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National Association of Colleges and Employers

EQUAL OPPORTUNITY, UNEQUAL OUTCOMES: EXPLORING GENDER INEQUALITY IN POST-COLLEGE CAREER OUTCOMES

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In 2016, the #MeToo movement exploded in the media, bringing the issue of sexual harassment into the public consciousness and inflaming discourse around the treatment of women all over the world. The movement, which had been brewing for more than a decade, exposed hundreds of instances of workplace sexual abuse and brought to light the gendered power struggles that pervade American technology, entertainment, and corporate culture. In unison with #MeToo, many women have begun to speak publicly about their experiences in the workplace and demand equality. Recent lawsuits involving Microsoft and Nike provide examples of two high-profile corporations where female employees have sued for gender discrimination, alleging pay inequities and the lack of advancement opportunities for women. In response, initiatives such as the White House Equal Pay Pledge and Paradigm for Parity have been created in an attempt to level the playing field for women in the workplace, making it clear that aligning policy with practice is a necessary step in solving such problems.

While these cases highlight the unquestionable importance of addressing workplace culture and gender inequalities, they also have serious implications for female college students who are preparing to enter the work force. For colleges and universities, the question of how to prepare female students for the realities of their professional futures is paramount. In their discussion of the "Evolution of Career Services in Higher Education," Farouk Dey and

Christine Cruzvergara noted that higher education is in a “new era of employability accountability” during which the “assessment focus will continue to be about first destinations and lifelong professional outcomes.”¹ When we compare both the first destinations and the lifelong professional outcomes for women and men, there are some notable disparities. First of all, women earn less than men at every stage of their career and despite their level of education, according to the U.S. Department of Labor Women’s Bureau. In fact, “women need a Doctoral or Professional degree to make more than men with a Bachelor’s degree.”² Women are underrepresented in top occupational fields such as engineering, where they comprise only 13 percent of the work force.³ When it comes to leadership, women make up only 6 percent of Fortune 500 chief executives.⁴ These are a few of the harsh realities facing college-educated women as they enter the work force.

This article looks at the factors that shape college-educated women’s careers as they prepare to enter the work force and the role of higher education in positioning female students for lifelong professional success.

HISTORICAL CONTEXT

To frame this discussion, it is helpful to understand a few key moments in history that granted women equality in pay and broad access to higher education. In 1963, the Equal Pay Act was created in order to eliminate gender wage discrimination, making “equal pay for equal work” a federal law. In 1972, almost a decade later, Title IX of the Education Amendments to the Higher Education Act was enacted to eliminate sex discrimination in higher education. After more than a century of limited options for women--either at all-female colleges or in a few forward-thinking, inclusive institutions--Title IX ensured that women were finally able to have access to a wide array of educational options. Today, more than 40 years later, women attain bachelor’s degrees at a higher rate than men. The success of Title IX has been instrumental in creating a system in which both men and women in the United States can enjoy the freedoms and opportunities that accompany a college degree, and it seems reasonable to expect both men and women to flourish equally in their post-college careers as a result of these transformational legislative actions.

Through the implementation of Title IX and its ensuing success, one might argue that the fight for women’s rights in higher education is over. With the growing participation of women in higher education and federal laws prohibiting sex discrimination, a reasonable assumption might be that females have the same chances as their male counterparts to obtain gainful employment at equal rates of pay. However, upon close examination, it has become clear that women’s struggle for justice has a long way to go in order to achieve parity. Recent research indicates that there is a significant gap in starting pay between men and women within the first few years of college graduation.^{5, 6} One of the troubling things about this is

that lower starting pay can lead to slower gains for women and can have a dramatic effect on women's quality of living and retirement savings. Furthermore, according to the American Association of University Women (AAUW), "women take on more [student] loans and take longer to repay their debt" than men do, underscoring the critical importance of addressing the post-college gender pay gap.⁷

THE GENDER PAY GAP

The AAUW defines the gender pay gap as "the difference in men's and women's median earnings, usually reported as either the earnings ratio between men and women or as an actual pay gap."⁸ The U.S. government has tracked men's and women's wages for the past 50 years, and the data indicate that women have consistently earned, on average, less than men. While many efforts have been made to close the gender pay gap, women still lag behind men. According to the U.S. Department of Labor Women's Bureau, the gender earnings ratio increased from 60 percent in 1980 to approximately 80 percent in 2015, with the fastest growth occurring during the 1980s.

As career development practitioners and college recruiting professionals, it is critical that we engage in discussion around the pay gap that women face when they graduate from college. In this era of "employability accountability," aggregated data for college graduates show a bright picture. In a 2011 article, Anthony Carnevale, Stephen Rose, and Ban Cheah asserted that, "the data are clear: a college degree is key to economic opportunity, conferring substantially higher earnings on those with credentials than those without."⁹ When the data are disaggregated, however, a disturbing pattern emerges. According to a 2012 AAUW report, Christianne Corbett and Catherine Hill found that women who graduated between July 2007 and June 2008 earned an average of 82 percent of what men earned, one year after graduating. While differences in education, type of employment, and number of hours worked accounted for part of that pay gap, even after controlling for these factors, the researchers found significant differences in women's pay. These findings are important because they indicate that women face a salary gap immediately upon graduating from college, during a time in their lives when other factors that might influence their careers are generally equal to those of men. It therefore begs the question, *What happens during the college years that place men and women on unequal career tracks?*

MAJOR AND OCCUPATIONAL SORTING

Multiple studies suggest that the primary driver of the gender pay gap in new college graduates is differential major sorting, or the process by which men and women sort into different academic majors and occupations.^{10, 11, 12, 13} The findings in these studies showed that graduates who majored in a discipline that is comprised primarily of women typically earned less than graduates who majored in a discipline that is dominated by men. For

example, in their study, Corbett and Hill found that graduates who majored in science and engineering (more male-dominated fields) earned more than graduates who majored in the female-dominated social science and humanities fields one year after graduation. Another researcher, Liang Zhang, found a strong link between the low number of women majoring in science and engineering and the gender pay gap; since fewer women eventually work in those fields, the uneven gender distribution among occupations leads to the gap in pay.¹⁴ Researchers Judith McDonald and Robert Thornton conducted a simulation using first-destination salary data in which they estimated the gender earnings ratio for women across multiple years as if the women had received similar job offers to the men.¹⁵ McDonald and Thornton were able to shrink the gender pay gap to almost zero under the hypothetical conditions that women received job offers similar to those of men. These findings provided evidence that unequal gender distribution across college majors accounts for a large portion of the gender pay gap and suggest a strong correlation between academic major and occupational outcomes.

A recent report illustrated how differential major sorting contributes to the gender pay gap.¹⁶ In analyzing resumes and salary data of more than 46,000 recent college graduates who provided data to Glassdoor, Andrew Chamberlain and Jyotsna Jayaraman found that women earned an average of 80 percent of what men earned within the first five years of graduating from college. The researchers advised that, “gender imbalances among college majors are an important and often overlooked driver of the gender pay gap.”¹⁷ They cited social factors, including pre-college preparation, seeking parents’ approval, differences in workplace preferences, and societal gender norms, as factors that may affect students’ academic and occupational choices. Furthermore, while they acknowledged the strong link between academic majors and occupational outcomes, Chamberlain and Jayaraman noted that within the same college major, men and women tended to sort into different occupations that were associated with discrepant rates of pay, causing even further segregation of the labor market.

What do we know about why women and men sort into different academic majors and occupational fields? Several studies have attempted to explain these phenomena. One posited gender-based differences in preference for working conditions and type of work, female students’ desire to stay close to family, and pressure to conform to gendered occupational roles as possible reasons for academic major sorting.¹⁸ A study of Northwestern University students found that men and women differed in their preferences for work, in that males preferred financial rewards and females preferred non-financial rewards, such as enjoying work and making time for both work and family.¹⁹ The study noted that students may have already formed strong gender roles by the time they have reached college, making the case for early intervention a *sine qua non* for reducing gender disparities in education.

Other factors that may influence academic and occupational sorting include the intersection of race, gender, and socioeconomic status. Researcher Yingyi Ma examined data from the National Center for Education Statistics for students graduating from college between 1988 and 1994 and found a correlation between the demographic makeup of an occupation and students' choice of major, suggesting that deep social and structural roots underlie college major choice. While the data that Ma examined are close to two decades old, they can offer future researchers other variables to examine with regard to the gender pay gap and may provide clues as to why men and women sort into different academic and occupational fields. Some researchers have implicated students' academic confidence as underlying differential major selection among men and women. For example, using national survey data, one research team found a number of factors that correlate with choosing a science, technology, engineering or math (STEM) major.²⁰ Specifically, confidence in math and academic areas was positively correlated with choosing a STEM major, whereas being female was negatively correlated. The authors found that students' views of themselves, including self-efficacy and outcome expectations, shaped their major and career decisions. Additional research has found that women tend to have lower salary expectations than men and might not be as likely as men to negotiate.^{21, 22}

One recent study found that students' perception of gender bias was the biggest predictor of gender-based sorting into college majors.²³ These findings imply that addressing college students' perceptions, as well as the way in which academic disciplines present themselves, could lead to greater gender integration in academic majors.

While much of the gender pay gap can be attributed to a student's choice of major, college major alone does not fully account for the gender pay gap. In their study, Corbett and Hill found significant salary discrepancies among students within the same majors, the results of which the researchers refer to as "occupational segregation." The findings showed, for example, that male social science graduates were more likely to work in high-paying business or management careers, while female social science graduates took jobs in lower-paying fields such as teaching, healthcare, and social service. They also found that about one-third of the gender pay gap could not be explained by college major, occupation, or number of hours worked and suggested that gender bias and discrimination may account for the unexplained portion of the salary gap. Hill and Corbett went on to say "While field of study is viewed as a free choice, many people do not consider the segregation of men and women into different college majors to be an issue of equal opportunity. Yet subtle and overt pressures can drive women and men away from college majors that are nontraditional for their gender."²⁴

GENDER BIAS AND DISCRIMINATION

While disparities in starting pay among new college graduates are largely a result of the academic and occupational choices students make, in order to fully comprehend how students' choices lead to differential outcomes we must consider the environment in which students make those choices, as well as the economic realities of the labor market into which students graduate.

Corbett and Hill surmised that gender bias and discrimination might be contributing factors to the unexplained portion of the pay gap in new college graduates. This prompts the question, *How do gender bias and discrimination affect women's career outcomes?* The authors of the Society of Women Engineers (SWE) 2017 Literature Review noted that an emerging theme in the research on women in engineering is the way in which college faculty "gender" undergraduate education, affecting students' sense of belonging and driving them toward or away from certain fields. The SWE literature reviewers noted the "masculine" culture of engineering in both academia and the workplace and called for further research on the experiences of women in engineering environments. Thus, faculty who (consciously or unconsciously) perpetuate gender stereotypes in education might be one example of how gender bias affects female students' academic and occupational choices during college. Employers that recruit and hire college students may also present their organizations in a gendered way. A recent study at one university found that technology companies recruiting on campus presented their organizations and work culture in a way that contributed to a hostile climate for women in STEM. The researchers observed technical recruiting sessions and found that many of the companies featured men as the expert presenters and relegated women to minor or non-speaking roles.²⁵ The presenters often used gendered stereotypes, such as a scantily clad woman, and some even provided gendered swag, such as bottle openers and beer steins, implying a fraternity-like culture. The researchers contended that these behaviors alienate women and perpetuate gender segregation in STEM fields. They concluded that, "researchers who study how individuals choose careers and make career-relevant decisions should be especially attentive to the environment in which these decisions are made."²⁶

Gender bias can also take a more insidious form in the way society values certain kinds of work. In a 2017 article in the *NACE Journal*, Kenneth Tsang described the concept of "valuative bias" to explain the gender pay gap through the lens of labor market dynamics. Valuative bias is when work done by women is valued less (by society, by employers) than work done by men. As a result, as the percentage of females in a field increases (for instance, biology or psychology), the average wages for that field go down. Conversely, in fields that are predominantly male, such as engineering and finance, the average salaries are higher than fields with a more even gender distribution. In "Desegregation stalled: The changing gender composition of college majors, 1971-2002," Paula England and Su Li viewed this "devaluation perspective" around "women's work" as linked to two contradictory views that

American society holds on women in higher education: that educational attainment of women should equal that of men, and that men and women are suited for different types of work. They posited that, “the result is more favorable for gender integration by [educational] level than field of study.”²⁷ These deep-rooted cultural beliefs have allowed women to achieve parity with men on the level of degree attainment, but not in terms of fields of study. If valuative bias continues to shape cultural views of women in higher education and the labor market, those who strive for change will face an enormous challenge in taking steps to desegregate academic and occupational environments.

While valuative bias can help explain the reasons why female-dominated occupations pay less than male-dominated fields, related research has shown that subtle gender discrimination in the hiring process may also have an impact on who gets hired. For example, in 2018, researchers at the Center for Sport Leadership at Virginia Commonwealth University revealed gender-based discrimination in the hiring process for college student-athletes.²⁸ In this study, more than 200 experienced hiring professionals participated in an experiment to assess the hireability of hypothetical student-athletes. Although the professionals favorably judged the resumes of both male and female student-athletes with internship experience, they judged the resumes of male student-athletes without internship experience more favorably than the resumes of female student-athletes with similar credentials. An earlier study found that science faculty preferred male students for a laboratory manager position and offered the male students more mentoring opportunities and higher starting salaries than female students with the same credentials.²⁹ Additional studies have concluded that gender stereotypes do have an effect on hiring decisions and may disadvantage women.^{30, 31}

Sociologist Elizabeth Higginbotham declared that, “gender expectations are still very pronounced in our culture. They are ever present in the media and in the expectations held by others.”³² Higginbotham went on to say that “the fact that many of women’s employment choices are made by others...is central to any discussion of their status.”³³ Clearly, institutions of higher education must examine their roles in perpetuating gendered stereotypes that lead to sex segregation in academic majors and occupational outcomes. For many institutions, this means elevating the conversation around gender segregation in academic majors and making the matter of women’s career development a top priority.

THE ROLE OF HIGHER EDUCATION

Through Title IX, institutions of higher education have a responsibility to prevent sex discrimination in all facets of education. Since one of the primary aims of higher education is to prepare graduates to obtain gainful employment, colleges and universities have an obligation to ensure that they are providing all students equal opportunity to succeed professionally. However, the data have shown disparate outcomes with regard to gender

immediately upon college graduation. While labor market forces drive a portion of these disparities, institutions must examine their own structures, processes, and policies to remediate the gender gap and to position all students for success after graduation. In the essay titled “The Diversity Imperative: Moving to the Next Generation” in *American Higher Education in the 21st Century*, Darryl Smith asserts that “a key lever for change is the degree to which diversity is understood to be an imperative for the institution—an imperative that goes beyond simply serving students.”³⁴ Going beyond serving students entails critically examining aspects of the institutional environment and the traditional structures that support (or hinder) students in making academic and career decisions, and preparing them for the academic and work environments into which they ultimately graduate.

Instead of relegating students’ career outcomes to personal choice and the dynamics of a market-driven recruiting system, I assert that colleges and universities can and should put resources toward reducing the gender gap that students experience upon graduating from college. In an effort to connect research to practice in closing the gender gap in career outcomes, I offer seven recommendations for career development practitioners and organizations that recruit and hire college students. Since every institution is different, these recommendations should be tailored to fit the unique historical, cultural, and academic environments within a particular institution or organization. In parallel to implementing these recommendations, I suggest that career development and recruitment professionals conduct internal and external reviews to glean a deep understanding of the problems they are trying to solve, including gathering insights from students, employers, and recent graduates.

RECOMMENDATIONS FOR HIGHER EDUCATION

1. Make the data transparent. Salesforce CEO Marc Benioff urged other CEOs who want to address gender pay equity in their organizations to “look at the numbers.” In a similar way, universities that want to address gender equity in their organizations should disaggregate first-destination statistics by gender (and for that matter, by race and ethnicity). By viewing the data in a disaggregated way, career center directors and other higher education leaders can gain a clear picture of where gaps exist in the outcomes. A recent conversation with a NACE representative indicated that the organization is discussing the idea of making national salary statistics available by gender in the near future. In doing so, the organization hopes to raise awareness of the gender pay gap that students face when they graduate from college and encourage dialogue around solutions.

2. Pay attention to academic major sorting issues. Faculty advisers, career counselors, and other professionals who advise students on major selection need to be aware of the connection between gender segregation in majors and labor market outcomes. Instead of perpetuating gendered stereotypes and allowing sex segregation to continue, higher

education professionals can interrupt the sorting process and take steps to integrate academic majors and occupations. This is not to say that advisers and counselors should push students to major in fields or apply to jobs that do not meet a student's interests and career goals. However, academic and career advisers should consider how their implicit bias (their own and that of their students) may play a role in nudging a student into certain disciplines or occupations that are consistent with cultural gender norms. Universities should offer implicit bias training to all faculty and staff on a regular basis and make issues of gender equity (including the pay gap) a critical topic of discussion within the institution. In addition, academic affairs administrators should identify any structural barriers (such as caps on majors that require an application process) that might contribute to differential major sorting.

3. Arm students and parents with information. While universities may not want to publish statistics that leave them open to criticism (for instance, first-destination salary data by gender), they can publish salary data disaggregated by major, allowing students and parents to understand the connection between academic major and post-graduate career outcomes. Advising a student to select a program that he or she can enjoy is sound advice; however, that advice must also be given in the context of how academic choices lead to real world consequences and equate to salary differences. Likewise, career development professionals can encourage students who are majoring in fields that have historically led to lower-paying occupations to seek job-related skills through additional course work, projects, and internships in order to expand their access to a broader array of job opportunities. The University of Virginia Career Center, for example, recently launched several short courses and "boot camps" for students to hone their job-related skills in areas such as business, data analytics, and healthcare.

4. Review recruiting-hiring practices to identify areas of potential gender bias. Career and employment development professionals should conduct an annual review of the companies that hire students and work with the employing organizations to eliminate bias and discrimination. Reviewing job postings for inclusive language, encouraging companies to consider diversity in the representatives they bring to campus, and assessing application-interview-offer metrics can comprise a systems approach to reducing bias in hiring. Encouraging companies to shift their recruiting practices to hire students based on skills, rather than on academic major, can interrupt the major-sort/occupational-sort process.

5. Teach students salary negotiation skills. Corbett and Hill suggested that teaching students how to confidently and self-assuredly negotiate their salary could have an impact on the gender pay gap. The AAUW offers a "Start Smart" salary negotiation workshop and facilitator trainings that colleges and universities can launch on their own campuses. Career development practitioners can use these workshops to raise students' awareness of the

gender pay gap and empower women (and men) to stand up for fair pay. Yale University has made salary negotiation a significant part of its career services programming, offering both in-person workshops and online resources for students and alumni. Jeanine Dames, director of Yale's Office of Career Strategy, believes this "early and often" approach to salary negotiation programming has had a positive impact on salary outcomes. Facilitators should take care to promote these workshops as inclusive of all genders, since all students, not just women, can benefit from the material.

6. Strive to make all academic disciplines more inclusive. Academic disciplines with gender imbalance should assess their own climates and seek ways to attract more diversity. Faculty, staff, students, and employers can make a concerted effort to improve culture by eliminating sexist language and gendered interactions in the classroom, team dynamics, and internships.³⁵ Hiring more women faculty into these fields and showcasing successful female graduates can help to make a subtle shift in the culture. Moreover, these programs can ask underrepresented students how the field can foster a greater sense of belonging and inclusion and engage those students in outreach efforts.

7. Conduct a qualitative research study. While economic data and quantitative research can provide powerful insight into the outcomes students experience upon graduating from college, higher education professionals can learn a great deal by listening to students. Elizabeth J. Allan suggested that interviews and focus groups can be helpful forums to shed light on academic climate, and the "barriers, challenges, and tensions" that female students in masculine-gendered environments encounter.³⁶ Similarly, since many students first experience their chosen career through a job-related internship, externship, or shadowing program, career services professionals can conduct ethnographic research that can yield insight into students' experiences with workplace culture and hiring practices.

ADDITIONAL RESEARCH

While this article explores the connection between higher education and gender inequities in post-college career outcomes, future research could look at inequities by race, ethnicity, sexual orientation, socioeconomic status, disability, and myriad other demographic factors. In addition, research on valiative bias in pay structure formation would yield insight into pay inequities and may lead to more socially just career outcomes. Furthermore, salary outcome is only one metric by which researchers can measure occupational success. New research on the effectiveness of the college-to-work force transition has suggested that a more holistic approach to measuring the outcomes of higher education is needed. For example, the Gallup-Purdue model measures workplace engagement and well-being as indicators of educational and occupational success. More research is necessary to determine the effectiveness of such measures. However, no matter which outcome measures are used, by

making gender (and racial, ethnic, and other forms of diversity) a central tenet in discussions around first-destination career outcomes, colleges and universities can play an important role in reducing societal inequalities and take positive steps toward economic parity.

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