

What Should You Do to Get Ahead?

An Examination of Career Development Choices, Career Aspirations, and Gender

By

Isabel Delgado Millington

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts  
in Industrial Organizational Psychology

Middle Tennessee State University

December 2024

Thesis Committee:

Dr. Mark Frame

Dr. Judith Van Hein,

## ABSTRACT

Previous research suggests that women continuously face greater barriers in their efforts to reach career advancement as compared to men (Chatterjee et al., 2023; Eagly, 2007; Matsa & Miller, 2011; Watts et al., 2015). However, the career advice available to women lacks utility and scientific merit. The present study seeks to help bridge the gap within the career advice literature by exploring the relationships between occupational aspirations, career decision making self-efficacy, the actions an individual would take to advance their career, the career advice individuals would give to others, and gender. Although the proposed hypotheses were not supported, this study sheds light on the current state of gender differences in career aspirations and decision-making. We found that individuals with higher realistic occupational aspirations (ROA) were not significantly more likely to pursue relocation or developmental assignments. Additionally, we did not find significant gender differences in career decision-making self-efficacy (CDMSE). Lastly, no gender differences were found when examining an individual's likelihood to engage in documenting a good track record, building relationships with coworkers and managers, and relocation. Overall, this study indicates that traditional gender dynamics in the workplace may be changing, but further exploration is still needed to fully understand the complexities of career development across different demographic groups.

## TABLE OF CONTENTS

Literature Review.....	1
Introduction.....	1
Gender.....	2
Gender Norms and Gender Roles.....	3
Barriers to Career Advancement Faced by Women.....	4
Facilitators to Career Advancement.....	10
Self-Efficacy.....	12
Social Cognitive Career theory.....	13
Gender Differences and Career Decision-Making Self-Efficacy.....	14
Career Aspirations.....	15
Women in Today’s Workforce.....	17
Hypotheses.....	19
Methods.....	20
Participants.....	20
Measures.....	20
Procedure.....	23
Results.....	25

Demographics.....	25
Occupational Aspirations.....	26
CDMSE-SF.....	31
Case Studies.....	32
Discussion.....	35
Limitations and Future Directions.....	38
Conclusion.....	39
References.....	41
Appendices.....	52
Appendix A: IRB Approval Letter.....	53
Appendix B: Informed Consent.....	55
Appendix C: Online Survey.....	58

## LIST OF TABLES

Table 1: Case Study Breakdown.....	24
Table 2: Descriptive Statistics for ROA.....	26
Table 3: Percentages of Occupational Aspirations and Occupational Expectations.....	27
Table 4: Descriptive Statistics for Case Study Variables.....	28
Table 5: Correlation Matrix for Relocation, Developmental Assignments, and ROA .....	30
Table 6: Descriptive Statistics, T-Test Results, Correlations for CDMSE and Gender .....	32
Table 7: Descriptive Statistics for MANOVA Case Study Variables.....	33
Table 8: MANOVA Results for the Main Effect of Gender and Case Study Variables.....	33
Table 9: MANOVA Results for Gender and Case Study Variables.....	33
Table 10: Correlation Matrix for Track Record, Building Relationships, and Relocation.....	34

## Literature Review

### Introduction

The impact that women have made in the workplace has been documented in the popular press (Siegel, 2020) and in research (Lyness & Thompson, 1997, 2000). Popular press accounts (Brower, 2022; Hewlett, 2002) and research (Almeida & Salas-Betsch, 2023; Lyness & Thompson, 1997, 2000) have documented the stereotypes and discrimination that women in the workplace have encountered and overcome (Whittenberg-Cox, 2013). Despite the progress women have made in the workplace, they are still underrepresented in the upper echelons of organizations (Ezzedeen et al., 2015; Warner, 2014), and there is a persistent need for increased diversity in leadership positions (Warner, 2014). Women have been proven to be effective leaders (Eagly, 2007; Warner, 2014), but continuously face barriers such as stereotypes and bias (Eagly, 2007; Matsa & Miller, 2011) and their own self-doubt (Chatterjee et al., 2023) and are often disproportionately impacted by work-family conflict as compared to men counterparts (Hewlett, 2002).

Career advice for women abounds and generally aims to help women overcome external barriers and their own doubts to achieve career advancement but much – if not most – is anecdotal (Metz & Kumra, 2019). While these sources may gain popularity in the press, the guidance provided often lacks scientific rigor and can be misleading and ineffective (Metz & Kumra, 2019). Typically, the focus of advice from such sources is on self-empowerment or self-improvement (Whittenberg-Cox, 2013; Ryan & Morgenroth, 2024), but individual action alone is not enough to achieve advancement in a workforce that structurally and systematically prevents women's advancement (Koenig & Eagly, 2019; Metz & Kumra, 2019). Some of the advice provided to women in the workplace is targeted to the workplaces of the past (Metz & Kumra,

2019), as opposed to targeting current issues faced by women or focusing on where women want to be in the future (Metz & Kumra, 2019; Hawarden, 2013). Other advice for women in the workplace is general career advice largely developed based upon studies and successes of men and extrapolated to the context of career paths of women (Metz & Kumra, 2019). Women's career advice should focus not only on their immediate advancement, but also several years into the future to address what their long-term goals are and how to best achieve them (Hawarden, 2013). The gaps between current research and popular advice highlights the need for further examination of the steps and actions women should take to achieve equity in leadership positions.

The present study seeks to help bridge the gap within the career advice literature. This study will assess career aspirations and career decision-making self-efficacy to determine how these characteristics impact the career advice individuals give to others and the advice they apply to their own careers. The goal of this research is to see what career advice women are currently receiving and what advice are they wanting in order to advance their careers.

## **Gender**

Gender is defined as an individual's identification with being a man, woman, nonbinary, or another gender identity (National Academies of Sciences, Engineering, and Medicine, 2022). It is based on the “psychological, social, cultural, and behavioral characteristics associated with being female, male, both, or neither” (Wienclaw, 2021). This differs from the definition of sex which is the “biological aspects of being male, female, or intersex,” (Wienclaw, 2021). An individual's gender identity may or may not align with their sex assigned at birth (American Psychological Association, 2015). For a full discussion of the differences between sex and gender see *Measuring Sex, Gender Identity, and Sexual Orientation* by The National Academies

of Sciences, Engineering, and Medicine (2022). Regardless of the gender identity associated with a person, there are norms and roles that cultures and societies tend to ascribe to people based on gender.

### **Gender Norms and Gender Roles**

The concept of gender is shaped by both societal norms and personal identification (National Academies of Sciences, Engineering, and Medicine, 2022). Gender norms are expectations and rules created by society that dictate how men and women should behave according to their gender (Fleming & Agnew-Brune, 2015). Socialization, which refers to how individuals from a young age learn what behaviors and attitudes are appropriate for their gender and their culture. Cultural norms and media are some of the main contributors to gender norms (United Way NCA, 2023). In other words, the understanding of what is considered masculine or feminine is acquired through social influences and significantly impacts gender development (Wienclaw, 2021). Gender roles outline the expected behaviors of men and women based on their assigned gender (United Way NCA, 2023). They influence what attitudes, responsibility, and behaviors that are considered suitable for an individual's assigned gender (United Way NCA, 2023). Although gender roles have evolved over time, they still revolve around behaviors and actions that are stereotypically associated with men or women (United Way NCA, 2023).

Some individuals strongly identify as masculine or feminine, while undifferentiated persons might identify with both, and those that identify with neither are considered androgynous (Bem, 1974). Individuals that have a strong masculine self-concept may reject behaviors associated with femininity, and individuals that have a strong masculine self-concept may reject behaviors associated with masculinity (Bem, 1974). Gender norms and gender roles have

important implications for an individual's career development and for any plan they attempt to implement to achieve those career goals.

Individuals that strongly identify with masculine or feminine characteristics may reject career choices or behaviors needed to advance in certain careers that are associated with the opposite gender (Bem, 1974; Eagly & Karau, 2002). Individuals may also feel disdain towards others who go against their concept of gender identity and act in opposition to gender norms (Bem, 1974; Eagly & Karau, 2002). This may pose additional barriers towards women who choose nontraditional careers that are stereotypically associated with men or masculine characteristics (Caleo & Heilman, 2013; Eagly, 2007; Koenig & Eagly, 2019). The attributions associated by others regarding a person's gender roles, gender norms, and behaviors could also restrict the extent to which women are able to advance in organizations. The effect of barriers such as these on the career advancement of women are often referred to as the glass ceiling.

### **Barriers to career advancement faced by women**

The glass ceiling refers to barriers women may face as they advance up the corporate ladder (Lyness & Thompson, 1997). These barriers are generally not faced by men, making upper-level positions often less attainable for women (Matsa & Miller, 2011). Obstacles in the workforce are not presented as a singular barrier, but rather a multitude of barriers that may come in the form of unfair practices and policies, project assignments and opportunities, and/or supervisor and subordinate perceptions (Watts et al., 2015). Due to the magnitude and complexity of the barriers and oppressive forces faced by women, the glass ceiling has commonly been renamed a labyrinth (Eagly & Carli, 2007a).

Women are underrepresented at leadership levels in almost every professional field (Hüttges & Fay, 2015), including law, politics, healthcare, advertising, financial services, and entertainment (Warner, 2014). Women make up 50.9% of the US population (Blakeslee, 2023) and now account for 50.7% of the college-educated labor force (Fry, 2022). Women also make up 48% of entry level positions, 40% of manager positions, 36% of senior manager positions, 33% of vice president positions, 27% of senior vice president positions, and 28% of positions in the C-suite (Field et al., 2023). However, the Pew Research Center found that only 10.6% of CEOs in Fortune 500 companies were women (Schaeffer, 2023). Additionally, the median salary of all professional women (executive level & below) was significantly lower than the median annual earnings of their male counterparts (Almeida & Salas-Betsch, 2023; Egan, 2015). These statistics indicate that the glass ceiling is still prevalent and restricting women from reaching equity to men in their careers.

Gender roles and gender stereotypes are often discussed as causes for the persistence of the glass ceiling (Babic & Hansez, 2021). Characteristics associated with men tend to be associated with successful leadership, causing women to be viewed as less fit for leadership positions (Babic & Hansez, 2021). Research suggests that men gravitate towards roles that embody more masculine characteristics, while women gravitate towards roles with more feminine qualities (Watts et al., 2015). Role congruity theory (Eagly & Karau, 2002) suggests that a contradiction between a gender stereotype and social roles can lead to prejudice (Eagly & Karau, 2002; Sheridan, 2013). Women leaders (and potential leaders) tend to be less favorably evaluated and are perceived as having less desirable behavior than men leaders and potential leaders (Eagly, 2007; Eagly & Karau, 2002). Women in leadership roles are often labeled as too aggressive because there is an incongruence between the behaviors required to be a leader and

the behaviors stereotypically associated with women (Koenig & Eagly, 2019; Sheridan, 2013). Characteristics that are achievement oriented, aggressive, competent, and decisive are labeled agentic and are stereotypically associated with men (Rosette & Tost, 2010). Relationship oriented characteristics like concern and sympathy are labeled communal and are stereotypically associated with women (Rosette & Tost, 2010).

Similarly, the Ohio State Leadership Studies (Halpin, 1957; Halpin & Winer, 1957; Hemphill & Coons, 1957; Stogdill, 1963) define two dimensions of leader behavior. The first is consideration which is interpersonally oriented and demonstrated by behaviors such as showing concern for others, giving recognition, being friendly, developing trust, and encouraging participation (Eagly et al., 1992). The second dimension is initiation of structure which is task oriented and demonstrated by behaviors such as following rules, maintaining high performance standards, emphasizing deadlines, clarifying roles, and specifying procedures (Eagly et al., 1992). As seen with agentic and communal traits, women leaders are associated with the collaborative and interpersonal behaviors exhibited by consideration, while men leaders are associated by the task and dominating behaviors of initiating structure (Eagly et al., 1992).

As suggested in role congruity theory, as women progress and display more agentic characteristics, the more negative perceptions and disadvantages they can expect (Eagly & Karau, 2002). However, other research has suggested that women at the top may experience advantages from their agentic characteristics. Studies have shown that top women leaders are viewed as more agentic and communal than top men leaders (Eagly, 2007). Women in this scenario are perceived to face higher standards to succeed than men, leading to inflated evaluations. While this trend was found at the top levels of an organization, it was not found within middle management levels (Rosette & Tost, 2010).

Other theories that may be contributing factors to the persistence of the glass ceiling include organizations restricting employment access to individuals who may be different than the majority or systematic discrimination against women. Individuals in the upper ranks of organizational leadership may also create an unwelcoming culture (due to it being predominantly dominated by men) to restrict access to women. Lastly, differences in attitudes may result in women being less likely to ask for promotions or raises and being less likely to take risks in their careers (Ezzedeen et al., 2015).

Research suggests that men and women leaders may perceive different factors as important for their careers (Frame et al., 2010). Women leaders have been shown to rate communal traits more highly than their men counterparts (Frame et al., 2010). However, both women and men leaders rated agentic traits as having greater importance than communal traits (Frame et al., 2010). This could be due to the heavy emphasis the corporate world places on task-focused activities. To further support this, the same study found that employees of both genders who worked in higher level leadership roles felt that agentic traits were more important than communal traits as compared to employees in lower leadership positions (Frame et al., 2010). Women's ability to advance may be hindered early in their careers by the importance they place on communal traits rather than agentic traits earlier in their careers (Frame et al., 2010). Women may be overlooked due to gender norms that associate men with agentic traits which are more highly valued by management (Koenig & Eagly, 2019; Sheridan, 2013). When women aren't overlooked, it can also be problematic if they are promoted to leadership positions as a symbolic gesture.

Tokenism is the practice of making symbolic inclusion efforts towards minorities (Lyness & Thompson, 2000). Unequal representation of the genders in leadership positions affect the

interactions between men and women. Women are considered the token group, while men are considered the dominant group. Women are negatively impacted by the dominant men emphasizing the differences between them and the token group (Lyness & Thompson, 2000). By making women the “token”, women may feel they have to act as representatives for all women, adding additional pressure to their job that is not experienced by men (Ezzedeen et al., 2015). Tokenism theory (Kanter, 1977) predicts women executives may experience six barriers to success and career advancement. The first barrier is that women may not feel like they fit in with the man-dominated culture that persists in upper levels of management (Cook & Glass, 2014). They may feel that they need to change in order to be a better fit, placing more stress on the women (Lyness & Thompson, 2000). The second barrier women may face is that men may emphasize their relationships with other men, leading to women being excluded from informal groups (Babic & Hansez, 2021). Women additionally tend to receive less mentoring or less effective mentoring than men counterparts (Babic & Hansez, 2021; Lyness & Thompson, 2000). Women report feeling isolated from executives in their organizations, making it harder for them to find role models they relate to (Ezzedeen et al., 2015) This impacts the fourth barrier that is women’s dependency on formal organizational management process to secure advancement (Lyness & Thompson, 2000). Men leaders emphasize informal processes and networks to secure advancement, while women are often in positions with low visibility and less ability to develop to social networks that could aid in their promotion (Babic & Hansez, 2021; Lyness & Thompson, 2000). Women are also more likely to be perceived through the lens of a stereotype, making it difficult to receive developmental assignments that could lead to further advancement (Lyness & Thompson, 2000). Lastly, these stereotypes can also limit a women’s opportunities for geographic mobility, which once again could hinder advancement (Lyness & Thompson, 2000).

Along with having to overcome stereotypes and gender norms, women may also overcome additional barriers such as the competing interest of work and family (Bear 2021; Lyness & Thompson, 1997). Balancing work life and home life poses a greater challenge to women as family-oriented tasks stereotypically fall under the women's responsibilities in many western societies (Bear, 2021; Lyness & Thompson, 1997). Women are often the ones taking time off from work to tend to family needs, which can hinder their ability to advance (Eagly & Carli, 2007b). Climbing the corporate ladder also requires more time and dedication to work, creating conflict between these two aspects of a person's life. Research suggests that women leaders are significantly less likely to be married or have children than other women and men leaders (Cook & Glass, 2014; Lyness & Thompson, 1997). This suggest that women made more sacrifices in their home life in order to reach success at work (Watts et al., 2015).

In addition to the more tangible barriers women must overcome, women must also overcome the perception of career barriers. Women are more likely than men to perceive barriers towards their advancement in the workplace (Watts et al., 2015). These barriers include discrimination, role conflict, disapproval from significant others, lack of confidence, and lack of preparation (Watts et al., 2015). Perceived barriers have been found to have a large influence on career choice. Women may self-select out of upper-level positions, decreasing the diversity found in leadership (Peters et al., 2013; Watts et al., 2015).

Perception of career barriers has been found to reduce the self-efficacy of both men and women students, but perceptions of career barriers has a greater impact on the career success for women than it does for men (Aymans et al., 2020). Studies have found negative relationships between self-efficacy in career roles and perception of career barriers (Cardoso & Moreira, 2009).

## **Facilitators to career advancement**

To overcome the barriers that hinder women's career advancement, there are research-based practices that have been shown to help advance women's careers (Lyness & Thompson, 2000). Having a positive record of successful accomplishments and developing relationships have been particularly important in advancing men and women's careers. However, getting those accomplishments recognized by leaders may be more difficult for women. (Babic & Hansez, 2021; Lyness & Thompson, 2000). When decision makers are familiar with women candidates and their accomplishments, they are more likely to achieve management positions and overcome gender stereotypes (Lyness & Thompson, 2000). Being proactive in setting career goals, completing challenging assignments, and taking career risk have also been suggested as ways to advance women's career (Lyness & Thompson, 2000). Mentorship and developmental job assignments can facilitate career growth as well. Women typically have less access to influential mentors than men (Babic & Hansez, 2021), and some research suggests that mentorship may be less effective for women as the advice they receive can be less helpful than the advice received by men (Lyness & Thompson, 2000). Similarly, women in formal mentorship programs report receiving less benefits than women in informal mentorship programs, whereas men do not experience these differences (Nugent et al., 2013). Addressing this gap and increasing the number of mentorship programs focused on employee development may help to increase satisfaction, commitment, and retention while providing women with opportunities for career growth (Nugent et al., 2013).

Family obligations can place a hindrance on the trajectory of a women's career, but with greater organizational support, organizations can counter these barriers by allowing women to tend to their families without sacrificing their careers. Often, women plan to return to work

sooner after giving birth and are more committed to their organizations when they perceive job security and organizational support of work-family balance (Lyness et al., 1999). With greater commitment to their careers and organizations, women will likely receive more opportunities for advancement (Lyness et al., 1999). This suggests that when organizations facilitate work-family support, they are also facilitating women's career advancement (Lyness et al., 1999).

To better support women's needs and career advancement, organizations should make efforts to integrate diversity and inclusion beyond the recruitment and selection phase and into the culture and work environment (Nugent et al., 2013). Strategically creating and implementing programs meant to increase mentorship, leadership development, and inclusion training have a positive impact on women and the organization as a whole (Nugent et al., 2013). Organizations should ensure that these programs are free of bias and inequities (Warren, 2009). Employee resource groups (ERGs) can provide women with the career and emotional support they need to achieve advancement through access to mentors, training, coaching, and external partnerships with other businesses and communities (Kaplan et al., 2009). Lastly, having diversity in leadership staff promotes employee satisfaction and organizational performance (Allen & Montgomery, 2001). One study found that greater diversity among decision makers in an organization increased the likelihood of women being promoted into leadership and led to longer tenure for women CEOs (Cook & Glass, 2014). Lower-level employees also feel greater satisfaction when they see similarities between themselves and their leaders (Nugent et al., 2013). By having women in leadership roles, an organization can encourage more women to strive for higher level positions.

## **Self-efficacy**

Self-efficacy is an individual's belief in their capabilities to successfully complete a task and is a strong indicator of performance (Heslin & Kleche, 2006). According to Bandura (1977), self-efficacy influences thoughts, actions, motivation, and emotions. Self-efficacy can help or hinder an individual (Wulfert, 2023). Individuals with higher self-efficacy tend to have higher performance accomplishments and lower emotional arousal (Bandura, 1982). Changes in the level and strength of one's self-efficacy expectation are the driving force behind behavioral changes needed to achieve a given outcome (Bandura, 1977). Self-efficacy expectations play a large role in influencing the initiation of a behavior, the amount of effort exerted towards this behavior, and the persistence of a behavior (Bandura, 1977). High self-efficacy expectations towards a task or behavior led to an increase in the frequency of the behavior, while low self-efficacy expectations lead to avoidance of the behavior (Bandura 1977, 1982). The perception of one's self-efficacy plays a large role in determining the course of action people take by influencing the goals they set, the effort exerted to achieve those goals, and the extent they will persist through various obstacles (Wulfert, 2023). Self-efficacy can be developed through mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states (Bandura, 1977). Mastery experiences act as sources of feedback to individuals (Bandura, 1977). Vicarious experiences require individuals to learn about self-efficacy through observations of others (Bandura, 1977). Verbal persuasion comes from confidence expressed by important individuals (Bandura, 1977). Finally, physiological and affective states, such as happiness or anxiety, can impact levels of efficacy (Bandura, 1977; Glessner et al., 2017).

Career decision making self-efficacy is a concept developed by Betz and Hackett (1981) and applies Bandura's theory of self-efficacy to career development and decision-making. It is

defined as an individual's belief in their abilities to complete tasks and behaviors related to their career (Taylor & Betz, 1983). High career decision making self-efficacy can lead to greater motivation towards career-related behaviors, while low career decision making self-efficacy can lead to avoidance or decreased motivation towards career-related behaviors (Betz & Taylor, 2001). Individuals low in career decision-making self-efficacy are less likely to take initiative towards behaviors that would lead to satisfying career decisions (Hackett and Betz, 1981). Low career decision making self-efficacy is often due to a lack of awareness in one's potential to successfully pursue a career (Betz & Hackett, 1981). However, having career self-efficacy is crucial for effective job performance because it has the potential to greater impact work behaviors independent of one's knowledge and skill level (Bandura, 1977; Giles & Rea, 1999). Taylor and Betz (1983) created the Career Decision-Making Self-Efficacy scale to assess an individual's self-efficacy expectations and confidence in their abilities to complete career decision-making related tasks. A strong and negative relationship was found between overall levels of career indecision and career decision-making self-efficacy (Lent & Hackett, 1987; Taylor & Betz, 1983).

Research by Cardoso and Moreira (2009) found that self-efficacy in job roles is negatively related to perception of career barriers in both men and women. Career self-efficacy is also a key predictor of career intentions. Women tend to report lower career self-efficacy than men, which could be negatively impacting their career trajectories (Chatterjee et al., 2023).

### **Social Cognitive Career Theory**

Social cognitive career theory (SCCT) is based on Bandura's general social cognitive theory which describes how people learn through observations in a social environment (Dziak, 2023). SCCT describes how people become interested in certain career paths and how they

engage in career relevant activities needed to succeed (Dziak, 2023). This theory outlines how external factors such as contextual support and barriers interact with internal motivation to influence an individual's decision making (Chatterjee et al., 2023). Self-efficacy, outcome expectations, and personal goals are the factors that construct SCCT (Dziak, 2023). These factors all play a role in one's interest, decisions, and performance (Wang et al., 2022).

### **Gender differences and career decision-making self-efficacy**

Gender can influence the career paths individuals choose and the opportunities that are presented to them (Chatterjee et al., 2023). Lack of inclusion and restricted opportunities due to gender can hinder an individual's self-efficacy and outcome expectancies. Both career self-efficacy and career-related outcome expectancies are essential for success and can be influenced by demographic variables (Chatterjee et al., 2023). Sex-typing may impact the kinds of career-related activities and individual engages in and the value they place on career outcomes for those who strongly identify with masculine or feminine gender roles (Gianakos, 1995).

Research suggests that women tend to have lower career decision-making self-efficacy than men (Chatterjee et al., 2023). Women are often not given the support and encouragement they need to facilitate career-self efficacy. This could be due to a lack of vicarious experiences such as limited access to women mentors. Hackett and Betz (1981) found that women tend to have higher self-efficacy for careers that are traditionally female rather than careers that are traditionally male. Additionally, there is an association between femininity and anxiety, meaning that individuals that identify with more feminine gender roles experience higher levels of anxiety which can hinder their perceptions of their own self-efficacy towards their careers (Hackett & Betz, 1981).

Research has also found that men are less likely than women to consider pursuing a career path that falls outside of careers associated with their gender (Giles & Rea, 1999). Self-efficacy was found to be a significant predictor in men's decision to pursue traditionally women dominated careers. (Giles & Rea, 1999). These differences were not found in the women in the study (Giles & Rea, 1999). Although studies have shown that women display lower self-efficacy when pursuing careers dominated by men, it does not deter them from considering these career paths (Giles & Rea, 1999). Another study found that women high in career-decision self-efficacy and assertiveness were more likely to choose non-traditional careers than women low in career-decision self-efficacy and assertiveness (Nevill & Schlecker, 1988).

### **Career aspirations**

Individuals that are highly motivated in their careers tend to prioritize their careers and have aspirations for upward mobility and recognition, and make sacrifices as needed to achieve advancement (Peters et al., 2013). These individuals are more likely to succeed and less likely to self-select out of careers (Peters et al., 2013). Women's desire to advance in their careers are more likely to be influenced by situational factors as compared to men (Bear, 2021). These factors may typically include gender role beliefs held by women's partners or parents, the presence of role models impacting the extent women see themselves working, and their experiences in organizations (Bear, 2021). At early ages, women tend to have higher career ambitions than men counterparts despite the additional barriers experienced by women (Watts et al., 2015). Young women today often display more agentic traits and have higher self-esteem regarding their career as compared to women in previous generations (Ezzedeen et al., 2015). These women have more hopeful feelings about reaching top leadership positions because of the progress women have been making in the workforce (Ezzedeen et al., 2015). Despite these

positive feelings, young women are still aware of barriers they may encounter, making it feel like it is less likely for them to succeed in leadership positions (Ezzedeen et al., 2015).

Ambition in women has been shown to decrease over the course of their career. This presents a paradox where women have higher aspirations early in their career but reach lower occupational achievements than men (Watts et al., 2015; Wicht et al., 2022). Ambition level may differ among genders because of gender-related experiences employees experience at work (Ryan et al., 2007). Since perceptions of career barriers are more prevalent among women, research suggests that gender moderates the relationship between perceptions of career barriers and occupational aspirations (Watts et al., 2015). Findings from Beaupre (2022) suggest that the consistent decline in women leadership ambition results from dissatisfaction with jobs, lack of connection with organization's leadership and culture, and an expectation that personal life sacrifices must be made to climb the corporate ladder. Early workplace experiences lessened ambitions and self-efficacy. One study that there were no gender differences in career aspirations among employees who were working at the same company for two years or less, but gender differences emerged in top management with women displaying lower career aspirations than men (Gadiesh & Coffman, 2015). These findings indicate organizational experiences may have a large influence on women's desire to advance further in their careers (Bear 2021; Gadiesh & Coffman, 2015). Women also were more motivated by the impact of their work than by money and power, making the upper echelons of leadership less desirable (Beaupre, 2022). Further evidence has found that gender differences in career aspirations are greatest in organizations that experience underrepresentation of women in senior leadership positions (Peters et al., 2013).

Interventions to facilitate career advancement for women may help to decrease barriers and perceptions of barriers, which may also help to prevent the decline in women's leadership

ambition over time. Results from two studies conducted by Bear (2021) found that temporal flexibility, which encompasses working hours and control over one's working hours and schedules, can help encourage and facilitate career advancement among women (Bear, 2021). Women demonstrated lower career aspirations as compared to men when faced with inflexible work hours in a time-intensive positions (Bear, 2021). However, no gender differences were found when it came to flexible work hours, indicating the important role organization's play in the trajectory of women's careers (Bear, 2021).

### **Women in today's workforce**

It is clear that the challenges facing women in the workplace are varied and plentiful. It is also apparent that women joining the workforce and those currently in the workplace, have some of the same career ambitions as their men counterparts but the obstacles and hurdles they face are markedly different. The career advice offered to women seeking career advancement often seems to be indistinguishable from the advice offered to men wanting to advance their career. Suggestions like "Take pride in advancing your career" and "Demonstrate that you're up for the challenge" are offered by the Harvard Business School Online (Spiliakos, 2019). While geared toward women, they are better suggestions for men seeking to move up in their career.

As previously discussed, other advice for women tends to aim at helping women overcome external barriers, focus on self-empowerment, engage in self-improvement, and minimize their self-doubts to achieve career advancement (Metz & Kumra, 2019; Wittenberg-Wittenberg-Cox, 2013). The extent to which such advice is understood, utilized and implemented, however, has not been explored. The present study is the first step in a systematic exploration of the steps women could and should take to advance their careers and to determine how those steps may differ from their men counterparts. A critical question is the extent to which

people recommend various career choices (e.g. moving, developing relationships, developmental assignments) to men and women differently and the extent to which men and women are more or less likely to likely to consider choices and career moves that could advance their career trajectory as opposed to those that would emphasize other non-career related priorities. This study seeks to provide insight into the tools, skills, and resources women need to achieve career advancement in today's workforce by bridging the gap between popular press career advice and empirical research.

## Hypotheses

1. Participants with higher scores on the Realistic Occupational Aspirations scale will report being more likely to engage in actions that involve relocating and seeking out developmental assignments than those that score lower on the Realistic Occupational Aspirations scale.
2. Participants with higher scores on the Realistic Occupational Aspirations scale will be more likely to recommend that others engage in actions that involve relocating and seeking out developmental assignments than those that score lower on the Realistic Occupational Aspirations scale.
3. Women will score lower on the Career Decision-Making Self-Efficacy scale than men.
4. Women will be more likely than men to report being more likely to engage in actions that involve having a good track record and developing relationships.
5. Men will be more likely than women to report being more likely to engage in actions involving career moves that require relocation.

## Methods

### Participants

The population of interest was men and women over the age of 18 that are currently students enrolled in a college or university in the United States. Participants were recruited to participate in the survey through SONA, an online research sign up system. These participants received course credit for their participation. Participants were also be recruited through Cloud Research, an online research platform. These participants were compensated \$4 for completion of the study.

To be eligible for this current study, participants must have met the following requirements: be at least 18 years of age or older, fluent in English, and be currently enrolled in a college or university within the United States. A power analysis for a global effects MANOVA was run in G\*Power to estimate the sample size of 112 participants was needed for the study.

### Measures

**Realistic occupational aspirations (ROA).** Participants realistic occupational aspirations (ROA) (Watts et al., 2012, 2015) were captured by asking participants one item about their occupational aspirations (OA) and one item occupational expectations (OE). These items targeted participants' dream career and the career they expect to have. To capture OA, participants were asked "Imagine you are at the peak of your career in the job you always dreamed of. What is your job title". To capture OE, participants were asked, "Imagine you are the same age as you were in the previous scenario, but this time, imagine yourself doing the job you expect yourself to actually be doing at this age. What is your job title?". The occupations participants report for their OA and OE are given a score that reflects the relative prestige of the

job. The prestige of a job is based on the total socioeconomic index (TSEI). The TSEI contains approximately 500 job titles and an estimate of the prestige associated with the position. Each job title is given a score ranging from 0 to 100. Jobs reported by participants were coded based on the occupations in the TSEI to determine the socioeconomic status of the job. Past research suggests that OA and OE are highly correlated, indicating there is not much difference between what careers participants aspire to have and the careers they expect to have (Watts et al., 2012, 2015). OA and OE scores were averaged to create the measure of ROA.

**Career Decision-Making Self-Efficacy.** Participants' Career Decision-Making Self-Efficacy was assessed using the Scale- Short Form (CDMSES-SF; Betz et al., 1996) which consists of 25 items that measure the level of career decision-making self-efficacy. Participants responded to items on a five-point Likert scale ranging from 1 (no confidence) to 5 (complete confidence). This scale is comprised of five subscales that are based on one of the tasks required in the career decision-making process. These include appraising oneself, gathering occupational information, selecting goals, making future plans, and solving problems. The subscales have coefficient alpha values ranging from .73 to .83, with the total scale alpha being .94 (Betz et al., 1996). The total score was calculated by adding the sums of the five subscales. The total score range from 25 to 225. A higher score reflects greater career decision-making self-efficacy. This score demonstrates a participant's ability to complete tasks required to make career decisions.

**Case Study Variables.** Individual participants' scores to the item "encourage relocation or an international assignment to find a better opportunity" when asked what they would do if they were the individual in the situation were averaged to give each individual a relocation score, creating the relocation variable in H1. To create the developmental assignments variable, participants scores to "seek out more developmental responses" when asked what they would do

if they were the individual in the scenario were averaged to create the developmental assignments variable in H1. Participants responses to these same items when asked what they think the individual in the scenario should do were averaged to create the variables used in H2. For H4 and H5, participants responses to what they would do if they were the individual in the scenario for the items “document accomplishments and present their track record to the manager”, “work towards building better relationships with coworkers and managers”, and “encourage relocation or an international assignment to find a better opportunity” were averaged to create the good track record, developing relationships, and relocation variables.

**Demographics.** Participants were asked to report demographic information such as gender, ethnicity, year of birth, year in school, area of study, employment status, and years of employment/unemployment. Participants recruited through Sona were also asked to report their university email addresses and student identification numbers to assigned research credit.

**Attention and Manipulation Checks.** Participants were asked questions regarding the age they will be when they achieve their career goals and how many years this will take. This is to avoid priming effects when participants are asked to respond to the remaining scales and case studies. Similarly, after reading each of the scenarios, manipulation check questions were presented where participants answered a few questions about the scenario. These questions determined the degree to which participants attended to the relevant details in each scenario.

**Quality assurance item.** To ensure the quality of participants’ responses, three quality assurance items were included in the survey. Participants were asked to respond to these items in a specific way to ensure that they were attentive throughout the survey.

## Procedure

An online survey was developed and made available to participants via email. Participants were provided with a description of the study. The survey consisted of 228 items and was administered through Qualtrics Survey Software. Participants were also informed that their responses would be kept confidential. Once participants provided consent, they were directed to begin the survey. A within subjects design was used for the present study.

The survey began with measures of Realistic Occupational Aspirations (ROA) and Career Decision Making Self-Efficacy-Short Form (CDMSES-SF). All the measures used are discussed in further detail in the Measures section.

After participants respond to the items measuring ROA and CDMSES-SF, participants were then be prompted with a series of six case studies. The order of the case studies was randomized to ensure participants responded to them in a different sequence. Each case study described a situation about an employee who is trying to get ahead in their career. Two of these employees were men, two were women, and two had no gender specified. Participants were asked what they would do based on the situation described. They were provided with 12 pieces of career advice and were asked to rate on a five-point Likert scale how likely they would be to take that course of action. A score of one (1) indicates they would be very unlikely to take this action and a score of five (5) indicates they would be very likely to take this action. Participants were then asked what they think the employee described in the case study should do and were asked to rate how likely they would be to advise the individual to take the course of action in the same 12 career advice items. A score of one (1) indicates they would be very unlikely to give this advice and a score of five (5) indicates they would be very likely to give this advice. Table 1

below demonstrates a breakdown of the information included in each case study. See Appendix C for a full list of the case studies used.

Table 1

*Case Study Breakdown*

Case Study	Name	Gender	Occupation	Situation
1	Susan	Woman	CEO	Relocation
2	John	Man	CFO	Relocation
3	Alex	No gender specified	COO	Relocation
4	Steven	Man	Entry level IT support	Developmental opportunities
5	Jane	Woman	Entry level Business Analyst	Developmental opportunities
6	Sam	No gender specified	Entry level Marketing Coordinator	Developmental opportunities

Following the case studies, participants were asked questions regarding demographic information such as gender, race, ethnicity, age, education level, employment status, and socioeconomic status at the end of the survey.

## Results

This study recruited 105 participants to complete the questionnaire. Of these participants, 101 were recruited from Cloud Research and four were recruited through Sona. Five participants were removed because they stated that their data should not be included in the study. One of these participants listed “I didn’t know what I was doing” while the remaining four listed “Other” as the reason for not including their data. One participant was removed for only completing a quarter of the study and 19 other participants stated they were not currently enrolled in a college or university. Since these participants did not meet the requirement of being a college student, their responses were removed. We retained 79 participants for the final analysis of this study.

### Demographics

The majority of participants identified as men (48%), 46% identified as women, 3% identified as nonbinary, 1% identified as transgender men, 1% identified as transgender women, and 1% selected “prefer not to say” as their response. The most commonly reported ethnicity was Caucasian/white (41%), with African-American/Black being the next highest (22%). Of the remaining participants, 19% reported being Asian/Pacific Islander, 10% reported being Hispanic/Latino, and 8% reported being bi-racial/multiracial. The majority of participants reported that they were heterosexual (66%). The next largest group reported that they were bisexual (19%), followed by 6% reported that they were homosexual, and 6% that reported that they “prefer not to say” when asked about their sexuality. The age of participants ranged from 18 to 53 years old with the average age being 26.92 years (SD = 18.05).

When asked about their current level in college, 32% of participants reported that were seniors, 25% were juniors, 13% were sophomores, 20% were freshmen, and 10% were graduate students. Participants reported majoring in 26 different areas of study with Computer Science (13%), Other (11%), Psychology (8%), Engineering Technology (8%), Business Administration (8%), and Accounting (8%) being the most commonly reported majors. The majority of participants (63%) reported that they are currently employed. Just over half (52%) of those who stated they were employed are currently working full-time. The remaining participants are part-time employees or are only students.

### Occupational Aspirations

The average ROA score for all participants was 52.50 ( $SD = 10.90$ ). The most commonly reported occupational aspiration categories were Executive, Administrative, and Managerial (18%), Professional Specialty (25%), and Technicians and Related Support (16%). See Table 2 for ROA descriptive statistics and Table 3 for percentages of occupational aspiration categories selected.

Table 2

#### *Descriptive Statistics for ROA*

Variable	Men (n = 38)	Women (n = 36)	Total (n = 79)
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
ROA	54.10 (10.90)	51.7 (11.30)	52.50 (10.90)

*N* = 79

Table 3

*Percentages of Occupational Aspirations and Occupational Expectations*

Occupational Aspirations Categories	Total OA Frequency	Total OE Frequency
Executive, Administrative, and Managerial	17.72%	15.19%
Professional Specialty	25.32%	22.78%
Technicians and Related Support	16.50%	16.50%
Sales	1.30%	3.80%
Administrative Support, Including Clerical	0%	2.53%
Private Household	0%	0%
Protective Services	1.30%	2.53%
Service Occupations, Except Protective and Household	0%	0%
Farming, Forestry, and Fishing	0%	0%
Precision Production, Craft, and Repair	1.30%	1.30%
Machine Operators, Assemblers, and Inspectors	0%	0%
Transportation and Material Moving	0%	0%
Handlers, Equipment Cleaners, Helpers, and Laborers	0%	2.53%
Other	16.50%	7.60%

$N = 79$

The average relocation score for the action the participant would take was 3.46 ( $SD = .84$ ) and their average developmental assignments score was 3.75 ( $SD = .59$ ). For actions they would encourage others to take, the average relocations core was 3.54 ( $SD = .92$ ) and the average developmental assignments score was 3.80 ( $SD = .63$ ). See Table 4 for descriptive statistics of these case study variables.

Table 4

*Descriptive Statistics for Case Study Variables*

Variable	Men (n = 38) <i>M (SD)</i>	Women (n = 36) <i>M (SD)</i>	Total (n = 79) <i>M (SD)</i>
Likelihood to relocate	3.39 (.86)	3.51 (.86)	3.46 (.84)
Likelihood to seek out developmental assignments	3.64 (.66)	3.82 (.50)	3.75 (.59)
Encourage others to relocate	3.45 (.99)	3.67 (.86)	3.54 (.92)
Encourage others to seek out developmental assignments	3.66 (.67)	3.97 (.59)	3.80 (.63)

*N* = 79

To test Hypothesis 1 & 2, we created a correlation matrix to test the relationship between ROA, relocation, and developmental assignments. Pearson's correlation indicated that there are no significant correlations found between ROA and the likelihood that the participant would engage in relocation or developmental assignments. Additionally, no significant correlations were found between ROA and the likelihood of participants encouraging others to engage in

relocation or developmental assignments. However, there were significant correlations between the likelihood to engage in relocation and give this advice to others,  $r(77) = .895, p < .001$  and the likelihood to engage in developmental assignments and give this advice to others  $r(77) = .82, p < .001$ . Significant correlations were also found between likelihood to engage in relocation and developmental assignments  $r(77) = .24, p = .02$ , likelihood to encourage others to engage in relocation and developmental assignments  $r(77) = .27, p = .01$ , likelihood to engage in relocation and encourage others to engage in developmental assignments  $r(77) = .28, p = .01$ , and likelihood to engage in developmental assignments and encourage others to engage in relocation  $r(77) = .20, p = .04$ . See Table 5 for the full correlation matrix

Table 5

*Correlation Matrix for Relocation, Developmental Assignments, and ROA*

Variable	Likelihood to relocate	Likelihood to seek out developmental assignments	Encourage others to relocate	Encourage others to seek out developmental assignments
Likelihood to relocate	-			
Likelihood to seek out developmental assignments	.24*	-		
Encourage others to relocate	.90***	.20*	-	
Encourage others to seek out developmental assignments	.28**	.82***	.27**	-
ROA	.02	.01	-.01	.03

*N* = 79

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## **CDMSE-SF**

The average Career Decision-Making Self-Efficacy (CDMSE) score for participants that identified as men or women was 96.40 ( $SD = 16.50$ ). Participants that did not identify as men or women were excluded from this analysis. CDMSE scores ranged from 49 to 125. An independent samples T-Test was used to test if men had higher CDMSE scores than women. We found no significant differences between men and women on the CDMSE or any of the following subscales: Self-appraisal, Occupational Information, Goal Selection, Planning, and Problem Solving. An additional correlation matrix was conducted to determine the relationship between ROA and CDMSE. All participants, regardless of gender identity, were included in this analysis. However, no significant results were found. See Table 6 for the descriptive statistics for the main scale and each of the subscales, the T-Test results, and the correlations between CDMSE and ROA.

Table 6

*Descriptive Statistics, T- Test Results, and Correlations for CDMSE and Gender*

Variables	Men (n = 38)	Women (n = 36)	Total (n = 79)	<i>t</i>	<i>df</i>	<i>p</i>	Corr with ROA
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>				
CDMSE	96.40 (15.50)	96.40 (17.70)	96.40 (16.50)	-.01	69.60	.50	-.19
Self-appraisal	19.50 (3.69)	19.20 (4.48)	19.30 (4.06)	.32	67.90	.75	-.02
Occupational Information	19.80 (3.22)	20.30 (3.56)	20.10 (3.37)	-.59	70.30	.56	-.01
Goal Selection	19.80 (3.29)	18.80 (4.04)	19.30 (3.69)	1.18	67.50	.24	-.01
Planning	18.80 (3.64)	19.40 (3.60)	19.10 (3.61)	-.68	71.90	.50	-.08
Problem Solving	18.50 (3.71)	18.80 (4.07)	18.70 (3.87)	-.34	70.50	.74	-.05

*N* = 79

### Case studies

A multivariate analysis of variance (MANOVA) was conducted to test if men or women reported being more likely to engage in actions that involve having a good track record, developing relationships, and relocation. Participants that did not identify as men or women were excluded from this analysis. The main effect was not significant. There were no significant differences between genders when it comes to engaging in these actions. See Table 7 for a full breakdown of the descriptive statistics for these variables. See Tables 8 and 9 for the results of this MANOVA.

Table 7

*Descriptive Statistics for MANOVA Case Study Variables*

Variable	Men (n = 38) <i>M (SD)</i>	Women (n = 36) <i>M (SD)</i>	Total (n = 79) <i>M (SD)</i>
Likelihood to relocate	3.39 (.86)	3.51 (.86)	3.46 (.84)
Likelihood to build relationships	4.02 (.79)	3.91 (.61)	3.96 (.71)
Likelihood to document a good track record	3.53 (.79)	3.53 (.68)	3.50 (.73)

*N* = 79

Table 8

*MANOVA Results for the Main Effect of Gender and Case Study Variables*

Variable	value	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
Gender	.96	.99	3	70	.40

*N* = 79

Table 9

*MANOVA Results for Gender and Case Study Variables*

Dependent Variable	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Likelihood to document a good track record	.29	1	.29	.39	.54
Likelihood to build good relationships	.65	1	.65	.17	.17
Likelihood to relocate	1.12e-5	1	.112e-5	.996	.996

*N* = 79

Another correlation matrix was conducted to determine if there was a relationship between the likelihood for an individual to engage in these actions and also encourage others to engage in these same actions. A significant correlation was found between likelihood to document a good track record and to encourage others to document a good track record  $r(77) = .885, p < .001$ . Another significant correlation was found between an individual's likelihood to build good relationships and to encourage others to build good relations  $r(77) = .901, p < .001$ . Finally, a significant correlation was also found between an individual's likelihood to relocate and encourage others to relocate  $r(77) = .895, p < .001$ . See Table 10 for the full correlation matrix.

Table 10

*Correlation Matrix for Track Record, Building Relationships, and Relocation*

Variable	Encourage others to document a good track record	Encourage others to build good relationships	Encourage others to relocate
Likelihood to document a good track record	.89***	.60***	.19
Likelihood to build good relationships	.65***	.90***	.03
Likelihood to relocate	.31**	.05	.90***

$N = 79$

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Discussion

Although the proposed hypotheses were not supported, the results of this study help to illustrate the current state of gender differences in career aspirations and decision making. Individuals with higher ROA were not significantly more likely to engage in relocation or developmental assignments than those with a lower ROA or more likely to recommend these actions to others, which is in opposition of what was proposed in H1 & H2. Previous research has found that those with high motivation and career aspirations make greater sacrifices to achieve these aspirations (Peters et al., 2013). However, our results did not find a strong relationship between occupational aspirations and the likelihood of engaging in various career related decisions, such as relocation and seeking out developmental assignments. This may be due to the small sample size restricting the range of ROA scores. It is possible that with a wider range of ROA scores, a stronger relationship between career aspirations and the case study variables could have been detected. Our results did find that those that were more likely to engage in relocation and developmental assignments were more likely to recommend these actions to others, indicating that the advice individuals give others reflects the actions they take themselves. A significant correlation was found between engaging in relocation and engaging in developmental assignments and between encouraging others to relocate and engage in developmental assignments. Those who encourage relocation were also more likely to encourage developmental assignments.

Contrary to what was expected, there were no significant gender differences found in CDMSE scores, thus H3 was not supported. This contradicts past research conducted using CDMSE-SF that suggests that women have lower career self-efficacy than men (Chatterjee et al., 2023). Women tend to have lower self-efficacy due to the additional barriers they face, higher

levels of anxiety, and lack of support or encouragement (Chatterjee et al., 2023; Hackett & Betz, 1981). Our results suggesting a contradiction of past research may indicate that society is making greater strides towards equality in the workplace such as increased organizational support, decreased barriers, and improved career advice for women. This is aligned with findings by Ezzedeen et al. (2015), which suggest that young women today have higher career related self-efficacy than women in the past. Since all of our participants were college students with an average age of 26.92 years ( $SD = 18.05$ ), it is possible that this played a role in decreasing the gender differences in self-efficacy that other researchers have found.

It is also possible that the type of career an individual chooses plays a greater role in CDMSE rather than just looking at gender alone. However, a follow up analysis looking at the correlations between ROA and CDMSE did not find any significant results, indicating that an individual's occupational aspirations are not related to their career decision-making self-efficacy. Based on these findings, we can determine that ROA and CDMSE are assessing different constructs.

As past research suggests, self-efficacy plays a role in the decision to pursue a career outside of one that is typically associated with one's gender, with self-efficacy decreasing when an individual pursues a career outside their gender role (Giles & Rea, 1999). Continuing to examine ROA along with gender to understand CDMSE may provide greater insights into whether or not there are still self-efficacy differences between men and women.

Our results also did not support H4 & H5. There were no significant gender differences in the likelihood of engaging in developmental assignments, documenting a good track record, or relocation. This is surprising because gender has been shown to play a role in an individual's career path (Chatterjee et al., 2023). Women's career related aspirations and decisions tend to be

influenced by situational factors more than men's decisions (Bear, 2021). Past research also suggests that men and women may believe different career aspects have different levels of importance (Frame et al., 2010). Based on this research, it was expected to find gender differences in the actions participants would take. Once again, our results contradicted past findings. It is possible that restriction of range in ROA scores and age of participants played a role in our results contradicting past research. The sample being exclusive to college students may mean these participants haven't faced the opportunity to engage in the career related actions in the study. For example, if they are still in school, they may not have had to face relocation for a job as of now. It may be easier for them to say they are willing to relocate in a hypothetical scenario than it would be for these participants to actually make that decision.

A final analysis was conducted to determine if the likelihood of an individual to engage in one of the case study variables was related to their likelihood to recommend this action to others. We found significant correlations between an individual's likelihood to document a good track record and to encourage others to document a good track record, between an individual's likelihood to build good relationships and to encourage others to build good relations, and between an individual's likelihood to relocate and encourage others to relocate. Career related decisions an individual would take themselves were related to the decisions they would recommend to others. These results suggest that participants did not see a major distinction between themselves and someone else in a similar situation, regardless of gender.

These results also indicate that there is more at play than just gender when it comes to examining the different experiences marginalized groups have in the workplace. Although great progress has been made in terms of workplace gender equality, it is important that future research

continues to examine the role of gender along with other demographic variables such as race, ethnicity, age, and sexuality.

### **Limitations and Future Directions**

There are several limitations within this study. The first being the small sample size. The ideal sample size for this study was 112 participants, but only 79 participants were able to be used in the current study. This poses a limitation to the interpretation of the results. A larger sample size may have allowed us to find greater significant differences between gender and responses to ROA, CDMSE, and case studies. In addition to the sample size being small, the sample used was restricted to college students within the United States, which limits the generalizability of the findings. It is possible that other demographics groups and cultures would have different beliefs when it comes to career aspirations and career decision making.

Another limitation is that the 1990 Hauser-Warren TSEI, which was used to code participants' responses to the ROA items, is 34 years old and may be outdated. It is possible that as the job market and compensation rates have evolved over time, the classification of a job's relative prestige may also have changed. As a result, ROA scores may not accurately reflect the prestige of an individual's occupational aspiration in today's workforce.

It would also be beneficial to recruit more participants that do not identify as cis men or women to determine how alternate gender identities impact the results of this study. This study primarily looked at those who identify as men or women and their relationship to ROA and the case study variables. Future research should seek to include more gender identities to determine what differences between men, women, and alternate gender identities may exist in career aspirations, likelihood to engage in certain career related actions, and career advice. Future

researchers should also further examine the role of age in the study. Past research suggests that career ambitions change over time, with women's ambition starting higher than men's and decreasing over time, and men achieving greater career advancement despite having lower ambitions early on (Beaupre 2022; Watts et al., 2015; Wicht et al., 2022). Examining the role of age and gender in ROA and CDMSE could provide greater insights into the persistence of this paradox. Lastly, examining intersectionality of multiple demographic variables such as race, gender, sexuality, and age would give researchers a more comprehensive understanding of what variables impact an individual's career related self-efficacy and decision making.

## **Conclusion**

In conclusion, this study aimed to understand the relationship between gender, career aspirations, career decision making self-efficacy, and career advice in an effort to help fill the gaps between empirical research and popular press literature for women looking to advance in their careers. The results of this study did not support the proposed hypotheses, contradicting prior research. These results suggest that an individual's occupational aspirations do not have a strong relationship to the actions they take to advance their careers or the advice they would give to others looking to advance their careers. However, we did find that individuals who were likely to engage in relocation or seek out developmental assignments were also likely to recommend this same advice to others. Additionally, if an individual was likely to engage in relocation, they were also likely to seek out developmental assignments. Our results also found no gender differences in career decision making self-efficacy and how likely an individual is to engage in documenting a good track record, building relationships with coworkers and managers, and relocation. Future research should seek to replicate this study with a larger sample size and examine additional demographic variables, such as age and alternate gender identities, to

determine what variables truly impact career aspirations and decision making. This research adds to the current research surrounding gender and career development by providing some evidence that we are bridging the gaps between men and women in the workplace. Organizations and universities should continue to provide support, opportunities, and advice to women that helps them achieve the career goals they have in today's workforce.

## References

- Allen, R., & Montgomery, K. (2001). Applying an organizational development approach to creating diversity. *Organizational Dynamics*, 30(2), 149–161.
- Almeida, B., & Salas-Betsch, I. (2023, February 6). Fact sheet: The state of women in the labor market in 2023. Center for American Progress.  
<https://www.americanprogress.org/article/fact-sheet-the-state-of-women-in-the-labor-market-in-2023/>
- American Psychological Association. (2015). Guidelines for psychological practice with transgender and gender nonconforming people. *American Psychologist*, 70(9), 832–864.  
<https://doi.org/10.1037/a0039906>
- Aymans, S. C., Kortsch, T., & Kauffeld, S. (2020). Gender and career optimism: The effects of gender-specific perceptions of lecturer support, career barriers, and self-efficacy on career optimism. *Higher Education Quarterly*, 74(3), 273.  
<https://doi.org/10.1111/hequ.12238>
- Babic, A., & Hansez, I. (2021). The glass ceiling for women managers: Antecedents and consequences for work-family interface and well-being at work. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.618250>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.

- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*, 122–147.
- Bear, J. B. (2021). Forget the “mommy track”: Temporal flexibility increases promotion aspirations for women and reduces gender gaps. *Psychology of Women Quarterly*, *45*(3), 294–307. <https://doi.org/10.1177/03616843211003070>
- Beaupre, J. G. (2022). To lead or not to lead: Exploring how young women’s early career experiences impact their leadership ambition. *Gender in Management*, *37*(8), 1064–1079. <https://doi.org/10.1108/GM-11-2021-0344>
- Bem, S. L. (1974). Bem Sex-Role Inventory. *Journal of Consulting and Clinical Psychology*, *42*(2), 155–162.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology*, *28*, 399–410.
- Betz, N. E., Klein, K., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment*, *4*, 47–57.
- Betz, N. E., & Taylor, K. M. (2001). *Manual for the career decision self-efficacy scale and CDMSE—Short form*.
- Blakeslee, L., Caplan, Z., Meyer, J. A., Rabe, M. A., & Roberts, A. W. (2023, May 2025). Age and sex composition: 2020. United States Census Bureau.

- Braddy, P. W., Sturm, R. E., Atwater, L., Taylor, S. N., & McKee, R. A. (2020). Gender bias still plagues the workplace: Looking at derailment risk and performance with self–other ratings. *Group & Organization Management, 45*(3), 315–350.  
<https://doi.org/10.1177/1059601119867780>
- Brower, T. (2022, October 10). Gender stereotypes still matter at work but new data shows progress. *Forbes*. <https://www.forbes.com/sites/tracybrower/2022/10/10/gender-stereotypes-still-matter-at-work-but-new-data-shows-progress/?sh=5abbd9603f3c>
- Caleo, S., & Heilman, M. E. (2013). Gender stereotypes and their implications for women's career progress. In S. Vinnicombe, R. J. Burke, S. Blake-Beard, & L. L. Moore (Eds.), *Handbook of research on promoting women's careers* (pp. 143–161). Edward Elgar Publishing Limited.
- Cardoso, P., & Moreira, J. M. (2009). Self-efficacy beliefs and the relation between career planning and perception of barriers. *International Journal for Educational and Vocational Guidance, 9*(3), 177–189.
- Chatterjee, D., Jacob, G. A., Varvayanis, S. S., Wefes, I., Chalkley, R., Nogueira, A. T., & et al. (2023). Career self-efficacy disparities in underrepresented biomedical scientist trainees. *PLoS ONE, 18*(3), e0280608. <https://doi.org/10.1371/journal.pone.0280608>
- Cook, A., & Glass, C. (2014). Women and top leadership positions: Towards an institutional analysis. *Gender, Work & Organization, 21*(1), 91–103.  
<https://doi.org/10.1111/gwao.12018>

- Dziak, M. (2023). Social cognitive career theory (SCCT). *Salem Press Encyclopedia*.
- Eagly, A. H. (2007). Female leadership advantage and disadvantage: Resolving the contradictions. *Psychology of Women Quarterly*, *31*(1), 1–12.  
<https://doi.org/10.1111/j.1471-6402.2007.00326.x>
- Eagly, A. H., & Carli, L. L. (2007). *Through the labyrinth: The truth about how women become leaders*. Harvard Business School Press.
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, *108*(2), 233–256. <https://doi.org/10.1037/0033-2909.108.2.233>
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, *109*(3), 573–598. <https://doi.org/10.1037/0033-295X.109.3.573>
- Eagly, A. H., & Carli, L. L. (2007a). *Through the labyrinth: The truth about how women become leaders*. Harvard Business School Press.
- Eagly, A. H., & Carli, L. L. (2007b). Women and the labyrinth of leadership. *Harvard Business Review*, *85*(9), 64–71.
- Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, *111*(1), 3–22.
- Egan, M. (2015, March 24). Still missing: Female business leaders. *CNN*.  
<https://money.cnn.com/2015/03/24/investing/female-ceo-pipeline->

leadership/#:~:text=Corporate%20America%20has%20few%20female,according%20to%20a%20CNNMoney%20analysis.

Ezzedeen, S. R., Budworth, M. H., & Baker, S. D. (2015). The glass ceiling and executive careers: Still an issue for pre-career women. *Journal of Career Development, 42*(5), 355–369. <https://doi.org/10.1177/0894845314566943>

Field, E., Krivkovich, A., Kügele, S., Robinson, N., & Yee, L. (2023, October 5). Women in the workplace 2023. *McKinsey & Company*. <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>

Fleming, P. J., & Agnew-Brune, C. (2015). Current trends in the study of gender norms and health behaviors. *Current Opinion in Psychology, 5*, 72–77. <https://doi.org/10.1016/j.copsyc.2015.05.001>

Frame, M. C., Roberto, K. J., Schwab, A. E., & Harris, C. T. (2010). What is important on the job? Differences across gender, perspective, and job level. *Journal of Applied Social Psychology, 40*(1), 36–56. <https://doi.org/10.1111/j.1559-1816.2009.00562.x>

Fry, R. (2022, September 26). Women now outnumber men in the U.S. college-educated labor force. *Pew Research Center*. <https://www.pewresearch.org/short-reads/2022/09/26/women-now-outnumber-men-in-the-u-s-college-educated-labor-force/>

Gadiesh, O., & Coffman, J. (2015, May 18). Companies drain women’s ambition after only 2 years. *Harvard Business Review*. <https://hbr.org/2015/05/companies-drain-womens-ambition-after-only-2-years>

Gianakos, I. (1995). The relation of sex role identity to career decision-making self-efficacy. *Journal of Vocational Behavior, 46*(2), 131–143.

Giles, M., & Rea, A. (1999). Career self-efficacy: An application of the theory of planned behavior. *Journal of Occupational & Organizational Psychology, 72*, 393–399.

Glessner, K., Rockinson-Szapkiw, A. J., & Lopez, M. L. (2017, December 1). “Yes, I can”: Testing an intervention to increase middle school students’ college and career self-efficacy. *Career Development Quarterly, 65*(4). <https://doi.org/10.1002/cdq.12110>

Halpin, A. W. (1957). *Manual for the Leader Behavior Description Questionnaire*. Columbus: Bureau of Business Research, Ohio State University.

Halpin, A. W., & Winer, B. J. (1957). A factorial study of the leader behavior descriptions. In R. M. Stogdill & A. E. Coons (Eds.), *Leader behavior: Its description and measurement* (pp. 39–51).

Hawarden, R. (2013). Glass networks: How networks shape the careers of women directors on corporate boards. In S. Vinnicombe, R. J. Burke, S. Blake-Beard, & L. L. Moore (Eds.), *Handbook of research on promoting women’s careers* (pp. 212–234). Edward Elgar Publishing Limited.

Hemphill, J. K., & Coons, A. E. (1957). Development of the Leader Behavior Description Questionnaire. In R. M. Stogdill & A. E. Coons (Eds.), *Leader behavior: Its description and measurement* (pp. 6–38). Bureau of Business Research, Ohio State University.

- Heslin, P. A., & Klehe, U.-C. (2006). Self-efficacy. In S. G. Rogelberg (Ed.), *Encyclopedia of industrial/organizational psychology* (Vol. 2, pp. 705–708). Sage.  
<https://ssrn.com/abstract=1150858>
- Hewlett, S. A. (2002, April). Executive women and the myth of having it all. *Harvard Business Review*. <https://hbr.org/2002/04/executive-women-and-the-myth-of-having-it-all>
- Hüttges, A., & Fay, D. (2015). Gender influences on career development: A brief review. *Journal of Personnel Psychology, 14*(3), 113–120. <https://doi.org/10.1027/1866-5888/a000152>
- Kanter, R. M. (1977). *Men and women of the corporation*. Basic Books.
- Kaplan, M. M., Sabin, E., & Smaller-Swift, S. (2009). *The Catalyst guide to employee resource groups: Volume 1, Introduction to ERGs*. Catalyst.
- Koenig, A. M., & Eagly, A. H. (2019). Typical roles and intergroup relations shape stereotypes: How understanding social structure clarifies the origins of stereotype content. *Social Psychology Quarterly, 82*(2), 205–230.
- Lent, R. W., & Hackett, G. (1987). Career self-efficacy: Empirical status and future directions. *Journal of Vocational Behavior, 30*(3), 347–382. [https://doi.org/10.1016/0001-8791\(87\)90010-8](https://doi.org/10.1016/0001-8791(87)90010-8)
- Lyness, K. S., & Thompson, D. E. (1997). Above the glass ceiling? A comparison of matched samples of female and male executives. *Journal of Applied Psychology, 82*(3), 359–375.

- Lyness, K. S., Thompson, C. A., Francesco, A. M., & Judiesch, M. K. (1999). Work and pregnancy: Individual and organizational factors influencing organizational commitment, timing of maternity leave, and return to work. *Sex Roles, 41*(7–8), 485–508.  
<https://doi.org/10.1023/A:1018887119627>
- Lyness, K. S., & Thompson, D. E. (2000). Climbing the corporate ladder: Do female and male executives follow the same route? *Journal of Applied Psychology, 85*(1), 86–101.  
<https://doi.org/10.1037/0021-9010.85.1.86>
- Matsa, D. A., & Miller, A. R. (2011). Chipping away at the glass ceiling: Gender spillovers in corporate leadership. *The American Economic Review, 101*(3), 635–639.
- Metz, I., & Kumra, S. (2019). Why are self-help books with career advice for women popular? *Academy of Management Perspectives, 33*(1), 82–93.  
<https://doi.org/10.5465/amp.2016.0152>
- National Academies of Sciences, Engineering, and Medicine. (2022). *Measuring sex, gender identity, and sexual orientation*. Washington, DC: The National Academies Press.  
<https://doi.org/10.17226/26424>
- Nevill, D. D., & Schlecker, D. I. (1988). The relation of self-efficacy and assertiveness to willingness to engage in traditional/nontraditional career activities. *Psychology of Women Quarterly, 12*(1), 91–98. <https://doi.org/10.1111/j.1471-6402.1988.tb00929.x>
- Nugent, J. S., Dinolfo, S., & Giscombe, K. (2013). Advancing women: A focus on strategic initiatives. In S. Vinnicombe, R. J. Burke, S. Blake-Beard, & L. L. Moore (Eds.),

*Handbook of research on promoting women's careers* (pp. 391–405). Edward Elgar Publishing Limited.

Peters, S., Ryan, M. K., & Haslam, S. A. (2013). Women's occupational motivation: The impact of being a woman in a man's world. In S. Vinnicombe, R. J. Burke, S. Blake-Beard, & L. L. Moore (Eds.), *Handbook of research on promoting women's careers* (pp. 162–177). Edward Elgar Publishing Limited.

Rosette, A. S., & Tost, L. P. (2010). Agentic women and communal leadership: How role prescriptions confer advantage to top women leaders. *Journal of Applied Psychology*, 95(2), 221–235. <https://doi.org/10.1037/a0018204>

Ryan, M. K., Haslam, S. A., Hersby, M. D., Kulich, C., & Atkins, C. (2008). Opting out or pushed off the edge? The glass cliff and the precariousness of women's leadership positions. *Social and Personality Psychology Compass*, 2(4), 266–279.

Ryan, M. K., & Morgenroth, T. (2024). Why we should stop trying to fix women: How context shapes and constrains women's career trajectories. *Annual Review of Psychology*, 75, 555–572. <https://doi.org/10.1146/annurev-psych-032620-030938>

Schaeffer, K. (2023, September 27). The data on women leaders. *Pew Research Center*. <https://www.pewresearch.org/social-trends/fact-sheet/the-data-on-women-leaders/>

Sheridan, F. (2013). Prejudice against women leaders: Sex of voice. In S. Vinnicombe, R. J. Burke, S. Blake-Beard, & L. L. Moore (Eds.), *Handbook of research on promoting women's careers* (pp. 269–286). Edward Elgar Publishing Limited.

- Siegel, R. (2020, January 10). Women outnumber men in the American workforce for only the second time. *The Washington Post*.  
<https://www.washingtonpost.com/business/2020/01/10/january-2020-jobs-report/>
- Spiliakos, A. (2019, April 11). 3 tips for women who want to advance their career. *Harvard Business School Online*. <https://online.hbs.edu/blog/post/career-advice-for-women>
- Stogdill, R. M. (1963). *Manual for the leader behavior description questionnaire—form XII*. Columbus: Bureau of Business Research, Ohio State University.
- Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, 22, 63–81.
- United Way NCA. (2023, May 19). Gender roles and norms: What are they & how do they affect children? *United Way NCA*. <https://unitedwaynca.org/blog/gender-norms/>
- Wang, D., Liu, X., & Deng, H. (2022). The perspectives of social cognitive career theory approach in current times. *Frontiers in Psychology*, 13, Article 1023994.  
<https://doi.org/10.3389/fpsyg.2022.1023994>
- Warner, J. (2014, March 7). Fact sheet: The women’s leadership gap. *Center for American Progress*. <https://www.americanprogress.org/article/fact-sheet-the-womens-leadership-gap/>
- Warren, A. (2009). *Cascading gender biases, compounding effects: An assessment of talent management systems*. New York: Catalyst.

- Watts, L. L. (2012). *Why are there still so few female CEOs? The effect of gender and perceived career barriers on occupational aspirations* (Master's thesis, Middle Tennessee State University). ProQuest Dissertations Publishing.
- Watts, L. L., Frame, M. C., Moffett, R. G., Van Hein, J. L., & Hein, M. (2015). The relationship between gender, perceived career barriers, and occupational aspirations. *Journal of Applied Social Psychology, 45*(1), 10–19. <https://doi.org/10.1111/jasp.12271>
- Wittenberg-Cox, A. (2013). Stop fixing women, start building management competencies. In S. Vinnicombe, R. J. Burke, S. Blake-Beard, & L. L. Moore (Eds.), *Handbook of research on promoting women's careers* (pp. 106–116). Edward Elgar Publishing Limited.
- Wicht, A., Miyamoto, A., & Lechner, C. M. (2022). Are girls more ambitious than boys? Vocational interests partly explain gender differences in occupational aspirations. *Journal of Career Development, 49*(3), 551–568.
- Wienclaw, R. A. (2021). Gender roles. *Research Starters: Sociology*.
- Wulfert, E. (2023). Social learning according to Albert Bandura. *Salem Press Encyclopedia of Health*.

**APPENDICES**

## Appendix A: IRB Approval Letter



Office of Research Compliance  
2269 Middle Tennessee Blvd.  
Sam H. Ingram Bldg (ING) Room 010A  
Box 124  
Murfreesboro, TN 37132  
[www.mtsu.edu/irb](http://www.mtsu.edu/irb)

Date: June 14, 2024

PI: Isabel Delgado Millington

Department: Middle Tennessee State University, Psychology

Re: Initial - IRB-FY2024-232

Izzy Thesis

The Middle Tennessee State University Institutional Review Board has reviewed and approved by Expedited Review the above referenced research study. The approval is effective starting June 14, 2024.

Decision: Approved

Category: 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. [45 CFR 46.101\(b\)\(2\)](#) and (b)(3). This listing refers only to research that is not exempt.)

Findings: It is imperative that the informed consent have the correct version matched with the collection of any personally identifiable information. The researchers are utilizing varied versions with respect to the collection of PII for the purposes of compensation, which vary based on platform, access, etc. so this approval is based on a generic version of the instrument and that the research team will double check their informed consent page for consistency with respect to collecting PII, even for the purposes of compensation, before posting any version of the instrument to a population. Such information on the informed consent form regarding the collection of PII must match exactly with respect to that version's collection of PII.

I recommend having another editor correct it for minor issues of grammar, etc.  
Research Notes:

**The following apply to your approved study:**

1. In accordance with 45 CFR 46.110 and the regulations for Expedited Review (Common Rule), this project does not expire and continuing review is not required by the IRB.
2. Any unanticipated harm to participants or adverse events must be reported to the Office of Compliance.
3. All modifications to the approved study must be submitted for review through Cayuse IRB for approval before their implementation. Adding new researchers constitutes a modification to the protocol. Per MTSU Policy, a researcher is defined as anyone who handles the data or interacts with participants. Everyone meeting this definition for this project must have completed the required CITI training and received IRB approval prior to becoming actively involved in the project.
4. Closure of the study must be submitted within Cayuse when the study ends or when personal identifiers are removed from the data and all codes and keys are destroyed.
5. All research materials must be retained by the PI for at least three (3) years after study completion and then destroyed in a manner that maintains confidentiality and anonymity.
6. All approval letters and study documents are located within Submission Details in Cayuse IRB.

Sincerely,

*The Middle Tennessee State University Institutional Review Board*

## Appendix B: Informed Consent

Study Title: What career advice would you give?

Protocol Number: IRB-FY2024-232

Approval Date: June 4<sup>th</sup>, 2024

Principal Investigator: Isabel Delgado Millington

Institution: Middle Tennessee State University

You are being asked to participate in a research project. The following information is provided to inform you about the research project and your participation in it.

### 1. Purpose of the study:

The purpose of this study is to investigate individual's traits, characteristics, and beliefs; the career advice they would give to others; and the paths they would take to reach career advancement.

### 2. Description of procedures to be followed and approximate duration of the study:

You will complete questionnaires about yourself, your beliefs and attitudes; respond to some case studies; and answer some open-ended questions. The study should take approximately 30 minutes to complete.

### 3. Compensation for participation:

You will receive payment of \$4.00 for your completion of this survey.

You will fail to receive compensation if you do not complete the study or do not pass the quality assurance items.

Here are your rights as a participant:

- A. Your participation in this research is voluntary.
- B. You may skip any item that you don't want to answer, and you may stop the research at any time. Note that if you leave an item blank, you will be warned that you missed one, just in case it was an accident. You can still click that you don't want to answer. Some items may be required in order to accurately present the study.
- C. There are no risks associated with your participation besides possible discomfort with some of the questions.
- D. There are no real benefits to you from participating besides possibly learning something about the research.
- E. You will NOT be asked to provide any identifiable personal information.
- F. All efforts, within reason, will be made to keep the personal information in your research record private, but total privacy cannot be promised. Your information may be shared with people at MTSU (such as the MTSU Institutional Review Board) or other agencies (such as the Federal Government Office for Human Research Protection) if you or someone else is in danger or if we are required to do so by law.

Circumstances under which the Principal Investigator may withdraw you from study participation: You do not pass the quality assurance questions.

What happens if you choose to withdraw from study participation: You will not receive compensation.

Circumstances under which the Principal Investigator may withdraw you from study participation: You do not pass the quality assurance questions.

What happens if you choose to withdraw from study participation: Nothing

Contact Information: If you should have any questions about this research study please contact:

Principal Investigator: Isabel Delgado Millington

Contact Information: telephone 248.568.7005 or email [ild2e@mtmail.mtsu.edu](mailto:ild2e@mtmail.mtsu.edu)

Faculty Advisor: Mark Frame, Ph.D.

Contact Information: telephone 615.898.2565 or email [Mark.Frame@mtsu.edu](mailto:Mark.Frame@mtsu.edu)

For additional information about giving consent or your rights as a participant in this study, please contact the Middle Tennessee State University (MTSU) Office of Compliance at 615-494-8918 or via email at [irb\\_information@mtsu.edu](mailto:irb_information@mtsu.edu). (<http://www.mtsu.edu/irb>)

If you're ready to get started, please make your choice below before clicking the arrow button.

Please click the “>>” button to begin

## **Appendix C: Online Survey**

### **Screening**

1. I have read this informed consent document pertaining to the above identified research
2. The research procedures are clear to me.
3. I confirm I am 18 years or older.
4. I am aware of the potential risks of the study.

## Realistic Occupational Aspirations

1. Please use the following scenario to answer the next question: Create a mental picture of yourself in the future at the peak of your career, doing what the job that you are most interested in. What is your job title?
2. Which one of the following job categories best describes the job you just listed?
  - a. Executive, administrative, and managerial (Ex: Legislator, CEO, Manager, Accountant, Management Analyst)
  - b. Professional specialty (Ex: Architect, Engineer, Scientist, Physician, Therapist, Teacher)
  - c. Technicians and related support (Ex: Laboratory Technician, Pilot, Legal Assistant, Licensed Nurse, Computer Programmer)
  - d. Administrative Support, including Clerical (ex: Bank Teller, Secretary, Receptionist, Mail Clerk, Techers' Aid)
  - e. Private Household (ex: Private Cook, Housekeeper, Butler, Launderer, Private Child Care)
  - f. Protective Service (Ex: Firefighters, Police Officer, Sheriff, Fire Inspector, Detective)
  - g. Service Occupations, Except Protective and Household (Ex: Bartender/Server, Maid, Short-Order Cook, Dental Assistant, Hairdresser)
  - h. Farming, Forestry, and Fishing (Ex: Farmer, Animal Caretaker, Timber Cutter/Logger, Fisher, Hunter/Trapper)
  - i. Precision Production, Craft, and Repair (Ex: Mechanic, Locksmith, Plumber, Electrician, Power Plant Operator)

- j. Machine Operators, Assemblers, and Inspectors (Ex: Welder, Drilling Machine Operator, Assembler, Production Tester)
  - k. Transportation and Material Moving (Ex: Truck Driver, Sailor, Bus Driver, Taxicab Driver, Parking Lot Attendant)
  - l. Handlers, Equipment Cleaners, Helpers, and Laborers (Ex: Construction Laborer, Garbage Collector, Vehicle/Equipment Washer, Production Helper)
  - m. Other
3. Please use the following scenario to answer the next question: Earlier in the survey, you indicated the job you would most like to be doing at the peak of your career. Now, create a mental picture of yourself at the same age as before, only this time imagine yourself doing the job you most expect yourself to actually be doing at that age. What is your job title?
4. Which one of the following job categories best describes the job you just listed?
- a. Executive, administrative, and managerial (Ex: Legislator, CEO, Manager, Accountant, Management Analyst)
  - b. Professional specialty (Ex: Architect, Engineer, Scientist, Physician, Therapist, Teacher)
  - c. Technicians and related support (Ex: Laboratory Technician, Pilot, Legal Assistant, Licensed Nurse, Computer Programmer)
  - d. Administrative Support, including Clerical (ex: Bank Teller, Secretary, Receptionist, Mail Clerk, Techers' Aid)
  - e. Private Household (ex: Private Cook, Housekeeper, Butler, Launderer, Private Child Care)

- f. Protective Service (Ex: Firefighters, Police Officer, Sheriff, Fire Inspector, Detective)
- g. Service Occupations, Except Protective and Household (Ex: Bartender/Server, Maid, Short-Order Cook, Dental Assistant, Hairdresser)
- h. Farming, Forestry, and Fishing (Ex: Farmer, Animal Caretaker, Timber Cutter/Logger, Fisher, Hunter/Trapper)
- i. Precision Production, Craft, and Repair (Ex: Mechanic, Locksmith, Plumber, Electrician, Power Plant Operator)
- j. Machine Operators, Assemblers, and Inspectors (Ex: Welder, Drilling Machine Operator, Assembler, Production Tester)
- k. Transportation and Material Moving (Ex: Truck Driver, Sailor, Bus Driver, Taxicab Driver, Parking Lot Attendant)
- l. Handlers, Equipment Cleaners, Helpers, and Laborers (Ex: Construction Laborer, Garbage Collector, Vehicle/Equipment Washer, Production Helper)
- m. Other

### **Career Decision Making Self-Efficacy- Short Form**

For each statement below, please read carefully and indicate how much confidence you have that you could accomplish the task by filling in the circle that corresponds to the appropriate number on the 5-point scale.

- 1- No confidence at all
- 2- Very little confidence
- 3- Moderate confidence
- 4- Much confidence
- 5- Complete confident

1. Find information in the library about occupations you are interested in.
2. Select one major from a list of potential majors you are considering.
3. Make a plan of your goals for the next five years.
4. Determine the steps to take if you are having academic trouble with an aspect of your chosen major.
5. Accurately assess your abilities.
6. Select one occupation from a list of potential occupations you are considering.
7. Determine the steps you need to take to successfully complete your chosen major.
8. Persistently work at your major or career goal even when you get frustrated.
9. Determine what your ideal job would be.
10. Find out the employment trends for an occupation over the next ten years.
11. Choose a career that will fit your preferred lifestyle.

12. Prepare a good resume.
13. Change majors if you did not like your first choice.
14. Decide what you value most in an occupation.
15. Find out about the average yearly earnings of people in an occupation.
16. Make a career decision and then not worry about whether it was right or wrong.
17. Change occupations if you are not satisfied to achieve your career goals.
18. Figure out what you are and are not ready to sacrifice to achieve your career goals.
19. Talk with a person already employed in a field you are interested in.
20. Choose a major or career that will fit your interest.
21. Identify employers, firms, and institutions relevant to your career possibilities.
22. Define the type of lifestyle you would like to live.
23. Find information about graduate or professional schools.
24. Successfully manage the job interview process.
25. Identify some reasonable major or career alternatives if you are unable to get your first choice.

**Attention and Manipulation Check**

1. How old are you in years?
2. How many years will it take you to reach your career goals?
3. What age, in years, will you be when you reach your career goals?

## Case Studies

Since graduating from her MBA program, Susan has made great progress in various management and leadership positions, all within the food and beverage industry. The food and beverage industry is her passion. Susan has a job as the CEO of a food and beverage company. On top of her career success, she is also married and has two children. She has been offered a job as CEO at her favorite food and beverage company. This new role would give her a pay raise but would also require her to relocate over 400 miles from where she and her family live now. Susan has also received another job offer as CEO for a fitness company. This job would also come with the pay raise and would not require relocation.

1. If you were Susan, please rate how likely you are to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).
  - Be more aggressive when asking for promotions or pay raises
  - Do what is best for their family
  - Seek out a mentor
  - Seek out additional training or education
  - Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions

2. Please rate how likely you would be to tell Susan to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises
- Do what is best for their family
- Seek out a mentor
- Seek out additional training or education
- Take a career risk to get ahead
- Prioritize career stability over risk taking
- Seek out more developmental job assignments
- Document accomplishments and present their track record to manager
- Work towards building better relationships with coworkers and managers
- Encourage relocation or an international assignment to find a better opportunity
- Show concern and sympathy for others
- Be decisive when making decisions

3. What was the name of the individual in this scenario?

4. What was the gender of the individual in this scenario?

5. What position or job title did the individual in the scenario have?

6. How old do you think the individual in the scenario?

John has a Master's in Accounting and is the Chief Financial Officer (CFO) of a musical instrument production company known for making guitars. John and his partner have two

children and he enjoys time with the family. Recently, John was offered his dream job as the CFO of an international hotel company. The new role would require him to move 200 miles from where the family lives now and would give him a pay raise. Around the same time, John was offered a similar CFO position for a national hotel chain based near his home that would also come with a salary increase.

1. If you were John, please rate how likely you are to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises
- Do what is best for their family
- Seek out a mentor
- Seek out additional training or education
- Take a career risk to get ahead
- Prioritize career stability over risk taking
- Seek out more developmental job assignments
- Document accomplishments and present their track record to manager
- Work towards building better relationships with coworkers and managers
- Encourage relocation or an international assignment to find a better opportunity
- Show concern and sympathy for others
- Be decisive when making decisions

2. Please rate how likely you would be to tell John to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises

- Do what is best for their family
  - Seek out a mentor
  - Seek out additional training or education
  - Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions
3. What was the name of the individual in this scenario?
  4. What was the gender of the individual in this scenario?
  5. What position or job title did the individual in the scenario have?
  6. How old do you think the individual in the scenario?

After holding various leadership roles and completing a master's degree, Alex is the Chief Operating Officer (COO) at a local hospital. Alex is very passionate about the healthcare field. Alex is also married and has two children with their partner. Alex recently has received two new job offers that would both come with a pay raise. One offer is for the role as COO of a hospital of similar size in a nearby city. The second offer is for COO at a well-known hospital and would

be Alex's dream hospital to work for. However, this offer would require the family to relocate 300 miles away from their current home.

1. If you were Alex, please rate how likely you are to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises
- Do what is best for their family
- Seek out a mentor
- Seek out additional training or education
- Take a career risk to get ahead
- Prioritize career stability over risk taking
- Seek out more developmental job assignments
- Document accomplishments and present their track record to manager
- Work towards building better relationships with coworkers and managers
- Encourage relocation or an international assignment to find a better opportunity
- Show concern and sympathy for others
- Be decisive when making decisions

2. Please rate how likely you would be to tell Alex to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises
- Do what is best for their family
- Seek out a mentor
- Seek out additional training or education

- Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions
3. What was the name of the individual in this scenario?
  4. What was the gender of the individual in this scenario?
  5. What position or job title did the individual in the scenario have?
  6. How old do you think the individual in the scenario?

Steven graduated his degree with a bachelor's degree in computer science three years ago and has been working in an entry level role in IT support since his graduation. has been working in the tech industry for over 10 years. Steven wants more challenging and developmental assignments to work on to reach his goals. Despite putting in his best effort, he still is not getting the results he desires. Steven's work is starting to suffer because he is feeling stuck in his career and is unsure of what to do next. Steven is unclear as to what are his career strengths and what skills he needs to develop so that he can move his career forward.

1. If you were Steven, please rate how likely you are to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises
- Do what is best for their family
- Seek out a mentor
- Seek out additional training or education
- Take a career risk to get ahead
- Prioritize career stability over risk taking
- Seek out more developmental job assignments
- Document accomplishments and present their track record to manager
- Work towards building better relationships with coworkers and managers
- Encourage relocation or an international assignment to find a better opportunity
- Show concern and sympathy for others
- Be decisive when making decisions

2. Please rate how likely you would be to tell Steven to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).

- Be more aggressive when asking for promotions or pay raises
- Do what is best for their family
- Seek out a mentor
- Seek out additional training or education
- Take a career risk to get ahead
- Prioritize career stability over risk taking

- Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions
3. What was the name of the individual in this scenario?
  4. What was the gender of the individual in this scenario?
  5. What position or job title did the individual in the scenario have?
  6. How old do you think the individual in the scenario?

Jane is eager to move up the corporate ladder. She graduated from college three years ago with a business degree and is currently working in an entry level business analyst position but is looking for more developmental opportunities. Jane is having difficulty getting promoted and isn't being assigned very challenging tasks. Jane is unsure what to do next to reach her career goals. She wants unsure of her strengths and unsure of the skills she needs to work on in order to receive the promotions she wants. As a result, she is feeling unfulfilled in her current role.

1. If you were Jane, please rate how likely you are to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).
  - Be more aggressive when asking for promotions or pay raises
  - Do what is best for their family

- Seek out a mentor
  - Seek out additional training or education
  - Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions
2. Please rate how likely you would be to tell Jane to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).
- Be more aggressive when asking for promotions or pay raises
  - Do what is best for their family
  - Seek out a mentor
  - Seek out additional training or education
  - Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others

- Be decisive when making decisions
3. What was the name of the individual in this scenario?
  4. What was the gender of the individual in this scenario?
  5. What position or job title did the individual in the scenario have?
  6. How old do you think the individual in the scenario?

Sam has been working in an entry level marketing coordinator role for the last three years since graduating with a bachelor's in marketing. Sam has many career goals and wants to advance in their career quickly. Sam has been seeking out more challenging assignment in hopes of getting a promotion soon but has yet to receive the desired promotion. Sam is feeling discouraged and is unsure what skills they need to develop in order to reach the goals they have set.

1. If you were Sam, please rate how likely you are to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).
  - Be more aggressive when asking for promotions or pay raises
  - Do what is best for their family
  - Seek out a mentor
  - Seek out additional training or education
  - Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager

- Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions
2. Please rate how likely you would be to tell Sam to take the following actions on a scale of 1 (very unlikely) to 5 (very likely).
- Be more aggressive when asking for promotions or pay raises
  - Do what is best for their family
  - Seek out a mentor
  - Seek out additional training or education
  - Take a career risk to get ahead
  - Prioritize career stability over risk taking
  - Seek out more developmental job assignments
  - Document accomplishments and present their track record to manager
  - Work towards building better relationships with coworkers and managers
  - Encourage relocation or an international assignment to find a better opportunity
  - Show concern and sympathy for others
  - Be decisive when making decisions
3. What was the name of the individual in this scenario?
4. What was the gender of the individual in this scenario?

5. What position or job title did the individual in the scenario have?
6. How old do you think the individual in the scenario?

**TSEI**

1. What is (or was) your mother's occupation?
2. Which of the following job categories best describes your mother's occupation?
  - a. Executive, administrative, and managerial (Ex: Legislator, CEO, Manager, Accountant, Management Analyst)
  - b. Professional specialty (Ex: Architect, Engineer, Scientist, Physician, Therapist, Teacher)
  - c. Technicians and related support (Ex: Laboratory Technician, Pilot, Legal Assistant, Licensed Nurse, Computer Programmer)
  - d. Administrative Support, including Clerical (ex: Bank Teller, Secretary, Receptionist, Mail Clerk, Techers' Aid)
  - e. Private Household (ex: Private Cook, Housekeeper, Butler, Launderer, Private Child Care)
  - f. Protective Service (Ex: Firefighters, Police Officer, Sheriff, Fire Inspector, Detective)
  - g. Service Occupations, Except Protective and Household (Ex: Bartender/Server, Maid, Short-Order Cook, Dental Assistant, Hairdresser)
  - h. Farming, Forestry, and Fishing (Ex: Farmer, Animal Caretaker, Timber Cutter/Logger, Fisher, Hunter/Trapper)
  - i. Precision Production, Craft, and Repair (Ex: Mechanic, Locksmith, Plumber, Electrician, Power Plant Operator)
  - j. Machine Operators, Assemblers, and Inspectors (Ex: Welder, Drilling Machine Operator, Assembler, Production Tester)

- k. Transportation and Material Moving (Ex: Truck Driver, Sailor, Bus Driver, Taxicab Driver, Parking Lot Attendant)
  - l. Handlers, Equipment Cleaners, Helpers, and Laborers (Ex: Construction Laborer, Garbage Collector, Vehicle/Equipment Washer, Production Helper)
  - m. Other
3. What is (or was) your father's occupation?
4. Which of the following job categories best describes your father's occupation?
- a. Executive, administrative, and managerial (Ex: Legislator, CEO, Manager, Accountant, Management Analyst)
  - b. Professional specialty (Ex: Architect, Engineer, Scientist, Physician, Therapist, Teacher)
  - c. Technicians and related support (Ex: Laboratory Technician, Pilot, Legal Assistant, Licensed Nurse, Computer Programmer)
  - d. Administrative Support, including Clerical (ex: Bank Teller, Secretary, Receptionist, Mail Clerk, Teachers' Aid)
  - e. Private Household (ex: Private Cook, Housekeeper, Butler, Launderer, Private Child Care)
  - f. Protective Service (Ex: Firefighters, Police Officer, Sheriff, Fire Inspector, Detective)
  - g. Service Occupations, Except Protective and Household (Ex: Bartender/Server, Maid, Short-Order Cook, Dental Assistant, Hairdresser)
  - h. Farming, Forestry, and Fishing (Ex: Farmer, Animal Caretaker, Timber Cutter/Logger, Fisher, Hunter/Trapper)

- i. Precision Production, Craft, and Repair (Ex: Mechanic, Locksmith, Plumber, Electrician, Power Plant Operator)
- j. Machine Operators, Assemblers, and Inspectors (Ex: Welder, Drilling Machine Operator, Assembler, Production Tester)
- k. Transportation and Material Moving (Ex: Truck Driver, Sailor, Bus Driver, Taxicab Driver, Parking Lot Attendant)
- l. Handlers, Equipment Cleaners, Helpers, and Laborers (Ex: Construction Laborer, Garbage Collector, Vehicle/Equipment Washer, Production Helper)
- m. Other

**Data Cleaning**

1. Did you take this study seriously?
2. Is there any reason why we should not use your data?
3. Why should we not include your data in our analyses?

**Demographics**

1. Are you currently employed?
2. Current employment status (check all that apply)
  - a. Employed full time
  - b. Employed part time
  - c. Unemployed/looking for work
  - d. Student
  - e. Homemaker
  - f. Retired
3. Please indicate the number of years you have been employed full time (40+ hours a week), even if you are currently unemployed
  - a. Less than 1 year
  - b. 1-3 years
  - c. 3-5 years
  - d. 5-10 years
  - e. 10 + years
4. Please indicate the number of years you have been employed part time (less than 40 hours a week), even if you are currently unemployed
  - a. Less than 1 year

- b. 1-3 years
  - c. 3-5 years
  - d. 5-10 years
  - e. 10 + years
5. How many hours per week do you work?
- a. Less than 10
  - b. 10-20
  - c. 20-30
  - d. 30-40
  - e. More than 40
6. What is your current age in years?
7. What is the last degree you obtained?
- a. High school diploma or equivalent
  - b. Associate's degree
  - c. Bachelor's degree
  - d. Master's degree
  - e. Doctorate
  - f. None of the above
8. Are you currently enrolled at a college or university?
9. What is your current level in college?
- a. Freshmen
  - b. Sophomore
  - c. Junior

- d. Senior
  - e. Graduate student
10. What is your current major?
11. What is your race/ethnic identity>
- a. Caucasian/white
  - b. African-American/Black
  - c. Arab/Middle Easter
  - d. Hispanic/Latino
  - e. Native American/Alaskan Native
  - f. Asian/Pacific Islander
  - g. Bi-racial/Multi-racial
  - h. Prefer not to say
  - i. Other (specify)
12. Is English your native language?
- a. Yes
  - b. No
13. What is your current martial status?
- a. Married
  - b. Living with a partner
  - c. Widowed
  - d. Divorced/separated
  - e. Never been married
14. Please indicate which gender you identify most with

- a. Man
  - b. Women
  - c. Transgender man
  - d. Transgender woman
  - e. Non-binary/third gender
  - f. Prefer not to say
  - g. Prefer to self describe
15. Which of the following best described your sexual orientation?
- a. Heterosexual
  - b. Homosexual
  - c. Bisexual
  - d. Other
  - e. Prefer not to say
  - f. Prefer to self describe