# Gender Pay Equity and Women's Pay Improvement Trajectories in the U.S. Nonprofit vs. For-Profit Sectors

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Submitted in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
under the Executive Committee
of the Graduate School of Arts and Sciences

COLUMBIA UNIVERSITY

2018

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## Abstract

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This dissertation examines gender pay disparity and women's and men's pay increase trajectories in a comparative analysis of the U.S. nonprofit and for-profit sectors. First, using the U.S. Censuses from 1990 and 2000, and the American Community Survey 2010-2014 data, this dissertation examines the nonprofit/for-profit difference in gender pay equity in Chapter 4. Traditionally, researchers have examined gender pay disparity across all industries in the entire economy combined. My analysis, however, focuses on 15 human service industries because nonprofit organizations are usually concentrated in those fields only. This empirical chapter makes two contributions to the field: first, it offers a more apples-to-apples comparison between pay in the nonprofit and for-profit sectors than previous research; second, it captures the gender pay disparity at three points in time, thus reflecting the change over the past 20 years. My industry-specific results challenge two normative assumptions: first, that nonprofits pay their workers lower than for-profits; and second, the smaller gender pay disparity in the nonprofit sector is a result of nonprofit pay compression. Leveraging theories from economics, sociology, and organizational studies, this empirical chapter pinpoints factors, such as industrial competition for labor, institutional pressures, level of unionization, and organizational form, that lead to a difference – or lack thereof – in the level of gender pay disparity between the two sectors.

My second empirical chapter (Chapter 5) examines women's and men's pay increase trajectories in the nonprofit (NP) and for-profit (FP) sectors based on the Survey of Income and Program Participation 2008 panel data. This chapter traces the pay increases for four groups of

workers: NP Stayers, FP Stayers, NP-FP Movers, and FP-NP Movers. The results show that there was selection in workers' moving behaviors: NP-FP Movers tended to be those who were disadvantaged in the nonprofit sector, while FP-NP Movers tended to be those who were better off in the for-profit sector. The analysis does not find gender or sectoral difference in pay increase trajectories for workers who chose to stay in the same sector. This empirical chapter is the first attempt at tracing the pay trajectories of nonprofit and for-profit human service workers using longitudinal data.

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**Acknowledgements**

Throughout my doctoral study at Columbia, I have been extremely fortunate to learn from many extraordinary and dedicated scholars. I thank my advisor, Professor Julien Teitler, for patiently guiding me through this journey. Without his support and advisement, this work would not have been possible. His admirable academic rigor, strong work ethic, and generous support of students served as a model for me as a scholar and a teacher. I cannot thank Professor Barbara Simon enough for her dedicated mentorship and unconditional help throughout my six years at Columbia. Her commitment to research and teaching, her caring and warm support of students, and her integrity and commitment to social work values all inspire me as a social worker. I thank Professor Neeraj Kaushal for guiding me to this dissertation topic, and for patiently and intensively advising me in the first year of this project. I thank Professor Marcus Lam for introducing me to U.S. nonprofit studies and teaching me quantitative research methods. His patient advisement and training made a difference in my doctoral studies. I thank Professor Femida Handy for providing critical input on my dissertation and generously nurturing my growth as a young scholar. I thank Professor Qin Gao for demonstrating excellence in various personal and professional roles, and for her generous help both personally and academically. I am grateful to all of them for serving on my dissertation committee. Each has provided me with extensive personal and professional guidance, and taught me a great deal about both research and life in general.

I am grateful to Professor Ada Mui for being a role model in every aspect of my life and for supporting me through many challenges. I also thank Professors Ellen Lukens, James Mandiberg, Vicki Lens, Angela Bies, Mark Preston, Chao Guo, Ram Cnaan, Denise Burnette,

Jinyu Liu, Marion Riedel, and Mary E. Sormanti for their teaching and support throughout my doctoral training. I thank Mr. Warren Green for his years of generous help to improve my writing skills in English, as well as for his friendship. I also thank Mr. Adam Pellegrini and Ms. Vanessa Guida for editing many of my papers and patiently accommodating my demanding needs for language assistance. I thank Ms. Jessica Troiano for her patient and efficient assistance throughout my graduate studies at Columbia.

I especially owe thanks to M. Celada, who has been such a great friend and a mentor to me throughout my studies and life in the U.S. She has been extremely thoughtful, intelligent, warm, and generous in supporting me throughout this journey. She is an inspiration to me in every aspect of my life. The tremendous help that she and her partner provided me and my family made a real difference in our lives.

Lastly and most importantly, I am very grateful to the unconditional support of my parents and siblings. This family's commitment to education, gender equality, social justice, independence, and overall excellence has led all of us to pursue higher education and led me to the social work profession. I especially thank my parents for not restricting me with traditional gender roles and supporting me in my pursuit of a doctorate degree despite the discrimination against and stigma surrounding female Ph.D.s in China. I also especially thank my mother-in-law and my partner for their support and devotion to childcare while I worked on this dissertation. Without their sacrifices, I would not have been able to complete my master's and doctoral studies at Columbia within six years. I am grateful to my son, Benjamin, for bringing so much joy and meaning to my life. It is a blessing and a privilege to be his mother. I also thank my friends and cohort members (Soyeon, Angela, Julia, Kim, Bridgette, Daniel, Karren, Laura

Vargas, Laura Kimberly, Yalu, Will, Tina, Rayven, and Jessica) for their love, friendship, and support.

## Chapter 1: Introduction

As the U.S. economy becomes increasingly service-oriented, the nonprofit sector[1] is becoming a significant player in the labor market, employing 7.2% of the country's paid workers (Salamon & Sokolowski, 2006; Cornelius & Corvington, 2012). Unlike the for-profit and government sectors, the American nonprofit sector has always depended on a primarily female workforce. The predominance of women in nonprofits makes gender equity a key concern for nonprofit organizations, if these organizations are to thrive. Organizational psychology has established a clear link between organizational justice and employee satisfaction and productivity (Moorman, 1991; Colquitt et al., 2001; Loi, Hang-Yue, & Foley, 2006). Research has demonstrated that pay inequality diminishes job satisfaction and work morale (Adam, 1965; Stark, 1990; Clark & Oswald, 1996; Card et al., 2012), while reduced wage dispersion increases firm cohesiveness (Levine, 1991). This is particularly true given that securing and retaining a quality workforce has been a longstanding challenge for nonprofit organizations and they now face increased competition from other sectors (i.e., for-profits and government) for highly skilled workers (Preston, 2002; Gazley, 2009). However, despite an increasing interest in the study of nonprofit organizations and philanthropy, studies on gender in nonprofits have been limited and research on this specific issue remains scant.

Out of the few studies that examined the pay issue through the lens of gender and nonprofit status, a common finding is that the gender pay gap (i.e., female/male pay differential) was smaller in the nonprofit than in the for-profit sector (Preston, 1990, 1994; Leete, 2000, 2006; Preston & Sacks, 2010). Together, these findings formed a claim that there is greater gender pay

[1] In this study, I refer to 501 (c) organizations, which are traditionally tax-exempt organizations, as nonprofit organizations. In general, the term "nonprofit" consists of the following organizations: religious, social Service, educational, charitable, scientific, literary, testing for public safety, foster national or international amateur sports competition, or prevention of cruelty to children or animals' organizations.

equity and less gender discrimination in the nonprofit sector (Preston, 1990, 1994; Leete, 2001, 2006; Gazley, 2009). However, although this claim has been widely cited, its validity requires further empirical evidence and more nuanced examination. First, existing estimates of the gender pay gap in nonprofits versus for-profits used outdated data and only focused on one point in time. An up-to-date estimation using newer data and data from multiple time points is necessary, especially since the external environment of the nonprofit sector has changed enormously in the past decades. For example, with the privatization of human services, for-profit service providers have been rapidly entering fields that were traditionally occupied by nonprofits (Gibelman & Demone, 1998; Salamon & Dewees, 2002). Second, the nonprofit sector "is enormously diverse in terms of its scope of activities" (Gazley, 2009, p. 79) and nonprofit wages vary widely across different fields (Salamon, 2002). However, existing estimates tend to be economy-wide analyses that failed to address the effect of industry composition. Some researchers (Leete, 2000, 2006; Preston & Sacks, 2010; Faulk et al., 2013) cited the difference in industry composition between the nonprofit and for-profit sectors as one of the drivers of this sectoral difference in the gender pay gap. But little research has closely examined how the industry composition affects the difference in the gender pay gap between the two sectors. To better understand the issue, research focusing on the most relevant industries (e.g., social services, day care, education, and health services) in which both nonprofits and for-profits are actively engaged needs to be undertaken. In addition, no known studies have examined how women's earning power potential differs between the nonprofit and for-profit sectors.

Using two nationally representative datasets – the U.S. Census data of 1990 and 2000, as well as the American Community Survey (ACS) for 2010 to 2014 (all five years combined) – and the Survey of Income and Program Participation (SIPP) 2008 panel data, this dissertation

addresses gender pay equity, and women and men's earning improvement trajectories in the U.S. nonprofit and for-profit sectors. Specifically, the dissertation answers the following questions: 1) What is the average effect of nonprofit status on gender pay equity? How have the gender pay gaps in the nonprofit and for-profit sectors changed over the past two decades? 2) What are the gender pay gaps within the specific set of industries in which both nonprofits and for-profits are actively engaged (e.g., social services, day care, education, and health services)? 3) Does nonprofit status make a difference in women and men's earning improvement trajectories? The first two empirical questions are addressed in Chapter 4, based on analyses of the U.S. Census and ACS data, and the third question is addressed in Chapter 5, based on analyses of the SIPP data. Since very little academic work has focused on the workforce and gender issues in the nonprofit sector and human services (Gibelman, 2000; Leete, 2006), this dissertation contributes to the field in four ways. First, it extends the limited body of literature on women and nonprofits as well as the U.S. human service workforce. Second, it is part of the collective effort in documenting and understanding nonprofit/for-profit pay differentials, as well as wage dispersion in each sector. Third, it has practical implications for human resource management (e.g., compensation structure) for nonprofit and human service organizations in a world with growing competition for, and increasing challenges to recruit and retain, human service workers. Last but not the least, this dissertation contributes to a general scholarly quest to discover the behavioral effect of nonprofit organizational form, specifically, if there is a relationship between organizational form and inequality.

## Chapter 2: Background

### Gender Inequality in the Workplace vs Gender Pay Gap

Gender inequality, also called gender discrimination, in the workplace refers to a worker receiving unequal treatment (including hiring, firing, salary and promotion decisions), solely based on gender (The Civil Rights Act of 1964; The Equal Pay Act of 1963). Accordingly, gender equality means an absence of the unequal treatment in the workplace based on gender. Researchers have reached consensus that the U.S. workplace is not gender equal and women are the most common victims of gender discrimination in the workplace (Bergmann, 1974; Altonji & Blank,1999; Blau, Ferber & Winkler, 2009; Bertrand, Goldin & Katz, 2010; Blau & Kahn, 2016). The evidence of this inequality includes a concentration of women in low-paying occupations and lower-level positions, and lower pay for women doing the same kind of work as men (Blau et al, 2009). The latter is called unequal pay for equal work (Equal Pay Act of 1963). The direct consequence of this gender-based unequal treatment is a difference between men and women's remuneration, called the gender pay gap, which is a common measure of gender equality.

The gender pay gap measures the average difference between the pay that men and women receive for work (Blau, et al, 2009; Blau & Kahn, 2016). There are two ways to calculate gender pay gap: the unadjusted and the adjusted pay gap. The unadjusted pay gap is the average differential of men and women's pay in a given economy, industry, or sector. The adjusted pay gap takes into account differences between men and women in education level, job experience, hours worked, occupation, as well as other determinants of pay, such as union status and size of employer. After accounting for the known gender differences in observable factors that impact pay level, the residual pay gap is called the unexplained gender pay gap. The unexplained gender

pay gap is considered a rough measure of discrimination or degree of gender pay equity (Blau & Kahn, 2000). This study first uses the unexplained gender pay gap as a measure of gender equality in the nonprofit and for-profit sectors. It then uses women and men's pay improvement trajectories, the increase of wage in a 4-year time span, as another measure of gender equality in the two sectors.

**Significance of Studying Gender Equality & the Nonprofit Workforce**

Organizational psychology has established a clear link between organizational justice and employee satisfaction and productivity (Moorman, 1991; Colquitt et al., 2001; Loi et al., 2006). Research has demonstrated that pay inequality diminishes job satisfaction and work morale (Adam, 1965; Stark, 1990; Clark & Oswald, 1996; Card et al., 2012), while reduced wage dispersion increases firm cohesiveness (Levine, 1991). Studies have also found that fairness facilitates greater work outcomes among intrinsically motivated versus externally motivated (e.g., monetary rewards, status) workers (Frey, 1993a, 1993b; Leete, 2000). As nonprofit organizations rely heavily on intrinsically motivated staff (Mirvis & Hackett, 1983; Preston, 1985, 1988; Rose-Ackerman, 1996; Handy & Katz, 1998; Leete, 2001), gender equality is key for ensuring the productivity of the nonprofit sector (Leete, 2000; Faulk et al, 2013). This issue is particularly important if we consider that 43% of nonprofit organizations identified employee burnout and staff retention as a significant or very significant problem (Salamon & Geller, 2007). Furthermore, as the traditionally-male-dominated higher-paying professions are increasingly open to women, nonprofits are no longer able to reply on a captive labor force who have few alternative professional options (Preston, 1994). Nonprofits now face greater challenges to recruit and retain a satisfied workforce.

Some assume that the underlying values of the nonprofit sector, including charity, human rights, and human wellbeing, would make nonprofit organizations more likely to adhere to the principles of affirmative action and nondiscrimination in their labor force practices (Gibelman, 2000). But this is not necessarily the case, given that nonprofit organizations operate under broader social structures and are subject to the logics of the capitalist system (Oliver, 1991; Stone, 1996; Pache & Santos, 2010), especially, if we consider that many nonprofit organizations experience resource shortages and struggle for organizational survival. As a result, nonprofit organizations may not have the awareness, incentives, or capacity to advance gender equality in their human resource practices. Labor force statistics from the field suggested that this hypothesis might be true. For example, according to a study by Haddock (2002), although the majority of nonprofit workers were female, only 19% of nonprofit organizations were led by women. Men make up a small proportion of the nonprofit labor force, but they dominate nonprofit leadership positions (e.g., executive positions and board seats), especially in large nonprofit institutions such as hospitals and colleges and universities (Odendahl & Youmans, 1994; Preston, 1994; Steinberg & Jacobs, 1994; Shaiko, 1997; Gibelman, 2000).

Nevertheless, except for the these descriptive statistics of the nonprofit labor force, we still know little about the issue of gender equality in the nonprofit sector, both theoretically and empirically. This lack of study is particularly remarkable considering that an extensive literature has examined the issue in the for-profit world and in the entire economy (Steinberg & Jacobs, 1994; Gibelman, 2000; Leete, 2006). From both a social equality and an organizational, operational function point of view, it is important to have a better understanding of the dynamics between gender and the nonprofit labor force.

**The Necessity for a Reevaluation of Gender Pay Equity in Nonprofits vs. For-Profits**

Is there greater gender pay equity in the nonprofit than in the for-profit sector? Does the nonprofit organizational form impact equality? Research on this issue is scarce. Preston (1989; 1990) found smaller gender pay gaps in nonprofits than in for-profits, and she suggested that women enjoyed better career opportunities in the nonprofit sector. Leete's (2000) analysis of the 1990 Census data showed that gender pay disparity was lower in the nonprofit sector than in the for-profit sector; in other words, there was greater gender pay equity in the nonprofit sector. Using the 2000 Census data, Preston and Sacks (2010) re-estimated the wage gap and found that female and male wages were closer within the nonprofit sector than in the for-profit sector. The conclusions reached by these authors have significantly shaped the discourse on this issue.

However, existing studies have several limitations. For example, the latest estimate of gender pay disparity between nonprofits and for-profits is based on the 2000 U.S. census (Preston & Sacks, 2010); an updated analysis with more recent data is needed. Also, as DiMaggio and Anheier (1990) pointed out, the quest for generalizable difference among legal organizational forms (i.e., nonprofits, for-profits, and public) is problematic due to the considerable variation of industry composition within each form. Salamon (2002) also argued that "by focusing only on aggregate data and failing to compare nonprofits and for-profits in similar fields, past research has created a misleading impression about the real relationship between nonprofit and for-profit wages" (p. 62). Research on nonprofit/for-profit pay differential in specific fields (e.g., public law offices, day care centers, nursing homes) substantiated that pay level varies across different industries (Weisbrod, 1983; Preston, 1988; Hallock, 2002; Salamon, 2002; Mocan & Tekin, 2003). Unfortunately, prior studies only provided economy-wide estimates of gender pay equity between the two sectors, creating a research gap.

Descriptive statistics show that, of the hundreds of industries in the ACS and U.S. census data, the vast majority are traditional business industries dominated by for-profit organizations with a small proportion of non-profit organizations. It is likely that the nature of the work done by nonprofit and for-profit workers in these industries is considerably different. As the economy-wide averages are primarily driven by large industries that are dominated by business organizations, the real picture of the gender pay equity in the nonprofit sector compared to that in the for-profit sector is blurred. In other words, it remains unknown whether there exists a sectoral difference of gender pay equity in industries that are most relevant to the nonprofit sector. These are industries where both nonprofit and for-profit organizations are actively engaged, such as health services, education, and social services. These industries house the majority of nonprofit organizations and they are what we typically call "the nonprofit sector". Within these industries, nonprofit organizations provide similar outputs to their for-profit counterparts and the two sectors compete for workers. A specific estimate of sectoral difference in gender pay equity in these industries is more relevant to nonprofit research and practice.

In addition, as these industries employ the majority of social workers, this industry-specific estimate is more relevant to social work management. Lastly, according to the competitive labor market theory, the nonprofit/for-profit wage differential will shrink or disappear in individual industries where nonprofits and for-profits compete for workers. Therefore, by restricting the analysis to the selected industries, the impact of the overall nonprofit/for-profit wage differential on gender wage equity can be disaggregated from the effect of nonprofit status on it. In other words, one can rule out the concern that the smaller the gender wage gap in nonprofits might simply be a side effect of pay compression in nonprofits if nonprofits pay workers significantly less than for-profits do (Faulk et al., 2013).

**The Necessity for Examining Women's Pay Increase Potential**

Another important issue regarding workplace gender equality is women's and men's potential for earning improvement. The opportunity for pay increase is a key determinant of worker well-being in the workplace (Baker, Jensen & Murphy, 1988). In the for-profit sector, women still have limited opportunities for managerial positions; moreover, they are concentrated in secondary and low-paying jobs. It is unknown whether the predominance of females in the nonprofit labor force affects women's career advancement opportunities and potential for earning improvement across the entire workforce. Despite the broadly-cited claim that the nonprofit sector provides better career opportunities for women based on Preston's paper (1990), using the 1977 Quality of Employment Survey, no known empirical study has examined women's and men's pay increase trajectories in the two sectors. Most importantly, few studies have examined the issue of the nonprofit/for-profit difference in pay within human services, specifically. This dissertation addresses this research gap in Chapter 5.

## Chapter 3: Theories

The sectoral difference in the gender pay gap and women's pay increase trajectories between the nonprofit and for-profit sectors is closely related to a well-studied issue: the overall pay difference between the two sectors. Many empirical studies observed an economy-wide negative pay differential between the nonprofit and for-profit sectors (Mirvis & Hackett, 1983; Preston, 1985, 1990; Leete, 2000; Ruhm & Borkoski, 2003; Preston & Sacks, 2010) — about 9%, even after controlling for detailed codes of occupation and industry (Preston & Sacks, 2010). But industry-specific studies found that this overall negative nonprofit/for-profit pay differential does not hold. In an individual industry, the nonprofit/for-profit pay difference could be positive, negative, or zero. In this chapter, I will begin with theories explaining the above stated overall pay difference between the nonprofit and for-profit sectors, which are related to both gender pay equity and women's pay increase trajectories. I then will review theories that are specific to each issue.

### Differences in the Organizational Structure of Nonprofits and For-profits

To understand the nonprofit/for-profit difference in pay and gender pay equity, one first needs to consider the characteristics of nonprofit and for-profit organizational forms. Both nonprofits and for-profits are private entities and they now co-exist in most service areas that traditionally have been occupied by nonprofit organizations. Except for labor unions, religious organizations, and membership organizations, entrepreneurs are free to choose between forming a nonprofit or a for-profit firm in areas described in section 501(c)(3) of the Internal Revenue Code, which include educational, scientific, medical organizations, etc.[2] This is why we see both

[2] Source of information: The official website of the Internal Revenue Service. http://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/Exemption-Requirements-Section-501%28c%29%283%29-Organizations

nonprofit and for-profit schools, hospitals, and care facilities. The choice between forming a nonprofit and for-profit entity is not an easy one: There are both advantages and disadvantages to nonprofit status, and the benefits associated with nonprofit status depend on the magnitude of potential profits, availability of government grants or charitable donations, and many other factors.

In general, nonprofit organizations are eligible for tax exemptions and have better access to public and private grants. In addition, limited liability exempts founders, directors, members, and employees from personal liability for the nonprofit's debts. However, being a nonprofit also means more paperwork, limited personal control (e.g., nonprofits are governed by a board of directors consisting of volunteers), and greater public scrutiny[3]. The other major constraint is the non-distribution constraint, meaning that nonprofits cannot distribute their assets and earnings to stakeholders even though they can engage in profit-generating activities. The choice between nonprofit and for-profit status often is a matter of preference, given that for-profit service providers also are eligible for government contracts. The constraints faced by nonprofits may explain the fact that for-profit organizations usually outnumber nonprofits in many human service industries, even those traditionally considered nonprofit fields, such as child day care and nursing homes.

**Nonprofit Wage Penalty**

According to Leete (2006), "because each sector of the economy (i.e., nonprofit, for-profit, and government) is composed of a different mix of occupations and industries (each of which embodies different distributions of skills and working conditions), one should expect

[3] Source of information: The website of the Grant Space, a service of the Foundation Center. http://grantspace.org/tools/knowledge-base/Nonprofit-Management/Establishment/pros-and-cons.

different earnings levels in each sector" (p. 161). Three theories have been developed to explain the overall negative pay differential between the nonprofit and for-profit sectors.

First, the overall lower pay in the nonprofit sector is in part due to the concentration of low-paying female-dominated occupations in the nonprofit labor market (Preston, 1990; Faulk, et al., 2013). Numerous studies have substantiated the existence of labor market discrimination against women and found that women still earn much less than men with comparable qualifications (Blau, Ferber, & Winkler, 2009; Kulow, 2013; Blau & Kahn, 2016). For example, task differentiation segregates women and men into different types of work (Reskin,1988; Kulow, 2013). The direct consequence is occupational segregation and a male-female pay differential (Blau et al., 2009). Researchers also have revealed that wages tend to be lower in female-overrepresented occupations than in traditionally male-dominated jobs (Steinberg & Jacobs, 1994; Blau et al., 2009; Kulow, 2013). Specifically, Preston (1990) held that the relatively low wages and high representation of women in the nonprofit sector may reflect an "occupational crowding" effect. The presence of institutional barriers and prejudices against women in male-dominated occupations could crowd women into female-dominated occupations such as teaching, caring, clerical jobs and so on. Therefore, if these low-paying, female-dominated occupations are concentrated in the nonprofit labor market, nonprofit pay will be lower. The empirical analyses of Preston (1990) and Faulk et al. (2013) substantiated this occupational locus effect.

Second, because nonprofits often operate under an ethos of care for others and some people would like to experience the joy of altruism, Preston (1988) proposed that nonprofit workers would accept lower wages if the firm provided (external) social benefits. Frank (1996) held that some individuals may be willing to "donate" a proportion of their paid labor to

"socially responsible" nonprofits by accepting reduced compensation. Rose-Ackerman (1996) noted that ideologues may accept lower pay as long as their efforts are helping to achieve their idealistic goals. These arguments formed a labor donation hypothesis arguing that, in general, employees of nonprofits seek less monetary return compared to for-profit workers because nonprofits tend to produce outputs with higher public benefits. Empirical evidence supported this hypothesis. For example, Faulk et al. (2013) tested this hypothesis and concluded that the pay is lower in industries with a greater percentage of nonprofit organizations. Using employer-employee matched data, Austria, Haider, and Schneider (2010) found that the existence of volunteers reduces the wages of paid employees in nonprofit organizations. However, as Leete (2006) pointed out, the labor donation hypothesis only is applicable to cases in which the nature of goods produced by nonprofit and for-profit workers are different. If, within the same industry, nonprofit and for-profit organizations produce the same kind of services or outputs, this hypothesis would not hold because it is the nature of work rather than the organizational form that gives workers a sense of meaningfulness and encourages them to donate their labor. In fact, several studies (Withers, 1985; Filer, 1986) examined the hypothesis that workers in some fields (principally the arts) are willing to accept lower wages in return for the "psychic income" that they receive from work. These studies demonstrated that the "psychic income" could come from the profession, or output, rather than from the sector of their employers.

Third, nonprofits often concentrate in industries with a high-level of public or altruistic outputs and the quality of the outputs are difficult to measure and monitor (Ito & Domain, 1987; Steinberg, 1990a). This means that, nonprofits face more incentive problems than for-profits and intrinsic motivation could play a vital role in nonprofit worker motivation (Handy & Katz, 1998).

To ensure quality work outcomes, nonprofits often prefer more intrinsically-motivated employees (Hansman, 1980; Weisbrod, 1983; Steinberg, 1990a; Rose-Ackerman, 1996; Handy & Katz, 1998; Leete, 2000; Benz, 2005). Research also found that in settings where intrinsic motivation is important, monetary incentives or punishments may override intrinsic motivation by changing a worker's perception of the nature of the performed task and the task environment (Frey, 1997; Benabou & Tirole, 2000; Frey & Jegen, 2001). Empirical evidence substantiated this proposition (Bewley, 1995; Freeman, 1997). As a result, to screen out externally motivated workers and to avoid crowding out workers' intrinsic motivation, nonprofit employers may intentionally avoid relying on monetary incentives and thus provide lower pay (Hansman, 1980; Steinberg, 1990a; Handy & Katz, 1998; Leete, 2000).

Together, the occupational locus, labor donation, and worker motivation hypotheses accounted for the existence of an overall "nonprofit wage penalty" (a term used by Steinberg [1990b], meaning that working for a nonprofit is associated with lower wages, compared to for-profits). Nevertheless, theories also point to the possibility of a nonprofit wage premium, especially in industries where nonprofit and for-profit firms are producing identical outputs. In this case, "pay differences are attributed to a variety of either observable or unobservable differences in the characteristics of nonprofit and for-profit firms, workers, or their jobs" (Leete, 2006, p.161). And "these differences may or may not be inherent in nonprofit status" (Leete, 2006, p. 162). For the same reason, the nonprofit/for-profit pay differential in a specific industry with identical outputs may also be negative.

**Nonprofit Wage Premium**

First, nonprofits have a high prevalence in industries in which consumers encounter an information asymmetry problem in judging the quality of products and services (e.g., patients

lacking the expertise to evaluate medical services) (Preston & Sacks, 2010). Under these circumstances, the nonprofit status of a service provider serves as an institution of trust in a flawed market (Arrow, 1963; Hansmman, 1980; Handy & Katz, 1998). To provide a higher-quality product, nonprofits would have to hire and maintain higher-quality workers. Therefore, in fields that have the informational symmetry problem, nonprofits might pay workers higher wages than for-profits (Steinberg, 1990b; Preston & Sacks, 2010). Second, the different legal treatment of nonprofit and for-profit firms may put upward pressure on nonprofit wages (Feldstein, 1971; Shackett & Trapani, 1987; Borjas, Frech, & Ginsburg, 1983; Preston, 1989; Steinberg, 1990b; Benz, 2005), as "the freedom from tax, regulatory, or profit-maximizing pressures may increase the resources available to pay workers in the nonprofit sector" (Leete, 2006, p.162). Because nonprofits are not allowed to distribute profits to stakeholders, this constraint may encourage the nonprofit executives to overpay themselves and other employees if the organization's budget allows.

The third relevant theory is agency theory. In order to increase productivity or efficiency, or to reduce the costs associated with turnover, managers might choose to pay their employees more than the market-clearing wage (i.e. the efficiency wage) (Borjas, 2009). An efficiency wage often exists in firms where the employers cannot perfectly observe employees' effort levels. Ito and Domian (1987) applied the efficiency wage hypothesis to nonprofits and explained why a nonprofit might overpay their workers: the quality of nonprofit products usually is difficult to monitor. But as Steinberg (1990a) pointed out, the efficiency wage "would also attract less-caring applicants who are only in it for money" (p. 148), which could lower productivity and undermine the organization's ability to realize its charitable goals. This potential negative consequence makes nonprofits' usage of the efficiency wage a dangerous

possibility. In addition, Werner, Konopaske, and Gemeinhardt (2000) argued that if managers are not effectively monitored by organization stakeholders, they may prioritize their own self-interest and pay high salaries to themselves and their employees. Therefore, the salary levels of nonprofit and for-profit sectors depend on whether the sector's managers receive intensive monitoring. If the compensation of nonprofit managers is under vigilant monitoring, their salary is likely to be lower than for profit managers. This is probably the case given that the executive compensation of nonprofit organizations is subject to strict public scrutiny.

**Factors That Equalize Pay Between Sectors**

According to labor economic theories (Borjas, 2009), the wages of nonprofit and for-profit workers ultimately depend on the strength of competition between labor supply and demand, both of which are influenced by the nature of the service area. Preston (1988) provided an equilibrium model that is capable of simultaneously explaining positive nonprofit/for-profit wage differentials in some industries and negative differentials in others. The labor donation hypothesis is on the labor supply side, which tends to put downward pressure on nonprofit wages, while the labor demand effect would place upward pressure on wages. In less-competitive industries where the external benefits of nonprofit production are large, the supply effect should dominate, and nonprofit wages should be lower. In industries where the organizational output is similar between sectors (nonprofit vs for-profit) and where competition is strong, the demand effect should dominate, and therefore nonprofit wages would be drawn higher. Finally, in competitive industries, wage differentials between sectors should be narrower. Jones (2015) also argued that labor donation should only exist when the labor demand of the nonprofit sector of an industry is low. When labor demand is high, nonprofits cannot solely rely

on intrinsically motivated workers to fill their labor demand and must raise wages. His empirical test confirmed this theoretical prediction.

Furthermore, in the same organizational field such as a specific service industry, institutional forces (e.g., normative, coercive, and mimetic) also would create isomorphic pressures for both nonprofit and for-profit organizations (DiMaggio & Powell, 1983). Therefore, both organizational forms will behave similarly and thus narrow the sectoral pay gap. Examples of institutional isomorphism forces include the privatization and commercialization of human services in the past decades (Gibelman & Demone, 1998; Abramovitz & Zelnick, 2015; Kotz, 2015).

## Nonprofit/For-Profit Difference in Gender Pay Disparity

As pointed out by Leete (2006), if differences in mission, legal treatment, and products produced by nonprofit and for-profit firms can lead to differences in the level and structure of pay in the two sectors, they might also cause different pay distribution within nonprofit and for-profit organizations. Empirical studies by Leete (2000) and Ben-Ner, Ren, and Paulson (2009) substantiated this sectoral difference in wage dispersion. The following section reviews theories that explain the pay dispersion and gender pay gap in the nonprofit versus for-profit sectors.

### The intrinsic motivation hypothesis.

Why would one assume that nonprofits are less discriminatory than for-profits and thus have greater gender pay equity? Research on pay equity and worker motivation found that wage dispersion within a reference group directly affects workers' perception of employer fairness (Stark, 1990; Pfeffer & Langton, 1993; Clark & Oswald, 1996; Card et al., 2012). As a result, workers' morale diminishes. To produce high-quality outcomes, employers must pay attention to worker motivation. Studies have also found that fairness facilitates greater work outcomes

among intrinsically motivated (i.e., incentivized by an activity itself rather than the desire for external rewards) versus externally motivated (i.e., incentivized by external rewards such as money and status) workers (Frey, 1993a, 1993b; Leete, 2000). Additionally, the perception of unfairness can reduce workers' intrinsic motivation. As nonprofit organizations rely heavily on intrinsically motivated staff (Mirvis & Hackett, 1983; Preston, 1985, 1988; Rose-Ackerman, 1996; Handy & Katz, 1998; Leete, 2001), gender equality is key to ensure the productivity of the nonprofit sector (Leete, 2000; Faulk et al., 2013). This issue is particularly important given that employee motivation and staff retention has been a long-standing challenge for nonprofit organizations (Gazley, 2009; Salamon, 2012). For example, one survey showed that 43% of nonprofit organizations identified employee burnout and staff retention as a significant or very significant problem (Salamon & Geller, 2007). In other words, because of the service-oriented and labor-intensive nature of the nonprofit sector, relying solely on monetary incentives is unlikely to ensure desired results (Steinberg, 1990a; Handy & Katz, 1998; Leete, 2000). Thus, in order to reduce wage dispersion, nonprofits tend to adopt a more equal compensation structure than for-profits.

Furthermore, in contrast with for-profits, nonprofits are less likely to use incentive compensation (e.g., performance-based incentives) (Steinberg, 1990; Ben-Ner & Ren, 2015), which would also reduce wage dispersion. Incentive compensation is not desirable for nonprofits for three reasons. First, as nonprofit output is more difficult to measure, finding an appropriate basis to calculate bonuses is not feasible (Steinberg, 1990). Second, because nonprofits rely more on donations than for-profits and donors often prefer minimized administrative costs, an incentive compensation structure might discourage donations. Lastly, "incentive contracts may alter the long-run character of the work force, endangering the traditional functioning of

nonprofit organizations as trustworthy and caring providers of service" (Steinberg, 1990, p. 149). For-profit organizations use incentive compensation more often because their goal is to maximize profits, which is straightforward and easy to quantify. Incentive compensation is found to be associated with greater wage dispersion (Steinberg, 1990; Ben-Ner & Ren, 2015). In sum, the intrinsic motivation theory predicts that nonprofits tend to adopt a more equal pay structure than for-profits, which lowers the gender pay gap in the nonprofit sectors; the incentive compensation argument indicates that, due to a tendency to use incentive compensation, the gender pay gap would be greater in nonprofits. And this nonprofit/for-profit difference in pay structure would be most salient when comparing the entire nonprofit sector with the entire for-profit sector. Therefore, I hypothesize that:

*Hypothesis 1 (H1):* Economy-wide, the gender pay gap is smaller in the nonprofit than in the for-profit sector; this pattern holds across the three points in time from 1990-2014.

**The labor market competition argument.**

According to labor economic theories (Blau et al., 2009), gender discrimination is counterproductive and entails a cost. Therefore, market competition can help minimize or eradicate this irrational, taste-based discrimination in employment. The more competitive the organization's environment, the less preference for male workers, when male and female candidates are equally productive. According to Cohn (1985) and Roos and Jones (1993), women have made more headway in male-dominated jobs in organizations that were exposed to market competition than in those that were not. Similarly, within the same human service industries, because nonprofit and for-profit firms provide similar outputs and compete for workers with similar skills, the competition will inevitably reduce the difference in level of gender discrimination and the overall pay level between the sectors. The sector that does not

respond to this labor market competition is likely to undergo a labor supply shortage. For example, if female professionals (e.g., social workers, child day care workers, nurses) are paid higher in one sector than the other, they will be drawn to the higher-paid sector. This is particularly true given that nonprofits now face growing competition from for-profit service providers due to the privatization of human services.

In addition, the effect of intrinsic motivation is likely to be mitigated within human services, which would also reduce nonprofit/for-profit difference in gender pay gap. As pointed out by Leete (2006), the intrinsic value of a job comes more from the nature of the work than from the type of the organization. For example, within a specific industry such as hospitals, where nonprofits provide similar and even identical services with for-profits and the workers do the same kinds of work such as nursing, the intrinsic value of a job is similar for nonprofit and for-profit workers. Therefore, with little difference in intrinsic values of jobs and the labor competition between the two sectors, one would expect a reduced nonprofit/for-profit difference in gender pay gap. Furthermore, according to institutional theory, organizations that operate in the same field face normative and mimetic pressures to behave similarly. This process is called institutional isomorphism. For example, when gender discrimination becomes unacceptable in a field, every organization is under pressure to conform to a new norm of gender equality. Specifically, if one sector starts to pay female professionals a higher wage and provide them with more career opportunities, the other sector would be pressured to do the same. Therefore, the nonprofit/for-profit difference in gender pay gap will be diminished. Based on the theories of labor competition, intrinsic motivation, and institutional isomorphism, I hypothesize that:

*Hypothesis 2 (H2):* Within human service industries, the nonprofit/for-profit sectoral difference in gender pay gap is greatly diminished.

**The resource dependency theory.**

According to resource dependence theory, no organization is self-sufficient or self-sustaining. An organization will depend on other actors for the critical resources it requires to function and survive (Pfeffer & Salancik, 1978). In turn, actors that control the valued resources of an organization gain power over that organization (Green & Welsh, 1988; Jackson & Schuler, 1995). Organizations also operate in institutional environments, and institutions (e.g., states, markets, and professions) shape organizational behaviors through rules and regulations as well as normative prescriptions and expectations (DiMaggio & Powell, 1983; Scott, 2001). As nonprofits, compared to for-profits, rely more on external funding (e.g., donations and state funding) and receive tax benefits, they face more institutional pressures than for-profits. They must conform to norms asserted by the dominant stakeholders, which usually are the primary funders (Oliver, 1991; Alexander, 2000). The survival of these organizations is closely tied to conformity to the demands of dominant actors in the inter-organizational environment (Antrobus, 1987; Yudelman, 1987).

This institutional argument predicts that nonprofit organizations may not be less discriminatory than for-profits if gender equality is not an institutional norm to which they must conform. Operating in a society with institutionalized gender discrimination and suffering from resource dependency, it is likely that the nonprofit system mirrors the social structure of the larger society. Numerous studies on the composition of nonprofit leadership and labor force have substantiated the existence of gender stereotyping and sex segregation (Loeser & Falon, 1978;

McPherson & Smith-Lovin, 1986; Odendahl & Youmans, 1994; Shaiko, 1997; Gibelman, 2000; Hallock, 2002; Ostrower & Stone, 2006) and thus support the idea that there is institutionalized sex discrimination in the nonprofit world (Loeser & Falon, 1978; Odendahl & Youmans, 1994). In addition, Gazley (2009) holds that "nonprofits are no more immune to discriminatory practices than any other sector. And many nonprofit employees have minimal legal protections if their employer's small size restricts their employee coverage under federal labor laws" (p. 85).

On the other hand, if there are institutional pressures against gender discrimination, organizations must make efforts to ensure gender equity in their personnel practice. As the state has been one of the primary funders of nonprofits, especially human service organizations, the institutional logic of the state has a significant impact on organizations that receive state funding (Leete, 2001). Executive Order No. 11246 prohibits federal contractors from discriminating against employees based on gender and requires them to construct detailed affirmative action plans (Executive Order No.11246, 1965; Leete, 2001; Borjas, 2009). Since, economy-wide, a higher percentage of the revenue of the nonprofit sector comes from state funding than does that of the for-profit sector, the nonprofit sector is expected to face greater institutional pressure in advancing gender equity and thus have a smaller gender pay gap. This is consistent with hypothesis 1, but from a different theoretical standpoint. Nevertheless, it is not necessarily the case within human service industries. With the privatization of human services, increasingly, for-profit service providers are competing with nonprofit providers for state contracts (Gibelman & Demone, 1998; Abramovitz & Zelnick, 2015). Therefore, in a specific human service industry, the affirmative action requirement will have a bigger impact on the sector that receives more state contracts and will equally influence each sector if both sectors receive the same level of state funding. Therefore, I hypothesize that:

*Hypothesis 3 (H3):* The nonprofit/for-profit sectoral difference in gender pay gap varies across individual human service industries, with some positive, some zero, and some negative, depending on which sector receives greater level of state funding.

**The effect of unionization and wage transparency.**

Numerous empirical research and literature reviews on gender pay disparity have reached the conclusion that gender-based wage discrimination still exists in the U.S. labor market (Blau & Kahn, 2000, 2016; AAUW, 2012; National Partnership for Women and Families, 2012; Kulow, 2013). The persistence of wage discrimination is facilitated by the culture of wage secrecy because many victims of discrimination are unware of it due to a lack of knowledge of the pay offered to their male counterparts (Estlund, 2009; Ramachandran, 2012; Kulow, 2013; Gould & McNicholas, 2017). According to Gould & McNicholas (2017) and the Women's Bureau of the U.S. Department of Labor (2014), collective bargaining has been proved to be an effective way of combating gender pay disparity. The gender pay gap has been much smaller among unionized workers than nonunionized workers (Robbins & Johnson, 2016). Ways that collective bargaining agreements can help eliminate or diminish the effects of wage discrimination include: "standardize wage rates, promote pay transparency, and include grievance procedures for workers who have been discriminated against" (Gould & McNicholas, 2017, p. 3). It also has been found that mandatory disclosure of wage could advance gender pay equity and there have been petitions for laws mandating wage disclosure (Kulow, 2013).

*Hypothesis 4 (H4):* In industries with greater wage transparency (e.g., with higher level of unionization), both the gender pay gap in each sector and sectoral difference in the gender pay gap are smaller. Examples of highly unionized industries include: hospitals, elementary and secondary schools, college and universities, and social services (Hirsch & Macpherson, 2002, 2010; Bureau of Labor Statistics, 2018).

To sum up, the gender pay gap of each sector in a specific human service industry and the nonprofit/for-profit sectoral difference in the gender pay gap of this industry is determined by a combination of the aforementioned factors. Therefore, a comparison of the extent of the gender pay gap across sectors requires careful attention to each of these contextual factors. Some factors might counteract or supplement each other. These factors also might change over time, leading to a change in the sectoral difference in the gender pay gap for a specific industry. For example, in the past decades, the state funding retrenchment as well as the commercialization of human services increased service fees' share of nonprofit human service organizations' revenue mix (Salamon, 2012). Consequently, the institutional pressure on gender equity may have been reduced in the nonprofit sector. In addition, with the decline of union membership in the U.S., the effect of union status might also be decreased. In Chapter 4, I will test the theories of intrinsic motivation, labor competition, institutional isomorphism, and wage transparency by comparing the nonprofit/for-profit differences in gender pay gap for different populations (i.e., the entire economy, the entire human services, and each of the human service industries).

**Gender Difference in Earnings Growth**

In addition to the literature on determinants of pay levels at a certain point of employment, two additional areas of research address gender differences in earnings growth:

barriers to women's career advancement, and gender differences in job mobility and returns to job mobility. According to orthodox human capital and standard production theories in economics (Lazear, 1995), earnings growth is only determined by growth in individual productivity (e.g., increased experience or additional training). Sociological inequality theories (Grand & Tåhlin, 2002) hold that "rewards are tied to positions in social structure rather than to the persons occupying these positions" (p. 381). Today, it is widely accepted that earnings differ according to level of occupational position and that gender politics significantly shape women's and men's opportunities to advance to positions with higher occupational values. In addition to the influence of career advancement potential, gender difference in job changing behaviors and returns to mobility also play a role in women's and men's earnings growth. As no existing research has examined this issue with respect to the differences between nonprofit and for-profit organizations, below I will review general literature on these two issues and hypothesize based on the labor characteristics of the U.S. human service economy.

**Gender and career advancement.**

Career advancement is a result of a combination of various individual, sociopsychological, and organizational factors (Newman, 1993). There are three models explaining gender differences in career advancement outcomes. First, the human capital model examines factors including differences in women's and men's qualifications, family commitment, and "voluntary" choices of career discontinuity that influence differences in individual achievements (Chafetz, 1990; Kelly, 1991). Second, the sociopsychological model accounts for the barriers to women's career advancement created by sex-role socialization and stereotyping (Epstein, 1988; Newman, 1993). Third, the systemic model focuses on organizational situations that limit women's career progress opportunities. In this section, I will

review literature under the second and third models because they are more relevant to the present study.

***Task differentiation and gender segregation in the workplace.***

According to Reskin (1988, p. 58), the major cause of gender wage disparity is "the segregation of women and men into different kinds of work." This separation facilitates unequal treatment for men's work and women's work and implies that this different treatment is appropriate (Padavic & Reskin, 2002). The immediate consequence of this segregation is that women earn much less than men. Women tend to be overrepresented in lower-paying jobs, including human services and many other helping professions. Sociologists have suggested that the low pay of "female" jobs results from a devaluation of women's work. Because these jobs are often performed by women and the skills and talents required are often assumed to be natural attributes of women, it is assumed that they need no special compensation (Odendahl & O'Neill, 1994). Preston (1990) pointed out that the relatively low wages and high level of representation of women in the nonprofit sector reflect an "occupational crowding" effect. The presence of institutional barriers and prejudices against women in male-dominated occupations could crowd women into female-dominated occupations, such as teaching, care-taking, clerical jobs, and so on.

Task differentiation and occupational gender segregation is prevalent in human service organizations. Frontline service workers tend to be women, while at the managerial level, positions – especially executive positions – tend to be held by men. This sharp distinction between women's jobs and men's jobs in human services represents the "sex labeling" and "sex stereotypes" of occupations and jobs (Padavic & Reskin, 2002). By equating management with work requiring masculinity and "tough-mindedness," male managers legitimize their role as

leaders and differentiate themselves from the low-paying helping jobs that women have (Reskin & McBrier, 2000). Therefore, it is reasonable to assume that the greater the gender stereotypes within a human service industry – in other words, the more task differentiating between men and women – the more difficult it is for women to advance to managerial positions.

***Sex-based ascription in managerial employment.***

Ascription refers to the situation in which a status, position, or opportunity is distributed in part based on an ascribed characteristic (Kemper, 1974). Historically, sex-based ascription has been the default in managerial employment and was practiced in a covert, even unconscious, way (Kanter, 1977; Powell, 1993). For example, sex stereotypes are pervasive in the workplace and job assignment decisions are influenced by jobs' sex labels; employment decision-makers often act on their biases and use sex as a proxy for productivity or employment cost. This ascription propensity favors men for management positions. Despite the progress in abandoning the ascription in personnel practice, men's continued monopoly on management jobs indicates that organizational inertia exists, and sex-based ascription still influences women's opportunities for advancement to managerial positions.

To minimize selection cost, organizations may resist the creation of new and formal structures to select managerial personnel, and resort to gender ascription, instead. According to Pfeffer and Salanick (1978), when it is not clear who the best choice is, decision-makers tend to minimize risk by opting for persons who resemble themselves. Consequently, when women are under-represented in management, employers are likely to be more familiar with male managers and hence see a male candidate as less risky. Another factor that might facilitate sex-based ascription is group power and in-group preference. Powerful groups have the tendency to institutionalize their privileges (Acker, 1989; Baron, 1991). The patriarchal impulses could lead

male organizational leaders to prohibit women from occupying positions that lead to their authority over men. In addition, people's unconscious propensity to favor members of their own group can have the same ascriptive effect. This ascription is most likely to exist in top executive level positions.

***Tokenism and men's privilege in female-intensive jobs.***

Women often experience great difficulty in entering male-dominated occupations, where they often face prevalent discrimination in the hiring process, and from supervisors, colleagues and even outsiders. However, three studies on men's experiences in female-dominated occupations reveal the opposite: there is a preference for hiring men in these occupations. Men at higher levels receive preferential treatment, which sometimes closes off advancement opportunities for women with the same qualifications (Heikes, 1991; Williams, 1992; Simpson, 2004). Williams (1992) termed this the "glass escalator" effect that men experience in traditionally female professions. The researchers pointed out that the tokenism effect and men's master status are primary causes for this differential treatment of men in traditionally female occupations.

According to Kanter (1977), tokenism refers to a situation in which persons of one social type are in an extreme minority—less than 15 percent of the group. This proportional rarity significantly affects group interactions. For example, it leads to a "heightened visibility" of the token group members; their behavior is noticed more than that of the numerically dominant group members, and therefore, they receive more attention. Researchers studying men's token experience in female occupations noticed that the effect of tokenism may differ for female and male tokens. The social status of the token's group (e.g., male vs female) —not their numerical rarity— is the crucial factor that determines whether the token encounters a "glass ceiling" or a

"glass escalator" (Heikes, 1991; Williams, 1992; Simpson, 2004). Therefore, men take the gender privilege with them when they enter predominately female occupations, and that translates into an advantage.

Therefore, one could hypothesize that the more female-intensive an industry is, the more advantage men have in career advancement opportunities. Also, the greater the percentage of male workers in a female-intensive occupation, or industry, the less career advancement opportunities left to women.

***Resource-dependency theory.***

According to resource-dependency theory, organizations need to align themselves with their environment (Pfeffer & Salancik, 1978), and therefore, their staffing, especially the top executive appointments, tend to resemble the structure of their organizational context (Tharenou, 1997). As government funding and private or corporate donations make up a substantial proportion of the revenue of human service organizations, and those who control resources in these institutions tend to be male, human service organizations thus prefer males over females for top executive positions in order to fit in to the "*men's club.*"

***Homophily: The sex composition of labor supply.***

The sex composition of the pools from which organizations recruit mangers reflects the readily available labor supply. Therefore, it is likely that the sex makeup of the nonmanagerial workforce affects that of its managerial workers (Reskin & McBrier, 2000). Also, organizations have the tendency to match subordinates and supervisors of the same sex, which also could make the sex composition of the managerial workforce mirror that of the nonmanagerial workforce (Kanter, 1977; Blum et al., 1994). Given that human service industries are numerically dominated by female workers, it is reasonable to assume that the demand for female managers

would be greater than that of male-dominated occupations. In other words, women would have more opportunities to work in managerial positions in human service organizations. A different force that may operate in the opposite way is the New Public Management movement, which brings in managers from business backgrounds to work at nonprofit and human service organizations. This tendency to select managers from for-profit fields diminishes the effect of sex composition of labor supply in human services, and it may eliminate managerial positions originally available to women.

To sum up, women's career advancement opportunities in a sector (i.e., nonprofit or for-profit) of a specific human service industry are determined by the competition of the above forces. Because all factors, except the sex composition of labor supply, favor men over women for managerial positions, men are expected to have better chances to advance to managerial, especially top executive, positions and thus have a steeper earnings growth curve. Nevertheless, as both the nonprofit and for-profit human services are highly gendered with a female-dominated workforce, the effect of task differentiation, male tokenism, resource-dependency, and sex composition of the labor pool should be the same in each sector. Therefore, there should not be a significant nonprofit/for-profit difference in women's career advancement opportunities and earnings growth within human services.

*Hypothesis 5 (H1):* The pay increase trajectories for nonprofit women and for-profit women in human services are the same.

*Hypothesis 6 (H2):* The pay increase trajectories for men are different from those of women in both the nonprofit and for-profit sectors of human service industries.

**Gender differences in job mobility and earnings growth.**

In addition to the earnings growth attached to changes in occupational position, research (Bartel, 1980; Topel & Ward, 1988; Grand & Tåhlin, 2002) has shown that there is a "pure" positive effect of voluntary job mobility, for both internal and external job movement. In other words, the move itself is a notable cause of earnings growth. This is mostly due to improved job match resulting from the move. Theory also predicts a possibility of gender differences in job mobility and different rates of return on women's and men's job moves. However, empirical studies have yielded conflicting results on this issue. Some (Loprest, 1992) found that job mobility had significant positive impact on earnings growth for young men, but not for women, while others found no gender differences in wage growth associated with different types of job mobility (Keith & McWilliams, 1997).

# Chapter 4: Are Nonprofits More Equitable than For-Profits? An Estimate of the Gender Pay Gap in the U.S. Human Service Industries

## Introduction

This empirical chapter first answers two questions: How different are men's and women's wages in the entire non-profit and for-profit sectors? How has the wage gap in each sector changed over the past two decades? By doing so, this paper provides an updated and refined examination of the argument that, on average, the nonprofit sector pays women more equitably than the for-profit sector. Adopting a historical perspective, this paper captures the changes in gender pay equity of the nonprofit and for-profit labor forces with the privatization of public services in the past two decades. It examines the issue in a changing labor market in which for-profit organizations have been rapidly entering industries that were traditionally occupied by nonprofit and public service providers. The information produced by this analysis gives us a general picture of the difference in gender pay equity between the U.S. nonprofit and for-profit sectors over the past two decades.

This chapter then answers a third question: What is the effect of nonprofit status on gender pay equity within human service industries in which both nonprofit and for-profit organizations are actively engaged? In answering this question, only industries that contain at least 10% nonprofit workers and 10% for-profit workers are selected. There are 15 industries that meet this criteria: hospitals; elementary and secondary schools; nursing and personal care facilities; colleges and universities; health services; child day care services; social services; residential care facilities without nursing; lodging places (except hotels and motels); educational services; job training and vocational rehabilitation services; museums, art galleries, and zoos;

research, development, and testing services; savings institutions, including credit unions; and miscellaneous professional and related services. Because the activities of most of the industries are considered human services – according to Hasenfeld's (2009) definition of human service – in the remainder of the paper, I refer to these 15 industries as human service industries. The analyses specifically on these industries are called human service specific analyses.

Based on theories predicting potential sectoral difference in the gender pay gap, I hypothesize: first, the economy-wide gender pay gap in the nonprofit sector is significantly smaller than that in the for-profit sector; second, this nonprofit/for-profit difference in gender pay disparity is much smaller in human service industries than that in the entire economy; third, the sectoral difference in the gender pay gap also varies across individual human service industries and changes over time.

## Method

### Empirical Strategy

This paper compares wage trends and estimates the female/male wage differential in the nonprofit versus for-profit sector at three time points: 1990, 2000, and 2010-2014 (5 years combined). To obtain an economy-wide estimate of the average effect of nonprofit status on gender pay equity, the analysis was first conducted on workers in all industries. Next, the analysis was conducted on the aggregate of 15 human service industries. Lastly, sectoral difference in gender pay equity was estimated for each of the 15 individual human service industries.

### Data

IPUMS 1990 and 2000 Census data, as well as American Community Survey (ACS) annual data for 2010 through 2014 combined was used. The study chose data points starting from 1990 because this was the first year that the U.S. Census clearly identified nonprofit as an option for sectors of employment. The 1990 and 2000 Census data are nationally representative and include 5% of the population. The ACS data is repeated cross-sectionally and is also nationally representative, including about 1% of the U.S. population each year. The data are individual-level, based on household surveys with demographic and detailed labor force information of individual workers. Total pre-tax wage and salary income of the year before the survey year was reported. Specifically, the respondent was asked to report: "Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items." Because the data does not include detailed information on earnings from each job for individuals with multiple jobs, this variable of total earnings was used as a proximate measure of the wage and salary income of people whose primary job was at a nonprofit or for-profit firm.

The sample was restricted to workers who worked in either nonprofit or for-profit organizations. Because the *class of worker* variable, which indicates the sector of employment (i.e., nonprofit, for-profit, government, or self-employed), was reported for the current or most recent job if not working currently, respondents who did not work for the last year (defined as people who reported n/a for *weeks worked last year* and *hours usually worked last year*) were also excluded. Following King and Lewis (2017), the regression analysis further restricted the sample to full-time workers (defined as working 35 or more hours a week; Bureau of Labor Statistics, 2014) who were 21 to 65 years old. Sensitivity analyses were also conducted on samples without full-time status and age restriction.

Missing data due to nonresponses are common to large survey projects including the U.S. Census and ACS. This study uses IPUMS data, in which most variables have been edited for missing, illegible and inconsistent values. Therefore, the missing data problem is not an issue for the analysis. The Census Bureau and IPUMS researchers used three computer editing approaches: logical edits, Hot Deck allocation, and Cold Deck allocation (Ruggles et al, 2017). To obtain representative statistics, I conducted the analyses both with and without applying sample person weights.

**Analytical Method**

OLS regression was used to predict the gender earning differential for nonprofits and for-profits. In addition, robust standard errors were calculated to adjust the clustering effect of occupation groups. This is because that variance is likely to vary across occupation groups and thus violates the homoscedasticity assumption of the OLS model. As a result, the OLS standard errors would have been biased. Fortunately, a reliable and empirical procedure has been created and widely used to address this issue. Standard errors based on this procedure are called (heteroscedasticity) robust standard errors (also called White-Huber standard errors). Even if the structure of the heteroscedasticity is unknown, robust standard errors are still efficient in correcting the OLS standard errors.

**Variables and Models**

$$\mathbf{Ln\ (earnings}_i\mathbf{)} = a + \beta_1 * \mathbf{X}_i + \beta_2 * \mathbf{female}_i + \beta_3 * \mathbf{nonprofit}_i + \beta_4 * \mathbf{female \times nonprofit}_i + \varepsilon_i$$

The dependent variable is the natural logarithm of total earnings in the previous year converted to 2010 real dollars using the consumer price index (Bureau of Labor Statistics, 2014). Because the data do not include an accurate number of weeks that the respondent worked in the last year (number of weeks worked was measured as a categorical variable) and only capture

usual hours worked per week, I chose to use annual earning, instead of calculated hourly wage, as a measure of pay. *X* is a vector of controls, including hours worked per week, weeks worked last year, estimated work experience, estimated work experience-squared, dummy variables for state, survey year, race, categorical education level, fields of college degree, and detailed industry and occupation codes. Estimated work experience was calculated by subtracting individuals' years of education and six years of pre-education from their age (i.e., age-12-6). Following the choice of most labor economists, marital status and number of children were not included as controls because they are likely to be endogenous with respect to women's labor force decisions (Blau & Kahn, 2016).

In the equation, coefficient $\beta_4$ is the estimate of interest (i.e., the gender pay gap of nonprofits minus that of for-profits), indicating the effect of nonprofit status on wage for women compared to men. If $\beta_4$ is positive, it means that the female wage penalty is smaller in nonprofits than in for-profits. $\beta_2$ denotes the female/male pay differential in the for-profit sector and $\beta_3$ is the nonprofit/for-profit pay differential for men (i.e., the pay of nonprofit men minus that of for-profit men). $\beta_3$ plus $\beta_4$ is the pay differential between nonprofit women and for-profit women.

## Findings

Because the results of weighted analysis are no different from those of the unweighted analysis, here I only present results of the unweighted analysis.

### Sample Description

#### Landscape of the U.S. human services.

The U.S. human services include 15 industries in which most nonprofit organizations operate. While nonprofits are major players in these industries, they only make up a tiny

percentage (about 3-4%) of the total workforce, which is comprised of roughly 300 industries in the economy, such as air transportation and food stores (author's estimate based on census data). This indicates that these 15 industries are the fields most relevant to the nonprofit sector. Activities performed by each individual human service industry are diverse, ranging from health and educational services to savings institutions and social services. Within the 15 industries, in total, nonprofit workers made up about 23% of the workforce, while the for-profit and government workers each comprised about 35% and self-employed workers occupied about 5% (See Table 4.2). From 1990 to 2010-2014, the share of human services in the entire economy had been rapidly growing, from 17% in 1990 to 19% in 2000 and 23% in 2010-2014 (see Table 4.1). This trend is consistent with a rising service economy. In general, the organizational composition of the human service industries had gone through rapid change over the 20 years, but the labor force composition of both the entire economy and the human service industries had been stable across different time points (see Table 4.3 and 4.4). As the analyses were on three points in time (i.e., 1990, 2000, 2010-2014), in the remainder of this section, a statement holds for all three time points if time is unspecified.

**Organizational and gender composition of the human service industries.**

In human services, the total number of for-profit workers had outnumbered nonprofit workers since 1990 and the gap had been widening (see Table 4.3). An overall trend was that the government had been rapidly withdrawing from human service fields, while for-profits continue to quickly enter them. The percentage of government workers had been decreasing sharply in most human service industries and for years 2010-2014, government workers only mad up the majority in colleges and universities, elementary and secondary schools, and museums, art galleries, and zoos. The government's withdrawal from the role of direct service provider is

consistent with the literature on privatization (Gibelman & Demone, 1998). The share of nonprofits had been relatively stable, with some industries growing, some shrinking, and some remaining stable. The percentage of for-profit workers was rapidly growing in most human service industries, including the biggest industries such as hospitals, nursing and personal care facilities, elementary and secondary schools, and colleges and universities; these industries, in total, made up about 72% of the human services economy.

The human service industries had a highly gendered workforce, with female workers dominating most of the industries (see Table 4.9). Specifically, women made up 70% or more of the labor force in eight industries. However, although gender composition varied across different human service industries, there was not much difference between nonprofit and for-profit organizations within each industry. This indicates that industry, rather than sector, was gendered. The nature of work sorts women and men into different human service fields, not organizational form. The overall pay levels also varied enormously across industries, with research, development, and testing services, as well as hospitals, paying much higher wages than day care services, and nursing and personal care facilities.

**Labor force characteristics of the entire economy (see Table 4.5).**

The average earnings were lower in nonprofits than in for-profits and males earned much more than females. On average, nonprofit women earned more than their for-profit counterparts while nonprofit men made less than their for-profit counterparts. Females made up about 45% of the for-profit labor force and about 65% of the nonprofit labor force. Nonprofit workers comprised about 9% of the entire economy in 1990 and 2000 and then the percentage grew to 12% in 2010-2014. On average, nonprofit workers (both women and men) worked slightly fewer hours per week than their for-profit counterparts and women worked significantly fewer hours

than men (about six hours less), both in the nonprofit and for-profit sectors. Compared to for-profit workers, more nonprofit workers – both women and men – worked part-time, and women were much more likely than men to work part-time, both in nonprofits and for-profits. In the meantime, nonprofit women were only slightly more likely than for-profit women to work part-time, while nonprofit men were much more likely to work part-time than their for-profit counterparts (26% vs 18% for years 2010-2014).

In general, nonprofit workers, both women and men, had significantly more years of experience than for-profit workers (24.7 years vs 21.8 years for years 2010-2014), and men had only slightly more experiences than women, both in nonprofits and for-profits. For years 2010-2014, nonprofit men even had slightly less work experience than nonprofit women. Nonprofit workers were much more educated than for-profit workers, with about 38% holding a bachelor's degree or above, compared to only 15% holding these degrees in for-profits in 1990. This pattern held for all three time points and for both men and women in the two sectors. Within each sector, men had slightly higher educational attainment than women. Overall, the nonprofit sector employed slightly more white people than the for-profit sector, and this sectoral difference in racial composition also held for women. The exception is that the racial composition of nonprofit men was roughly the same as that of the for-profit sector. This means that the nonprofit sector employed fewer minorities than the for-profit sector.

To sum up, nonprofit women were similar to for-profit women in terms of percentage of part-time workers and hours worked per week. However, nonprofit men were much more likely to work part-time and worked fewer hours than for-profit men. Both nonprofit women and men had much more work experiences and higher educational attainment than their for-profit counterparts. Within each sector, females worked less hours and they were much more likely to

work part-time than men, while they had roughly the same level of work experience as men. The gender educational gap in the nonprofit sector had been larger than in the for-profit sector with men attaining much higher levels of education, but the gap was largely closed in the nonprofit sector from 2010-2014. These characteristics of nonprofit and for-profit labor forces are consistent with estimates using the same or other datasets and for other time periods (Preston, 1989; Mirvis, 1992; Ruhm & Borkoski, 2003; Leete, 2006).

**Labor force characteristics of the human service industries (see Table 4.6).**

In contrast to the case of the entire economy in which nonprofit workers have lower average pay than for-profit workers, in human services, on average, both nonprofit women and men earned more than their for-profit counterparts. Unlike the economy-wide labor force characteristic differences between the two sectors, the gender and sectoral differences in workforce were much smaller in the human service industries. Within the human services, nonprofit workers (both women and men) were similar to for-profit workers in many aspects. For example, for years 2010-2014, the gender composition of the nonprofit and for-profit human service workforce was alike, with an overrepresentation of women in both sectors (72% in nonprofits vs 76% in for-profits). Nonprofit human service women and men worked almost the same number of hours as their for-profit counterparts, with nonprofit workers working slightly more hours. And this pattern held for all three time points. The nonprofit/for-profit educational gap also was reduced, with 18% point less for-profit human service workers holding a bachelor's and above degree than that of nonprofit human service workers, compared to a 22% point less difference in the entire economy. Furthermore, the within-sector gender differences of human service workers were also similar between the two sectors. These gender differences included men holding fewer part-time positions and reaching higher levels of educational attainment, and

women having slightly more work experiences. These similarities indicate that the nonprofit/for-profit comparison of the gender pay gap is more appropriate in human services than in the entire economy.

It is interesting to note that there were also some slight differences between nonprofit and for-profit human service workers. In general, a higher percentage of for-profit workers, both women and men, worked part-time, indicating that for-profit human services had more informal work arrangements. Nonprofit workers, both women and men, had more work experiences and were more educated than for-profit workers. Specifically, about 20% more nonprofit than for-profit employees held at least a college degree. In other words, the overall qualifications of nonprofit human service workers were higher than that of the for-profits. With respect to racial composition, the nonprofit human services employed more white workers than for-profits, about 7-11% across the three time points; this pattern held for both women and men. Lastly, as pointed out earlier, for-profit human services had a even more gendered workforce, with 76% workers were female compared to 72% in nonprofits.

**Regression Results**

As a reminder, the regression results presented here are for full-time nonprofit and for-profit workers who are 21 to 65 years old. Sensitivity analyses without restriction on age and full-time status produced similar results with the same pattern. In the remainder of this section, I will report three groups of results from the regression analyses for each of the three samples stated in the method section. The three samples are: 1) the entire economy sample; 2) the human service aggregate sample; and 3) each of the 15 human service industries. The three groups of results are: 1) the gender pay gap; 2) the nonprofit/for-profit pay differential for women and

men; and 3) The nonprofit/for-profit difference in gender pay gap. Results of 3) directly speaks to the nonprofit/for-profit difference in the gender pay gap and are the primary interest of this study. But because results of 1) and 2) set the background for understanding the results of 3), I will first present them and then move to the third group of results.

**The persistent gender pay disparity.**

In the wage equation specified above, $\beta_2$, coefficient of *female* represents the female/male pay differential for for-profit workers; $\beta_2$ plus $\beta_4$, coefficient of *nonprofit* female* represents the female/male pay gap for nonprofit workers. Because the dependent variable is in natural logarithm format, all coefficients represent percentage difference in pay rather than dollar difference. For example, if $\beta_2$ is -0.17, it means that, on average, women were paid 17% less than equally qualified men in the for-profit sector.

Results for analyses on all three samples (i.e., the model on the entire economy, the human service industry aggregate, and each of the 15 human service industries) show that women still received much lower pay than men with comparable qualifications at any time point over the past two decades (see Table 4.7 and 4.8). There was still considerable gender pay disparity in the U.S. labor market including human services, even though the gap had been fast closing across all industries and for both nonprofit and for-profit sectors over the understudied two decades. This trend is consistent with what has been found in the economic and sociological literature (Blau & Kahn, 2016). Economists and sociologists (Budig & England, 2001) have pointed out some major factors that contribute to this persistent gender pay disparity, including continued occupational segregation; a motherhood penalty, such as the negative impact of career disruption on salary and promotion; and persistent gender discrimination, both overt and covert, in the workplace. Human service workers are not immune to this gender-based structural

inequality and the negative pay gap between equally qualified women and men existed in every individual human service industry for every point in time covered by this study. Specifically, in human services from 2010-2014, on average, women still were paid 14% lower than their male counterparts in the for-profit sector and 12% less in the nonprofit sector (See Table 4.7). At the same time, the smallest gender pay gap was 6% in nonprofit social services and residential care organizations, and the largest gap was 20.8% in for-profit lodging facilities, except hotels and motels.

**The nonprofit/for-profit pay differential.**

$\beta_3$, coefficient of *nonprofit* speaks to the nonprofit/for-profit pay differential for men; if it is negative, it means that nonprofit men were paid less than comparable for-profit men. $\beta_3$ plus $\beta_4$, coefficient of *nonprofit* female* speaks to the nonprofit/for-profit pay gap for women; if it is negative, it shows that nonprofit women were paid less than equally qualified for-profit women. The remainder of this section presents findings regarding this issue for the three samples, respectively.

First, as shown in Table 4.7, economy-wide, on average, nonprofit male full-time workers earned about 9% less than their for-profit counterparts and this negative nonprofit/ for-profit pay differential had been decreasing over the two decades. From 2010-2014, the differential was reduced to 6%. Nevertheless, nonprofit full-time women received a wage premium and earned about 1% higher than their for-profit counterparts. This result is consistent with the estimate of Preston and Sacks (2010), which – like this study – controlled detailed industry groups and analyzed the nonprofit/for-profit pay differential separately for women and men. The result was slightly different from the findings of other previous studies (Mirvis & Hackett, 1983; Preston, 1985, 1990; Ruhm & Borkoski, 2003) in that, economy-wide, both

women and men experienced a wage penalty for working in the nonprofit sector. One possible explanation of this inconsistency is that these studies used varying datasets and included different sets of occupation and industry controls in their wage equation. Also noteworthy, sensitivity analyses of this study that did not restrict the sample for age and full-time status also showed that, economy-wide, nonprofit women were paid from about 0.2% (for years 2010-2014) to 0.5% lower (for year 1990) than their for-profit counterparts. In sum, the economy-wide analysis of this study indicates that, for full-time workers aged 21-65, the negative effect of labor donation (i.e., nonprofit workers accept lower pay for doing the work with greater social values) and occupational locus (i.e., the lower pay level in nonprofits is in part due to the concentration of low-paying female-dominated occupations in the sector) on pay, as illustrated in the theory section, seems to only exist for men.

Second, as predicted by the labor market competition hypothesis, the analysis of the 15 human service industries' aggregate data shows that the nonprofit/for-profit pay differential was much diminished compared to the economy-wide results. Specifically, for all three points in time, there was no significant difference between the pay level of nonprofit and for-profit male human service workers, and there was a positive pay differential for nonprofit female workers. This finding disputes the long-standing myth that nonprofits pay their workers less than for-profits and substantiates the necessity for industry-specific analysis focusing on industries that are most relevant to the nonprofit sector. Because the vast majority of nonprofit organizations concentrate in the 15 human service industries, economy-wide analyses that included all industries inevitably created a misleading picture for sectoral pay comparison. In other words, the economy-wide analyses were comparing the pay level of nonprofit human service workers to typical business workers that perform very different kinds of work.

Third, consistent with previous studies that focused on one specific industry (Preston, 1988; Leete, 2006), this study's industry-specific analysis shows large variation across different human service industries. As shown in Table 4.8, in hospitals, the largest industry that employed about 34% of human service workers, nonprofit full-time workers (both female and male) were paid significantly higher— about 3% to 7% more across different time periods – than their for-profit counterparts. In colleges and universities, another sizable industry, which employed about 11% of human service workers, nonprofit full-time workers also earned higher – about 3% to 6% more – than comparable for-profit workers at all three time points. In nursing and personal care facilities, elementary and secondary schools, child day care, and museums, art galleries, and zoos for years 1990, 2000, and 2010-2014, there was no statistically significantly pay differential from their for-profit counterparts for either nonprofit women or nonprofit men. These four industries employed about 32.2% of human service workers.

However, in educational services, research, development, and testing services; and miscellaneous professional and related services, for all three time points, both nonprofit women and men were paid much less – about 8% to 20% less – than their for-profit counterparts. This result indicates the existence of labor donation and its resulting wage penalty for nonprofit workers even within some of the individual human service industries. All three industries were high-paying and highly commercial and were disproportionately dominated by for-profit and self-employed service providers. Therefore, it is likely that nonprofits and for-profits were providing different kinds of services and attracted different types of workers in these industries. Notably, these three industries are relatively small in scale, employing about 5.4% of human service workers in total.

For the rest of the human service industries, the pay patterns for women and men are not consistent across different time points. But in general, in these industries, non-profit women were paid either equal to or higher than for-profit women, while nonprofit men were paid either equal to or lower than for-profit men. There was only an overall negative nonprofit/for-profit pay differential for male human service workers. In other words, unlike the finding in an economy-wide analysis (Preston & Sacks, 2010) that women paid less of a wage penalty than men for working in nonprofits, the industry-specific results of this study show that, except for the three commercial (and also small-scale) industries: first, female human service workers did not experience wage loss for working in nonprofits and, in fact, they earned higher pay than their for-profit counterparts; second, only nonprofit men in some human service industries paid a wage penalty. To summarize, except for three industries, the nonprofit pay penalty, or nonprofit pay compression, found in an economy-wide analysis did not exist in human service industries for the understudied two decades (i.e., 1990 to 2014). In fact, there was an overall nonprofit pay premium due to the female-dominated nature of the U.S. human service workforce (about 73% of workers are female), the higher pay received by nonprofit women in most human service industries, and the significantly higher pay level of nonprofit workers in the two largest industries, hospitals and colleges and universities.

Lastly, sensitivity analysis of racial minority (i.e., non-white) workers (see Table 4.12) shows that in 1990 and 2000, for-profit human service workers were paid almost the same as their nonprofit counterparts (for-profit women were paid a little less); but from 2010-2014, in the five largest human service industries (i.e., hospitals, colleges and universities, health services, nursing and personal care facilities, and elementary and secondary schools), for-profit non-white workers – both women and men – were paid significantly less – about 4% to 8% less – than their

nonprofit counterparts. Because the restriction on minority workers considerably reduced the sample size, the analysis was not able to produce significant results for industries in smaller sizes.

**The nonprofit/for-profit sectoral difference in gender pay gap.**

This section directly speaks to the question: Is the U.S. nonprofit sector more gender equitable than the for-profit sector? Or, does the U.S. nonprofit sector have a smaller gender pay gap than the for-profit sector? $\beta_4$, coefficient of *nonprofit* female* directly answers this question. It represents the nonprofit/for-profit difference in the gender pay gap. If $\beta_4$ is positive, it means that the gender pay gap is smaller in the nonprofits than in the for-profits, vice versa. As in other sections, the economy-wide, human service aggregate, and individual human service industries results will be presented, respectively, for years 1990, 2000, and 2010-2014.

First, economy-wide, the gender pay gap was significantly smaller in the nonprofit than in the for-profit sector: the nonprofit/for-profit sectoral difference in gender pay gap was 9.3% in 1990 and decreased to 6.3% for 2010-2014. This is consistent with the findings of previous studies. The intrinsic motivation hypothesis, therefore, is supported: in general, nonprofits provide distinct kinds of output and rely on different types of workers, so they tend to adopt a more equal compensation structure. The resource dependency and institutional argument might also hold: because a larger proportion of nonprofits' revenue comes from the state, nonprofit organizations face greater institutional pressure to ensure gender equality in their human service practices. The decrease in sectoral difference in gender pay gap over time is likely due to the rapid narrowing of the gender pay gap in the entire economy resulting from the rapid increase in women's educational attainment and labor market participation rate.

Second, the sectoral difference in the gender pay gap was much diminished in the human service industries, compared to the economy-wide results. The nonprofit/for-profit sectoral difference in the gender pay gap for full-time human service workers was only about 1% in 1990 and was further reduced to 0.7% for years 2010-2014. Therefore, the labor market competition hypothesis is supported: for industries in which both nonprofits and for-profits are actively engaged, provide comparable outputs, and compete for workers with similar skills, the labor demand pressure equalizes the overall pay level and wage dispersion for both sectors. Descriptive statistics do show that the occupation mix and gender composition are similar between the two sectors within human services. Another factor might be that with the privatization of human services, both nonprofit and for-profit human service providers were heavily funded by the state in the past two decades. Therefore, both sectors were under institutional pressure to eliminate gender discrimination.

Third, when drilling down to the 15 individual human service industries (see Table 4.8), the sectoral difference in gender pay gap varied across industries and the difference changed significantly over time in some industries. In years 1990 and 2000, the nonprofit/for-profit sectoral difference in gender pay gap was either zero (i.e., no statistically significant difference) or positive in all 15 human service industries. This means that in general, nonprofits have greater or equal gender pay equity than for-profits in all human service industries. To be more specific, the difference was insignificant in ten industries for 1990 and in nine industries for 2000, indicating that there was no sectoral difference in gender pay gap in the majority of human service industries for these two points in time. In the rest industries, for years 1990 and 2000, the gender pay gap was statistically significantly smaller in the nonprofits than in the for-profits. Yet it is noteworthy that in years 2010-2014, as the positive nonprofit/for-profit pay differential

continued to increase for nonprofit workers in hospitals and colleges and universities, the sectoral difference in gender pay gap in these two industries became negative, meaning that nonprofits became less gender equitable than for-profits. This is consistent with the finding of King and Lewis's (2017) analysis of U.S. nurses using ACS 2005-2013 combined data. The good news is that the negative difference is very small (with 2% in hospitals and 2.4% in colleges and universities) and nonprofit women still earned about 4% - 5% more than their for-profit counterparts in these two industries.

Together, these results show that the conventional finding that nonprofits have greater pay equity than for-profits is both true and untrue. First, in most human service industries, the nonprofit sector had the same level of gender pay equity as the for-profit sector, meaning that nonprofits were not more gender equal than for-profits for the past two decades. This result shows that when operating within the same field facing similar institutional pressures, the behavioral effect of organizational form is greatly limited or negligible. Second, in the rest of human service industries, in general, nonprofits did have greater gender pay equity. This clearly indicates that nonprofits tend to adopt a more equal compensation structure even when operating in the same field as for-profits. This represents an effect of organizational form that prescribes different behaviors for nonprofit and for-profit organizations even within the same industry.

One possible explanation of this positive effect of nonprofit form on gender pay equity is that, even within the same service industry, it is unlikely that nonprofit organizations provide services identical to for-profit organizations. As different corporate identities, nonprofits and for-profits face different legal treatment, requirements, and social expectations. For example, nonprofit organizations are eligible for tax exemptions, and founders, directors, members, and employees are free from personal liability for the nonprofit's debts. Furthermore, an

organization's nonprofit status indicates a commitment to its mission and public benefit rather than profit maximization. Nonprofits often are expected to dedicate a proportion of their services to clients with limited ability to pay, while for-profit organizations do not have this obligation. Therefore, even within the same industry, the ultimate purposes, working conditions, quality of service, and composition of clientele can be different between the nonprofit and for-profit organizations (Hansman, 1980; Leete, 2001). This difference suggests that the intrinsic motivation consideration still applies to nonprofit organizations even within individual human service industries in which nonprofits and for-profits provide very similar output and compete for labor. In other words, competition is unlikely to completely eradicate the effect of organizational form. Therefore, many nonprofit organizations would still prefer intrinsic motivation strategy and intentionally adopt a more equal pay structure.

Lastly, as predicted by hypothesis 4, both the gender pay gap in the nonprofit and for-profit sectors and the sectoral difference in gender pay gap were relatively smaller in industries with greater wage transparency (i.e., industries with over 15% of workers covered by collective bargaining agreements). These industries are: elementary and secondary schools; colleges and universities; hospitals; and social services (see Table 4.10). But this pattern only holds for year 1990. Specifically, in 1990, while most other industries had over 22% negative female/male pay differential, the gender pay gap in these industries ranged from about 17% in hospitals and college and universities to 21% in elementary and secondary schools. Also, all the four industries had no significant nonprofit/for-profit sectoral difference in both overall pay level and gender pay gap (See table 4.8). Nevertheless, this difference in pay dispersion between industries with high levels of unionization and those with low levels was not significant anymore for years 2000 and 2010-2014 (See Table 4.11). This decreasing effect might reflect the decline of unions'

power together with the universal closing of the gender pay gap in the U.S. over the past decades.

## Discussion

To communicate with the literature and better understand the results, here I would like to further discuss what explains one of the findings of this study: the greater gender pay equity of the nonprofit sector found in some human service industries. Based on economy-wide analyses, Preston and Sacks (2010) and Faulk et al. (2013) argued that this relatively smaller gender pay pap in the nonprofit sector seemed to be a result of men receiving lower pay in nonprofits than in for-profits. Specifically, as stated by Faulk et al. (2013), "[i]nstead of intentionally compensating women more equitably in the nonprofit sector, relative gender pay equality appears to be a convenient consequence of men accepting lower pay in traditionally nonprofit and female jobs" (p. 14)." This formed a men's wage loss argument. However, results of my industry-specific analyses challenge the applicability of this argument in human services that house the majority of the U.S. nonprofit organizations.

First, the conclusion that nonprofit men were paid less than for-profit men is inaccurate. This study finds that nonprofit status was not necessarily associated with lower pay for men. Analysis of the 15 human service industries' pooled data shows that, on average, there was no significant difference between the pay of nonprofit and for-profit male human service workers, but nonprofits had greater gender pay equity than for-profits. Furthermore, analysis on individual human service industries reveals that: nonprofit men received lower pay in some human service industries but not in others. Nonprofit men were paid more or equal to comparable for-profit men

in several industries such as hospitals, colleges and universities, and nursing and personal care facilities (see Table 4.9).

Second, although in most of the industries in which nonprofits had a smaller gender pay gap, the nonprofit/for-profit pay differences for men were negative, there were quite a few exceptions. For example, there were also industries in which nonprofit men received higher (in hospitals and colleges and universities) or equal pay (e.g., elementary and secondary schools) compared to their for-profit counterparts, but the level of gender pay disparity between the two sectors was the same (see Table 4.9). And the men's wage loss argument cannot explain the case in which nonprofits had greater gender pay equity while nonprofit men were paid the same as for-profit men. In fact, except for year 2010-2014 for hospitals and colleges and universities, the gender pay gap in nonprofits is either smaller than or the same with that of nonprofits across all human service industries, regardless of nonprofit men receiving higher, equal, or lower pay than their for-profit counterparts.

Third, Faulk et al. (2013) argued that the greater gender pay equity in the nonprofit sector was a convenience result of nonprofit pay compression, meaning that both women and men were paid less in nonprofits, so there was less room for wage dispersion. However, the results of the present study show that, in most of the human service industries in which nonprofits did have greater pay equity – such as savings institutions, including credit unions – women enjoyed absolute, rather than relative, pay benefits for working in nonprofits: nonprofit women received higher, not less, pay than their for-profit counterparts (see Table 4.9). In fact, except for the three commercial industries, health services for only year 1990, and job training and vocational rehabilitation services for only year 2000, nonprofit women were all paid higher than their for-

profit counterparts within the same industry. Therefore, the men's wage loss argument cannot fully explain the greater gender pay equity in the nonprofit human service organizations.

Fourth, the female domination of the nonprofit workforce cannot explain the nonprofit/for-profit difference in gender pay gap in the nonprofit-relevant industries. In human services, it is the industry (rather than the sector) that is gendered. Within human services, the percentage of female workers in a specific industry was almost the same for nonprofits and for-profits over the past two decades. Therefore, for-profit male human service workers were also employed in traditionally nonprofit and female jobs. In this case, the overall greater gender pay equity in nonprofits for some human service industries cannot be explained by the female domination and nonprofit prevalence of the industry as argued by Faulk et al. (2013).

Fifth, the overall pay level for women and men in a specific human service industry seemed to be primarily driven by other factors including level of unionization and labor supply and demand rather than nonprofit prevalence and female domination of the industry. For example, women made up about 78% of the workforce of three high-paying human service industries – hospitals; savings institutions, including credit unions; and health services (see Table 4.9). Four medium-paying human service industries, including elementary and secondary schools and social services, were also dominated by female workers. In addition, the overall pay level of nonprofits compared to for-profits in a specific human service industry also seemed to be primarily determined by factors including the existence of information asymmetry and clientele's ability to pay rather than nonprofit prevalence and female domination of the industry. For example, for-profit hospital workers significantly outnumbered nonprofit hospital workers over the past two decades, but both women and men working in nonprofit hospitals earned 4% to 6% higher than their for-profit counterparts. The industry of colleges and universities was dominated

by public schools from 1990 through 2010-2014, but nonprofit women and men also received higher pay than their for-profit counterparts.

In sum, it is true that the nonprofit pay penalty experienced by men in about half of the human service industries did contribute to the greater gender pay equity in the nonprofit sector, as argued by Preston and Sacks (2010) and Faulk et al. (2013). However, this study shows that the nonprofit organizational status does play a role in the overall smaller gender pay gap as revealed by the current and previous studies. Even within human service industries in which nonprofits and for-profits operate in the same institutional environment, produce similar output, and compete for workers with similar skills, nonprofit organizational form still makes a difference in organizations' behaviors. One representation of this effect is that nonprofits tend to adopt a more equal compensation structure than for-profits even though this behavioral effect seems to be greatly limited and even negligible in many human service industries. The direct result of this more equal pay structure is that, in many human service industries, nonprofit human service women received higher or equal pay compared to their for-profit counterparts while nonprofit human service men were paid significantly lower than comparable for-profit men. The labor donation seems to only exist for nonprofit human service men. One possible explanation is that nonprofit human service men are intrinsically different from for-profit human service men. Future research can further explore factors explaining this overall negative pay differential for male nonprofit human service workers.

## Limitations

There are several limitations of the study. First, the data used in this study was self-reported, which inevitably introduced errors to workers' earnings, work hours, sector of

employment, and many other pay determinants. Therefore, the results are less accurate than what would have been generated by administrative data. Second, the analyses did not segregate occupational levels such as managerial and frontline positions; therefore, the study cannot speak to how the effect of factors that influence sectoral difference in the gender pay gap might differ for workers at different occupational levels. Third, research has shown that employer-related factors, such as the size and financial capacity of a firm, are also key determinants of workers' wages, but the data that this study used, the U.S. Census and American Community Survey (ACS), only contains individual-level data of the worker. Without employer-side information, the study omitted important predictor variables (e.g., organization size, union status) and, therefore, was not able to disaggregate the effect of the organizational factors from the effect of individual human capital characteristics. The data also lacks detailed region information such as if a worker worked in a metropolitan area. These omitted variables might confound the results shown in this empirical study. Fourth, because the data does not contain information on organizations' revenue mix, the study cannot directly test how level of state funding affects the gender pay gap of a certain sector or industry. Fifth, it is possible that the nonmonetary compensation (e.g., health insurance, pension) that nonprofit employers provide to their workers are different from those provided by for-profit employers. The data used by this study does not include information on nonmonetary compensation, so it cannot capture the difference in this kind of compensation and its influence on worker pay as well as gender pay gap. Sixth, people self-select into the nonprofit and for-profit sectors. As the U.S. Census and ACS data are cross-sectional, the analysis is subject to the selection bias issue. Seventh, the study only provides a descriptive difference of gender pay equity in the nonprofit and for-profit sectors. Due to a lack of information on other pay determinants, such as the intrinsic value of a job, detailed job

characteristics, and level of industry competition (Leete, 2000), it cannot explain the exact causes of an inter-sectoral difference or lack of difference in a specific industry. Future studies can extend the literature by adding explanatory information that was missed in the current study.

# Chapter 5: Are Women's and Men's Pay Increase Trajectories Different in Nonprofit and For-Profit Human Service Organizations?

## Introduction

This empirical paper answers the following question: Is there a difference in women's and men's pay increase trajectories between nonprofit (NP) and for-profit (FP) human service organizations? Despite the broadly-cited claim that the nonprofit sector provides better career opportunities for women based on several studies (e.g., Preston, 1990), no known empirical study has examined women's and men's pay increase trajectories in the two sectors. Most importantly, few studies have examined the issue of nonprofit/for-profit difference in pay within human services, specifically. As shown in Chapter 4 of this dissertation, economy-wide comparison of the two sectors is misleading and unable to capture the difference in the nonprofit-relevant industries (i.e., human services as defined in Chapter 4). This chapter thus compares the pay increase trajectories of the nonprofit and for-profit sectors within human services.

## Method

### Data

Survey of Income and Program Participation (SIPP) 2008 Public Use Panel data from the U.S. Census Bureau was used to answer this question. The SIPP survey design is a continuous series of national panels, with sample sizes ranging from approximately 14,000 to 52,000 interviewed households. The 2008 panel contains 16 waves of data for five years from 2008 through 2013 and has a large sample size of nonprofit workers. Specifically, respondents were surveyed every four months beginning in December 2008 until December 2013. SIPP's labor

force section collects rich information about an individual's work history from the beginning of the reference year through the interview months. Specifically, the data contains individual workers' weeks of employment, the number of hours worked per week, and amount and type(s) of earnings. It also collects business characteristics of the respondent's job and employer, including industry, occupation, union status, number of employees, and incorporation status. In addition to the advantage of being longitudinal, another advantage of SIPP data over the cross-sectional data used previously is that it contains employer characteristics. These are also key determinants of a worker's salary and pay increase potential.

This study used the wave 1 and wave 13 data of SIPP 2008 panel, which covers a four-year time span. There are three reasons for choosing these two time points: 1) The attrition rate after wave 13 was too high (over 60%), while 64% of the wave 1 respondents remained in the panel through wave 13; 2) From wave 1 to wave 13, the panel lasted for four years, which is a sufficiently long period of time to track workers' pay increase trajectories; 3) Focusing on two points in time simplifies the analysis, so it does not need to account for change in employment status or sector of employment within the time span. Nevertheless, given that most American workers stay in their jobs for a long period of time (Borjas, 2009), two time points should be able to capture most people's job changes and should not introduce much error. The study restricted the sample to human service workers who worked in the nonprofit and for-profit sectors and were employed for all weeks in the reference month. The definition of human service is consistent with that of Chapter 4, which includes industries with at least 10% nonprofit workers and 10% for-profit workers. Because SIPP used slightly different industry codes than the Census, the industries included in this paper's analysis are slightly different from those in Chapter 4.

The sample includes four groups of workers: 1) NP Stayers, who were employed in the nonprofit sector in both wave 1 and 13 (the sample size of this group is 752); 2) FP Stayers, who were employed in the for-profit sector in both wave 1 and 13 (sample size: 1,434); 3) NP-FP Movers, who were employed in nonprofits in wave 1 but were employed in for-profits in wave 13 (sample size: 317); 4) FP-NP Movers, who moved from for-profits in wave 1 to nonprofits in wave 13 (sample size: 148). Longitudinal weights were used to account for the effect of attrition on the results. Because the Census Bureau had edited and imputed the Public Use data, missing data is not an issue, so the data was not re-imputed for this analysis.

**Analytical Method**

Because the Movers and the Stayers are inherently different from each other, the study analyzed the Stayer group and the Mover group separately. First, for the NP and FP Stayers, Ordinary Least Squares regression with robust standard errors was used to examine the difference of workers' last-point hourly wage controlling the start-point wage and other baseline characteristics. Baseline individual characteristics that were controlled included full-time status, hours worked per week, occupation, industry, and education level, as well as employer-side pay determinants such as union status, size of employer, and if employer provided health insurance. The study controlled the start-point worker characteristics rather than that of the last point because changes in work characteristics during the time span are also influenced by the sector of employment. By controlling the start-point characteristics, the analysis captures the impacts of sector of employment on these changes. For example, workers in one sector might be more likely to work part-time than in the other sector. Workers in different sectors also have different possibilities to advance to managerial positions, which are captured by the occupation variable in the data. Second, the study compared the baseline characteristics and four-year wage changes of

the four groups: NP Stayers, FP Stayers, NP-FP Movers, and FP-NP Movers. This is to examine if there is selection between the Stayer and Mover groups and how the selection functions. The study did not use the Linear Fixed Effect model to examine the wage changes of the Mover group because the sample size is too small.

Specifically, the OLS regression used the below model specification:

$$\textbf{Ln (wage}_{ij-13}\textbf{)} = \alpha + \beta_1 * X_{ij-1} + \beta_2 * \textbf{female}_i + \beta_3 * \textbf{nonprofit}_i + \beta_4 * \textbf{female} \times \textbf{nonprofit}_i + \beta_5 * \textbf{Ln (wage}_{ij-1}\textbf{)} + \varepsilon_i$$

Ln (wage $_{ij-13}$) is the natural logarithm of a worker's hourly wage at wave 13 (i.e., year four), and Ln (salary $_{ij-1}$) is the logarithm of his or her wage at wave 1 (i.e., year one). Hourly wage was calculated as monthly wage earning of the job divided by weeks worked and usual hours worked per week on this job. Coefficient $\beta_4$ is the coefficient of interest. It measures if the four-year wage change differs between female NP Stayers and female FP Stayers. $X_{ij-1}$ is a vector of controls of baseline characteristics, including a dummy for part-time work status (defined as worked less than 35 hours a week) and if the worker had employer-provided health insurance, hours worked per week, estimated years of experience, estimated years of experience squared, and dummies for race, categorical education level, size of the organization (measured by the number of employees), union status, detailed occupation codes, and detailed industry codes.

## Findings

There are only negligible differences between the results of weighted analysis and those of unweighted analysis: the pattern generated by both analyses are the same. Therefore, only results of the unweighted analysis are presented here (results of the weighted analysis are also presented in the Appendix; see Table 5.5). As a reminder, the results presented in this chapter are all for human service workers.

**Worker Characteristics of the Stayers**

As shown in Table 5.1, the overall worker characteristics of human service workers, as well as the nonprofit/for-profit difference in worker characteristics shown by the SIPP data are consistent with the results of Chapter 4 using the Census and the ACS data. Thus, here I will not repeat the results that were presented in Chapter 4 and only present the information added by the SIPP data. The descriptive analysis (see Table 5.2) of the Stayers shows that 88% of NP Stayers had employer-provided health insurance, while only 77% of FP Stayers were provided this benefit. But there is no gender difference in insurance coverage within the nonprofit and for-profit human service organizations. Because only 19% of NP Stayer were part-time, this means that a proportion of part-time NP Stayers also were provided with health insurance. A higher percentage of nonprofit human service workers were employed in larger organizations with over 100 employees (63% for nonprofits vs. 51% for for-profits). This means that nonprofit human service organizations tended to be larger than their for-profit counterparts. About 8% of human service workers of this sample were union members and there is no statistically significant difference in union status between nonprofit and for-profit workers.

Thirteen percent of nonprofit human service workers were in managerial positions while only 9% of for-profit human service workers were in these kinds of positions. This indicates that nonprofit human service organizations had a flatter organizational structure with more

employees with a title of "manager". With respect to gender difference, in nonprofit human service organizations, 11% of female workers were managers, while 20% of male workers were managers; in for-profit human service organizations, 7% of female workers were managers, while 14% of male workers were managers. Given that only 24% of nonprofit and for-profit workers were male, the results show that men were much more likely to work in managerial positions than women in both sectors. Females made up about 63% of nonprofit human service managers, compared to 61% at for-profits. Interestingly, 58% of nonprofit chief executives were female, while only 25% of for-profit chief executives were female. This suggests that nonprofit women had a slightly higher chance to work in managerial positions than for-profit women, but they had a significantly better chance to advance to the executive level than their for-profit counterparts.

The average start-point wage of NP Stayers was 29.97 dollars, compared to 24.12 of FP Stayers. Specifically, the average start-point wage of nonprofit men was 39.79; that of nonprofit women was 26.82; that of for-profit men was 33.2; and that of for-profit women was 21.25. The higher wage of nonprofit human service workers is likely due to their higher educational attainment and greater number of years of experience. For full-time workers, the average four-year difference in hourly wage of NP Stayers was 2.98 dollars, compared to 1.24 of FP Stayers. The average percentage of four-year difference in hourly wage of NP Stayers was 22%, compared to 19% of FP Stayers. This means that, on average, nonprofit workers received a greater degree of wage increase than for-profit workers. Within the NP Stayers, women's wages increased about 22% while men's wages increased about 21%. For FP Stayers, women's wages increased only about 15%, but men's wages increased about 28%. This shows that, on average,

the gender gap in wage increase was smaller in nonprofit than in for-profit human service organizations.

## Worker Characteristics of the Movers

### NP-FP Movers.

To examine the possible selection in the moving behaviors of a proportion of human service workers, this section summarizes the baseline characteristics and wage changes of workers who moved between the nonprofit and for-profit sectors (see Table 5.3).

Compared to those who stayed in the nonprofit sector, NP-FP Movers were younger, had lower levels of educational attainment and less work experience. The average age of the Movers was about 39 years old, while that of the Stayers was 45 years old. Fifty-two percent of the NP Stayers held a bachelor's degree or higher, while only 43% of the workers who moved to for-profits had the same level of education. On average, NP Stayers had about 25 years of work experience, while the Movers had about 19 years of experience. In addition, the NP-FP Movers tended to be male, racial minorities, part-time workers, and a little less likely than the Stayers to work in organizations with over 100 employees. Specifically, 24% of the Movers were racial minorities, while only 17% of the NP Stayers were minorities. Twenty-eight percent of the Movers were men, compared to 24% of the Stayers. Twenty-five percent of the Movers worked part-time, compared to 19% of the Stayers. Sixty-three percent of the Stayers and 60% of the Movers worked in organizations with over 100 employees at the baseline. Eighty-eight percent of the Stayers had employer-provided health insurance, while 80% of the Movers had this benefit. The Stayers were 1% point more likely to be union members than the Movers. The average start-point wage of NP-FP Movers was 23.3 dollars, which is significantly less than that of the NP Stayers (29.97). This pattern held for both women and men. Lastly, the Movers tended

to be non-managerial workers (9% vs. 13% of the Stayers). In sum, NP-FP Movers tended to be male, racial minorities, and part-time workers working in smaller organizations and non-managerial positions, and they tended to be less qualified and have lower levels of compensation.

Also noteworthy, the Mover-Stayer ratio of nonprofits is 317: 752, while that of for-profits is 148: 1434. The results indicate that although the nonprofit sector had a higher rate of worker loss, most of the turnover occurred in the lower levels of the organizations and affected workers with fewer qualifications. This is consistent with a survey on nonprofit leadership retention (Salamon, 2012), which showed that despite a high proportion of nonprofit managers reporting that they planned to leave their jobs in the next few years, most of them planned to move to another job within the nonprofit sector. We can say that the nonprofit human service organizations had a high turnover at lower levels of the organizations, but had less of a problem with staff retention at higher occupational levels.

**FP-NP Movers.**

The profile of for-profit workers that moved to the nonprofit sector differs sharply. Compared to people who stayed in the for-profit sector, FP-NP Movers had a higher baseline wage, a slightly higher level of educational attainment, and they tended to be employed in larger organizations and managerial positions. Specifically, the average baseline wage of the Movers was 24.76 dollars, compared to 24.12 for the Stayers. Thirty-six percent of the Movers had a bachelor's degree or higher, while 34% of the Stayers had the same level of educational attainment. Sixty-two percent of the Movers, compared to 51% of the Stayers, were employed in organizations with over 100 employees. Fourteen percent of the Movers were in managerial positions, while only 9% of the Stayers were at that occupational level. Although women were a little more likely to be Movers than men, male Movers had significantly higher baseline wages

(41.78) than the male Stayers (33.2), while the female Movers had lower baseline wages (20.07) than the female Stayers (21.25). On the other hand, there was little difference in age, work experience, or racial composition between the Movers and the Stayers. In addition, the Movers were slightly more likely to be union members and slightly less likely to have employer-provided health insurance. In sum, the FP-NP Movers tended to be those who were better off in the for-profit sector with higher wages, higher educational attainment, and higher occupational levels at larger organizations.

The high proportion of male managers in the FP-NP Movers group indicates a need for their skills in the nonprofit sector. This is understandable in the neoliberal era of managerialism: with the growing commercialization and professionalization of the nonprofit sector, for-profit management experience is increasingly valued. This trend, therefore, opens opportunities for for-profit managers to work in the nonprofit sector. This finding is consistent with a growing proportion of nonprofit top managers with business degrees. Future research should examine if the for-profit human services pay lower-level employees better than nonprofits, and if nonprofits pay better for managerial positions. In addition, the sharp difference in mover to stayer ratio between nonprofits (317: 752) and for-profits (148: 1434) may also indicate that it is easier for nonprofit workers to move to for-profit human service organizations, but it is more difficult for for-profit workers to enter nonprofit organizations. Two potential causes may have contributed to this difference: 1) for-profit human service providers are the newcomers to the industries and nonprofits are more experienced in human service provision, therefore, nonprofit workers' experience and skills are valued by for-profits; 2) nonprofit human service organizations emphasize intrinsic motivation, so they are less likely to welcome for-profit frontline workers,

because the latter are less likely to have a track record proving their commitment to public service.

**Wage changes of the four groups (see Table 5.4).**

Comparing the wage levels of the four groups, the average baseline wage was the lowest for NP-FP Movers, the highest for NP Stayers, and in the middle for FP-NP Movers and FP Stayers. For women, NP Stayers had the highest wages, while the FP-NP Movers had the lowest wages, with the NP-FP Movers and FP Stayers in between. For men, the FP-NP Movers had the highest baseline wages, while the NP-FP Movers had the lowest wages; NP Stayers had the second highest wages, and the FP Stayers had the second lowest wages. With respect to the average four-year wage difference for full-time workers, FP-NP Movers had the highest wage increase (3.95 dollar increase and 46% percent increase), while the FP Stayers had the lowest wage increase (1.24 dollar increase and 19% percent increase). On average, the wage of male FP-NP Movers increased 11.47 dollars (116% percentage change), which is significantly higher than male NP Stayers (3.69), male NP-FP Movers (3.27), and male FP Stayers (1.50). As for women, the absolute average wage increase was 2.71 dollars for NP Stayers, 2.44 for NP-FP Movers, 1.85 for FP-NP Movers, and 1.14 for FP Stayers. It seems that the female FP-NP Movers moved to improve their low pay levels, while the male FP-NP Movers moved to seek even higher pay. FP-NP Movers gained the most, with both females and males in this group receiving the highest percentage wage increase compared to females and males in the other three groups.

The baseline wages of the four groups prove the existence of selection in moving or staying behaviors. Nonprofit workers with high wages chose to stay, while those with unsatisfactory wages moved to the for-profit sector. Because the NP-FP Movers had the lowest

baseline wages and the FP Stayers had higher baseline wages, it seems that for-profits pay this group of workers better than do nonprofits. Furthermore, the NP Stayers and the FP-NP Movers were better off at the baseline and they also enjoyed a higher wage increase over the four-year time span. This suggests that the NP Stayers chose to stay because they had better pay increase potential staying and the FP-NP Movers moved because they had better pay increase potential moving. The FP-NP Movers were the biggest winners with an average of a 46% increase in wage within four years.

**Regression Results**

Table 5.5 presents the results of both weighted and unweighted analyses on the pooled data of NP Stayers and FP Stayers. Models 1 and 3 only controlled individual worker characteristics, while Models 2 and 4 added employer-side pay determinants. All the covariates were at the baseline time point. As shown in the table, the coefficients of *nonprofit status*, *female*, and the interaction term of *nonprofit status* and *female* are all statistically insignificant at 0.1 confidence level. Therefore, we are 90% confident to say that, in the U.S. human services, after controlling for observed worker characteristics, worker baseline wages, and employer-size pay determinants, the pay increases for female and male nonprofit and for-profit workers who chose to stay in one sector were indifferent. In other words, although women and men in nonprofits and for-profits started with different wage levels as shown in Chapter 4, if they chose to stay in the same sector, their pay increase trajectories would have no difference. Hypothesis 5 is supported, but Hypothesis 6 is unsupported.

There are several possible explanations for this lack of gender and sectoral difference in pay increase trajectories. First, most individual workers' wages are stable and do not change much in a four-year time period. This could especially be the case given that the SIPP 2008 panel

data was collected during and after a major economic recession. With the economic difficulty, it is likely that both nonprofit and for-profit workers, both female and male, were experiencing wage stagnancy. Therefore, statistical analysis was not able to detect a significant difference in wage increase across groups. Second, workers' end-point wages were mostly determined by their starting-point wages so the variances in end-point wages were primarily explained by the start-point wages, leaving limited variances to show group differences. More advanced modeling, such as Growth Curve modeling, may be used to re-examine the issue with the same data and see if there is a difference in the results. Third, because the Stayers of each sector are a selective group, it is likely that they chose to stay because there would be no gain by moving to the other sector. Therefore, it is reasonable that the results show no sectoral difference in workers' wage increase. Lastly, it is possible that nonprofit and for-profit female and male workers had no difference in wage increase trajectories: they started with different wage levels but enjoyed the same rate of wage increase over time.

In addition, the results show that a 1% increase in the baseline wage is associated with a roughly 31% change in the end-point wage. All levels of educational attainment are significantly associated with wage increase, meaning that people with higher levels of education experienced higher wage increases, regardless of the baseline wage. People with professional degrees had the sharpest wage increase: compared to people who did not have a bachelor's degree, on average, the end-point wage of people with a professional degree was 47% higher, holding other worker characteristics and baseline wage constant. Furthermore, the more hours worked per week, the higher (about 1%) the end-point wage was for a worker, holding all other covariates constant. This means that the workplace rewards long work hours. These results are consistent with the

labor economic literature (Borjas, 2009), which shows that the rewards of education have been growing in the era of skill-biased technical change.

**Summary of the Findings**

Using wage information of the U.S. nonprofit and for-profit human service workers from two time points, and by examining workers' behaviors in changing or staying in their sector of employment, this study finds that: 1) there was selection in workers' choices regarding staying or changing sector of employment; 2) nonprofit workers who chose to move to the for-profit sector tended to be those worse off in the nonprofit sector, while for-profit workers who chose to move to the nonprofit sector tended to be those better off in the for-profit sector, and both of the mover groups gained by moving; 3) on average, there was no statistically significant difference in pay increase trajectories between workers who chose to stay in their sector of employment.

## Limitations

This empirical chapter has several limitations. First, as in the analysis in Chapter 4, this study also used self-reported data, which is not as precise as administrative data. Second, without detailed job change information, the study cannot differentiate wage increases due to internal job changes from those due to external job changes. It also cannot disentangle pay increases due to career advancement (i.e., job promotion) from those resulting purely from job mobility. Therefore, the study does not contribute to the general body of literature on pay increase. Third, the study did not use more advanced modeling, such as Growth Curve modeling, which would take advantage of pay change information of the entire panel rather than two points in time and thus provide a more accurate presentation of a worker's wage change in four years. Fourth, due to the small sample size, this study did not conduct multivariate analysis for the Movers group

and only provided basic descriptive statistics. This limits the study's ability to tell a nuanced story of the pay increase of this group of workers.

## Chapter 6: Conclusion and Implications

This dissertation contributes to the literature in several ways. First, it documents the nonprofit/for-profit pay differential, the gender pay gap, and the sectoral difference in the gender pay gap of the U.S. human service industries from 1990 through 2010-2014. Second, it compares the results of the same model on the entire economy, human service aggregate, and individual human service industries and substantiates the necessity for industry-specific analysis when comparing pay and wage dispersion across sectors. By drilling down to individual human service industries in which the working conditions, occupational mix, and gender composition of the two sectors are similar, this study revealed a more nuanced picture of the sectoral difference in the gender pay gap than that depicted by previous studies. Third, it tested the existing hypotheses and explored factors that explain the existence or absence of greater gender pay equity in the nonprofit sector for different human service industries. Fourth, with longitudinal data that tracks workers' wage changes over a four-year time span, the dissertation's second empirical chapter was the first attempt to document the pay increase trajectory difference between nonprofit and for-profit human service workers. Fifth, with employer-size information on both sectors, the second empirical paper is one of the very few studies that compare the organizational difference of nonprofit and for-profit human service organizations. It shows that, compared to for-profits, nonprofit human service organizations tend to be larger in size and provide health insurance to a much higher proportion of their workers.

The dissertation confirms the intrinsic motivation argument proposed by Leete (2000) in some human service industries, while revealing a lack of representation of this effect in others. It partly validates the argument held by Faulk et al. (2013) that the overall smaller gender pay gap in nonprofits can be attributed to men experiencing wage loss for working in the nonprofit sector.

However, it also questions the applicability of this argument in the human service industries that are more relevant to the nonprofit sector and therefore demonstrates how economy-wide analyses can be misleading. This study challenges the long-standing myth that nonprofit workers are paid less than for-profit workers; in fact, in human services, nonprofit women received equal or higher pay than comparable for-profit women, and nonprofit men received lower pay than their for-profit counterparts in only about half of all human service industries. The study provides evidence of: 1) the influences of labor market competition and institutional pressures that eliminate the effect of organizational structure on pay and wage dispersion in most human service industries; and 2) the existence of this effect of organizational form in the other human service industries. In conclusion, the study shows that organizational form does affect compensation structure, and the wage dispersion, such as gender pay disparity, of both the nonprofit and for-profit sectors in a specific industry is determined by the competition of multiple macro and micro factors.

This dissertation has implications for both policy and practice. For policy: first, this study finds that gender pay disparity is smaller in industries with a higher percentage of workers covered by collective bargaining agreements. This is partly because of collective bargaining mechanisms, such as unions leading to greater wage transparency, which alleviate gender-based wage discrimination. Researchers have pointed out that the culture of wage secrecy is one of the major barriers to achieving equal pay. In fact, there has been an increasing call on the ground for regulations enforcing compulsory wage disclosure. This study adds evidence to support this policy advocacy. Second, the findings of this study raise concerns about the impact of privatization on the workforce and quality of service in U.S. human services. Analyses of data over the past two decades show that privatization has led to a fast growth of for-profit providers'

share of the human service economy. Now, for-profit organizations have become the primary employer for human service workers: in 1990, only about 30% of human service workers were working for for-profit agencies, while by 2010-2014, this number had risen to about 38%, roughly 15% higher than the share of nonprofit organizations. However, compared to nonprofit human service providers, in general, for-profit organizations had a less educated, less experienced, less stable (due to a higher percentage of part-time workers), and lower paid workforce with greater wage inequality. In the meantime, since 2000, the percentage of part-time workers has been rapidly growing for both nonprofit and for-profit human service organizations with a faster increase rate for for-profit women and men. This is going to have a significant negative impact on worker morale, and therefore quality of service for the entire human service economy, given that for-profit human service organizations have become the dominant service provider. In alignment with previous research (Abramovitz & Zelnick, 2015), this study aims to draw increased attention to privatization's negative impact on human service workers and the clients they serve, and to call for the consideration of this impact in future policy changes.

With respect to practice and related research, the study has implications for employee management in both nonprofit and for-profit human service organizations. First, as shown above, for-profit human service workers, especially women and minorities, received lower pay than their for-profit counterparts, and a larger proportion of them were precariously employed with limited benefits. However, very few studies have paid attention to the wellbeing of this group of workers. Given the universal challenge in staff recruitment and retention faced by human service organizations, researchers and practitioners should be aware of this issue and take due action. Second, in contrast with the solution proposed by Faulk et al. (2013) that nonprofits should raise pay level to increase worker motivation and retention, this study points to other avenues for

employee motivation that might be more effective and feasible. The results of this study show that, in fact, nonprofit human service organizations have been able to attract a more qualified workforce than their for-profit counterparts. For example, for the past two decades, in human service industries, nonprofit workers were more educated and had more work experience than their for-profit peers. In addition, in general, nonprofit human service organizations paid their workers, especially women and minority workers, better than for-profits, and they provided health insurance to a larger proportion of their workers. Theories also have made a clear case for why nonprofits must be careful about using incentive compensation. Nonprofits rarely need to compete for workers with those higher-paying business organizations.

Therefore, in contrast with the claim that the low pay is a key challenge to address in nonprofit employee recruitment and retention, nonprofits might need to pay more attention to nonmonetary factors that employees value, such as work-life balance policies, workplace culture, organizational fairness, and commitment to mission. This is not to say that increasing pay level is not necessary or important; in fact, it is critical, given the financial struggle many human service workers face. However, given the increasing financial instability, the managerialism that requires lower overhead costs, the funding and clientele competition from for-profit service providers, and the starvation cycle of funding that many nonprofit organizations experience, how many nonprofits are capable of significantly raising worker pay? Therefore, nonprofits must be strategic about their human resource management. Balancing the usage of monetary and nonmonetary incentives to properly motivate employees must be a constant effort. Nonprofit organizations need information on how well they fare in terms of pay level and pay fairness compared to competing organizations when making critical management decisions. This study is

part of the effort to generate more knowledge on this issue and thereby inform management practices.

## Tables

**Table 4.1: Share of Human Services in the U.S. Economy (1990, 2000, 2010-2014)**

| | 1990 | | 2000 | | 2010-2014 | |
|---|---|---|---|---|---|---|
| | Count | Percentage | Count | Percentage | Count | Percentage |
| Human services | 1,220,504 | 16.61 | 1,534,985 | 18.59 | 2,062,807 | 22.95 |
| Non-human services | 6,125,613 | 83.39 | 6,724,056 | 81.41 | 6,924,510 | 77.05 |
| Total | 7,346,117 | 100 | 8,259,041 | 100 | 8,987,317 | 100 |

**Table 4.2: Organizational Composition of the U.S. Human Service and Non-Human-Service Economy (1990, 2000, 2010-2014)**

| | 1990 | | | | | 2000 | | | | | 2010-2014 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NP | FP | Gov | Self | Total | NP | FP | Gov | Self | Total | NP | FP | Gov | Self | Total |
| Human services | 23.81 | 31.34 | 41.83 | 3.02 | 100 | 23.27 | 34.26 | 37.06 | 5.41 | 100 | 23.09 | 37.63 | 34.29 | 4.99 | 100 |
| Non-human services | 2.80 | 75.45 | 10.72 | 11.02 | 100 | 3.12 | 75.92 | 10.00 | 10.96 | 100 | 4.01 | 73.42 | 10.62 | 11.95 | 100 |
| Total | 6.29 | 68.12 | 15.89 | 9.69 | 100 | 6.86 | 68.18 | 15.03 | 9.93 | 100 | 8.39 | 65.21 | 16.05 | 10.35 | 100 |

Note: NP = Nonprofit; FP = For-profit; Gov = Government; Self = Self-employed. All the numbers represent the percentage of workers employed in that sector.

**Table 4.3: Organizational Composition of the 15 Human Service Industries (1990, 2000, 2010-2014)**

| Industry | Nonprofit | | | For-profit | | | Government | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2010-2014 | 1990 | 2000 | 2010-2014 | 1990 | 2000 | 2010-2014 |
| Savings institutions, including credit unions | 19.52 | 42.63 | 40.78 | 75.95 | 51.49 | 56.44 | 3.86 | 5.3 | 2.45 |
| Lodging places, except hotels and motels | 24.92 | 33.96 | 37.07 | 55.92 | 50.61 | 50.21 | 6.56 | 7.2 | 7.7 |
| Hospitals | 33.25 | 35.97 | 36.53 | 44.27 | 47.27 | 49.5 | 21.02 | 16.02 | 13.38 |
| Nursing and personal care facilities | 16.57 | 16.38 | 16.87 | 70.73 | 74.71 | 76.37 | 10.54 | 8.23 | 6.12 |
| Health services | 18.56 | 17.89 | 18.16 | 52.55 | 58.66 | 65.63 | 19.89 | 13.09 | 7.5 |
| Elementary and secondary schools | 15.05 | 16.12 | 13.06 | 9.01 | 10.29 | 11.76 | 75.58 | 73.06 | 74.55 |
| Colleges and universities | 27.03 | 24.09 | 25.49 | 19.59 | 22.26 | 26.92 | 52.94 | 53.01 | 47.08 |
| Educational services | 22.49 | 13.66 | 17.46 | 24.91 | 37.86 | 45.16 | 19.93 | 11.92 | 8.02 |
| Job training and vocational rehabilitation services | 52.43 | 50.09 | 55.45 | 19.77 | 28.35 | 24.5 | 26.3 | 20.13 | 18.87 |
| Child day care services | 27.22 | 18.95 | 21.14 | 52.86 | 41.67 | 46.69 | 8.46 | 7.67 | 7.25 |
| Residential care facilities, without nursing | 41.05 | 30.9 | 29.58 | 35.8 | 53.84 | 59.38 | 20.01 | 12.65 | 8.38 |
| Social services | 45.03 | 43.85 | 40.36 | 12.98 | 19.25 | 28.21 | 39.23 | 32.54 | 25.32 |
| Museums, art galleries, and zoos | 47.82 | 43.62 | 25.18 | 22.29 | 18.77 | 13.72 | 25.06 | 35.32 | 59.53 |
| Research, development, and testing services | 16.79 | 17.78 | 20.61 | 61.01 | 61.31 | 58.05 | 18.42 | 16.21 | 16.63 |
| Miscellaneous professional and related services | 5.99 | 9.15 | 10.12 | 34 | 43.37 | 42.2 | 5.2 | 3.05 | 2.41 |
| Total | 23.81 | 23.27 | 23.09 | 31.34 | 34.26 | 37.63 | 41.83 | 37.06 | 34.29 |

Note: All the numbers in the cells represent percentages, indicating the share of workers employed in that sector (i.e., nonprofit, for-profit, government) in the entire economy.

**Table 4.4: Organizational Composition of the 15 Human Service Industries (2010-2014)**

| Industry | Nonprofit | For-profit | Government | Self-employed |
|---|---|---|---|---|
| Savings institutions, including credit unions | 40.78 | 56.44 | 2.45 | 0.34 |
| Lodging places, except hotels and motels | 37.07 | 50.21 | 7.7 | 5.01 |
| Hospitals | 36.53 | 49.5 | 13.38 | 0.59 |
| Nursing and personal care facilities | 16.87 | 76.37 | 6.12 | 0.64 |
| Health services | 18.16 | 65.63 | 7.5 | 8.71 |
| Elementary and secondary schools | 13.06 | 11.76 | 74.55 | 0.63 |
| Colleges and universities | 25.49 | 26.92 | 47.08 | 0.5 |
| Educational services | 17.46 | 45.16 | 8.02 | 29.36 |
| Job training and vocational rehabilitation services | 55.45 | 24.5 | 18.87 | 1.18 |
| Child day care services | 21.14 | 46.69 | 7.25 | 24.92 |
| Residential care facilities, without nursing | 29.58 | 59.38 | 8.38 | 2.66 |
| Social services | 40.36 | 28.21 | 25.32 | 6.11 |
| Museums, art galleries, and zoos | 25.18 | 13.72 | 59.53 | 1.57 |
| Research, development, and testing services | 20.61 | 58.05 | 16.63 | 4.71 |
| Miscellaneous professional and related services | 10.12 | 42.2 | 2.41 | 45.27 |
| Total | 23.09 | 37.63 | 34.29 | 4.99 |

**Table 4.5: Sample Description of the Entire Economy (1990, 2000, 2010-2014)**

| | 1990 (N = 4,913,585) | | | 2000 (N = 5,550,269) | | | 2010-2014 (N = 5,753,053) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | | | Mean | | | Mean | | |
| | NP | FP | All | NP | FP | All | NP | FP | All |
| ln(earning) | 9.89 | 9.92 | 9.91 | 10.03 | 10.04 | 10.04 | 9.99 | 9.97 | 9.97 |
| Female | 9.77 | 9.57 | 9.59 | 9.94 | 9.76 | 9.78 | 9.94 | 9.73 | 9.77 |
| Male | 10.12 | 10.21 | 10.20 | 10.20 | 10.28 | 10.28 | 10.08 | 10.17 | 10.16 |
| Female | 0.65 | 0.46 | 0.47 | 0.67 | 0.45 | 0.47 | 0.65 | 0.46 | 0.48 |
| NP | | | 0.09 | | | 0.09 | | | 0.12 |
| Hours worked per week | 36.52 | 38.70 | 38.52 | 37.00 | 39.38 | 39.16 | 35.97 | 37.96 | 37.73 |
| Female | 34.53 | 35.45 | 35.34 | 35.43 | 36.18 | 36.08 | 34.80 | 34.95 | 34.93 |
| Male | 40.28 | 41.43 | 41.37 | 40.26 | 42.04 | 41.94 | 38.19 | 40.52 | 40.34 |
| Part-time | 0.29 | 0.22 | 0.22 | 0.28 | 0.21 | 0.21 | 0.30 | 0.26 | 0.26 |
| Female | 0.34 | 0.31 | 0.31 | 0.31 | 0.29 | 0.29 | 0.33 | 0.34 | 0.34 |
| Male | 0.20 | 0.14 | 0.14 | 0.21 | 0.13 | 0.14 | 0.26 | 0.18 | 0.19 |
| Experience (year) | 20.82 | 17.93 | 18.17 | 22.66 | 19.16 | 19.48 | 24.71 | 21.78 | 14.80 |
| Female | 20.77 | 17.61 | 17.98 | 22.53 | 18.89 | 19.37 | 24.85 | 21.49 | 14.98 |
| Male | 20.92 | 18.19 | 18.34 | 22.91 | 19.38 | 19.58 | 24.45 | 22.03 | 14.63 |
| Education | | | | | | | | | |
| High School or Less | 0.31 | 0.55 | 0.53 | 0.26 | 0.50 | 0.48 | 0.21 | 0.40 | 0.38 |
| Some College | 0.30 | 0.29 | 0.29 | 0.31 | 0.31 | 0.31 | 0.30 | 0.34 | 0.34 |
| Bachelor's Degree | 0.21 | 0.12 | 0.12 | 0.24 | 0.13 | 0.14 | 0.26 | 0.18 | 0.19 |
| Master's Degree | 0.11 | 0.02 | 0.03 | 0.13 | 0.03 | 0.04 | 0.16 | 0.05 | 0.07 |
| Professional Degree | 0.03 | 0.01 | 0.01 | 0.03 | 0.01 | 0.01 | 0.04 | 0.01 | 0.02 |
| Doctoral Degree | 0.03 | 0.00 | 0.01 | 0.03 | 0.00 | 0.01 | 0.04 | 0.01 | 0.01 |
| Education-Female | | | | | | | | | |
| High School or Less | 0.31 | 0.55 | 0.52 | 0.25 | 0.48 | 0.45 | 0.20 | 0.37 | 0.34 |
| Some College | 0.34 | 0.32 | 0.32 | 0.35 | 0.35 | 0.35 | 0.33 | 0.38 | 0.37 |
| Bachelor's Degree | 0.22 | 0.10 | 0.12 | 0.25 | 0.13 | 0.14 | 0.27 | 0.18 | 0.20 |
| Master's Degree | 0.10 | 0.02 | 0.03 | 0.12 | 0.03 | 0.04 | 0.15 | 0.05 | 0.07 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Professional Degree | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.03 | 0.01 | 0.02 |
| Doctoral Degree | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.02 | 0.01 | 0.01 |
| Education-Male | | | | | | | | | |
| High School or Less | 0.31 | 0.55 | 0.54 | 0.27 | 0.52 | 0.51 | 0.25 | 0.43 | 0.41 |
| Some College | 0.24 | 0.27 | 0.27 | 0.24 | 0.29 | 0.28 | 0.25 | 0.31 | 0.31 |
| Bachelor's Degree | 0.19 | 0.13 | 0.13 | 0.21 | 0.14 | 0.14 | 0.22 | 0.18 | 0.18 |
| Master's Degree | 0.14 | 0.03 | 0.04 | 0.15 | 0.04 | 0.04 | 0.16 | 0.06 | 0.06 |
| Professional Degree | 0.05 | 0.01 | 0.01 | 0.05 | 0.01 | 0.02 | 0.05 | 0.02 | 0.02 |
| Doctoral Degree | 0.05 | 0.00 | 0.01 | 0.06 | 0.01 | 0.01 | 0.06 | 0.01 | 0.01 |
| Race | | | | | | | | | |
| White | 0.86 | 0.84 | 0.84 | 0.82 | 0.78 | 0.78 | 0.81 | 0.78 | 0.79 |
| Black | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 |
| Asian | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| Others | 0.03 | 0.04 | 0.04 | 0.05 | 0.09 | 0.08 | 0.05 | 0.07 | 0.07 |
| Race-Female | | | | | | | | | |
| White | 0.87 | 0.84 | 0.84 | 0.83 | 0.77 | 0.78 | 0.81 | 0.77 | 0.78 |
| Black | 0.08 | 0.10 | 0.09 | 0.09 | 0.11 | 0.11 | 0.10 | 0.11 | 0.11 |
| Asian | 0.02 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.06 | 0.05 |
| Others | 0.02 | 0.04 | 0.04 | 0.05 | 0.08 | 0.07 | 0.04 | 0.07 | 0.06 |
| Race-Male | | | | | | | | | |
| White | 0.85 | 0.85 | 0.85 | 0.81 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Black | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.08 | 0.08 |
| Asian | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.06 | 0.05 | 0.05 |
| Others | 0.04 | 0.05 | 0.05 | 0.06 | 0.09 | 0.09 | 0.05 | 0.07 | 0.07 |

**Table 4.6: Sample Description of the 15 Human Service Industries Aggregate (1990, 2000, 2010-2014)**

| | 1990 (N=606,166) | | | 2000 (N=792,466) | | | 2010-2014 (N= 1,113,172) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | | | Mean | | | Mean | | |
| | NP | FP | All | NP | FP | All | NP | FP | All |
| ln(earning) | 9.99 | 9.76 | 9.86 | 10.12 | 9.87 | 9.97 | 10.12 | 9.88 | 9.97 |
| Female | 9.90 | 9.66 | 9.76 | 10.05 | 9.79 | 9.89 | 10.07 | 9.83 | 9.92 |
| Male | 10.24 | 10.11 | 10.17 | 10.32 | 10.16 | 10.23 | 10.22 | 10.03 | 10.11 |
| Female | 0.73 | 0.78 | 0.76 | 0.74 | 0.78 | 0.76 | 0.72 | 0.76 | 0.74 |
| NP | | | 0.44 | | | 0.41 | | | 0.39 |
| Hours worked per week | 36.56 | 36.17 | 36.34 | 37.19 | 36.48 | 36.78 | 36.57 | 35.51 | 35.92 |
| Female | 35.27 | 35.17 | 35.22 | 36.14 | 35.57 | 35.80 | 35.81 | 34.88 | 35.23 |
| Male | 40.08 | 39.66 | 39.86 | 40.22 | 39.68 | 39.92 | 38.51 | 37.50 | 37.92 |
| Part-time | 0.28 | 0.30 | 0.29 | 0.26 | 0.29 | 0.28 | 0.28 | 0.32 | 0.30 |
| Female | 0.31 | 0.32 | 0.32 | 0.29 | 0.31 | 0.30 | 0.29 | 0.33 | 0.32 |
| Male | 0.19 | 0.19 | 0.19 | 0.19 | 0.21 | 0.20 | 0.24 | 0.27 | 0.26 |
| Experience (year) | 20.02 | 18.37 | 19.10 | 22.04 | 19.70 | 20.67 | 24.13 | 21.93 | 22.78 |
| Female | 20.31 | 18.67 | 19.37 | 22.21 | 20.00 | 20.89 | 24.46 | 22.35 | 23.14 |
| Male | 19.22 | 17.33 | 18.25 | 21.54 | 18.66 | 19.95 | 23.27 | 20.59 | 21.72 |
| Education | | | | | | | | | |
| High School or Less | 0.26 | 0.41 | 0.34 | 0.21 | 0.36 | 0.30 | 0.16 | 0.26 | 0.22 |
| Some College | 0.31 | 0.35 | 0.33 | 0.32 | 0.37 | 0.35 | 0.30 | 0.39 | 0.36 |
| Bachelor's Degree | 0.24 | 0.15 | 0.19 | 0.26 | 0.17 | 0.21 | 0.27 | 0.21 | 0.24 |
| Master's Degree | 0.13 | 0.05 | 0.09 | 0.14 | 0.06 | 0.09 | 0.17 | 0.09 | 0.12 |
| Professional Degree | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 |
| Doctoral Degree | 0.03 | 0.01 | 0.02 | 0.03 | 0.01 | 0.02 | 0.05 | 0.02 | 0.03 |
| Education-Female | | | | | | | | | |
| High School or Less | 0.26 | 0.43 | 0.36 | 0.21 | 0.38 | 0.31 | 0.16 | 0.27 | 0.23 |
| Some College | 0.34 | 0.37 | 0.35 | 0.35 | 0.38 | 0.37 | 0.32 | 0.41 | 0.38 |
| Bachelor's Degree | 0.25 | 0.15 | 0.19 | 0.27 | 0.16 | 0.20 | 0.29 | 0.21 | 0.24 |
| Master's Degree | 0.12 | 0.04 | 0.07 | 0.14 | 0.05 | 0.09 | 0.17 | 0.08 | 0.12 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Professional Degree | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 |
| Doctoral Degree | 0.01 | 0.00 | 0.01 | 0.02 | 0.01 | 0.01 | 0.03 | 0.01 | 0.02 |
| Education-Male | | | | | | | | | |
| High School or Less | 0.23 | 0.34 | 0.29 | 0.21 | 0.31 | 0.26 | 0.17 | 0.23 | 0.21 |
| Some College | 0.24 | 0.29 | 0.27 | 0.25 | 0.32 | 0.29 | 0.25 | 0.33 | 0.30 |
| Bachelor's Degree | 0.22 | 0.19 | 0.20 | 0.23 | 0.20 | 0.21 | 0.24 | 0.23 | 0.23 |
| Master's Degree | 0.17 | 0.09 | 0.13 | 0.17 | 0.09 | 0.12 | 0.18 | 0.11 | 0.14 |
| Professional Degree | 0.06 | 0.05 | 0.05 | 0.06 | 0.05 | 0.06 | 0.07 | 0.05 | 0.06 |
| Doctoral Degree | 0.09 | 0.04 | 0.06 | 0.08 | 0.04 | 0.06 | 0.09 | 0.04 | 0.06 |
| Race | | | | | | | | | |
| White | 0.88 | 0.79 | 0.83 | 0.84 | 0.73 | 0.78 | 0.81 | 0.74 | 0.77 |
| Black | 0.08 | 0.14 | 0.11 | 0.09 | 0.16 | 0.13 | 0.09 | 0.14 | 0.12 |
| Asian | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.06 | 0.06 |
| Others | 0.02 | 0.03 | 0.03 | 0.04 | 0.07 | 0.06 | 0.04 | 0.06 | 0.05 |
| Race-Female | | | | | | | | | |
| White | 0.88 | 0.79 | 0.83 | 0.84 | 0.73 | 0.78 | 0.82 | 0.74 | 0.77 |
| Black | 0.08 | 0.15 | 0.12 | 210.02 | 0.16 | 0.13 | 0.10 | 0.15 | 0.13 |
| Asian | 0.02 | 0.03 | 0.03 | 68.47 | 0.04 | 0.03 | 0.05 | 0.06 | 0.05 |
| Others | 0.02 | 0.03 | 0.03 | 98.48 | 0.07 | 0.06 | 0.04 | 0.06 | 0.05 |
| Race-Male | | | | | | | | | |
| White | 0.87 | 0.78 | 0.82 | 0.82 | 0.72 | 0.77 | 0.80 | 0.73 | 0.76 |
| Black | 0.07 | 0.13 | 0.10 | 0.08 | 0.14 | 0.11 | 0.09 | 0.12 | 0.11 |
| Asian | 0.04 | 0.05 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.09 | 0.08 |
| Others | 0.02 | 0.04 | 0.03 | 0.05 | 0.07 | 0.06 | 0.04 | 0.06 | 0.05 |

**Table 4.7: Results of OLS Regression with Robust Standard Errors**

| | Economy-Wide | | | 15 Human Service Industries Aggregate | | |
|---|---|---|---|---|---|---|
| Coef. | 1990 | 2000 | 2010-2014 | 1990 | 2000 | 2010-2014 |
| Female | -0.2840*** | -0.2255*** | -0.1831*** | -0.2161*** | -0.1838*** | -0.1443*** |
| | (0.0117) | (0.0062) | (0.0060) | (0.0176) | (0.0123) | (0.0130) |
| Nonprofit | -0.0790*** | -0.0652*** | -0.0523*** | -0.0116 | -0.0128 | 0.0055 |
| | (0.0115) | (0.0101) | (0.0085) | (0.0131) | (0.0105) | (0.0095) |
| Np*Fem | 0.0928*** | 0.0786*** | 0.0627*** | 0.0401*** | 0.0396*** | 0.0203*** |
| | (0.0119) | (0.0104) | (0.0080) | (0.0112) | (0.0086) | (0.0069) |
| No. of obs | 3,536,024 | 4,097,432 | 4,011,251 | 406,614 | 543,432 | 735,933 |
| R-squared | 0.6308 | 0.5764 | 0.6302 | 0.649 | 0.5863 | 0.6322 |

*** p<0.01, ** p<0.05, * p<0.1 Robust standard errors in parentheses.

Note: The coefficients of NP*Fem denote the nonprofit/for-profit sectoral difference in the gender pay gap and it equals to the female/male pay differential of nonprofits minus the female/male pay differential of for-profits. Therefore, if the coefficient of NP*Fem is positive, it means that the gender pay gap is smaller in the nonprofit than in the for-profit, vice versa.

| | |
|---|---|
| Coef. of Female | Pay difference between FP women and FP men |
| Coef. of Nonprofit | Pay difference between NP men and FP men |
| Coef. of Nonprofit + Np*fem | Pay difference between NP women and FP women |
| Coef. of Female + Np*Fem | Pay difference between NP women and NP men |
| Coef. of Np*fem | NP/FP sectoral difference in gender pay gap |

**Table 4.8: Results of OLS Regression with Robust Standard Errors on Individual Human Service Industries**

| Industry | Regression Results of the Model on Individual Human Service Industries | | | | | | | | | Sample Size | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Coef. of 1990 | | | Coef. of 2000 | | | Coef. of 2010-2014 | | | | | |
| | Female | NP | Np*Fem | Female | NP | Np*Fem | Female | NP | Np*Fem | 1990 | 2000 | 2010-2014 |
| Savings institutions | -0.34*** | -0.10*** | 0.12*** | -0.25*** | -0.06 | 0.11*** | -0.20*** | 0.01 | 0.05*** | 10,785 | 8,060 | 11,504 |
| Lodging places | -0.32*** | -0.05 | 0.10 | -0.19*** | 0.01 | -0.05 | -0.21*** | -0.18*** | 0.23*** | 2,848 | 2,395 | 3,256 |
| Hospitals | -0.17*** | 0.06*** | 0.00 | -0.16*** | 0.03*** | 0.01 | -0.13*** | 0.07*** | -0.02*** | 152,922 | 179,684 | 233,254 |
| Nursing and personal care facilities | -0.16*** | 0.01 | 0.01 | -0.15*** | 0.01 | 0.02 | -0.10*** | 0.01 | 0.01 | 47,095 | 61,893 | 61,973 |
| Health services | -0.24*** | -0.09*** | 0.08*** | -0.19*** | -0.06*** | 0.06*** | -0.16*** | -0.02 | 0.03*** | 30,180 | 65,371 | 125,014 |
| Elementary and secondary schools | -0.21*** | -0.03 | -0.01 | -0.17*** | -0.02 | 0.01 | -0.13*** | 0.00 | 0.00 | 57,721 | 78,600 | 84,664 |
| Colleges and universities | -0.17*** | 0.05*** | -0.02 | -0.15*** | 0.03*** | 0.01 | -0.10*** | 0.06*** | -0.02*** | 36,568 | 45,722 | 68,813 |
| Educational services | -0.22*** | -0.16*** | 0.06 | -0.19*** | -0.11*** | 0.09*** | -0.19*** | -0.09*** | 0.07*** | 3,386 | 4,333 | 11,409 |
| Job training services | -0.29*** | -0.22*** | 0.23*** | -0.15 | -0.10*** | 0.05 | -0.09 | -0.10 | 0.04 | 2,723 | 6,753 | 4,307 |
| Child day care services | -0.26*** | 0.06 | 0.00 | -0.28*** | -0.05 | 0.12*** | -0.12*** | 0.04 | 0.02 | 12,740 | 27,514 | 29,472 |
| Residential care facilities | -0.26*** | -0.12*** | 0.12*** | -0.15*** | -0.02 | 0.04*** | -0.10*** | -0.04*** | 0.05*** | 8,610 | 16,865 | 26,576 |
| Social services | -0.19*** | -0.06 | 0.07 | -0.18*** | -0.09*** | 0.09*** | -0.09*** | -0.03 | 0.03*** | 16,349 | 16,470 | 37,992 |
| Museums, art galleries, and zoos | -0.13*** | -0.07 | -0.02 | -0.19*** | 0.00 | 0.09 | -0.11*** | 0.03 | 0.01 | 2,383 | 3,598 | 4,974 |
| Research, development, testing services | -0.24*** | -0.12*** | 0.07*** | -0.19*** | -0.10*** | 0.05 | -0.12*** | -0.11*** | -0.01 | 17,750 | 16,078 | 21,088 |
| Miscellaneous professional services | -0.29*** | -0.08*** | 0.04 | -0.19*** | -0.19*** | 0.10 | -0.14*** | -0.11*** | -0.04 | 4,554 | 10,096 | 11,637 |

*** p<0.01, ** p<0.05, * p<0.1

Note: The coefficients of NP*Fem denote the nonprofit/for-profit sectoral difference in the gender pay gap and it equals to the female/male pay differential of nonprofits minus the female/male pay differential of for-profits. Therefore, if the coefficient of NP*Fem is positive, it means that the gender pay gap is smaller in the nonprofit than in the for-profit, vice versa.

## Table 4.9: Individual Human Service Industries: Descriptive Statistics and the Summary of Regression Results

| | | | | | Nonprofit/For-profit Difference in | | |
|---|---|---|---|---|---|---|---|
| | Dominant Form[1] | % women[2] | Pay Level[3] | Level of Unionization[4] | GPG[5] | Women Pay[6] | Men Pay[7] |
| Savings institutions | FP | 78.13 | High | 4.47 | < | > | < / = |
| Lodging places | FP | 52.43 | Low | 2.1 | </= | >/= | < / = |
| Hospitals | FP | 77.15 | High | 16.23 | >/= | > | > |
| Nursing and personal care facilities | FP | 87.57 | Low | 10.53 | = | = | = |
| Health services | FP | 78.82 | High | 9.75 | < | >/< | < / = |
| Elementary and secondary schools | Gov | 75.28 | Medium | 49.03 | = | = | = |
| Colleges and universities | Gov | 55.54 | High | 16.35 | >/= | > | > |
| Educational services | FP | 67.83 | Medium | 8.03 | </= | < | < |
| Job training services | NP | 58.49 | Low | 8.43 | </= | >/</= | </= |
| Child day care services | FP | 95.24 | Low | 3.95 | </= | >/= | = |
| Residential care facilities | FP | 73.55 | Medium | 7.55 | < | >/= | </= |
| Social services | NP | 76.27 | Medium | 16.55 | </= | >/= | < / = |
| Museums, art galleries, and zoos | NP | 51.55 | Medium | 12.68 | = | = | = |
| Research, development, testing services | FP | 43.78 | Highest | 4.47 | </= | < | < |
| Miscellaneous professional services | Self-employed | 44.59 | High | 3.4 | = | < | < |

Note: the information of column 1 through 3 are calculated by author using the U.S. Census and ACS data without restricting the sample on age and full-time status. 1 denotes the dominant organizational form of this industry, meaning that this organizational form takes up the largest share of the market. 2 denotes the percentage of female workers of this industry based on the aggregate data of the three time points. 3 denotes the level of mean annual earning of the workers in this industry. 4 denotes the four-year (1989, 1999, 2009, and 2013) average percentage of workers covered by collective bargaining agreements based on the tables by Hirsch & Macpherson (2002, 2010) at www.unionstats.com. 5 denotes if the regression-adjusted gender pay gap in the nonprofit sector was ever smaller, greater, or equal to that of the for-profit sector in the industry for year 1990, 2000, and 2010-2014. 6 denotes if the regression-adjusted pay level of women in the nonprofit sector was ever smaller, greater, or equal to that of the for-profit sector for the above mentioned three time points. 7 denotes if the regression-adjusted pay level of men in the nonprofit sector was ever smaller, greater, or equal to that of the for-profit sector for the above mentioned three time points.

**Table 4.10: Level of Unionization and Gender Pay Gaps in Individual Human Service Industries, 1990**

| Human Service Industries | Level of Unionization | Gender Pay Gap, 1990 | | |
|---|---|---|---|---|
| | | NP | FP | NP/FP Difference |
| Elementary and secondary schools | 53.9% | -0.21*** | -0.21*** | 0 |
| Social services | 18.1% | -0.19*** | -0.19*** | 0 |
| Hospitals | 17.6% | -0.17*** | -0.17*** | 0 |
| Colleges and universities | 16.3% | -0.17*** | -0.17*** | 0 |
| Nursing and personal care facilities | 13.7% | -0.16*** | -0.16*** | 0 |
| Health services | 13.0% | -0.24*** | -0.24*** | 0 |
| Educational Services | 10.8% | -0.22*** | -0.22*** | 0 |
| Residential care facilities, without nursing | 8.4% | -0.14*** | -0.26*** | 0.12*** |
| Museums, art galleries, and zoos | 7.9% | -0.13*** | -0.13*** | 0 |
| Miscellaneous professional and related services | 5.7% | -0.29*** | -0.29*** | 0 |
| Job training and vocational rehabilitation services | 5.6% | -0.06*** | -0.29*** | 0.23*** |
| Child day care services | 3.7% | -0.26*** | -0.26*** | 0 |
| Lodging places, except hotels and motels | 1.8% | -0.32*** | -0.32*** | 0 |
| Savings institutions, including credit unions | Unknown | -0.22*** | -0.34*** | 0.12*** |
| Research, development, and testing services | Unknown | -0.17*** | -0.24*** | 0.07*** |

*** $p<0.01$

**Table 4.11: Level of Unionization and Gender Pay Gaps in Individual Human Service Industries, 2010-2014**

| Human Service Industries | Level of Unionization | Gender Pay Gap, 1990 | | |
|---|---|---|---|---|
| | | NP | FP | NP/FP Difference |
| Elementary and secondary schools | 46.1% | -0.13*** | -0.13*** | 0 |
| Museums, art galleries, and zoos | 16.6% | -0.11*** | -0.11*** | 0 |
| Social services | 16.5% | -0.06*** | -0.09*** | 0.03*** |
| Hospitals | 16.2% | -0.15*** | -0.13*** | -0.02*** |
| Colleges and universities | 16.2% | -0.08*** | -0.10*** | -0.02*** |
| Job training and vocational rehabilitation services | 10.3% | -0.09 | -0.09 | 0 |
| Nursing and personal care facilities | 9.0% | -0.10*** | -0.10*** | 0 |
| Health services | 8.8% | -0.13*** | -0.16*** | 0.03*** |
| Residential care facilities, without nursing | 7.1% | -0.05*** | -0.10*** | 0.05*** |
| Research, development, and testing services | 4.4% | -0.12*** | -0.12*** | 0 |
| Savings institutions, including credit unions | 4.3% | -0.15*** | -0.20*** | 0.05*** |
| Child day care services | 4.1% | -0.12*** | -0.12*** | 0 |
| Educational Services | 3.1% | -0.12*** | -0.19*** | 0.07*** |
| Miscellaneous professional and related services | Unknown | -0.14*** | -0.14*** | 0 |
| Lodging places, except hotels and motels | Unknown | 0.02*** | -0.21*** | 0.23*** |

*** p<0.01

**Table 4.12: Results of Sensitivity Analysis on Non-White Human Service Workers**

| Industry | Coefficient | | | No. of obs |
|---|---|---|---|---|
| | Female | Nonprofit | Np*Fem | |
| Savings institutions, including credit unions | -0.144*** | 0.038 | 0.039 | 1,869 |
| Hospitals | -0.100*** | 0.054*** | -0.001 | 56,656 |
| Nursing and personal care facilities | -0.067*** | 0.053*** | -0.034 | 19,796 |
| Health services | -0.098*** | 0.043*** | -0.016 | 32,918 |
| Elementary and secondary schools | -0.091*** | 0.054*** | -0.051*** | 12,512 |
| Colleges and universities | -0.047*** | 0.084*** | -0.030 | 14,389 |
| Child day care services | -0.104*** | 0.053 | 0.005 | 8,743 |
| Residential care facilities, without nursing | -0.080*** | -0.033 | 0.063*** | 8,099 |
| Social services | -0.078*** | -0.017 | 0.032 | 11,776 |
| Research, development, and testing services | -0.084*** | -0.175*** | 0.047 | 4,734 |

*** $p<0.01$

**Table 5.1: Baseline Worker Characteristics of NP Stayers and FP Stayers (Part 1)**

| Worker Characteristics | Mean | | |
|---|---|---|---|
| | NP | FP | All |
| | N=752 | N=1,434 | N=2,186 |
| Baseline Hourly Wage | 29.97 | 24.12 | 26.13 |
| Female | 26.82 | 21.25 | 23.16 |
| Male | 39.79 | 33.20 | 35.49 |
| Female (%) | 0.76 | 0.76 | 0.76 |
| Nonprofit Workers (%) | | | 0.34 |
| Hours worked per week | 38.07 | 36.57 | 37.09 |
| Female | 36.77 | 35.70 | 36.07 |
| Male | 42.09 | 39.35 | 40.30 |
| Part-time (%) | 0.19 | 0.22 | 0.21 |
| Female | 0.23 | 0.24 | 0.24 |
| Male | 0.10 | 0.15 | 0.13 |
| Experience (year) | 25.01 | 22.64 | 23.46 |
| Female | 24.66 | 22.76 | 23.41 |
| Male | 26.09 | 22.26 | 23.59 |
| Age (year) | 45.22 | 41.89 | 43.03 |
| Female | 44.64 | 41.78 | 42.76 |
| Male | 47.03 | 42.23 | 43.90 |
| Education | | | |
| High School or Less | 0.13 | 0.22 | 0.19 |
| Some College | 0.35 | 0.44 | 0.41 |
| Bachelor's Degree | 0.29 | 0.21 | 0.24 |
| Master's Degree | 0.14 | 0.09 | 0.11 |
| Professional Degree | 0.03 | 0.02 | 0.03 |
| Doctoral Degree | 0.05 | 0.02 | 0.03 |
| Education-Female | | | |
| High School or Less | 0.14 | 0.23 | 0.20 |
| Some College | 0.38 | 0.47 | 0.44 |
| Bachelor's Degree | 0.30 | 0.20 | 0.23 |

| | | | |
|---|---|---|---|
| Master's Degree | 0.14 | 0.07 | 0.09 |
| Professional Degree | 0.03 | 0.01 | 0.02 |
| Doctoral Degree | 0.02 | 0.01 | 0.01 |
| Education-Male | | | |
| High School or Less | 0.13 | 0.19 | 0.17 |
| Some College | 0.24 | 0.35 | 0.31 |
| Bachelor's Degree | 0.27 | 0.22 | 0.24 |
| Master's Degree | 0.17 | 0.12 | 0.14 |
| Professional Degree | 0.06 | 0.05 | 0.05 |
| Doctoral Degree | 0.13 | 0.07 | 0.09 |
| Race | | | |
| White | 0.83 | 0.76 | 0.79 |
| Black | 0.11 | 0.16 | 0.14 |
| Asian | 0.02 | 0.03 | 0.02 |
| Others | 0.04 | 0.05 | 0.05 |
| Race-Female | | | |
| White | 0.82 | 0.76 | 0.78 |
| Black | 0.11 | 0.17 | 0.15 |
| Asian | 0.03 | 0.03 | 0.03 |
| Others | 0.03 | 0.04 | 0.04 |
| Race-Male | | | |
| White | 0.85 | 0.77 | 0.80 |
| Black | 0.08 | 0.13 | 0.11 |
| Asian | 0.01 | 0.02 | 0.02 |
| Others | 0.06 | 0.07 | 0.07 |

**Table 5.2: Baseline Worker Characteristics of NP Stayers and FP Stayers (Part 2)**

| Worker Characteristics | Mean | | |
|---|---|---|---|
| | NP | FP | All |
| | N=752 | N=1,434 | N=2,186 |
| Managers (%) | 0.13 | 0.09 | 0.10 |
| Female | 0.11 | 0.07 | 0.08 |
| Male | 0.20 | 0.14 | 0.16 |
| Female Managers (%) | 0.63 | 0.61 | 0.62 |
| Chief Executives (%) | 0.02 | 0.01 | 0.01 |
| Female Chief Executives (%) | 0.58 | 0.25 | 0.45 |
| Employer-Provided Heath Insurance | 0.88 | 0.77 | 0.81 |
| Female | 0.88 | 0.76 | 0.80 |
| Male | 0.87 | 0.80 | 0.83 |
| % Union Members | 0.08 | 0.08 | 0.08 |
| Female | 0.08 | 0.07 | 0.07 |
| Male | 0.06 | 0.10 | 0.09 |
| Size of Employer | | | |
| Under 25 employees | 0.19 | 0.27 | 0.24 |
| 25 to 99 employees | 0.18 | 0.22 | 0.21 |
| 100+ employees | 0.63 | 0.51 | 0.55 |
| 4-Year Wage Diff for Full-Time workers | 2.98 | 1.24 | 1.88 |
| Female | 2.71 | 1.14 | 1.71 |
| Male | 3.69 | 1.50 | 2.30 |
| 4-Year % Change of Wage for Full-Time workers | 0.22 | 0.19 | 0.20 |

**Table 5.3: Baseline Worker Characteristics of the Four Groups**

| | Mean | | | |
|---|---|---|---|---|
| | NP Stayers | NP-FP Movers | FP Stayers | FP-NP Movers |
| | N=752 | N=317 | N=1,434 | N=148 |
| Female (%) | 0.76 | 0.72 | 0.76 | 0.78 |
| Hours worked per week | 38.07 | 36.51 | 36.57 | 36.78 |
| Part-time (%) | 0.19 | 0.25 | 0.22 | 0.27 |
| Experience (year) | 25.01 | 19.39 | 22.64 | 21.92 |
| Age (year) | 45.22 | 39.05 | 41.89 | 41.33 |
| Education | | | | |
| High School or Less | 0.13 | 0.19 | 0.22 | 0.20 |
| Some College | 0.35 | 0.38 | 0.44 | 0.43 |
| Bachelor's Degree | 0.29 | 0.26 | 0.21 | 0.22 |
| Master's Degree | 0.14 | 0.09 | 0.09 | 0.05 |
| Professional Degree | 0.03 | 0.03 | 0.02 | 0.06 |
| Doctoral Degree | 0.05 | 0.05 | 0.02 | 0.03 |
| Race | | | | |
| White | 0.83 | 0.76 | 0.76 | 0.76 |
| Black | 0.11 | 0.15 | 0.16 | 0.18 |
| Asian | 0.02 | 0.04 | 0.03 | 0.01 |
| Others | 0.04 | 0.05 | 0.05 | 0.05 |
| Managers (%) | 0.13 | 0.09 | 0.09 | 0.14 |
| Female | 0.11 | 0.08 | 0.07 | 0.09 |
| Male | 0.20 | 0.09 | 0.14 | 0.31 |
| Employer-Provided Heath Insurance | 0.88 | 0.80 | 0.77 | 0.76 |
| % Union Members | 0.08 | 0.07 | 0.08 | 0.09 |
| Size of Employer | | | | |
| Under 25 employees | 0.19 | 0.20 | 0.27 | 0.22 |
| 25 to 99 employees | 0.18 | 0.21 | 0.22 | 0.16 |
| 100+ employees | 0.63 | 0.60 | 0.51 | 0.62 |

**Table 5.4: Baseline Wages and Wage Changes of the Four Groups**

| | Mean (dollar) | | | |
|---|---|---|---|---|
| | NP Stayers | NP-FP Movers | FP Stayers | FP-NP Movers |
| | N=752 | N=317 | N=1,434 | N=148 |
| Baseline Hourly Wage | 29.97 | 23.30 | 24.12 | 24.76 |
| Female | 26.82 | 21.94 | 21.25 | 20.07 |
| Male | 39.79 | 26.83 | 33.20 | 41.78 |
| 4-Year Wage Diff for Full-Time workers | 2.98 | 2.66 | 1.24 | 3.95 |
| Female | 2.71 | 2.44 | 1.14 | 1.85 |
| Male | 3.69 | 3.27 | 1.50 | 11.47 |
| 4-Year % Change of Wage for Full-Time workers | 0.22 | 0.19 | 0.19 | 0.46 |
| Female | 0.22 | 0.16 | 0.15 | 0.27 |
| Male | 0.21 | 0.27 | 0.28 | 1.16 |

**Table 5.5: Regression Results of the Weighted and Unweighted Analyses**

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| VARIABLES | Unweighted Analysis | | Weighted Analysis | |
| Female | -0.03503 | -0.03781 | -0.03673 | -0.04031 |
| | (0.04056) | (0.03954) | (0.04041) | (0.03921) |
| Nonprofit | 0.02587 | 0.02300 | 0.04574 | 0.03995 |
| | (0.06650) | (0.06521) | (0.06319) | (0.06157) |
| Non*Fem | -0.02296 | -0.02383 | -0.04433 | -0.04270 |
| | (0.06967) | (0.06912) | (0.06339) | (0.06314) |
| Part-time Status | 0.11867*** | 0.12121*** | 0.12151*** | 0.12564*** |
| | (0.04084) | (0.04094) | (0.03988) | (0.03937) |
| Education | | | | |
| High School or less | | | | |
| Some College | 0.11343** | 0.11476** | 0.14552*** | 0.14674*** |
| | (0.04494) | (0.04433) | (0.05018) | (0.04961) |
| Bachelor's degree | 0.30431*** | 0.30472*** | 0.35415*** | 0.35381*** |
| | (0.06055) | (0.06020) | (0.06254) | (0.06240) |
| Master's degree | 0.36538*** | 0.37034*** | 0.38845*** | 0.39244*** |
| | (0.06481) | (0.06386) | (0.06836) | (0.06640) |
| Professional degree | 0.47384*** | 0.47134*** | 0.57722*** | 0.57431*** |
| | (0.16060) | (0.16354) | (0.18371) | (0.18768) |
| Doctoral Degree | 0.26555** | 0.26994** | 0.30492** | 0.30338** |
| | (0.12976) | (0.12752) | (0.14777) | (0.14373) |
| Hours worked per week | 0.01115*** | 0.01088*** | 0.01047*** | 0.01023*** |
| | (0.00187) | (0.00187) | (0.00186) | (0.00186) |
| Log Hourly wage_baseline | 0.32392*** | 0.31670*** | 0.31623*** | 0.30809*** |
| | (0.04540) | (0.04517) | (0.03846) | (0.03814) |
| Years of Experience | 0.00507 | 0.00490 | 0.00592 | 0.00588 |
| | (0.00490) | (0.00483) | (0.00563) | (0.00560) |
| Years of Experience-square | -0.00009 | -0.00009 | -0.00010 | -0.00010 |
| | (0.00009) | (0.00009) | (0.00011) | (0.00011) |
| Union Status | | 0.01572 | | -0.01788 |

| | | | | |
|---|---|---|---|---|
| | | (0.04293) | | (0.04185) |
| Size of Employer | | | | |
| Less than 25 employees | | | | |
| 25 to 99 employees | | 0.01370 | | 0.00952 |
| | | (0.03392) | | (0.04262) |
| 100+ employees | | 0.04055 | | 0.03687 |
| | | (0.04123) | | (0.05069) |
| Employer-provided health insurance | | 0.04881 | | 0.06204* |
| | | (0.03289) | | (0.03261) |
| Constant | 1.58927*** | 1.59070*** | 1.85816*** | 1.84748*** |
| | (0.30319) | (0.30249) | (0.38378) | (0.38034) |
| Observations | 2,107 | 2,107 | 2,107 | 2,107 |
| R-squared | 0.56266 | 0.56353 | 0.57952 | 0.58060 |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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