her childhood dream to smaller companies with better gender representation, where the work will be more meaningful and impactful. When asked how she defines impact, she answered that she does not know yet, but she will figure it out once she finds a friendly startup with as many women as possible. This narrative allows C to reframe a coerced choice, forgoing her past dreams, as a manifestation of agency that she feels her disappointed conservative immigrant family simply does not understand.

An even more elaborate trade-off and narrative of agency comes from N, a sophomore aiming for a career in public policy. She described a previous summer experience:

> "It was **easy to know, oh, this senator gets really handsy**. Oh, **when you open the door, he's going to touch your lower back** [...] So **I only want to work for a female senator**… **There aren't many jobs like that**, I know. But I have an advantage to get those jobs […] **I don't want kids growing up** […] so I think I am in the place where I don't have to worry so much about having a really, really stable income that can make sure my kids are supported. **So I can take a lower pay. That makes me competitive**. I figured out that I wanted to do civil rights work not necessarily because of that [experience of sexual harassment]. **It's just what I have been passionate about since I was little**, watching *The West Wing* with my family [...] **The female senators are the ones doing the civil rights work anyway.** So it works out."

N views sexual harassment as omnipresent—existing everywhere but small pockets. She intends to avoid it by only working for women. N points out that very few US senators are women, so she understands that the competition for those jobs is fierce. Her plan is to get

those jobs by taking a pay cut, which she will be able to afford because she will not have children. N was 19 years old at the time of interview. The trade-off between pay and safety from sexual harassment is obvious and direct here. However, the trade-off is described once again as a display of agency; by making a reproductive choice, N reclaims a feminist narrative that allows her to reframe a compromise forced on her by sexual harassment as the choice she wanted to make all along. There is a dual rationalization here: working only for women is better because they do the type of civil rights work she actually always wanted to do. Taking a pay cut to do that is also fine because she will not have children. N said that she had aspired in the past to work in male-dominated spaces, but then she observed and experienced sexual harassment, which deterred her from this. She thus reframes her mistreatment through sexual harassment in male-dominated spaces: they did not push her out; she chose to leave them.

Conclusion

This study used a mix of qualitative and quantitative methods to explore the relationship between past experiences of sexual harassment, fear of future harassment, and the gender segregation of college majors. The mixed methods illuminate how sexual harassment plays a role in women's academic and career choices, leading them to gravitate towards more female-dominated fields. The quantitative analysis demonstrated that victims of campus sexual harassment are more gender segregated in their college majors than their peers who have not been harassed.

When examining the specter of sexual harassment, I found that women and other marginalized groups fear sexual harassment at significantly higher rates than men. Unsurprisingly, past victimization is associated with a heightened fear of future harassment. I also found that heightened fear of sexual harassment is associated with concentration in female-dominated majors, even after accounting for demographic variables.

The qualitative findings from my preliminary interviews further illustrate how past experiences of sexual harassment and the specter of sexual harassment seep into the decisions women make to avoid male-dominated fields of study and work. Despite describing the harm of past victimization and acknowledging the fear of potential sexual harassment, the young women I interviewed rationalized their choices as agentic and independent from said fear. Avoidance strategies that reduce their earning potential were often reframed as proactive decisions to ensure professional satisfaction.

Finally, this study also highlights the critical role institutions could play in either exacerbating or alleviating the gendered impact of sexual harassment. Trust in the

institution's willingness to handle reports of harassment seriously, even net of individual fear of sexual harassment, was associated with less gender segregation in college majors, emphasizing the importance of institutional support in mitigating the broader costs of sexual harassment.

In conclusion, this paper makes a novel contribution to the literature on the gender segregation of college majors and the literature on sexual harassment on campuses. I show that the pervasiveness of sexual harassment and the fear it evokes in many women impose significant costs on women, shaping their educational trajectories and contributing to the persistent gender segregation in college majors. As long as efforts at reducing the gender segregation of college majors ignore the role of sexual harassment, their success is bound to be limited.

In the next and last paper of the dissertation, I continue exploring the ex-ante costs of sexual harassment, focusing on the fear of workplace sexual harassment as a cause of occupational gender segregation.

References

Alon, Sigal and Dafna Gelbgiser. 2011. “The Female Advantage in College Academic Achievements and Horizontal Sex Segregation.” *Social Science Research* 40(1):107–119.

Avina, Claudia, and William O'donohue. "Sexual harassment and PTSD: Is sexual harassment diagnosable trauma?." *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies* 15.1 (2002): 69-75.

Bedera, Nicole. 2021. “The Social Construction of Sexual Harassment: Violence and Power in the Academy.” *Gender & Society* 35(1):5–29.

Bitton, Yonatan and Yael Shavit. 2015. “The Influence of Personal Safety on Women's Mobility in Urban Public Spaces.” *Journal of Urban Affairs* 37(4):428–445.

Burawoy, Michael. "The extended case method." *Sociological theory* 16.1 (1998): 4-33.

Cantalupo, Nancy Chi. 2015. “Institutional Betrayal: The Role of Colleges and Universities in Preventing and Responding to Sexual Violence.” *Harvard Civil Rights-Civil Liberties Law Review* 50:335–384.

Cantor, David, Bonnie Fisher, Susan Chibnall, Reanne Townsend, Hyunshik Lee, Carol Bruce, and Gail Thomas. 2017. “Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct.” *Association of American Universities*. Retrieved: 08/28/2024 (https://www.aau.edu/key-issues/campus-climate-and-safety/aau-campus-climate-survey-2019).

Cantor, David, Bonnie Fisher, Susan Chibnall, Reanne Townsend, Gail Thomas, Hyunshik Lee, and Carol Bruce. 2020. "Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct." *Association of American Universities*. Retrieved: 08/28/2024 (https://www.aau.edu/sites/default/files/AAU-Files/Key-Issues/Campus-Safety/Revised%20Aggregate%20report%20%20and%20appendices%201-7_(01-16-2020_FINAL).pdf).

Ceci, Stephen J. and Wendy M. Williams. 2010. "Sex Differences in Math-Intensive Fields." *Current Directions in Psychological Science* 19(5):275–279.

Ceci, Stephen J., Wendy M. Williams, and Susan M. Barnett. 2009. "Women's Underrepresentation in Science: Sociocultural and Biological Considerations." *Psychological Bulletin* 135(2):218–261.

Charles, Maria and Karen Bradley. 2002. "Equal but Separate? A Cross-National Study of Sex Segregation in Higher Education." *American Sociological Review* 67(4):573–599.

Choi, Hyunsoo, Heejin Yim, and Kyung Eun Lee. 2019. "Gender Differences in Fear of Crime among Korean Adults: The Role of Social Disorganization, Vulnerability, and Perceived Risk." *Crime & Delinquency* 65(12):1713–1736.

Correll, Shelley J. 2004. "Constraints into Preferences: Gender, Status, and Emerging Career Aspirations." *American Sociological Review* 69(1):93–113.

Dauber, Michele L. and Douglas M. Warner. 2019. "Legal Indeterminacy and the Failed Promise of Campus Antiharassment Procedures." *Yale Law & Policy Review* 37(2):253–303.

Dunn, Jennifer. 2013. "The Institutional Response to Campus Sexual Assault: Explanations of the Failure of Title IX." *Sociology Compass* 7(7):575–587.

England, Paula and Su Li. 2006. "Desegregation Stalled: The Changing Gender Composition of College Majors, 1971–2002." *Gender & Society* 20(5):657–677.

Ferraro, Kenneth F. 1995. *Fear of Crime: Interpreting Victimization Risk*. Albany, NY: SUNY Press.

Fisher, Bonnie S. and Jennifer J. Sloan. 2003. "Unraveling the Fear of Victimization among College Women: Is the 'Shadow of Sexual Assault' Hypothesis Supported?" *Justice Quarterly* 20(3):633–659.

Fitzgerald, Louise F., Fritz Drasgow, Charles Hulin, Maria Gelfand, and Vicki Magley. 1988. "Antecedents and Consequences of Sexual Harassment in Organizations: A Test of an Integrated Model." *Journal of Applied Psychology* 83(2):201–215.

Furstenberg, Frank F. 1971. "Public Reaction to Crime in the Streets." *The American Scholar* 40(4):601–610.

Gordon, Margaret T. and Stephanie Riger. 1989. *The Female Fear: The Social Cost of Rape*. Urbana, IL: University of Illinois Press.

Gross, A. M., Winslett, A., Roberts, M., & Gohm, C. L. (2006). An examination of sexual violence against college women. *Violence Against Women*, 12(3), 288-300.

Hart, Linda M. 2021. "Navigating the Fear of Sexual Harassment: How College Women Manage Risk in Male-Dominated Majors." *Gender Issues* 38:123–141.

Hickman, Susan E. and Charlene L. Muehlenhard. 1997. "College Women's Fears and Precautionary Behaviors Relating to Acquaintance Rape and Stranger Rape." *Psychology of Women Quarterly* 21(4):527–547.

Hill, Catherine and Elena Silva. 2005. *Drawing the Line: Sexual Harassment on Campus*. Washington, DC: American Association of University Women Educational Foundation.

Ho, I. K., Dinh, K. T., Bellefontaine, S. A., & Irving, A. L. (2012). "Sexual harassment and posttraumatic stress symptoms among Asian and White women." *Journal of Aggression, Maltreatment & Trauma*, 21(1), 95-113.

Huerta, Maricela, Jennifer Cortina, Louise F. Fitzgerald, and Fritz Drasgow. 2006. "Sex and Power in the Academy: Modeling Sexual Harassment in the Lives of College Women." *Personality and Social Psychology Bulletin* 32(5):616–628.

Hyde, Janet S., Sara M. Lindberg, Marcia C. Linn, Amy B. Ellis, and Caroline C. Williams. 2008. "Gender Similarities Characterize Math Performance." *Science* 321(5888):494–495.

Mann, Allison and Thomas A. DiPrete. 2013. "Trends in Gender Segregation in the Choice of Science and Engineering Majors." *Social Science Research* 42(6):1519–1541.

McDermut, Jennifer Fine, David AF Haaga, and Lindsey Kirk. "An evaluation of stress symptoms associated with academic sexual harassment." *Journal of Traumatic Stress* 13.3 (2000): 397-411.

Ming, Tsu-Tan and Jessica Degol. 2017. "Gender Gaps in STEM Interest, Choice, and Performance: What Do We Know and What Can Be Done?" *International Journal of Gender, Science, and Technology* 9(3):268–290.

Neville, Helen A., Euna Oh, Lisa B. Spanierman, Mary J. Heppner, and Mary Clark. "General and culturally specific factors influencing Black and White rape survivors' self-esteem." *Psychology of Women Quarterly* 28, no. 1 (2004): 83-94.

Parnitzke, Joy M., Jennifer Smith, and Jennifer J. Freyd. 2013. "Institutional Betrayal: A Multilevel Framework for Understanding Harm and Healing." *Psychological Trauma: Theory, Research, Practice, and Policy* 5(1):37–41.

Rattel, Jens A., Andreas R. Olsson, Pia J. Manninen, Anne A. Pleiner, and Arndt Broder. 2017. "Cognitive Costs of Avoidance and Its Impact on Decision-Making in Safety Situations." *Frontiers in Psychology* 8:1870.

Roosmalen, Erica van, and Susan A. McDaniel. "Sexual harassment in academia: A hazard to women's health." *Women & health* 28.2 (1999): 33-54.

Rosenthal, Marina N., Alec M. Smidt, and Jennifer J. Freyd. "Still second class: Sexual harassment of graduate students." *Psychology of Women Quarterly* 40.3 (2016): 364-377.

Sassler, Sharon, Jennifer Glass, Yael Levitte, and Katherine M. Michelmore. 2017. "The Missing Women in STEM? Assessing Gender Differentials in the Factors Associated with Transition to First Jobs." *Social Science Research* 63:192–208.

Smith, Carly P. and Jennifer J. Freyd. 2013. "Dangerous Safe Havens: Institutional Betrayal Exacerbates Sexual Trauma." *Journal of Traumatic Stress* 26(1):119–124.

Smith, Carly P. and Jennifer J. Freyd. 2014. "Institutional Betrayal." *American Psychologist* 69(6):575–587.

Stanko, Elizabeth A. 1995. "Women, Crime, and Fear." *Annals of the American Academy of Political and Social Science* 539(1):46–58.

Tuerkheimer, Deborah. 1997. "Male Gaze: The Denial of Victimization and Depiction of Violence against Women through the Lens of Law." *Yale Journal of Law and Feminism* 9(1):1–52.

Wesely, Jennifer K. and Emily Gaarder. 2004. "The Gendered 'Nature' of the Urban Outdoors: Women Negotiating Fear of Violence." *Gender & Society* 18(5):645–663.

Wood, Linda, Sarah V. Schrag, and Anna Busch-Armendariz. 2018. "Mental Health and Academic Impacts of Intimate Partner Violence and Sexual Violence on College Women." *Journal of American College Health* 66(7):496–507.

Wynn, Alison T. and Shelley J. Correll. 2018. "Puncturing the Pipeline: Do Technology Companies Alienate Women in Recruiting Sessions?" *Social Studies of Science* 48(1):149–164.

Yoon, Eunju, Laura Funk, and Nancy Kropf. 2010. "Sexual Harassment Experiences and Their Psychological Correlates among a Diverse Sample of College Women." *Journal of Interpersonal Violence* 25(12):2403–2424.

Zheng, Haowen and Kim A. Weeden. 2023. "How Gender Segregation in Higher Education Contributes to Gender Segregation in the US Labor Market." *Demography* 60(3):761–784.

Appendix A: Participating Institutions in the 2019 Association of American Universities Campus Climate Study

34. Boston University
35. Brown University
36. California Institute of Technology
37. Carnegie Mellon University
38. Case Western Reserve University
39. Harvard University
40. Iowa State University
41. Massachusetts Institute of Technology
42. Northwestern University
43. Rice University
44. Stanford University
45. Texas A&M University
46. The Johns Hopkins University
47. The Ohio State University
48. The University of Arizona
49. The University of Chicago
50. The University of Kansas
51. The University of North Carolina at Chapel Hill
52. The University of Wisconsin-Madison
53. University of Florida
54. University of Michigan
55. University of Minnesota, Twin Cities
56. University of Missouri
57. University of Oregon
58. University of Pennsylvania
59. University of Pittsburgh
60. University of Rochester
61. University of Southern California
62. University of Virginia

63. Vanderbilt University
64. Washington University in St. Louis
65. Yale University
66. Georgetown University

Appendix B. Semi-Structured Interview Questions

1. What is your major?
2. How did you decide on this major? What consideration went into that?
3. Were there specific moments or events which were formative to your decision?
4. Did you have past workplace experiences that made you either like or dislike one type of workplace over the other?
5. Did you think about the type of jobs you would want to get?
6. Do you currently have a sense of the type of career you would want to have?
7. What type of workplace do you see yourself best fitting with?
8. What are the things you look for in a workplace you consider? Professionally? Socially? Financially?
9. Are there types of workplaces you are certain you do not want to work in? Why?
10. Being situated in Silicon Valley, did you ever consider going into tech? Why?
11. Is there anything else you want to tell me?
12. Is there anything else I should have asked?

Paper #3:

The Specter of Sexual Harassment:

Ex-Ante Costs to Women's Careers

Introduction

The #MeToo movement has brought sexual harassment to the forefront of the public and academic debates around gender inequality. The gender wage gap and its precursor, occupational sex-segregation, are increasingly studied as manifestations of gender inequality. Still, these research agendas seldom converge, obscuring how the specter of sexual harassment might reinforce occupational sex-segregation by nudging women[9] away from male-dominated occupations. As research on the characteristics women optimize for while choosing careers flourished (Croson and Gneezy 2009), freedom from workplace sexual harassment remained overlooked.

In this study, I explore whether women, make trade-offs between pay and safety, choosing to pursue less lucrative female-dominated occupations because these jobs are perceived as offering a reduced risk of workplace sexual harassment. That is, does the avoidance of workplace sexual harassment contribute to occupational sex-segregation, turning a personal safety strategy into a driver of continued gender inequality?

To answer this question, I conducted a population-based survey experiment on a representative sample of young Americans. I found that sexual harassment dampens women's, but not men's, interest in an occupation. The dampening effect of sexual harassment was particularly pronounced in male-dominated occupations, which women perceived as entailing a heightened risk of sexual harassment. Testing the causal mechanism for that relationship, I find that close to half of women's avoidance of male-dominated occupations can be explained by fears of being sexually harassed.

[9] While this study focuses on those who self-identified as male or female; further research on non-binary persons and their sense of safety in different occupations is, of course, urgent.

Perhaps more surprising, I find that sexual harassment can reproduce the gender wage-gap even more directly. Women report that they are willing to accept a pay rate that is the equivalent of 81.5 cents on the dollar (or $6/hour less than male participants) in order to avoid workplace sexual harassment in male-dominated occupations. Put differently, women would pay to do their jobs in environments free of sexual harassment.

By documenting the ex-ante costs of workplace sexual harassment, I make a novel theoretical contribution in explaining the choices women make about their careers through the prism of the specter of sexual harassment. My findings demonstrate that the lively debate on the causes for the over-representation of men in STEM can greatly benefit from considering women's fear of workplace sexual harassment. Overlooking women's prevalent desire to avoid sexual harassment impedes the completeness of any explanation for occupational sex-segregation and the gender pay gap.

Additionally, these findings contribute to the research on the cost of workplace sexual harassment. In this paper, I argue that the full cost of sexual harassment is not tallied in such research, which counts just the ex-post deleterious effects experienced by *victims*. We must also attend to the opportunities not pursued by women who fear—and seek to avoid—workplace sexual harassment. The opportunity cost of even successful attempts to avoid sexual harassment are, in fact, part of the total cost of workplace sexual harassment, disproportionately shouldered by women.

While I measure the individual-level deterrent effect of sexual harassment in women's career choices and pay expectations, it is easy to see how these choices aggregate to reinforce a familiar social pattern: Occupational sex-segregation. Women expect higher chances of sexual harassment in male-dominated occupations and, as a result, avoid those

fields in favor of lower risk and lower pay, female-dominated occupations. That women expect to receive lower pay in female-dominated occupations, which are perceived as entailing a lower risk of sexual harassment, can help explain the persistence of the gender wage gap.

Theoretical Background

The Gender Wage Gap and Occupational Sex Segregation

Earnings affect almost every aspect of life in the United States. Accordingly, the gender wage gap—the difference in average earnings between men and women—has been a prominent research topic in the study of gender inequality. During the second half of the 20th century, the gender wage gap shrunk significantly; by the 1990s, women's average earnings amounted to 80% of men's average earnings (Vagins 2018). However, the gender wage gap has stagnated since, changing little in the past three decades despite significant increases in women's educational attainment (Auspurg, Hinz, and Sauer 2017;Bradley 2000) and labor market participation (Brewster and Rindfuss 2000). The surprising persistence of the gender wage gap has become the target of intense academic debate among social scientists (Cha and Weeden 2014; Davison 2014; Goldin and Katz 2016; Mandel and Semyonov 2005; Weeden, Cha, and Bucca 2016).

Occupational sex segregation—the pattern of most workers being distributed between occupations along gender lines—has been identified as a resilient leading cause of the gender wage gap (England and Li 2006; Petersen and Morgan 1995). In turn, the devaluation of women's work has been identified as a prominent explanation for occupational sex-segregation. Gender, operating as a ubiquitous status belief, leads to women being perceived as nurturing and warm but less suitable than men for leadership or

analytical positions (Ridgeway 2011). In parallel, the image of the ideal worker is gendered based on incumbent employees (Acker 1990; Gorman 2005). As a result, women are perceived as doubly ill-suited to work previously done mainly by men, segregating them into female-dominated occupations (Ridgeway 2011). The devaluation of women's work has been shown in a multitude of studies even after controlling for required skills (Levanon, England, and Allison 2009), occupational characteristics and work experience (England, Budig, and Folbre 2002). The more closely a job is associated with a stereotypically female skill (e.g., nurturing), the less it pays when compared to similarly demanding, but less female-typed jobs (England, Reid, and Kilbourne 1996).

In addition to these structural explanations, the academic investigation of occupational sex-segregation has examined individuals' choices to work in occupations stratified by gender (Bills, Di Stasio, and Gërxhani 2017). At the core of this line of research is the puzzle of women choosing less lucrative, female-dominated occupations despite having achieved parity with men in attainment of college degrees (Charles and Grusky 2004). Overall, this line of research considered a myriad of job characteristics that might be appealing to women, yet freedom from sexual harassment has not been considered a feature women might optimize for while choosing occupations.

Dating back to the work of neoclassical economist Gary Becker (1964, 1985), some researchers have explained occupational sex segregation through the prism of human capital theory. The theory explains occupational choices as resulting from individual rational calculations aimed to maximize lifetime earnings based on differences in human capital endowments. Women, in this line of reasoning, are portrayed as expecting intermittence in employment due to caregiving responsibilities, and so they choose

occupations with lower risk of obsolescence and flatter wage structures (Marini and Brinton 1984; Becker 1985; Polachek 1987; Turner and Bowen 1999; Gemici and Wiswall 2014). Other research has countered that female-dominated occupations actually offer less flexibility than male-dominated occupations (Glass 1990; Kennelly 2002). Additionally, women who spend time outside of the labor market are not more likely to work in female-dominated occupations, and average Americans are unlikely to know enough about the pay structures of different occupations to self-stratify on this basis (Okamoto and England 1999).

Seeking further explanations for occupational sex-segregation, scholars have looked at whether there is a gendered gap in appetite for pay negotiations (Bowles, Babcock, and McGinn 2005). Women, as the claim goes, are worse than men at negotiating their pay (or, at least, reluctant to do so for culturally gendered reasons including the desire to not appear demanding or aggressive), and tend to prefer occupations where pay does not have to be negotiated (Leibbrandt and List 2014). Still other explanations have claimed gendered differences in preference for risk, nurturing, and competitiveness (Croson and Gneezy 2009). Put differently, this suite of potential wage gap explanations portrays women's lower pay as a result of women's different utility function—prioritizing nonpecuniary benefits such as flexibility or a chance to work in a nurturing field over pay when making occupational choices. Markedly, reduced risk of workplace sexual harassment has not been considered as a potentially desirable nonpecuniary benefit women might seek while choosing a career.

Yet another strand of literature focuses on the social context in which women's labor market preferences develop. Conroy Bass (2014), for instance, showed that women,

unlike men, lower their career aspirations in anticipation of future family commitments, even before they start a family. Subsequent research, however, has shown that most college students view family plans as distant and irrelevant to the deliberate choice of college major or post-graduation career (Cech 2016).

Distinction between supply and demand side

A common distinction when it comes to labor-market inequality hinges on the difference between supply and demand-side explanations. Demand-side explanations focus on the decisions made by employers in the selection and recruitment process (Bills, Di Stasio, and Gërxhani 2017). For example, a demand-side explanation for gender inequality might focus on employers' discrimination against mothers such that they impose what is known as a "motherhood penalty" (Correll, Benard, and Paik 2007). Supply-side explanations, on the other hand, focus on the characteristics of job seekers and incumbents in producing gender inequities (Bills Di Stasio and Gërxhani 2017). For example, a supply-side explanation might focus on young women's internal narratives of self-expression and how these scripts may be validated by entering female-dominated occupations (Cech 2013).

In these terms, workplace sexual harassment can be viewed as a demand-side explanation for persistent occupational sex segregation, while women's choices in anticipation of it might be characterized as a supply-side explanation. In this sense, occupational sex segregation would be a result of supply-side factors that hinge on patterned demand-side forces, rendering this dichotomous distinction somewhat artificial.

Workplace Sexual Harassment

A vast body of literature has documented the high prevalence of workplace sexual harassment in the United States (McLaughlin et al. 2017; Ilies et al. 2003). A 2016 report by the Task Force on Workplace Sexual Harassment in the Equal Employment Opportunity Commission (EEOC) found that anywhere between 25-75%[10] of American women and 8-23% of American men experienced workplace sexual harassment (Mcdonald 2012).

In this research, I focus on the *perceived* risk of sexual harassment, rather than its prevalence rate, so I do not need to reconcile the different incidence estimates. For my purposes, it is sufficient to say that unwelcomed sexual attention and ambient sexual harassment in the workplace are experienced by many American women. Because I consider whether young women making career choices are aware of the possibility of sexual harassment and how such awareness impacts their decision-making, actual rates of workplace sexual harassment are less important than what young women *perceive* is likely to happen to them in various career paths. I will refer to any instances of unwelcomed sexual attention, physical or verbal, or any ambient content that is degrading or humiliating on the basis of sex as sexual harassment, adopting the definition used by the federal government.[11]

[10] The great variance in the estimates is a result of differences in question wording and sampling strategy. When representative samples of American women were asked whether they experienced workplace sexual harassment, without providing a definition of sexual harassment, consistently, about a quarter of women reported experiencing sexual harassment. When the definition was provided, such that women were reminded that the law considers unwelcomed sexual attention and ambient sexual harassment (e.g., displaying pornographic materials in a workplace) in its definition, about 60% of women reported experiencing workplace sexual harassment (Ilies et al. 2003). In other words, many Americans do not identify ambient sexual harassment or a hostile work environment as a "real" form of sexual harassment. In studies using convenience samples, particularly ones skewed towards young participants, workplace sexual harassment rates as high as 75% have been reported (Ilies et al. 2003).

[11] Detailed in the June 2016 Report of the Co-Chairs of the Select Task Force on the Study of Harassment in the Workplace.

Consequences of Sexual Harassment: Ex-post Costs

Going back more than three decades, research has documented the myriad of negative consequences of sexual harassment on its targets, psychologically, physically, socially and professionally (e.g., Edelman and Cabrera 2020; Gross et al. 2006; Ho et al. 2012; Sojo, Wood, and Genat 2016). Sexual harassment has been shown to be associated with an increase in posttraumatic symptoms and decreased well-being (Avina and Donohue 2002); increase in depression, sleeplessness, and overall emotional distress (Ho et al. 2012; McDermut, Haaga, and Kirk 2000; Roosmalen and McDaniel 1999); increase in self-blame and decrease in self-esteem (Neville et al. 2004); and increase in self-silencing (Jack and Dill 1992).

More specifically, workplace sexual harassment has been documented as a unique cause of extensive negative personal and professional outcomes. In a meta-analysis covering three decades of literature, researchers detailed the deleterious effects of workplace sexual harassment: Decreased mental health and well-being, chronic health problems, reduced work satisfaction, decreased work commitment, and high job-turnover (Sojo, Wood, and Genat 2016). Because sexual harassment is more prevalent in male-dominated occupations (McLaughlin et al. 2012), the harm of sexual harassment disproportionately affects women in such fields. Victims of workplace sexual harassment often leave the job where they were harassed, while their next job is more likely to be female-dominated (McLaughlin et al. 2017).

Common strategies used by victims of workplace sexual harassment are avoidance, negotiation, and confrontation (Gruber, 1989; Welsh, 1999). While confronting the

harasser might seem as the most effective strategy, it was found to exacerbate the trauma from the harassment and led to worse work outcomes when compared with victims who avoided confrontation (Stockdale, 1998). Avoiding the harasser, in turn, often leads to the victim's departure from the job (Blackstone, Uggen, and McLaughlin 2009).

The Specter of Sexual Violence: Ex-ante Costs

While the research on sexual harassment and its cost to women's careers is extensive, it has focused on the ex-post cost of workplace sexual harassment – the harmful impact on those who have already experienced it. In this paper, I argue that the full cost of workplace sexual harassment is far broader than the ex-post costs to victims. We must also attend to the ex-ante costs of sexual harassment; conceptualized as the opportunities women choose to forgo out of desire to avoid workplace sexual harassment. By nature, ex-ante costs are elusive as we do not get to see the choices women *would* have made if not for the fear of workplace sexual harassment. The counter-factual scenario is particularly hard to measure, since strategies to avoid workplace sexual harassment might be a series of small and intuitive decisions about risk management (Hart, 2021).

While ex-ante costs are harder to quantify, their wide applicability to both victims and those who will not experience sexual harassment, makes them crucial to understanding the full costs of workplace sexual harassment. The opportunity cost of even successful attempts to avoid sexual harassment are, in fact, part of the total cost of workplace sexual harassment, disproportionately shouldered by women.

The Specter of Sexual Harassment in Public Spaces

Though women's fear of sexual harassment has not been studied as a consideration in career choices, broader fears of gender-based violence have received vigilant academic attention. It has long been documented that women fear crime, of any type, more than men (Furstenberg 1971). Subsequently, researchers have shown that women's fear of all crimes is more accurately described as a disguised fear of sexual assault (Choi, Yim and Lee 2019). Women often worry that a non-sexual crime might escalate to a sex crime, accordingly, developing a stronger fear of all crimes than do men (Stanko 1995; Tuerkheimer 1997). The fear of sexual assault stems from women's assessment of it as a crime which causes particularly severe psychological harm, when compared even with other violent crimes (Gordon and Riger 1989). Additionally, rape victims are understood to be blamed and stigmatized for the crime committed against them, well beyond victims of other crimes (Gordon and Riger 1989). Correspondingly, studies have repeatedly shown that women in the United States are more frightened of sexual violence than death (Ferraro 1995; Fisher and Sloan 2003; Hickman and Muehlenhard 1997). A long-documented response to fear is evading, to the extent possible, its source. When scared, humans often develop avoidance behavior (e.g., Rattel et al. 2017). Given women's greater fear of sexual violence, when compared to men, strategies to avoid sexual assault are a burden borne primarily by women.

This body of literature clearly depicts how prevalent and cognitively taxing the fear of sexual violence is for women. The attempts to manage the risk of sexual violence are also costly by restricting women's lives in ways big and small. However, this illuminating literature focused on sexual violence in public places: on the street, in public parks and downtown areas. This understanding of the heavily gendered limitations on women's

participation in public life is important, but so is realizing the ways in which the same fear impacts women's professional lives.

The Specter of Sexual Harassment: Theoretical Predictions

While the harm suffered by targets of sexual harassment – the ex-post cost — is well-documented, the novel theoretical contribution of this paper is in documenting the ex-ante costs of workplace sexual harassment. Based on the literature describing women's perception of sexual assault as a particularly harmful type of crime, and the correspondingly high costs women are willing to incur to avoid it in public spaces (Gordon and Riger 1989), I reason that this anticipatory fearful response extends to the workplace. The risk reduction strategies women use in the labor market, I expect, would include avoidance of workspaces perceived as entailing higher risk of workplace sexual harassment. If, as I suspect, male-dominated occupations are viewed as entailing a higher risk of workplace sexual harassment, then women's avoidance strategies should push them away from such occupations. The idea that people's behavior is impacted by the perceived consequences of their behavior seems trivial, indeed underpinning the concept of deterrence, yet the research on workplace sexual harassment has largely overlooked this important consideration.

Ex-ante costs are not just hard to measure but also easy to disguise as an expression of agency, a blameless personal choice. When women choose to enter less lucrative female-dominated occupations out of anticipatory fear of workplace sexual harassment in male-dominated occupations, their lower pay can be framed as a result of their agentic choice. Accordingly, women are to blame for their lower pay, while the role of those who commit sexual harassment, and the institutions that enable them, is obfuscated.

Method

Participants

In 2019, I conducted a population-based survey experiment among a representative sample of 3,000 Americans using the Lucid Fulcrum Exchange platform. Participants were between the ages of 18 and 24, given that occupational choices are generally decisions made in young adulthood (Cech 2013). The sample's representativeness was confirmed by the 2010 Census quotas. The Lucid platform was shown to produce samples that compare favorably to probability samples such as YouGov and Knowledge Networks, and are superior to convenience samples, such as Amazon Mechanical Turk (Coppock and Mcclellan 2019).

Experimental procedure

Every participant was randomly assigned to one of nine[12] experimental conditions in which I manipulated the gender composition of the occupation (80% male, 50% male, or 20% male) and the types of negative workplace experiences (sexual harassment, being micromanaged, or fearing job loss).

Figure 1. Job Description as Seen by Participants

Project manager
Available locations: All 50 states
Average job satisfaction: 3.9/5
Gender ratio: 80% men/ 50% men/ 20% men

Job Description: Analyze and coordinate the schedule, timeline, and budget of a product or service. Serve as a point of contact for the client or customer.

[12] For full cross tabulation of experimental conditions, see Appendix A.

First, participants were presented with a Project Manager[13] job description taken from the Bureau of Labor Statistics (BLS, see Figure 1). The occupation was held constant across all nine conditions. The two independent variables – gender composition and type of negative workplace experience – were manipulated using fake job reviews mimicking websites providing such reviews like Glassdoor, Indeed and LinkedIn[14] (See Figure 2). Innocuous information about available locations and average job satisfaction (which was held constant across all conditions) was added with the goal of obfuscating the study's focus on sexual harassment and gender composition. [15]

Figure 2. Treatment as Seen by Participants

Please read carefully a review by Michelle, 24, who worked as a project manager for two years:
Pros
- Super friendly workplace with very motivated employees.
- Everyone is there to learn and make a difference.

Cons [Micromanagement condition]
- I often get micromanaged: My boss reads my emails before they go out to customers and checks over everything I do.
- My boss nags me to do work I was about to do anyway. It is kind of like having a babysitter as an adult.

Cons [Sexual harassment condition]
- My coworkers use the internal chat platform to send dirty jokes, photos and videos.
- My coworkers often share sexual anecdotes and ask me about my sexual experiences.

Cons [Job Loss threat condition]
- The company has high turnover with people being fired often.
- My coworkers often talk about who will be fired next, so I am always stressed about losing my job.

experiences. Since results did not differ across the two control conditions in a statistically

[13] Project manager was chosen because a pretest demonstrated that this occupation's gender composition was vague, thus allowing the gender composition to be manipulated in a believable way.
[14] To verify the salience of such websites, a supplementary survey was administered to a similar pool of participants and showed that 87% of this group of young adults reported using such websites in the past.
[15] For full questionnaire, see Appendix B.

significant way, I pooled the data across the conditions to create one variable, "non-gendered negative experiences."

In the sexual harassment condition participants read a job review about coworkers using an internal chat platform to send salacious images and videos and describe sexual anecdotes. I chose this "less severe" form of sexual harassment rather than a sexual assault because ambient sexual harassment and inappropriate sexual materials are the most common forms of workplace sexual harassment in the United States (Mcdonald 2012). The experimental design allows me to isolate the effect of sexual harassment from other forms of negative workplace experiences which are non-gendered, while holding all the other information about the occupation constant.

Measures

Dependent variables: After viewing the job description and review, participants were asked questions meant to measure the occupation's appeal to them personally: (a) How interested they would be in working as a project manager, and (b) The hourly pay they would require to work as a project manager.

Mediator: As described above, I hypothesized that the fear of sexual harassment would mediate the relationship between sexual harassment and interest in the occupation. Accordingly, participants were asked to estimate the likelihood that they personally would experience workplace sexual harassment[16] if they worked as a project manager.

[16] I use the description of sexually harassing behavior rather than the term sexual harassment in light of work by Ilies et al. (2003), showing that most Americans are not fully aware of what behavior constitutes sexual harassment.

Moderator: Following the literature, which affirms large gender gaps in experiencing and fearing sexual harassment, I theorized that the relationship between sexual harassment in an occupation and an interest in entering it, is moderated by the gender of the participant. Accordingly, participants were asked to report their gender.

Control variables: Participants were asked about their perceptions of a project manager's average pay; whether they saw themselves as similar to people working as project managers; and the gender composition of their current job. Participants also shared demographic information including employment status, occupation, income (individual and household), education, race, age, region, and marital status. By randomly assigning participants to one of nine conditions, other characteristics which may impact interest in occupations and pay expectations (such as education, ambition, etc.) should be approximately evenly distributed, isolating the causal effect of the independent variables of interest. Descriptive statistics for the analytic sample, by experimental condition are included in Table 1.

Table 1. Descriptive Statistics for Analytic Sample

Condition	80% men &SH	80% men &non-SH	50% men &SH	50% men &non-SH	20% men &SH	20% men &non-SH
Sample[17]	412	492	314	468	405	481
Respondent gender (% women)	47.57%	50.61%	53.18%	53.21%	49.63%	54.89%
Age	20.97	20.91	20.73	20.84	20.92	20.78
Race						
White	77.14%	72.07%	69.23%	69.96%	70.77%	69.76%
Hispanic	4.27%	4.69%	5.02%	4.71%	5.64%	3.67%
Black	8.54 %	10.02%	9.70%	10.76%	7.69%	11.02%
Other	10.05%	13.22%	16.05%	14.57%	15.90%	15.55%
Education						
High school or less	40.05%	35.45%	41.42%	34.41%	37.62%	38.19%
Some college/AA	41.52%	43.44%	43.37%	41.94%	46.78%	39.24%
BA or more	18.43%	21.11%	15.21%	23.66%	15.59%	22.57%
Dependent Variables						
Interested in occupation	17.96%	23.01%	16.61%	23.08%	18.27%	22.45%
Pay (in $/hour)	31.41	30.25	32.37	29.61	27.01	26.21

NOTE: Means reported for continuous variables.

Attention Checks

After participants answered the dependent variable questions regarding occupational interest and pay expectations, they were asked to recall the gender composition of the occupation and the negative experience described in the job review. Nearly three-quarters (74%) of participants correctly recalled both; since both parts of the treatment are crucial

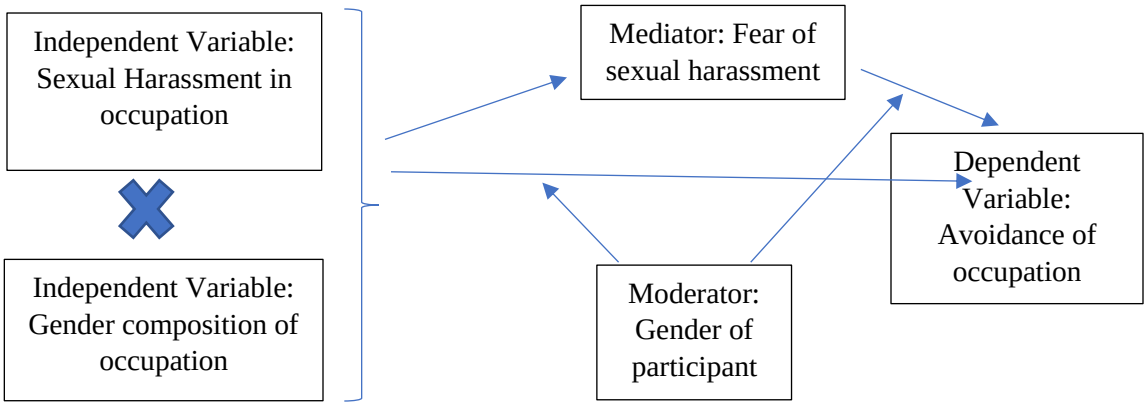
[17] Due to IRB requirements, answering any of the survey questions was not required. Participants were free to advance to the next screen without answering any question. Where the question was not answered, the data was treated as missing.

for my analysis, I followed previous research and restricted the analysis to the responses of those participants who correctly recalled both (e.g., Pedulla 2014).[18]

Analytic sample and strategy

I begin the analysis with a logistic regression, modeling participant interest in entering the occupation. Since required hourly pay is a continuous variable, I use OLS regression modeling for that analysis. Finally, after analyzing the direct effect of sexual harassment on occupational interest and pay expectations, I examine whether fear of sexual harassment mediates the effect of sexual harassment on occupational interest. The causal mechanism I set out to test is depicted in Figure 3.

Figure 3. Theoretical Mediation Model



[18] The exclusion of the surveys from participants who did not pass the attention checks was further confirmed using the duration of time spent participating in the experiment. Because the mean duration of the survey for those who failed the manipulation checks was just under a minute, while the mean for those who passed was over four minutes, it remained reasonable to conclude that the former were not paying attention. Thus, excluding their responses should reduce noise, without introducing systemic bias.

Results

The impact of the Specter of Workplace Sexual Harassment on Interest in Occupation

Table 2. Logistic Regression Coefficients Predicting Interest in Entering the Occupation (odds ratio)

Condition	Gender Composition	Gender Composition	Sexual Harassment	Sexual Harassment	Gender Comp. & SH	Gender Comp. & SH
Participant gender	Men (1)	Women (2)	Men (3)	Women (4)	Men (5)	Women (6)
Gender composition (ref: gender parity)						
Female-dominated	1.061	0.955				
	(0.188)	(0.159)				
Male-dominated	1.393*	0.692*				
	(0.235)	(0.123)				
SH treatment (ref: non gendered negative experience)			0.910	0.552***		
			(0.125)	(0.083)		
Condition (ref: male- dominated & Sexual Harassment)						
Male-dominated & Non-Sexual Harassment					0.820	3.686***
					(0.175)	(1.167)
Parity & SH					0.639	2.091*
					(0.164)	(0.746)
Parity & non-SH					0.654	4.497***
					(0.148)	(1.408)
Female-dominated & SH					0.502**	3.331***
					(0.122)	(1.093)
Female-dominated & non-SH					0.883	3.265***
					(0.192)	(1.035)
Constant	0.249***	0.265***	0.301***	0.292***	0.385***	0.077***
	(0.033)	(0.032)	(0.027)	(0.025)	(0.058)	(0.021)
Observations	1,245	1,325	1,245	1,325	1,245	1,325

SE in parentheses
*** p<0.001, ** p<0.01, * p<0.05

As can be gleaned from Models 1 and 2 in Table 2, participant interest in the occupation differed between those who saw the occupation described as male-dominated and those who saw the occupations described as having gender parity. However, the direction of the effect varied by participant gender: Male participants' odds of being interested in entering a male-dominated occupation were 39% **higher** than an occupation with gender parity;

female participants' odds of being interested in entering a male-dominated occupation were 31% **lower** than an occupation with gender parity

Examining the effect of workplace sexual harassment, compared to the non-gendered negative work experiences (either fearing job loss or being micromanaged) we see that sexual harassment decreases women's interest in the occupation by a factor of 0.55 or by 45% (Model 4). This finding is highly statistically significant even net of occupational gender composition. For men (Model 3), sexual harassment has no statistically significant relationship to interest in the occupation. These findings show sexual harassment is a deterring factor for women, but not for men. It is worth pointing out that participants saw a scenario of ambient sexual harassment: Sharing salacious materials and discussing sexual anecdotes, rather than sexual harassment targeted at any one individual or gender. Put differently, although women were not the targets of the *ambient* sexual harassment described to participants, women participants were deterred by sexual harassment, whereas men participants were not.

Models 5 and 6 display the least parsimonious models. The reference category is the male-dominated condition with sexual harassment. We see that, for women, any gender composition or non-gendered negative experience is preferable to sexual harassment in a male-dominated occupation. When the participant's gender is the minority in the occupation, both men and women are deterred by sexual harassment. Recall, though, that the scenario deterring men (a female-dominated occupation with ambient sexual harassment) is far less common in the real world than the scenario deterring women the most (a male-dominated occupation with ambient sexual harassment; McLaughlin et al. 2017). Crucially, sexual harassment's "push" effect for women considering male-

dominated occupations carries financial consequences that are not felt by men pushed from female-dominated occupations; male-dominated occupations are better paid, even when controlling for required skills and experience (Petersen and Saporta 2004; Levanon, England, and Allison 2009; England, Budig, and Folbre 2002).

These results are more intuitive for interpretation as predicted probabilities of participants being interested in the occupation, shown in Figure 4.

Figure 4. Predicted Probabilities of Expressing Interest in Entering the Occupation by Participant Gender and Experimental Condition

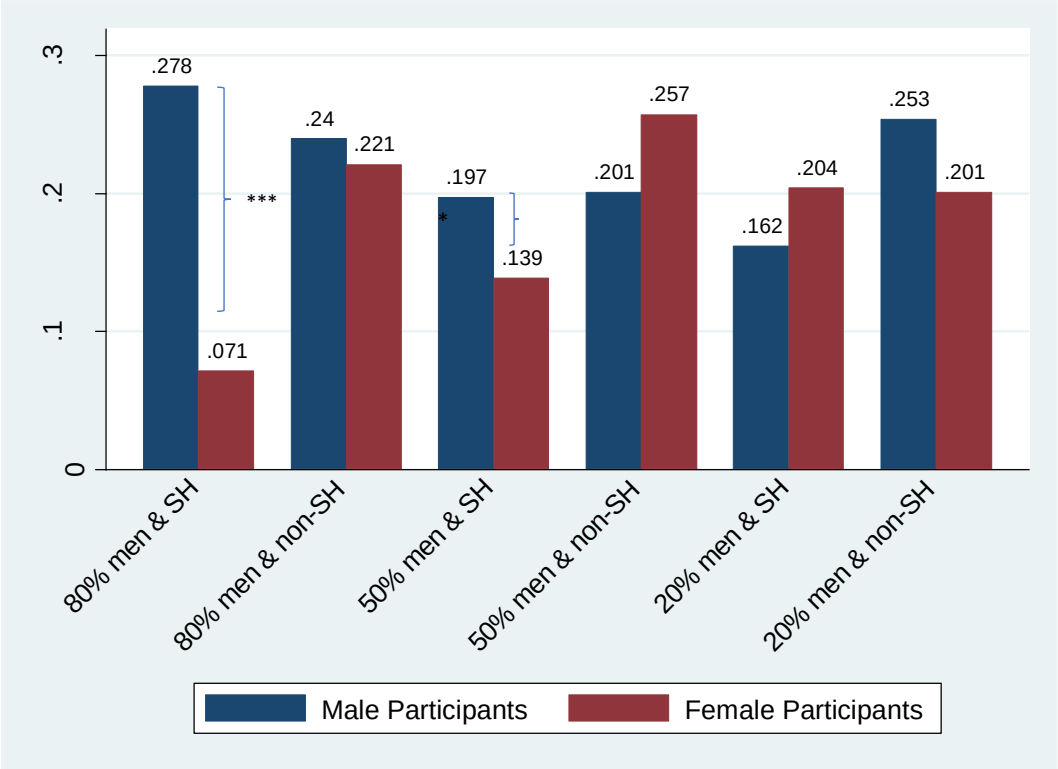


Figure 4 shows that workplace sexual harassment is particularly deterring to women when men are the majority, or even half, of the employees in the occupation. It is worth remembering that women express such disinterest even though they were not comparing occupations with sexual harassment to occupations with only great reviews, but to

occupations with quite unpleasant experiences: being intrusively micromanaged or constantly fearing job loss. The fact that sexual harassment deters women significantly more than being micromanaged or fearing job loss demonstrates just how much women want to avoid sexual harassment, particularly in work environments where men are the majority.

That sexual harassment is not deterring to women in female-dominated occupations could have several explanations. One is that the alternatives women consider possible are not expected to pose a lower risk of sexual harassment. Put differently, if women think that the female-dominated occupation with sexual harassment can only be replaced by a male-dominated occupation with sexual harassment, they might still prefer the female-dominated occupation. Future research can examine this hypothesis.

The impact of the Specter of Workplace Sexual Harassment on Pay Expectations

Table 3. OLS Coefficients for Pay Expectations by Participant Gender and Experimental Condition (in US Dollars per Hour)

Condition	Gender Composition	Gender Composition	Sexual Harassment	Sexual Harassment	Gender Comp. & SH	Gender Comp. & SH
Participant Gender	Men	Women	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Gender Composition (ref: gender parity)						
Female-dominated	-1.353	-8.284***				
	(1.711)	(1.533)				
Male-dominated	-1.779	1.398				
	(1.691)	(1.466)				
SH Treatment (ref: non gendered negative experience)			-0.424	3.266**		
			(1.379)	(1.244)		
Condition (ref: male-dominated & Sexual Harassment)						
Male-dominated & Non-Sexual Harassment					3.792	-6.125**
					(2.304)	(2.012)
Parity & SH					4.362	-2.513
					(2.253)	(1.991)
Parity & non-SH					2.183	-5.476**
					(2.393)	(2.005)
Female-dominated & SH					2.420	-12.365***
					(2.152)	(1.981)
Female-dominated & non-SH					1.511	-12.139***
					(2.335)	(2.064)
Constant	33.119***	29.111***	32.258***	25.304***	29.734***	33.088***
	(1.249)	(1.074)	(1.039)	(0.916)	(1.500)	(1.306)
Observations	1,037	1,005	1,037	1,005	1,037	1,005
R^2	0.001	0.046	0.000	0.007	0.005	0.056

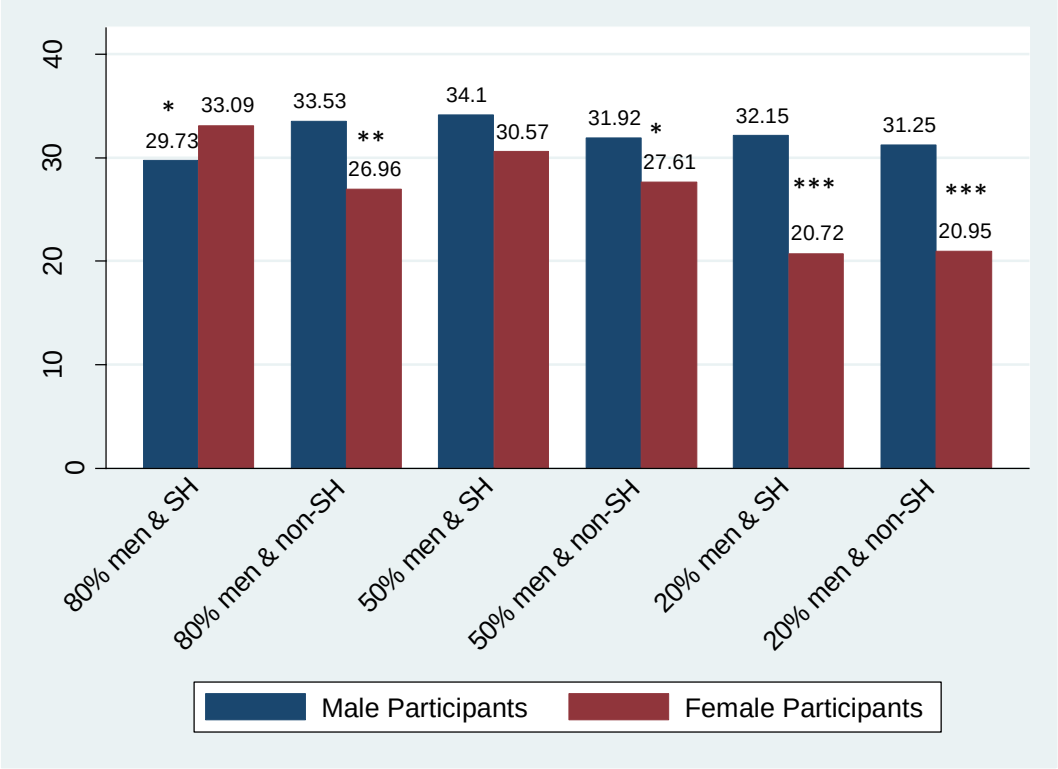
As can be gleaned from Models 1 and 2 in Table 3, the gender composition of the described occupation did not impact the pay expectations of male respondents. For female respondents however, the occupation being described as female-dominated reduced pay expectations by $8/hour when compared to the occupation being described as exhibiting

gender parity. It is worth mentioning that the occupation was described in identical terms in both conditions. The only difference was the gender composition.

As can be seen from Models 3 and 4 in Table 3, sexual harassment has no impact on the pay expectations of male participants. However, when sexual harassment is the only variable in the model explaining pay expectations, sexual harassment leads women to require an hourly pay $3/hour higher than women considering occupations with non-gendered negative experiences (being micromanaged or fearing job loss). Assuming a 40-hour workweek, $3/hour accumulates quickly to a pay loss of $120/week and over $6,000/year. The participants, are all under 25 years old, have decades of labor market participation ahead of them, and a $3 hourly gap at the start of their career would quickly compound into significant differences in lifetime earnings.

Models 5 and 6 include all experimental conditions. The reference category here is the male-dominated occupation with sexual harassment. For men, none of the conditions are statistically significantly different from the male-dominated and sexual harassment condition. However, for women, all but the condition of sexual harassment in an occupation with gender parity are statistically significantly different and require less pay than the reference category of sexual harassment in a male-dominated occupation. Particularly striking is the size of the coefficient for the non-sexual harassment condition in the male-dominated occupation. Since the reference category is the male-dominated occupation with sexual harassment, we can see that women are willing to earn $6.10/hour less just to avoid sexual harassment in male-dominated occupations. For ease of interpretation, predicted values of required hourly pay are presented in Figure 5.

Figure 5. Predicted Pay Expectations by Participant Gender and Experimental Condition (in US Dollars per Hour)



As can be seen in Figure 5, except for the sexual harassment in a male-dominated occupation condition, women participants reported overall lower pay expectations than men. The results are driven by two opposite patterns: (a) Even net of gender composition or type of negative workplace experience, female participants, on average, expect to be paid less than male participants, and (b) Female participants, unlike male participants, require higher pay to tolerate sexual harassment in both male-dominated and gender parity conditions. As a result of these opposing pulls, sexual harassment leads women to require higher pay if men are the majority in the occupation, but this effect is mitigated by women's overall lower pay expectations. In the male-dominated sexual harassment condition, the

effect of the sexual harassment is so big that it overshadows women's tendency to ask for lower pay.

To further elucidate the impact of sexual harassment on pay expectations, in addition to being asked about their own pay expectations, participants were asked to estimate the average salary in the occupation they were evaluating. Sexual harassment impacted the individual pay expectations of the female participants but did not impact perceived average pay. In other words, women did not think that occupations with sexual harassment pay better, but they personally required higher pay if they were to enter an occupation they believed would require them to tolerate sexual harassment.

Mediation Analysis

As previously described, research on the psychology of fear has demonstrated women's extreme dread of sexual harassment (Fisher and Sloan 2003), as well as their general tendency to try to evade situations which pose a risk of sexual violence (Gordon and Riger 1989). Accordingly, I conceptualized fear of sexual harassment as a mediator of the relationship between sexual harassment and the interest in entering the occupation (see Figure 3). As I theorized that female participants were deterred more by sexual harassment they thought they might personally experience, I also theorized that the flip-side should also be true, such that female participants are less deterred by sexual harassment they believe is less likely to happen to them. To test this hypothesis, I conducted mediation analysis.

Because the interest in entering the occupation is a binary outcome, the commonly used mediation framework developed in Baron and Kenny (1986) is an inappropriate tool

for my purposes here (Imai, Keele, and Tingley 2010). Instead, I use the Average Causal Mediation Effect (ACME) framework developed by Imai et al. (2011), which is not tied to any specific statistical model, and as a result can be used for different types of models and variable structures.

I conduct the mediation analysis stratified by the gender of the participant because, theoretically, the gender of the participant is a moderator of both the direct effect of sexual harassment on interest and the mediation path through fear of sexual harassment (see Figure 3). Looking at the female participants, I find that the ACME reflecting how much of the effect of the treatment on the outcome is explained by the mediator accounts for 57.76%** of the total effect of sexual harassment on occupational interest. This supports my hypothesis: For women, the relationship between sexual harassment and job interest is mediated through fear of personally experiencing sexual harassment. While fear of sexual harassment mediates a significant portion of the relationship between sexual harassment and interest in the occupation, however, the mediation is not full. Female participants were deterred from occupations with sexual harassment even when they assessed the probability of them personally experiencing such harassment as low. One possible explanation is that sexual harassment deters women both directly and indirectly. The deterrence is direct when women think they might personally experience sexual harassment, and indirect when they think they will not experience it personally but might witness others being harassed. This potential explanation is supported by previous research showing that workplace sexual harassment is so destructive that it causes harm even to women who witness it, without having experienced it (Glomb et al. 1997).

As can be recalled from Model 3 of Table 2, sexual harassment does not impact men's interest in entering the occupation. Unsurprisingly, the mediating effect of fear of sexual harassment on the relationship between sexual harassment and men's interest is not statistically significant.

External Validity

I have made every effort to maximize the internal validity of this study, yet, like other experiments, I must consider the question of external validity. In this instance, a potential criticism is that the experimental design provided the participants with the gender composition of the occupation and evoked the fear of sexual harassment. If people are unaware of the gender composition of different occupations, they may not, when considering jobs, go through the thought process my experiment was designed to elicit. Similarly, if women do not know that male-dominated occupations have higher rates of sexual harassment, then the fear of sexual harassment would not deter them from male-dominated occupations as they consider possible career paths. In light of this, the external validity of the experimental findings can be boosted if I can establish that young women who enter the labor market correctly estimate the gender composition of occupations, and associate male-dominated occupations with heightened risk of sexual harassment.

Supplementary Survey

To address this concern, I conducted a supplementary survey in fall 2019. The participant pool was similar to the first experiment's: a representative sample of 600 Americans ages 18-24, recruited through the Lucid Fulcrum platform, based on the 2010 Census weights. These participants were shown an occupation and its Bureau of Labor Statistics (BLS)

definition, followed by questions about the gender composition and frequency of sexual harassment in that occupation.

A total of twenty occupations were chosen for this supplementary survey. The process involved dividing all BLS occupations into four groups by gender composition: (a) Less than 25% women, (b) 25- 50% women, (c) 51-75% women, or (d) over 75% women. Then I selected the five most common occupations from each of the four categories. The resulting twenty occupations (see Table 4) currently employ over 40 million workers, or 28% of the American labor market, based on the 2019 BLS report.[19]

Each survey participant was randomly assigned to rank five out of the total pool of twenty occupations. Participants were asked to estimate the gender composition and frequency of sexual harassment in each occupation. Participants never saw, the ambiguous for many, term "sexual harassment" (McDonald 2012) but were asked how prevalent they believed a set of behaviors that constitute sexual harassment were in each occupation.

Table 4. Table of Occupations Used in Supplementary Survey: Descriptive Statistics

Occupation	**Description of occupation (taken from BLS)**	**% women**	**Total size (in thousands)**
Less than 25% women			
Truck driver	Drive truck or other vehicle over established routes and sell or deliver goods	6.6	3,549
Construction worker	Perform tasks involving physical labor at construction sites. Operate tools such as: drills, air hammers, cement mixers, etc.	3.7	2,110
Carpenter	Construct, install, or repair structures or furniture made of wood	2.2	1,375
Grounds maintenance worker	Maintain grounds of property. Perform tasks as: mowing, trimming, planting, watering, fertilizing, digging, etc.	6.7	1,328

[19] https://www.bls.gov/cps/cpsaat11.htm

Software engineer	Create the code that allow computer and phone apps to run. Update software and fix bugs.	19.3	1,682
Total			10,045
25-50% women			
retail salespersons	Sell merchandise, such as clothes or furniture to consumers	48.7	3,147
Cook	Prepare and cook a variety of foods based on a menu.	41.8	2,067
Janitor	Keep buildings in clean and orderly condition. Perform cleaning duties, such as cleaning floors, shampooing rugs, removing trash and clearing snow from sidewalk.	34.1	2,342
Lawyer	Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions	37.4	1,199
Physician	Diagnose, treat, and help prevent diseases and injuries in patients.	40.3	1,094
Total			9,849
51-75% women			
Cashier	Conduct transactions, receive payment and give change to clients.	73.8	3,200
Customer service representative	Interact with customers to provide information in response to questions about products and services.	63.7	2,563
Accountant	Examine and analyze accounting records to prepare financial statements.	60.6	1,929
Real estate agent	Rent, buy, or sell property for clients.	56.2	1,072
College Professor	Teach classes in colleges or universities.	58	1,062
Total in occupations			9,826
Over 75% women			
Registered nurse	Assess patient health problems and needs. Administer medication or medical tests to ill or injured patients.	88.6	3,213
Administrative assistant	Perform routine administrative functions such as scheduling appointments, organizing files, or providing information to callers.	94	2,569
Home health aid	Assist with routine healthcare tasks in a patient's home, such as feeding, bathing, toileting, changing bandages or administering medication.	89.3	2,035
Childcare worker	Attend to children at schools, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play of children.	94	1,193

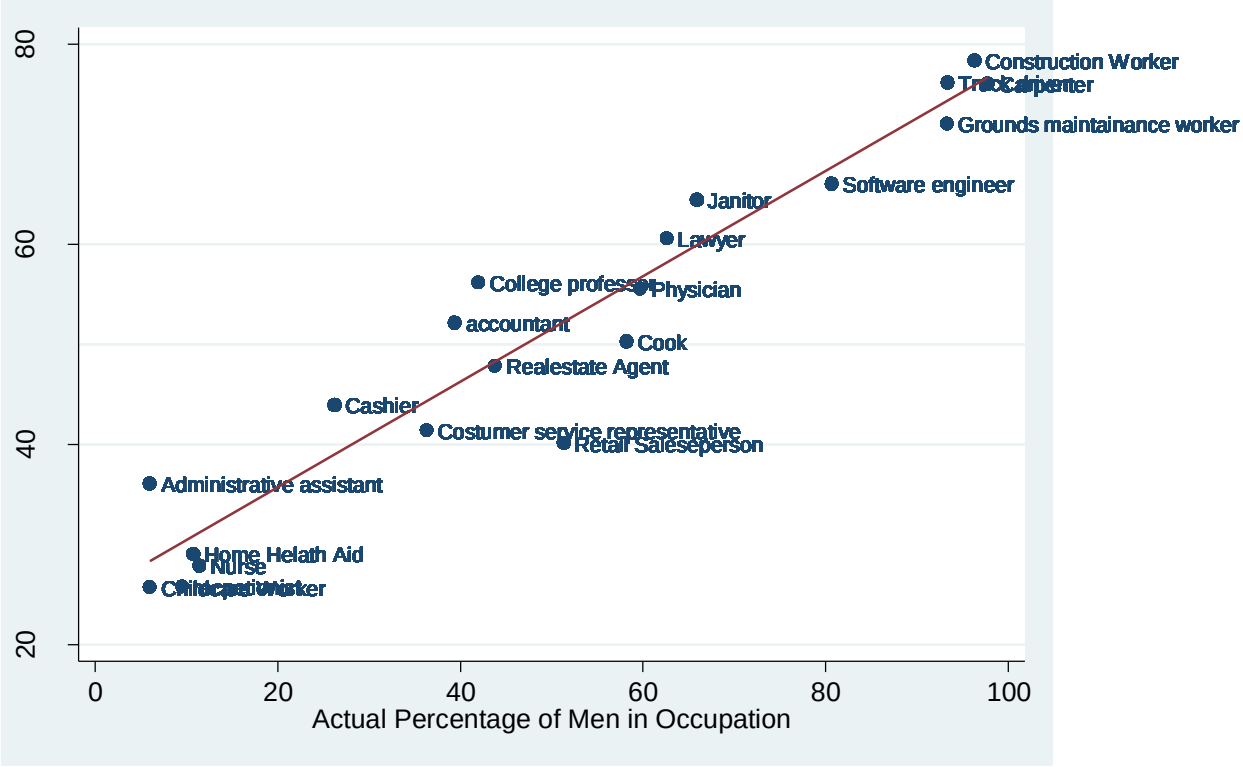
Receptionist	Answer questions and provide information regarding activities conducted at establishment.	90.5	1,324
Total			10,334

Source: 2019 BLS Employed Persons Report, Table 11 (https://www.bls.gov/cps/cpsaat11.htm)

Supplementary Survey Results

When it comes to occupations' perceived gender composition, participants did not differ by gender. In fact, participants were surprisingly accurate in their estimation of occupational gender composition: The correlation between the actual gender composition of occupations and their perceived gender composition was 0.88. Figure 6 shows the actual and perceived gender compositions of occupations.

Figure 6. Perceived Occupational Gender Composition vs. Actual Gender Composition



As can be seen from Figure 6, the occupations are clustered closely around the fitted line, without major outliers. We can safely conclude that young Americans are reasonably aware of the gender composition of common occupations.

Connecting Gender Composition with Perceived Occurrence of Sexual Harassment

In the second stage of this effort to improve the external validity of my experimental findings, I connect the gender composition of occupations to the fear of sexual harassment. My goal is to establish that, aside from the experimental manipulation describing sexual harassment, women associate male-dominated occupations with workplace sexual harassment.

Table 5. Logistic Regression Coefficients of Perceived frequency of Sexual Harassment in Common Occupations, Odds Ratio

Participant Gender	(1) Both genders	(2) Women	(3) Men
Female participant	1.609*** (0.227)		
Actual percentage of men in occupation	1.001 (0.002)	0.998 (0.003)	1.006 (0.004)
Perceived percentage of men in occupation	1.012*** (0.003)	1.011** (0.004)	1.014* (0.006)
Constant	0.092*** (0.017)	0.188*** (0.036)	0.060*** (0.019)
Observations	2,259 SE adjusted for 500 clusters	1,205 SE adjusted for 267 clusters	1,054 SE adjusted for 233 clusters

Robust SE in parentheses
*** p<0.001, ** p<0.01, * p<0.05

As shown in Model 1, women are 60% more likely than men to perceive workplace sexual harassment as common, independent of the perceived or actual gender composition of occupations. Turning to Models 2 and 3, we see that, regardless of participant gender, it is the perceived rather than actual gender composition of the occupation that predicts the perceived likelihood of sexual harassment. Both genders associate a higher percentage of men in a given occupation as an indicator of higher likelihood of sexual harassment within it. Put differently, both men and women think that the more men there are in an occupation, the more common sexual harassment is.

Limitations

This study includes an attitudinal measure of participants' interest and pay expectations but does not include a behavioral measure of the occupations participants actually enter. This limitation is joined by the fact that my participants were chosen because their age group (18-24 years) is most likely to be making crucial early-career choices, yet this is also a cohort that came of age as American society increasingly publicly debated sexual harassment and assault. Sexual harassment in the workplace may be more salient for this group than for other Americans. Of course, an opposing narrative can also be constructed, in which the younger generation of workers expect, because of the more open conversation around (and condemnation of) sexual harassment, that their workplaces can be trusted to adequately address such behavior. Future research can adjudicate between the two hypotheses.

Conclusion

In this article, I examined the impact of workplace sexual harassment on women's career choices and how those individual choices might aggregate to the broad and familiar patterns of occupational sex-segregation and the gender wage-gap. Leveraging a representative sample of young American adults, I show that sexual harassment dampens women's, but not men's, interest in entering occupations. Through mediation analysis, I demonstrate that half of the deterring effect of sexual harassment on women's occupational choices can be explained by fear of personally experiencing workplace sexual harassment. More directly, women associate male-dominated occupations with higher risk of sexual harassment and, as a result, avoid such occupations. Consequently, those occupations never accumulate the critical mass of women that might make sexual harassment less common or less fear-inducing for women considering entering those occupations (Johnson et al. 2018). It is a vicious cycle in which women's absence from male-dominated occupations reinscribes the gender wage gap (England and Li 2006).

Fear of workplace sexual harassment can explain not just parts of occupational sex-segregation but also a portion of the gender wage-gap. Using participants' pay expectations, I find that women are willing to make trade-offs between pay and safety. In fact, women are willing to earn $6/hour less— or make 81.5 cents on every dollar—to avoid workplace sexual harassment in male-dominated occupations. In light of the participants' youth, this gap in hourly pay can be expected to compound to significant gaps in lifetime earnings.

The desire to avoid workplace sexual harassment given its deleterious effects (Sojo et al. 2016) is unsurprising. Owing to the fact that male-dominated occupations are more

rife with sexual harassment (Johnson et al. 2018), women's avoidance of those occupations is not just rational, but an accurate risk assessment. A supplementary survey used here to increase the external validity of the experimental findings reveals that both men and women accurately estimate the gender composition of occupations, and associate male-dominated occupations with a higher risk of sexual harassment. Accordingly, young Americans are all but certain to grasp whether a considered career path is likely to be male-dominated and thus associated with higher risk of workplace sexual harassment. Such awareness can be expected to reinforce the current pattern of occupational sex segregation and gender wage gap.

These findings demonstrate a supply-side explanation for occupational sex-segregation that does not blame women for the inequality they experience, nor burden inequality's victims with the onus of its alleviation. Note that the distinction between supply- and demand-side explanations is vague in this case, because workplace sexual harassment can be viewed as a demand-side explanation for occupational sex segregation, while women's choices in anticipation of sexual harassment can be characterized as a supply-side explanation. Each feeds the other, rendering the distinction, to some degree, unhelpful.

Any attempt to reduce occupational sex-segregation by encouraging women to enter male-dominated occupations is doomed to fail in light of this research. Women are willing and ready to make trade-offs between pay and safety, given that they seek to avoid sexual harassment—a primary fear among American women—in all contexts, from their local park to their career path. Until workplace sexual harassment is eradicated,

occupational sex-segregation is likely to remain, as are all the social inequalities that stem from this persistent feature of the American labor market.

References

Acker, Joan. "Hierarchies, jobs, bodies: A theory of gendered organizations." *Gender & Society* 4.2 (1990): 139-158.

Avina, Claudia, and William O'Donohue. "Sexual harassment and PTSD: Is sexual harassment diagnosable trauma? " *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies* (2002) 15.1: 69-75.

Baron, R. M., and D. A. Kenny. "The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations." *Journal of Personality and Social Psychology* (1986) 51(6): 1173–82.

Becker, Gary S. 1964. HUMAN CAPITAL THEORY. Columbia, New York.

Bills, David B., Valentina Di Stasio, and Klarita Gërxhani. "The demand side of hiring: Employers in the labor market." *Annual Review of Sociology* 43 (2017): 291-310.

Bitton, Yifat and Tal Shavit. 2015. "Differences Between Men's and Women's Monetary Valuation of Crime Avoidance Behavior." *Feminist Criminology*.

Blackstone, Amy, Christopher Uggen, and Heather McLaughlin. "Legal consciousness and responses to sexual harassment." *Law & Society Review* 43.3 (2009): 631-668.

Bowles, Hannah Riley, Linda Babcock, and Kathleen L. McGinn. 2005. "Constraints and Triggers: Situational Mechanics of Gender in Negotiation." *Journal of Personality and Social Psychology* 89(6):951–65.

Bradley, Karen. "The incorporation of women into higher education: Paradoxical outcomes?." *Sociology of Education* (2000): 1-18.

Brewster, Karin L. and Ronald R. Rindfuss. 2000. FERTILITY AND WOMEN'S

EMPLOYMENT IN INDUSTRIALIZED NATIONS.

Cech, Erin A. "The Self-Expressive Edge of Occupational Sex Segregation." *American Journal of Sociology* (2013) 119(3):747–89.

Cech, Erin A. "Mechanism or myth? Family plans and the reproduction of occupational gender segregation." *Gender & Society* 30.2 (2016): 265-288.

Cha, Youngjoo, and Kim A. Weeden. "Overwork and the slow convergence in the gender gap in wages." *American Sociological Review* 79.3 (2014): 457-484.

Charles Maria and Grusky David. 2004. *Occupational Ghettos: The Worldwide Segregation of Women and Men*. 1st ed. Stafnord: Stanford University press.

Choi, Jaeyong, Haneul Yim, and Daniel R. Lee. "An examination of the shadow of sexual assault hypothesis among men and women in South Korea." *International Criminal Justice Review* 30.4 (2020): 386-405.

Conroy Bass, Brooke. 2014. "Preparing for Parenthood? Gender, Aspirations, and the Reproduction of Labor Market Inequality." *Gender & Society* 29:362–85.

Coppock, Alexander, and Oliver A. McClellan. "Validating the demographic, political, psychological, and experimental results obtained from a new source of online survey respondents." *Research & Politics* 6.1 (2019): 2053168018822174.

Correll, Shelley J., Stephen Benard, and In Paik. "Getting a job: Is there a motherhood penalty?." *American journal of sociology* 112.5 (2007): 1297-1338.

Croson, Rachel and Uri Gneezy. 2009. "Gender Differences in Preferences." *Journal of Economic Literature* 47(2):448–74.

Davison, H. Kristl. "The paradox of the contented female worker: Why are women satisfied with lower pay?." *Employee Responsibilities and Rights Journal* 26.3 (2014): 195-216.

Edelman, Lauren B., and Jessica Cabrera. "Sex-Based Harassment and Symbolic Compliance." *Annual Review of Law and Social Science* 16 (2020).

England, Paula, Lori L. Reid, and Barbara Stanek Kilbourne. "The effect of the sex composition of jobs on starting wages in an organization: Findings from the NLSY." *Demography* 33.4 (1996): 511-521.

England, Paula, Michelle Budig, and Nancy Folbre. "Wages of virtue: The relative pay of care work." *Social Problems* 49.4 (2002): 455-473.

England, Paula and Su Li. 2006. "Desegregation Stalled: The Changing Gender Composition of College Majors, 1971-2002." *Gender and Society* 20(5):657–77.

Equal Employment Opportunity Commission. 2016. "Select Task Force on the Study of Harassment in the Workplace: Report of Co-Chairs Chai R. Feldblum & Victoria A. Lipnic."

Ferraro, Kenneth F. Fear of Crime: Interpreting Victimization Risk. SUNY press, 1995.

Fisher, Bonnie S., and John J. Sloan III. "Unraveling the fear of victimization among college women: Is the "shadow of sexual assault hypothesis" supported?" *Justice Quarterly* 20.3 (2003): 633-659.

Furstenberg, Frank F. "Public reaction to crime in the streets." *The American Scholar* (1971): 601-610.

Gemici, Ahu and Matthew Wiswall. 2014. "Evolution of Gender Differences in Post-Secondary Human Capital Investments: College Majors." *International Economic Review* 55(1):23–56.

Goldin, Claudia, and Lawrence F. Katz. "A most egalitarian profession: pharmacy and the evolution of a family-friendly occupation." *Journal of Labor Economics* 34.3 (2016): 705-746.

Gorman, Elizabeth H. 2005. "Gender Stereotypes, Same-Gender Preferences, and Organizational Variation in the Hiring of Women: Evidence from Law Firms."*American Sociological Review* 70:702–728.

Glass, Jennifer. 1990. "The Impact of Occupational Segregation on Working Conditions." *Social Forces* 68(3):779–96.

Glomb, Theresa M., et al. "Ambient sexual harassment: An integrated model of antecedents and consequences." *Organizational Behavior and Human Decision Processes* 71.3 (1997): 309-328.

Gordon, Margaret and Stephanie Riger. 1989. *The Female Fear: The Social Cost of Rape*. New York : The Free Press.

Gross, A. M., Winslett, A., Roberts, M., & Gohm, C. L. "An examination of sexual violence against college women." *Violence Against Women,* (2006) 12(3), 288-300.

Gruber, James E. "How women handle sexual harassment: A literature review." *Sociology and Social Research* 74.1 (1989): 3-9.

Hart, Chloe Grace. "Trajectory Guarding: Managing Unwanted, Ambiguously Sexual

Interactions at Work." *American Sociological Review* (2021): 0003122421993809.

Hickman, Susan E., and Charlene L. Muehlenhard. "College women's fears and precautionary behaviors relating to acquaintance rape and stranger rape." *Psychology of Women Quarterly* 21.4 (1997): 527-547.

Ho, I. K., Dinh, K. T., Bellefontaine, S. A., & Irving, A. L.. Sexual harassment and posttraumatic stress symptoms among Asian and White women. *Journal of Aggression, Maltreatment & Trauma,* (2012) 21(1), 95-113.

Ilies, Remus, Nancy Hauserman, Susan Schwochau, and John Stibal. 2003. "Reported Incidence Rates of Work-Related Sexual Harassment in the United States: Using Meta-Analysis to Explain Reported Rate Disparities." *Personnel Psychology* 56(3):607–31.

Imai, Kosuke, Luke Keele, and Dustin Tingley. 2010. "A General Approach to Causal Mediation Analysis." *Psychological Methods* 15(4):309–34.

Imai, Kosuke, Luke Keele, Dustin Tingley, and Teppei Yamamoto. 2011. "Unpacking the Black Box of Causality: Learning about Causal Mechanisms from Experimental and Observational Studies." *American Political Science Review* 105(4):765–89.

Jack, Dana Crowley, and Diana Dill. "The Silencing the Self Scale: Schemas of intimacy associated with depression in women." *Psychology of women quarterly* 16.1 (1992): 97-106.

Johnson Paula A., Sheila E. Widnall, and Frazier F. Benya, Editors. 2018. *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences,*

Engineering, and Medicine. Washington DC.

Kennelly, Ivy. 2002. "'I Would Never Be a Secretary' - Reinforcing Gender in Segregated and Integrated Occupations." *Gender and Society* 16(5):603–24.

Leibbrandt, Andreas and John A. List. 2014. "Do Women Avoid Salary Negotiations? Evidence from a Large-Scale Natural Field Experiment." *Management Science* 61(9):2016–24.

Levanon, Asaf, Paula England, and Paul Allison. "Occupational feminization and pay: Assessing causal dynamics using 1950–2000 US census data." *Social Forces* 88.2 (2009): 865-891.

Mandel, Hadas, and Moshe Semyonov. "Family policies, wage structures, and gender gaps: Sources of earnings inequality in 20 countries." *American sociological review* 70.6 (2005): 949-967.

Marini, Margaret Mooney, and Mary C. Brinton. "11 Sex Typing in Occupational Socialization." SPONS AGENCY (1984): 199.

McDermut, Jennifer Fine, David AF Haaga, and Lindsey Kirk. "An evaluation of stress symptoms associated with academic sexual harassment." *Journal of Traumatic Stress* 13.3 (2000): 397-411.

Mcdonald, Paula. 2012. "Workplace Sexual Harassment 30 Years on: A Review of the Literature." *International Journal of Management Reviews* 14(1):1–17.

McLaughlin, Heather, Christopher Uggen, and Amy Blackstone. "Sexual harassment, workplace authority, and the paradox of power." *American sociological review* 77.4

(2012): 625-647.

McLaughlin, Heather, Christopher Uggen, and Amy Blackstone. "The economic and career effects of sexual harassment on working women." *Gender & Society* 31.3 (2017): 333-358.

Neville, H. A., Oh, E., Spanierman, L. B., Heppner, M. J., & Clark, M. (2004). General and culturally specific factors influencing Black and White rape survivors' self-esteem. *Psychology of Women Quarterly*, 28(1), 83-94.

Okamoto, Dina and Paula England. 1999. "Is There a Supply Side to Occupational Sex Segregation?" *Sociological Perspectives* 42(4):557–82.

Pedulla, David S. "The positive consequences of negative stereotypes: Race, sexual orientation, and the job application process." *Social Psychology Quarterly* 77.1 (2014): 75-94.

Petersen, Trond and Laurie A. Morgan. 1995. *Separate and Unequal: Occupation-Establishment Sex Segregation and the Gender Wage Gap*. Vol. 101.

Petersen, Trond, and Ishak Saporta. "The opportunity structure for discrimination." *American Journal of Sociology* 109.4 (2004): 852-901.

Polachek, Solomon William. "Occupational segregation and the gender wage gap." *Population Research and Policy Review* 6.1 (1987): 47-67.

Rattel, Julina A., et al. "Higher threat avoidance costs reduce avoidance behaviour which in turn promotes fear extinction in humans." *Behaviour Research and Therapy* 96 (2017): 37-46.

Ridgeway, Cecilia L. Framed by gender: How gender inequality persists in the modern world. Oxford University Press, 2011.

Roosmalen, Erica van, and Susan A. McDaniel. "Sexual harassment in academia: A hazard to women's health." *Women & health* 28.2 (1999): 33-54.

Sojo, Victor E., Robert E. Wood, and Anna E. Genat. 2016. "Harmful Workplace Experiences and Women's Occupational Well-Being: A Meta-Analysis." *Psychology of Women Quarterly*.

Stanko, Elizabeth A. "Women, crime, and fear." *The Annals of the American Academy of Political and Social Science* 539.1 (1995): 46-58.

Stockdale, Margaret S. "The direct and moderating influences of sexual-harassment pervasiveness, coping strategies, and gender on work-related outcomes." *Psychology of Women Quarterly* 22.4 (1998): 521-535.

Tuerkheimer, Deborah. "Street harassment as sexual subordination: The phenomenology of gender-specific harm." *Wis. Women's LJ* 12 (1997): 167.

Turner, Sarah E. and William G. Bowen. 1999. "Choice of Major: The Changing (Unchanging) Gender Gap." 52(2).

Vagins, Deborah J. 2018. "The Fall 2018 Edition of The Simple Truth about the Gender Pay Gap"

Weeden, Kim A., Youngjoo Cha, and Mauricio Bucca. "Long work hours, part-time work, and trends in the gender gap in pay, the motherhood wage penalty, and the fatherhood wage premium." *RSF: The Russell Sage Foundation Journal of the*

Social Sciences 2.4 (2016): 71-102.

Welsh, Sandy. "Gender and sexual harassment." *Annual Review of Sociology* 25.1 (1999): 169-190.

Wesely, Jennifer K. and Emily Gaarder. 2004. "The Gendered 'Nature' of the Urban Outdoors: Women Negotiating Fear of Violence." *Gender and Society*.

Appendices

Appendix A. Tabulation of Experimental Conditions

Gender composition of occupation/ Negative workplace experience	**Female dominated**	**Gender parity**	**Male-dominated**
Micromanagement	Female-dominated & micromanagement	Gender parity & micromanagement	Male-dominated & micromanagement
Threat of job loss	Female-dominated & threat of job loss	Gender parity & threat of job loss	Male-dominated & threat of job loss
Sexual harassment	Female-dominated & SH	Gender parity & SH	Male-dominated & SH

Appendix B. Questionnaire

Start of Block: Introduction

Q143 DESCRIPTION: You are invited to participate in a research study on questions of interest to people who live in the United States. You will be asked a few questions. TIME INVOLVEMENT: Your participation will take approximately five minutes. RISKS AND BENEFITS: The risks associated with this study are insignificant. The benefits which may reasonably be expected to result from this study are none. We cannot and do not guarantee or promise that you will receive any benefits from this study. PARTICIPANT'S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate. You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals. Your individual privacy will be maintained in all published and written data resulting from the study. CONTACT INFORMATION: Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Protocol Director, Paul Sniderman 650-723-1806. Independent Contact: If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the Stanford Institutional Review Board (IRB) to speak to someone independent of the research team at (650)-723-2480 or toll free at 1-866-680-2906, or email at IRB2-Manager@lists.stanford.edu. You can also write to the Stanford IRB, Stanford University, 3000 El Camino Real, Five Palo Alto Square, 4th Floor, Palo Alto, CA 94306.

Page Break

Q1
In this study, you will be presented with a job description. You will read about the first-hand experience of someone who has that job, describing what they like and dislike about their job.

You will then be asked a few questions about your interest in having such a job.

We greatly appreciate your time taking this survey. Your opinion is valuable to us and will help us understand important issues in American society.

When you are ready, please advance to the next screen.

Q142 Browser Meta Info

Browser
Version
Operating System
Screen Resolution
Flash Version
Java Support
User Agent

End of Block: Introduction

Start of Block: 80%

Q168
Please read the following description:

Project manager

Available locations: All 50 states
Average job satisfaction: 3.9/5
Gender ratio: 80% men

Job Description: Analyze and coordinate the schedule, timeline, and budget of a product or service. Serve as a point of contact for the client or customer.

Q175 Where are project manager jobs available?

- ○ Only in the Midwest
- ○ In all 50 states
- ○ Only in the South
- ○ Only in the West Coast

Q174 What proportion of project managers are men?

- ○ 20% men
- ○ 40% men
- ○ 50% (half) of project managers are men
- ○ 60% men
- ○ 80% men

End of Block: 80%

Start of Block: 20%

Q198
Please read the following description:

Project manager

Available locations: All 50 states

Average job satisfaction: 3.9/5
Gender ratio: 20% men

Job Description: Analyze and coordinate the schedule, timeline, and budget of a product or service. Serve as a point of contact for the client or customer.

Q199 Where are project manager jobs available?

- ○ Only in the Midwest
- ○ In all 50 states
- ○ Only in the South
- ○ Only in the West Coast

Q200 What proportion of project managers are men?

- ○ 20% men
- ○ 40% men
- ○ 50% (half) of project managers are men
- ○ 60% men
- ○ 80% men

End of Block: 20%

Start of Block: 50%

Q195
Please read the following description:

Project manager

Available locations: All 50 states
Average job satisfaction: 3.9/5
Gender ratio: 50% (half) men

Job Description: Analyze and coordinate the schedule, timeline, and budget of a product or service. Serve as a point of contact for the client or customer.

Q196 Where are project manager jobs available?

- ○ Only in the Midwest
- ○ In all 50 states
- ○ Only in the South
- ○ Only in the West Coast

Q197 What proportion of project managers are men?

- ○ 20% men
- ○ 40% men
- ○ 50% (half) of project managers are men
- ○ 60% men
- ○ 80% men

End of Block: 50%

Start of Block: MicroM

Q181 Please read carefully a review by Michelle, 24, who worked as a project manager for two years:

Cons
- I often get **micro-managed**: **My boss reads my emails before they go out to customers and checks over everything I do**.
- My boss nags me to do work I was about to do anyway. It is kind of **like having a babysitter as an adult**.

Pros
- Super friendly workplace with very motivated employees.
- Everyone is there to learn and make a difference.

Q97 What type of **negative** work experience did Michelle describe?

- ○ Michelle is worried about keeping her job
- ○ Michelle's coworkers tell dirty jokes and talk about sexual experiences
- ○ Michelle's coworkers play very loud music she doesn't like
- ○ Michelle's boss micromanages her

Q183 What does Michelle **like** about her job?

- ○ Great food options
- ○ A friendly workplace
- ○ Great Gym
- ○ Generous vacation-time policy

End of Block: MicroM

Start of Block: SH

Q173
Please read carefully a review by Michelle, 24, who worked as a project manager for two years:

Cons
- My coworkers use the internal chat platform to **send dirty jokes, photos and videos**.
- My coworkers often **share sexual anecdotes and ask me about my sexual experiences**.

Pros

- Super friendly workplace with very motivated employees.
- Everyone is there to learn and make a difference.

Q196 What type of **negative** work experience did Michelle describe?

- ○ Michelle is worried about keeping her job
- ○ Michelle's coworkers tell dirty jokes and talk about sexual experiences
- ○ Michelle's coworkers play very loud music she doesn't like
- ○ Michelle's boss micromanages her

Q177 What does Michelle **like** about her job?

- ○ Great food options
- ○ A friendly workplace
- ○ Great Gym
- ○ Generous vacation-time policy

End of Block: SH

Start of Block: JobLoss

Q188

Please read carefully a review by Michelle, 24, who worked as a project manager for two years:

Cons
- The company has high turnover with **people being fired often**.
- My coworkers often talk about who will be fired next, so **I am always stressed about losing my job**.

Pros
- Super friendly and motivated coworkers.
- Everyone is there to learn and make a difference.

Q195 What type of **negative** work experience did Michelle describe?

- Michelle is worried about keeping her job
- Michelle's coworkers tell dirty jokes and talk about sexual experiences
- Michelle's coworkers play very loud music she doesn't like
- Michelle's boss micromanages her

Q198 What does Michelle **like** about her job?

- Great food options
- A friendly workplace
- Great Gym
- Generous vacation-time policy

End of Block: JobLoss

Start of Block: Dependent variables

Q206 Are you interested in working as a project manager?[20]

- ○ Not interested
- ○ Interested

*

Q208 How much would you require to be **paid** for you to work as a project manager?

Please answer in **dollars per hour**.
Please enter a number between 7 (the federal minimum wage) and 100.

End of Block: Dependent variables

Start of Block: controls

*

Q210
In **your opinion**, on average, **how much do project managers in your area earn**?

Please answer in dollars per hour.
Please enter a number between 7 (the federal minimum wage) and 100.

Your best guess is fine

[20] Due to IRB requirements, answering any of the survey questions was not required. Participants were free to advance to the next screen without answering any question. Where the question was not answered, the data was treated as missing.

Page Break

Q217 How much do you agree or disagree with the following statement:

People who work as project managers are like me

- ○ Strongly disagree
- ○ Disagree
- ○ Neither agree nor disagree
- ○ Agree
- ○ Strongly agree

Page Break

Q219 If you worked as a project manager, how likely is it that **you** would experience one (or more) of the following behaviors:

A coworker telling dirty jokes or sharing sexually inappropriate images or videos.

A coworker sharing sexual anecdotes and asking others about their sexual experiences. Someone being asked on a date by their supervisor. A coworker making sexual comments about someone's clothing, body parts, or sexual orientation.

A coworker inappropriately touching or purposefully brushing up against another person.

○ Not likely at all

○ Not very likely

○ Moderately likely

○ Very likely

○ Extremely likely

Q19 In your current or past jobs, have **you experienced** any of the following behaviors at work?

Check all that apply

☐ Being asked on a date by your supervisor or someone more senior than you.

☐ Being asked on a date repeatedly by a coworker.

☐ Someone you work with telling dirty jokes or sharing sexually inappropriate images or videos.

☐ Someone you work with sharing sexual anecdotes and asking others about their sexual experiences.

☐ Someone you work with making sexual comments about someone's clothing, body parts, or sexual orientation.

☐ Someone you work with inappropriately touching or purposefully brushing up against you.

☐ I have not experienced such behaviors.

Page Break

Q139 Which of the following best describes your employment status? (Please select all that apply)

- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Self-employed
- ☐ Working in a temporary job
- ☐ Disabled
- ☐ Student
- ☐ Unemployed

Q143 Please indicate your occupation:

- ○ Management, professional, and related
- ○ Service
- ○ Administrative and office
- ○ Sales and retail
- ○ Farming, fishing, and forestry
- ○ Construction, extraction, and maintenance
- ○ Production, transportation, and material moving
- ○ Government
- ○ other _____

Page Break

Q63 What proportion of people working in your **current or most recent job** are men?

- ○ Less than 20% men
- ○ Between 21-40% men
- ○ Between 41-60% men
- ○ Between 61-80% men
- ○ More than 80% men

Page Break

Q61 How much have **all the adults in your household combined** earned in 2018?

- ○ Less than $50,000
- ○ Between $50,001- $75,000
- ○ Between $75,001- $100,000
- ○ Between $100,001-$125,000
- ○ More than $125,000

Q17 How much have **you** earned in 2018?

- ○ Less than $50,000
- ○ Between $50,001- $75,000
- ○ Between $75,001- $100,000
- ○ Between $100,001-$125,000
- ○ More than $125,000

End of Block: controls

Start of Block: Demographic questions

Q19 What is your race?

- White/Caucasian
- African American
- Hispanic
- Asian
- Native American
- Pacific Islander
- Other

Q17 What is the highest level of education you have completed?

- ○ Less than High School
- ○ High School / GED
- ○ Some College
- ○ 2-year College Degree
- ○ 4-year College Degree
- ○ Masters Degree
- ○ Doctoral Degree
- ○ Professional Degree (JD, MD)

Q15 When were you born?

▼ Choose year of birth ... 1950

Q145 What is your gender?

- ○ Male
- ○ Female
- ○ Other

Q147 What is your marital status?

- ○ Never married
- ○ Divorced
- ○ Widowed
- ○ Married
- ○ Separated

Page Break

Q125 Do you have any comments you want to share with the researchers about the experience of taking the survey?

_____

End of Block: Demographic questions