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An Equal Wage for All: Investigating the Gender Wage Gap in Opticianry

Christine E. Pinkney
A.A. Hillsborough Community College

A thesis submitted in partial fulfillment of the requirements
for the degree of Bachelor of Science,
in the Department of Technical Education and Industry Training
in the College of Community Innovation and Education
and The Burnett Honors College
at the University of Central Florida
Orlando, Florida

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Shaw, Sara

Abstract

To better understand the gender wage gap and how it affects licensed working opticians in Florida, an attitudinal survey was constructed using a Likert scale and an online survey instrument through Qualtrics. A pilot study of 20 student opticians aided in investigating the clarity of the questions; then, a formal survey was sent through Qualtrics to licensed opticians in Florida, adopting the accessibility of social media and an anonymous web link as well as an invitation to participate. This research aimed to learn about Florida opticians' current attitudes toward the gender wage gap in their field and to investigate if this knowledge had somehow affected their decision to stay in the opticianry field. The data from the pilot study indicates that while opticians are aware of the gender wage gap, they do not believe this is an issue that directly affects them. However, the data also shows that wage influences their willingness to remain in the opticianry field. This research aims to add to the conversation on the wage gap and investigate how this issue influences opticians.

Keywords: gender, wage gap, opticians, opticianry, Florida

PINKNEY, CHRISTINE E.

Dedication

This work is dedicated to God and my mother, Marcelyn E. Midduagh, who never gave up on me, to my husband Colin, and to my children.

Per venire ad astra faciem Dei tangere.

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Introduction

The wage gap has been heavily discussed and researched over the last six decades (Aragão, 2023; National Archives and Records Administration, 1998). The Department of Labor and other independent research groups have shown significant empirical evidence indicating a persistent gender wage gap. Within the research, industry-specific data highlights further gender wage disparities. Women are likelier to make less than their male counterparts in the same industry or career field. Further, female-dominated fields such as education, pharmacy, and nursing are likely to make less than male-dominated fields such as engineering, business, and applied sciences (Aragão, 2023).

The primary aim of this study was to understand the current knowledge and attitudes of Florida opticians on the gender wage gap in opticianry. The secondary aim is to understand how the wage gap has affected the career goals of Florida Opticians. This study posits that bringing attention to the issue of wage inequality within the field of opticianry will enable policymakers and opticians to set a new precedent toward pay equity. Research conducted by Zippia (2022) has shown that opticianry has switched from historically being male-dominant to female-dominant, yet the wage gap has remained. Furthermore, Zippia (2022) indicated that, on average, female opticians make ninety-cents less to the dollar than male opticians leading to a four-thousand dollar deficit per annum.

While the topic of the wage gap is a timely one, wage gap research in the field of opticianry has not fully been explored. Therefore, it was the intent of this study to begin a

conversation on the existence of the wage gap by measuring opticians' knowledge and attitudes on this matter. The study was in part to answer the question of relevance and to explore what areas can be addressed in future research to support incentives and reform within the larger practice of opticianry nationally.

Literature Review

This literature review provides an overview of the research conducted on the wage gap over the past decade to look at trends and discrepancies between genders and discover possible reasons for this gap and what has been proposed to close the gap. This has led to the current exploratory focus on why the wage gap persists between genders and the subsequent barriers women in this profession have faced based on this phenomenon.

History of the gender wage gap

The gender wage gap, or the gender pay gap, indicates the disparity in pay, wages, or income between women and men. This measure encapsulates a broader concept of inequality, extending beyond equal pay for equal work (Ortiz-Ospina & Roser, 2023).

The gender wage gap has always existed in some form or another. Research conducted on gender roles by Margaret Mead in the 1930s began to challenge the established societal norms by observation of primitive cultural groups to determine if there was a genetic or natural instinct towards gender roles or if such gender ideas were culturally imposed. These, in turn, play a vital role in how women and men perceive their career choices into adulthood (Coffman, 2019). However, research into this topic recognized the significance of the wage gap when, in the 1940s, women left their homes and entered the workforce to meet the industrial demands of

World War II (Equal Pay Act, 2017). Women were paid, trained, and worked jobs traditionally held by men to make up for the shortage in the labor force because of the draft. After World War Two, women were expected to return to their domestic duties when men re-entered the workforce. While some women stayed in the workforce during the 1950s and 1960s, they did so in smaller numbers due to limited access to higher education and career opportunities (Equal Pay Act, 2017).

Yet, this changed in 1972 with the passing of Title IX of the Educational Amendments (1972), which removed policies that discriminated against women at federally funded educational institutions. This act allowed women to access higher education and apply for more senior roles in the commercial and public sectors.

Additionally, the Pregnancy Discrimination Act (1978) defined discrimination based on sex to include pregnancy (1978). The Lilly Ledbetter Act protected female workers by removing the time limitations on reporting wage decisions that actively discriminated against women based on clarifying the original text of the Employment Protection Act of 1967 (2009). Since the passage of these acts, women have had some protection as they enter into historically male-dominated careers.

Opticianry is such a career. Historically, this career consisted of 90% male and 10% female practitioners in 1950 and has now flipped demographically to 70% female and 30% male practitioners as of 2015 (Yau, 2018). The likely cause for this flip is the flexible nature of this career, in that women can work shifts that fall within school hours, and if they are working in private practice, they often will have weekends and major holidays off.

Health Science Wage Gap

Opticianry is a discipline within the Health Science career cluster that falls into the category of therapeutic services (ONet Online, 2022). Opticians design, measure, and fit lenses and frames for their clientele according to the written prescription or specification from the ophthalmologist or optometrist.

Opticians may assist in selecting frames, using custom measurements to create individualized frame and lens selections that meet the client's specific needs. They are responsible for creating work orders for the lab fabricating the lenses as well as verifying the finished lenses. They also assist with inserting, removing, and educating patients on safe contact lens wear, adjusting the parameters of contact lenses, and dispensing them as per state law. They may work in a privately owned practice, a chain dispensary, or independently. Many opticians work retail hours, meaning they work holidays, weekends, and sometimes evenings. Optical managers often work overtime and are on call in case of emergencies.

A study conducted by Simpson et al. (2020) of practicing optometrists showed that despite practice ownership, residency completion, and full-time work, the gender wage gap persists between male and female optometrists. Additionally, using the gender pay gap calculator created by Pew (2023) shows that, on average, women earn 93% of what men earn in opticianry.

Given the data and research that show the existence of the wage gap as a phenomenon that is occurring within the economy, the question of why such a gap exists comes to mind especially when the practice of opticianry is dominated by women compared to other allied health professions. While many factors must be considered when discussing the wage gap, the data, and research show a strong correlation between motherhood and wage loss. Consequently,

the arguments against the existence of the wage gap propose that human capital, or what can be potentially gained from a person based on what is invested in them makes the wage gap a moot point. If access to more executive roles is attainable, then the wage gap becomes less of an issue.

Florida's Wage Gap

According to research conducted by the Institute for Women's Policy Research (2018) in their report "The Status of Women in the States" Florida ranks in the lower percentile range for economic equity between women and men with white women earning approximately 80% to the whole dollar, while Hispanic and Black workers earn about 60% to the dollar, and Asian, Native American and Multi-Racial earn on average 70% to the whole dollar. This means that while white female workers' wage gap is narrower than those of other ethnicities and races, the gap is still significant enough to place women at risk of poverty. The research also suggests that while only a quarter of employed women from the age of 18-64 have a bachelor's degree or higher, only 39% are employed in managerial or professional positions that require a four-year degree. Of the employed women in Florida, around 80% have health insurance coverage which is below the national average of 89%. In sum, women are underpaid and underinsured leading to a higher risk of poverty which reflects Florida's poverty ranking with 17.1% of women aged 18 and older being classified as in poverty compared to 15.6% of men.

The report covers all sectors and all areas of the economy, so while Opticianry falls within the skilled sector it still maintains a pay ceiling. According to *Career One Stop* (2022), opticians in Florida are making above the median annual earnings for full-time workers at \$49,000. The wage gap still persists according to O*Net (2023) for an optician to advance to the next level in their career cluster beyond Opticianry into Optometry or Ophthalmology they must

attain a bachelor's degree and a medical degree, creating a steep barrier for advancement in this career. The data suggests that because the wage gap is narrower in opticianry there is an ambivalent attitude about it among practicing opticians.

The Motherhood Penalty and Wage

Historically, Western cultural gender expectations have allocated women to be the primary caregivers of their children. Research by Mead implies that this role of motherhood is valuable for the stability of the family unit, community, and country (Mead, 1935);(Coffman, 2019). Therefore, employers expected women of child-bearing age not to remain in the workforce full-time after they have children. The rationale of such an assumption was that motherhood was a woman's choice. Since they choose to have a family, the wage gap is misleading because if women did not have children, their wages would be equal to or closer to that of their male peers (Barroso & Brown, 2022).

The term Motherhood Penalty was coined to explain the 15% reduction in income for mothers of young children (Budig & England, 2001). Since then, this term has been used to describe the connection between income and motherhood and the potential negative consequences of fiscal losses young mothers face in their careers. Yet, the American Association of University Women (AAUW) (2022a) contends that there are approximately three times more single mothers than fathers and single mothers are at a greater risk of poverty than single fathers based on the losses they incur due to family obligations. Research by the AAUW (2022b) also indicated that men were given more opportunities and a higher wage when they started a family, while women were expected to leave the workplace once they became mothers.

The shutdowns further complicated the motherhood penalty. As a result of COVID-19 regulations, women who worked in “non-essential” sectors lost nearly six months of wages. Additionally, women who had children in elementary school were affected more than those who had very young children or children in middle and high school. This was partly due to virtual education and additional childcare demands during the workday. Nevertheless, some women could adapt through virtual conferencing and remote working. In contrast, the retail sectors, like opticians, lost their jobs due to the pandemic, forcing dispensaries to take a reduced patient load and limit the number of face-to-face appointments by scheduling (Fairlie et al., 2021).

Family obligations can account for some of the disparity, but more empirical data is needed to explain why it continues for single women or women without children. A combination of horizontal and vertical segregation may explain the wage gap, as women are encouraged to enter professions based on gender. Women who enter science, engineering, and math-focused careers find themselves in the minority and often face few opportunities to advance up the career ladder to where they earn the same or are close to their male peers. While these statistics are changing, men still dominate the highly lucrative STEM fields.

Stockdale and Nadler (2012) argue that the paradigm of occupational sex segregation is rooted in social constructs that force women to choose their careers based on marriage, family, and societal roles. These choices are based on principles rooted in stereotypes, prejudice, discrimination, sexism, and intentional policies and structures that reduce or act as a barrier to better-paying jobs or promotions. This glass ceiling illustrates how women can see where they want their career to go but cannot reach it, not for lack of talent or skill but because they are women. Okereke (2020) argues that the gender wage gap is a form of gender oppression that has

become normalized in society, and litigation that is supposed to be gender-neutral is insufficient to ensure equality.

Human Capital

Arguments against the existence of the gender wage gap persist. They center around the human capital model, which recognizes the economic value of people based on their education and experience in the market. This argument against the gender wage gap states that since there are fewer men in executive and managerial roles, the wage gap is narrowing as women enter these roles at a greater rate due to social change and increased opportunities for higher-level jobs. Additionally, men's salaries are not rising as quickly as women's which contributes to the narrowing of the gap (Blau & Kahn, 2017).

The second argument revolves around choice, in that women still choose jobs that pay less in exchange for more flexibility, and that the wage gap between men and women of equal age and experience as well as the type of jobs they hold, the gap virtually disappears with some arguing that women exceed men in their pay when one considers additional income from welfare and child support (Killewald, 2012; Williams, 2017).

A third argument against the wage gap is that the media frames it as creating a false narrative as statistics are skewed in favor or against the wage gap based on the average across all industries instead of focusing on sectors and observing discrepancies within each one. Blau and Kahn (2017), Monti et al. (2020), Pasztor (2016), and Williams (2017) concur that the existence of salary ceilings, human capital, and selection bias of the wage data create a false narrative of the existence of a wage gap.

Opticianry is a field where women have become leaders, and the hourly salary can be negotiated based on experience and performance. In Florida, opticians' salaries average \$43,000 (U.S. Bureau of Labor Statistics, 2022). The wage can be determined by experience, negotiation, and performance reviews. This gray area happens during the negotiating period of hiring and at performance reviews when the argument of bias may be considered to favor men over women. The culture of confidentiality also prevents discussion of wage discrepancies within opticianry, which may contribute to the nescience of opticians toward this topic (Kim, 2015).

Yet, it is in this gray area that such discussions need to be explored. If opticians feel empowered to speak about their wages, then negotiations at hiring can be more transparent and open. Furthermore, since opticianry is a female-dominated career, parental and personal leave policies need to be reexamined to ensure transparency and equality between the genders. Schieder and Gould, (2016) and Shaw and Hernandez-Gantes, (2020) posit that education has little bearing on the wage gap refuting the human capital argument. Additionally, they also support Mead's(1935) observations about society and culture forming gender roles that direct and guide women and men into different career pathways with women are relegated to careers that pay less while men are expected to pursue more lucrative professional careers with the rationale that men are able to contribute more time and energy to meet the demands of these executive careers.

Conceptual Framework

In seeking to comprehend the persistent wage disparity among opticians in Florida, the authors anchored their investigation within the framework of gender parity. This approach is rooted in the theory of gender parity, aimed at enhancing equity for all individuals, irrespective

of their gender. It aligns with the principles outlined in Article 23 of the Universal Declaration of Human Rights (2023), emphasizing the right to equal pay for equal work.

Indicators of gender parity assist researchers in comprehending the degree of equity between men and women (Sander and Keller, 2021). This study aims to illuminate systemic issues within the profession, exploring not only salary discrepancies but also the prevalence of occupational segregation, barriers to career advancement, and potential biases in hiring and promotion processes. This multifaceted approach allows for a comprehensive understanding of the challenges hindering gender equity within the opticianry field. The framework not only serves to identify existing disparities but also acts as a guide for proposing recommendations to foster a more inclusive and equitable environment for opticians of all genders.

Purpose

This study explored the perceptions of gender wage disparity among licensed opticians in the state of Florida. Despite the progress made by the optical industry to become more inclusive and welcoming to women, wage disparity persists between male and female opticians. This research seeks to highlight a possible gender wage gap among opticians within Florida and to understand the knowledge and attitudes that Licensed Florida Opticians have about the gender wage gap. In this way, this thesis adds to the literature covering this topic as it relates to opticians, hoping to open and continue a national dialogue about the wage gap within opticianry.

Research Questions

The following research questions guided this thesis:

RQ1: What are Florida licensed opticians' current knowledge and attitudes regarding the gender wage gap?

RQ2: How has the gender wage gap affected their career achievement and goals?

Methods and Procedure

This quantitative study used descriptive statistics including means, standard deviations, and frequencies to achieve all study research questions. The developed survey examined opticians' attitudes in Florida utilizing a Likert scale to understand the perceptions opticians have about the gender wage gap. Data will be collected using a survey instrument utilizing a whole number ordinal scale with 1 indicating strongly disagree through 10 indicating strongly agree.

Participants

Participants were recruited using convenience probability sampling techniques employing social media as a way to access the target population. This type of sampling is justified when the intent is not to make inferences about an entire population, but rather to learn more about identified issues (Newcomer et al., 2015). In this case, the intent of the study was to learn more about the Florida optician's perspectives on the gender wage gap.

The participants in this study were current Florida licensed opticians from the Professional Opticians of Florida website and social media accounts. The Professional Opticians of Florida (POF) (2023) is a professional organization that promotes and supports licensed opticians in the State of Florida. This organization currently has approximately 1300 members and is committed to protecting the interests of Florida licensed opticians and campaigns to actively promote the causes that matter to opticians.

Instrumentation and Measures

The survey uses a series of statements to explore the attitudes and opinions of Florida Opticians on the gender wage gap utilizing the Qualtrics online survey software. Specifically,

statements were developed to measure opticians attitudes and opinions on the gender wage gap and to uncover any areas that could be addressed. Since this was going to be an online instrument using convenience sampling the Likert Scale was the best option. The study was distributed through social media using an anonymous link provided by Qualtrics. First steps toward face and content validity for the instrument were established through a panel review of three industry experts and two researchers in Career and Technical Education. After the review, a pilot study was administered to pursue the instruments' reliability and validity. Morse and colleagues (2002) posit that ensuring research data is valid and reliable through the evaluation of instrument questions, is crucial to building trust and confidence in the instrument's effectiveness.

Pilot Survey

A pilot study is a small-scale test of the methods and procedures used in a mono-method or mixed-method study. It instructs and improves confidence in new researchers by allowing them to test their research instrument to a smaller audience (Williams-McBean, 2019). The pilot sample population was drawn from current opticianry students at a Florida community college. The survey link was sent as an announcement to the students through the schools online learning management system. This pilot survey assessed student opticians' attitudes toward the wage gap and included additional questions to gauge question clarity and comprehension. Additionally, participants were also provided with a text box to suggest survey improvement. The students were given a two-week window to complete the pilot study, and at the conclusion, twenty students completed it. The data from the study helped the researchers steer direction and expectations for participation in the formal study, which involved licensed opticians in the

industry. The pilot study will enable confidence in the survey instrument to ensure consistency, and clarity as well as reduce bias in our data (Lau, 2019).

The pilot study's participants were opticianry students between the ages of 18-24, Caucasian, female, and single with no dependents. Most students were employed full time, that is, between 30-40 hours per week, in the optical field, earning between \$24.00-\$27.99 per hour. This aligns with typical demographics for this career as stated by the database O*Net Online (2022). Further, these participant demographics also align with the literature that shows across careers, women and men do make equal wages when starting out. The table below gives the results of the pilot study with a notation about the demographics of this pilot study. The results of this study are below in Table 1.

Table 1*Survey Statements - Pilot Findings*

	<u>Total Sample <i>n</i> - 20 participants</u>		
	Detractor Disagree	Passive Neutral	Promoter Agree
1: The wage gap is an issue that affects me.	53%	16%	32%
2: I am aware that the wage gap exists in opticianry.	26%	21%	53%
3: I can speak freely about my wages with my coworkers.	63%	11%	26%
4: I have had to sign a clause that forbids me from speaking about my wages.	79%	5%	16%
5: I feel that I can negotiate my wages based on my experience.	58%	26%	16%
6: I believe that wage negotiation is an important part of the employment process.	16%	53%	32%
7: I believe I am paid fairly for my work.	37%	21%	42%
8: I believe my career as an optician can grow.	5%	11%	84%
9: Wages play a role in staying in the profession of opticianry.	5%	5%	89%

Study Survey

This study was conducted through the same online survey instrument and Qualtrics to measure Florida Licensed Opticians' general knowledge, attitudes, and lived experiences with the wage gap and how this has affected their decision to stay in opticianry. Poynter (2010) stresses that to ensure successful survey completion for an online survey, professional, polite communication is key before, during, and after the survey. In the context of an online survey, the

language of the questions must be easy to understand, and the directions must be clear to minimize confusion. Therefore, the survey questions were worded in a way that reduces bias and was reviewed by the thesis chair. The online survey was conducted utilizing Qualtrics, and questions regarding demographics were kept anonymous with options to select out of answering.

After Institutional Review Board (IRB) approval (see Appendix A), this survey was distributed utilizing social media with an anonymous link to the survey to the members of a professional organization representing licensed opticians in Florida. This group comprises new opticians and opticians who have worked in this career for over ten years. Permission was granted from the professional group to use their social media and ensure compliance with confidentiality and the purpose of the survey.

Data Analysis

This survey was conducted online through the Qualtrics survey system and sent out using the social media platform of the Professional Opticians of Florida, the largest opticianry professional organization in the state. The data was analyzed using descriptive statistics to understand the participants' demographics as well as their awareness and attitudes regarding the wage gap opticians. The survey was open for two weeks. A follow-up invitation to participate was posted to the Professional Opticians of Florida social media page as a reminder to opticians to participate in this research.

The completed surveys, participant data, and responses were collected and stored in a password-protected account with individual participant consent. Participation was voluntary, and personally identifiable data was not used in the survey results. The target population was

contacted through social media via an anonymous web link to the Qualtrics survey posted on Facebook.

Design and Scope of the Survey

To help clarify the survey questions, a pilot study was administered to a sample group of optical students currently enrolled in an optical program at a Florida State College. This pilot study served to validate the survey instrument and to test how well the questions were constructed to answer the research questions. Based on the results of the pilot survey, the research statements were kept the same as those used in the formal survey. A copy of the pilot survey is included in Appendix B.

Both surveys, the pilot and the formal, consisted of a series of statements with the respondents indicating their opinion utilizing a Likert scale ranging from 1, indicating least relevance/agreement, to 10, indicating great relevance/agreement. The survey's design incorporates an interval-valued scale (IVS). Research indicates that IVS enables participants to respond more accurately to the questions to gauge knowledge, feelings, confidence, and satisfaction. Themistocleous et al. (2019) discuss the benefits of the IVS compared to other methods and posit this design enables researchers to identify areas of uncertainty more accurately when compared to a semantic differential scale.

The survey consisted of ten statements covering three main categories to discover the knowledge and attitudes of Florida opticians concerning the wage gap. These categories or blocks were constructed to help answer the research questions. To encourage clarity, the statements were constructed to meet a maximum reading level of 8th grade. Jargon and terms were defined to enable the participant to make an informed choice. Jebb et al., (2021) states that

when developing a Likert Scale style questionnaire ensuring the question's reading level matches the target population is important as this will enable the participants to give more accurate responses, thus improving the quality of the instrument. Finally, the questionnaire was designed to take participants approximately 5 to 10 minutes to complete. This reduces fatigue and improves completion rates by keeping the survey short, concise, relevant, and enjoyable (de Leeuw et al., 2019).

Findings

The following statements in Table 3 were used to measure opticians' opinions of various concepts around the gender wage gap. When participants were asked if the wage gap was an issue that affected them, 50% disagreed, 5% were neutral, and 27% agreed. Likewise, when asked if they knew the wage gap exists in opticianry, 23% disagreed, 27% were neutral, and 50% agreed.

Statements on wage transparency were presented. Opticians were asked to speak freely about their wages with their coworkers, 77% disagreed, 5% were neutral, and 18% agreed. When asked if they had to sign a clause that forbade them from speaking about their wages, 68% disagreed, 14% were neutral, and 18% agreed. When presented with the statement on wage negotiation based on experience, 50% disagreed, 9% were neutral, and 41% agreed. Likewise, when asked their opinion on the importance of wage negotiation during the employment process, 14% disagreed, 18% were neutral, and 68% agreed.

The last three statements covered equity and career growth. Opticians were asked if they believe they are paid fairly for their work; 50% disagreed, 41% were neutral, and 9% agreed. Similarly, when asked if they believed their career as an optician could grow, 36% disagreed,

32% were neutral, and 32% agreed. Finally, opticians were asked if wages play a role in staying in the profession of opticianry, with 14% disagreeing, 27% neutral, and 59% agreeing.

The demographics of the opticians participating in this study reflect the demographics of opticians in Florida as shown in the data provided by Zippia: the majority being married with dependents, female, Caucasian, and with a mean age of 44. They worked full-time (31-40 hours), earning approximately \$32.00 per hour or more. See Table 2 below.

Table 2

Socioeconomic Demographic Characteristics of Participants

<i>Characteristic</i>	<i>Full Sample</i>	
	<i>n=1</i>	<i>%</i>
Gender		
Male	6	25%
Female	18	75%
Transgender	-	-
Non-binary/Third Gender	-	-
Race/Ethnicity		
White	19	79%
Black or African American	-	-
American Indian or Alaska Native	-	-
Asian	2	8%
Native Hawaiian or Pacific Islander	-	-
Other	3	13%
Hispanic or Latino Origin	5	21%
Age		
18-24	-	-
25-34	8	33%
35-44	4	17%
45-54	4	17%
55-64	8	33%
65 and over	-	-

Marital Status

Single never married	3	13%
Married/domestic partnership	16	67%
Widowed	-	-
Divorced	5	21%
Separated	-	-
Prefer not to answer	-	-

Dependents

Yes	16	67%
No	8	33%

Education

High School Diploma/GED	2	8%
Trade/Vocational School	1	4%
Some college/no degree	3	13%
Associates Degree	11	46%
Bachelor's Degree	5	21%
Masters Degree	-	-
Professional Degree	1	4%
Doctorate Degree	1	4%
Other	-	-

Hourly Wage

Less than \$14.00	-	-
\$14.00-\$15.99	-	-
\$16.00-\$17.99	-	-
\$18.00-\$19.99	-	-
\$20.00-\$21.99	-	-
\$22.00-\$23.00	2	8%

\$24.00-\$27.99	3	13%
\$28.00-\$29.99	2	8%
\$30.00-\$31.99	4	17%
\$32.00 or greater	13	54%
Employment		
Unemployed	-	-
Employed Part Time	-	-
Employed Full time	24	100%
Avg hours of work per week		
Under 10	-	-
10-20 hours	-	-
21-30 hours	-	-
31-40 hours	18	75%
More than 40	6	25%

The following data presented in Table 3 show the statements asked of the opticians to gauge their attitudes: The survey, offered a scale from 1-10 that ranged from strongly disagree (1) to strongly agree (10). Statements were created to explore the opticians' attitudes on the wage gap and to determine how transparent their work environments were regarding wage equity and transparency. The data were divided into three areas: detractor representing disagree (1-3), passive which was neutral/somewhat agree (4-7), and promoter which represented agree (8-10).

Table 3*Survey statements*

	<i>Full Sample N-24 participants</i>		
	Detractor Disagree	Passive Neutral	Promoter Agree
1: The wage gap is an issue that affects me.	50%	5%	27%
2: I am aware that the wage gap exists in opticianry.	23%	27%	50%
3: I can speak freely about my wages with my coworkers.	77%	5%	18%
4: I have had to sign a clause that forbids me from speaking about my wages.	68%	14%	18%
5: I feel that I can negotiate my wages based on my experience.	50%	9%	41%
6: I believe that wage negotiation is an important part of the employment process.	14%	18%	68%
7: I believe I am paid fairly for my work.	50%	41%	9%
8: I believe my career as an optician can grow.	36%	32%	32%
9: Wages play a role in staying in the profession of opticianry.	14%	27%	59%

Discussion

The results of this analysis will answer the research questions and contribute to the literature with a focus on opticianry. This data will be useful for future research into the wage gap as it applies to allied health professions, specifically opticians. Also, it may contribute to furthering legislation that will benefit the future of opticianry in Florida and beyond.

RQ1: What are Florida licensed opticians' current knowledge and attitudes regarding the gender wage gap?

This data shows that opticians' attitudes support the findings of the literature in that while they are single and do not have dependents their earnings are fair and equal. However, the disparity between practicing opticians and new opticians shows the effect of the wage gap on retention which can play an important role in the relational role opticians have with their patients. Bimpong et al. (2020) acknowledge that while there are many factors that affect staff retention in the National Health Service of Great Britain, pay plays a major role in job satisfaction and staff retention.

The research also indicates that while opticians are aware of the existence of the wage gap, they do not believe it is a subject that directly affects them. They acknowledge that wage plays a role in how long they will remain in the profession of opticianry, and their recognition of the impact wages have on their career longevity suggests a broader awareness of the importance of equity in the profession.

While many opticians do not believe the wage gap is an issue that affects them, they also do not believe that their career as an optician can grow. This could be partly due to the wage plateau and the average age of the opticians participating in this study being close to retirement. This demographic factor could contribute to a perceived wage plateau, influencing their belief in the growth potential of their opticianry careers.

The reluctance among opticians to freely discuss and negotiate wages, despite the absence of contractual restrictions, raises intriguing questions about workplace dynamics and communication norms within the profession. This finding suggests that addressing the wage gap may extend beyond potential pay disparities and it may involve fostering a culture of transparency (Maitra et al., 2021).

RQ2: How has the gender wage gap affected their career achievement and goals?

While the sample size is quite small given the topic, this study's data reflects the data from a larger sample body found in the US Department of Labor's and Zippia's databases. Therefore, it could indicate that the attitudes of Florida opticians are reflective of the national attitudes on the wage gap, that while the existence of the gap is acknowledged, many feel that it has little influence on their career outcomes. The data indicates that new opticians may be more optimistic about pay equity, but experienced opticians are a little more ambivalent on the topic. Experienced opticians acknowledge the role wages have in their careers, but they are not optimistic about their opportunities for advancement in this career beyond the license.

This attitude may be partly due to their experience in the field, education, and awareness of the different career avenues available to licensed opticians. It may also have to do with how careers are classified in career resource catalogs, as an optical manager has a different classification than dispensing optician. Furthermore, opticians are often required to perform different roles beyond dispensing optician, adding additional variables to the position which would influence how much an optician is being paid versus what duties they are expected to perform above and beyond dispensing contact lenses and eyewear.

Additionally, since opticianry terminates at an associates of science degree, to move up into the next career within this field is to become an ophthalmic technician which is a separate certification process or becoming an optometrist or an ophthalmologist. These careers require, at minimum, a bachelor's degree, medical school, and extensive training. These stringent credentialing requirements likely contribute to a time and financial barrier for many opticians

who may wish to advance beyond their careers and stay within the field of ophthalmic practice (*Optometrists*, 2023).

Conclusion

This study sought to determine Florida licensed opticians' current knowledge and attitudes regarding the gender wage gap and their perceptions of how it affected their career goals. Even though the return rate only yielded twenty-four respondents, the survey polling current opticians working in the field provided valuable information to begin these critical conversations. This study offered insight into the current attitudes of Florida opticians on the wage gap. It supported the contemporary literature consensus that the wage gap is affected by motherhood and the responsibilities surrounding that stage of life. The study also showed that wages play a role in the retention of opticians. This study's limitations did not consider the effect of benefits and salaried positions in the retention of opticians or how those are used to levy against a higher wage comparatively. However, this research may help drive conversations that might lead to enhanced policies for optical education, human resources, and practice management to improve access equity and transparency for opticians statewide and nationally by offering insight into opticians' attitudes about wage equity and its relation to their careers.

Recommendations

This study may aid in developing educational tools and materials to bring awareness about the wage gap to opticians. The outcomes of this research may also be used to support legislation and wage transparency initiatives to close the gap for opticians who have dependents. The following suggestions offer actionable steps based on the study's results. These are

embedded within the following recommendations and are intended to guide future decisions based on the study's conclusions:

Recommendation 1: Salary Transparency and Negotiation Skills

The identified connection between a potential wage gap and weak negotiation skills implies that targeted training and support in this area could benefit opticians. While more corporate optical leaders are moving into more transparent salary frameworks, corporations employing opticians still pay opticians in pay brackets. Beppel (2023) inferred that the benefits of pay transparency to businesses are an increase in trust, improved pay equity by uncovering areas of unaccounted-for pay discrepancies, and improved productivity as employees will want to remain with a business that rewards their efforts regardless of gender fairly, and attracting top talent in the field.

Recommendation 2: Flexible Work Schedules

As more employers are moving into creating transparent pay policies by performing internal pay audits, and reevaluating benefits beyond salaries and pay ranges. Jared Mitovich (2023) reports that recruitment agencies are noticing employers are doing more to attract potential top candidates by offering benefits beyond salary, such as flextime, better health insurance packages, and competitive retirement plans. These benefits attract talented employees who seek a balance between their careers and personal lives beyond the office. Additionally, companies such as Luxottica offer assistance with tuition and further education to attract employees and offer pathways toward career progression (Luxottica Inc., 2023).

Recommendation 3: Support Mechanisms for Working Parents

Working parents' challenges can vary from the work-life balance to scheduling challenges that require finding childcare that offers quality care and flexibility. Emotional challenges include exhaustion and work-related stress that can carry over into the home, affecting parent's quality interactions with their children and creating a dissonance between parenthood and career expectations. Finally, insecurities and doubts about career growth opportunities can lead to an early exit out of the workforce. The research of Smet et al. (2021) into the early departure of non-white women from the workforce concludes that the leading factor in women leaving their careers has less to do with motherhood and more with the lack of support employers are willing to give working mothers and families.

This support includes developing family policies by reassessing current paid parental leave policies, job loss insurance, childcare allowances, and mandatory provisions for paid sick leave. Heinrich, (2014) proposes a three-prong approach to support working parents by providing paid parental leave for parents of children in their first year. Secondly, by offering access to high-quality childcare for children under two years up to middle school, mandatory paid sick leave, and flexible working schedules, investing in unemployment and wage insurance reduces the impact of the lost wages until unemployment benefits begin.

Limitations

The convenience sampling and the small number of respondents in this study are limiting factors. The opticians that completed the survey may not represent the attitudes of other opticians both in and outside Florida. The non-probability sampling method used in this study precludes the generalization of its findings to the larger population of opticians. As with data, the

limitations of our results are based on the sample size measured, which was much smaller than anticipated. This could be partially due to delayed IRB timeframes, the time allotted for the survey to be distributed, and the opportunities to raise awareness of the study through social media and other formats.

The next limitation was the knowledge participants had of the questions. The pilot survey offered valuable insights by addressing question clarity substantiated by positive feedback from the follow-up questions. See Appendix B. However, some participants in the main study may have misinterpreted specific demographic questions, presumably annual salary rather than hourly pay. This misinterpretation could be attributed to the participants needing more time to complete the survey. Finally, the participants' busy schedules, confidence in using an online survey instrument, access to the survey, and technology may have led to a reluctance to participate in this research.

Finally, as we have taken steps toward the reliability and validity of the survey, we understand that further psychometrics are required of the instrument. This was outside the scope of the current study; therefore, it should be understandable that further testing should be done.

Future Research

Recommendations for future research are as follows:

- Validation of the survey instrument that can be sent to a wider audience of opticians nationally and internationally.
- Further studies may be considered with questions that explore in more depth the disparities between the gender of opticians and the wage gap as it affects practicing opticians from minority backgrounds.

- Future research should conduct in-depth interviews with opticians to understand their perceptions of gender equality in pay. This can provide qualitative data regarding experiences and beliefs about pay equity within the field.
- A future follow-up study evaluating existing company policies and procedures related to pay, promotions, and evaluations would be ideal to assess whether these may inadvertently contribute to gender-based pay discrepancies.
- Future research should explore the workplace culture within opticianry to study specifically potential factors contributing to gender-based pay differences, such as biased promotion practices, unequal job assignments, or a lack of transparency in pay scales.

Appendix A: IRB approval



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

October 13, 2023

Dear Sara Shaw:

On 10/13/2023, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Exempt Category 2i
Title:	An Equal Wage for All: Investigating the Gender Wage Gap in Opticianry
Investigator:	Sara Shaw
IRB ID:	STUDY00005664
Funding:	None
Documents Reviewed:	<ul style="list-style-type: none">• Consent Form, Category: Consent Form;• Facebook Script for Opticianry Survey, Category: Recruitment Materials;• HCC IRB Approval, Category: Other;• Sara Shaw, Category: IRB Protocol;• Survey Questions, Category: Survey / Questionnaire;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in is detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

A handwritten signature in blue ink that reads "Renea Carver".

Renea Carver
UCF IRB

Appendix B: Survey Questions

Appendix B: Survey Questions

Consent

You must be aged 18 or older to participate in this study. By clicking the "I consent" button below, you agree that you wish to participate in this study, are 18 years of age or older, and are aware that you may choose to stop your participation at any time and for any reason.

Please note that the survey will be displayed on a laptop or desktop. Some features may not be compatible with use on mobile devices.

Do you consent to these terms?

Demographic Information Block (DI)

1. Gender Identity: Choose the answers that best describe your identity.
2. Ethnicity: Are you of Hispanic, Latino, or of Spanish origin?
3. Race: How do you describe yourself?
4. Age?
5. Marital status: What is your marital status?
6. Dependents?
7. Education: What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.
8. Income: Which of the following best describes your hourly wage?
9. Employment: Which describes your current employment status?
10. On average how many hours per week do you work?

Pilot Survey

For the remainder of this survey, you will be asked your opinion based on past or recent personal experiences with the wage gap concerning opticianry.

Statements

How strongly do you agree, disagree, or neither agree nor disagree with the following statements?

1. The wage gap is an issue that affects me.
2. I am aware that the wage gap exists in opticianry.
3. I can speak freely about my wages with my coworkers
4. I have had to sign a clause that forbids me from speaking about my wages
5. I feel that I can negotiate my wages based on my experience
6. I believe that wage negotiation is an important part of the employment process
7. I believe I am paid fairly for my work
8. I believe my career as an optician can grow
9. Wages play a role in staying in the profession of opticianry.

****Pilot Survey Feedback Statements answered Yes or No****

10. The questions were easy to understand Y/N
11. I was able to complete the survey within the expected time Y/N
12. The questions were able to accurately reflect my understanding of the topic. Y/N
13. Suggestion box included here.

We thank you for your time spent taking this survey.

Recruitment Narrative and Consent

Invitation to participate in a Research Survey for Florida Opticians

Good Afternoon,

I am conducting research as part of my undergraduate degree. I would appreciate it if Florida licensed Opticians would take a short survey to test the questions on the Wage Gap in Opticianry.

You are invited to take part in a voluntary research study survey.

We hope the findings from this study contribute to research and offer insights into future research topics in Opticianry that may lead to reform and policies that improve equity among practicing opticians.

The survey will take you approximately 10-15 minutes.

The deadline to complete the survey is 10/31/2023. The risks to participants are minimal and

do not exceed the risks associated with activities found in daily life.

The data collected from the survey will not include any identifiable private information.

Your answers from the survey will be stored on the UCF computer system in a password-protected file for five years.

You must be 18 years of age or older to take part in this pilot study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, please contact: Dr. Sara Shaw, Career and Workforce Education Programs, Department of Education Leadership and Higher Education, College of Community Innovation and Education, 702-769-5345 or by email at sara.shaw@ucf.edu

IRB contact about your rights in this study or to report a complaint:

If you have questions about your rights as a research participant or have concerns about the conduct of this study, don't hesitate to get in touch with the Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu

Thank you,

Christine Pinkney LDO ABO-AC, NCLE-AC

https://ucf.qualtrics.com/jfe/form/SV_e2HXdXc5D3fnLTM

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