GENDER WAGE DIFFERENTIALS AND INTRINSIC MOTIVATIONS: AN EMPIRICAL STUDY ON NONPROFITS

By

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A thesis submitted to the Department of Economics and Social Sciences in partial fulfillment of the requirements for the degree of
Master of Science in Applied Economics

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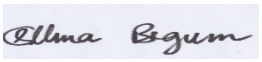

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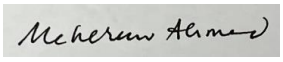

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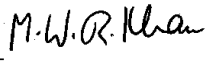

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Abstract

Conducting a Blinder-Oaxaca decomposition technique and a modified Recentered Influence Function quantile regression using the Bangladesh Labour Force Survey 2016-17, the paper estimates the gender wage differential and the impact of intrinsic motivation in the nonprofit and for-profit sectors. The study finds that nonprofits pay a relatively higher wage to their employees, supporting the intrinsic motivation-productivity hypothesis. However, the results cannot conclusively state that nonprofits exhibit a lower gender wage gap in light of this hypothesis. On the other hand, the gender earnings gap for for-profits is primarily driven by differences in worker endowments. Male for-profit workers suffer from a substantive wage penalty compared to the men employed in nonprofits with similar quantified attributes. No such penalty is found for women. The author also finds evidence of a glass ceiling within the nonprofits and a sticky-floor within for-profits.

Keywords: Intrinsic motivation; Nonprofits; Gender wage gap; Endowment; Discrimination

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List of Acronyms

BBS	Bangladesh Bureau of Statistics
BO	Blinder-Oaxaca
CPS	Current Population Survey
HCT	Human Capital Theory
ILO	International Labour Organization
IUTC	International Trade Union Confederation
IZA	Institute of Labor Economics
LFS	Labour Force Survey
LHSCCC	Life Histories and Social Change in Contemporary China
LMIE	Low-Middle Income Economy
MORG	Monthly Outgoing Rotation Group
OLS	Ordinary Least Squares
PSID	Panel Study of Income Dynamics
PUMS	Five-Percent Public Use Microdata Sample
RIF	Recentered Influence Function
RMG	Readymade garments
SDG	Sustainable Development Goal

Chapter 1

Introduction and Background

While SDG 5 has brought the exigency of gender equality into focus, the COVID-19 pandemic has exposed structural inequalities and systematic disproportionate impacts on women and girls, inadvertently pushing back the hard-fought gains made in gender equality in the past decades (UN Women, 2021). With prolonged lockdowns and economic downturns, the burden of unpaid care work is being borne chiefly by women, with mothers dedicating 173 hours behind 'unpaid' childcare compared to the measly 59 additional hours for the fathers (Avi-Yonah, 2021). This has further amplified the already exorbitant 'motherhood wage penalty' (Lacey & Bricker, 2021). Moreover, according to UN Women (2020), women on average, are paid 16 percent less than men, which has risen to 35 percent in some countries; and between 2019 and 2020, women's employment declined by 4.2 percent compared to the men's 3 percent (ILO, 2021). Recent reports have also revealed that men not only hold 73 percent of managerial positions, but the share of women in skilled jobs also makes up only 41 percent of the global labour market (UN Women, 2020; World Economic Forum, 2021). It is evident from the statistics above that the drivers of the gender wage gap are indeed an amalgamation of factors: domestic care work, occupational segregation (i.e., underrepresentation in managerial positions and overrepresentation in low-paid jobs), and pervasive gender discrimination across the labour market (IUTC, 2018).

Amidst such doom and gloom data, Bangladesh proves to be an interesting paradox. With a population of about 165 million (World Bank, 2022), Bangladesh is the 8th most populous country in the world[1], achieving the status of an LMIE in 2015. Along with experiencing rapid GDP growth rates over the last decade (5.2% in FY2020-2021, BBS)[2] and declines in poverty[3],

[1] https://worldpopulationreview.com/countries
[2] Bangladesh attains Asia's highest GDP growth in FY2020-2021
[3] Bangladesh's poverty declines by 11.9%: World Bank

the country has made tremendous progress in reducing gender disparities over the past decade. According to the recently published Global Gender Gap Report by World Economic Forum (WEF), Bangladesh is the most gender-equal South Asian country for the seventh time in a row, closing 71.9 percent of its overall gender gap. Additionally, the Global Wage Report states that Bangladesh is the only country in the world with a positive "factor-weighted mean hourly wage gender pay gap" standing at 2.2 percent against a global average of 21.3 percent (ILO, 2018, p. 43).

Nevertheless, glaring gaps persist[4]. Women make up a mere 11 percent of managerial positions, and only 10.7 percent of women within the country's labour market take up professional/technical roles. With a stagnant female labour force participation rate of 38.5 percent, women earn only 40.3 percent of what men earn (World Economic Forum, 2021).

Keeping this landscape of a humanitarian crisis in mind and to unmask whether wage differentials tell a different story from these national averages, it seems fitting to gain preliminary insights into the multi-faceted nature of gender equality using the wage gap as an instrument, through an interesting medium-nonprofits. To that end, my paper will 'anatomically' illustrate that the whither wage differentials in the nonprofit and for-profit sectors of Bangladesh- are informed by gender**.** Using the standard Blinder-Oaxaca (stated as BO from hence) decomposition technique, this paper contributes to the existing literature by drawing the inference that since nonprofits function disproportionately on the intrinsic motivation principle, they may enjoy significant wage equity than for-profits. The econometric method makes it possible to examine if the wage scale and the associated gender pay gap are lower in the nonprofit sector than in the for-profit one. To further illustrate the intrinsic

[4] See Table A1 for an officially estimated gender pay gap in the Bangladesh labour market

motivation/wage equity phenomenon, an unconditional quantile regression has been used to determine the possible existence of a 'glass ceiling'[5]or 'sticky-floor effect'[6].

To date, this empirical analysis has not been attempted in Bangladesh, given the complexity surrounding nonprofits and their functionality. Although gender differentials following the BO quantitative technique have been the subject of several studies, I redress the information asymmetry in understanding the tripartite gender inequality, labour market, and nonprofit relationship, given their invaluable role and collaborative work with the government and other stakeholders towards Bangladesh's economic development.

From being dubbed a 'basket-case' in the 1970s to becoming one of the fastest-growing economies in the world[7], Bangladesh has come a long way in its 'Bangladesh miracle' development story. Much of this 'miraculous' development can be attributed to the gradual proliferation and penetration of domestic non-governmental organizations (NGO) taking the lead in providing services in underserved sectors, unique to Bangladesh alone. The term 'NGO' in Bangladesh generally encompasses various organizations differing in their formation and aims, and scope of services- ranging from charitable trusts to not-for-profit organizations (NPOs). The following enacted laws govern all NGOs: (i) The Voluntary Social Welfare Agencies (Registration and Control) Ordinance 1961; (ii) The Foreign Donations (Voluntary Activities) Regulation Rules, 1978[8]; (iii) The Microfinance Regulatory Law, 2006; (iv) The Foreign Contributions (Regulation) Ordinance 1982; (v) The Society Registration Act, 1860; (vi) The Trust Act 1882; (vii) The Companies Act 1994; (viii) The Waqf Ordinance 1962, and (ix) The Mussalman Waqf Validating Act 1913. Other Acts are: the Charitable Endowments

[5] The term refers to a discriminatory workplace pattern that impedes qualified individuals (often women) from advancing to high-ranked positions, also associated with large pay gaps at the top of the wage distribution.
[6] The term refers to a discriminatory workplace pattern where the pay gap is prominent at the bottom of the wage distribution, often associated with women occupying low-paid, low-skilled, and low-mobility positions.
[7] https://www.nasdaq.com/articles/the-five-fastest-growing-economies-in-the-world-2020-10-16
[8] See section 2(d) of The Foreign Donations (Voluntary Activities), Regulation Ordinance 1978 (amended in 1982) for what constitutes Voluntary Activities.

Act 1890, Charitable and Religious Trust Act 1920, Co-operative Societies Ordinance 1984, Income Tax Ordinance 1984, and Value Added Tax 1996.

An NGO in Bangladesh can obtain registration in three ways: a) under the NGO Affairs Bureau (NGOAB), b) under the Department of Social Services (DSS), and c) under the Joint Stock Companies and firms. Entities falling within the ambit of "receiving fund (loan, grant, deposit) from local sources or provides fund to others" must register with DSS, while those receiving "any kind of foreign donation or loan or grant" must register with NGOAB (Bangladesh Financial Intelligence Unit, 2015, p.15). NPOs, on the other hand, are referred to as those that are registered under Section 28 of the Company Act, 1994 (Act XVIII of 1994)[9] of the Joint Stock Companies. Given how my dataset of the Labour Force Survey (LFS) 2016-17 does not distinguish between NGOs and NPOs, for this research, I shall consider NGOs as all such organizations that do not fall within the purview of government, local government, or autonomous control, and club them as nonprofits to align with the global terminology.

The subject of various literature and contentions over the years, nonprofits[10] have been described as "poor relatives of their for-profit and government counterparts," with their emergence being analogous to markets suffering from an asymmetry of information, thereby making them agents of "consumer and donor trust" (Hansmann, 1980; Handy & Katz, 1998, p. 246, 248; Weisbrod, 1988). While nonprofits are prevalent within an economy's human and social services facets, Hansmann (1980) differentiated them across typology- from "donative" or "commercial" in terms of their "source of income" to "mutual" and "entrepreneurial" in nature, depending on how they are "controlled" (p. 842).

[9] See Section 28 of the Company Act, 1994 (Act XVIII of 1994) for the criteria to gain an NPO license from the government.

[10] Nonprofit institutions, according to Hansmann (1987), are defined as those that are legally subjected to a "nondistribution constraint," meaning that any surplus/residual income incurred cannot be "distributed to individuals who control the institution, such as officers, directors or members" (p. 28).Organizations such as labour cooperatives, mutual insurance companies, and banks do not fall within the purview of this definition, while hospitals, universities, childcare services, and charities do (Handy & Katz, 1998). Other constraints vary in terms of "revenue collection" and "capital accumulation." (Preston, 1990, p. 564).

The NGO scene in Bangladesh took off to respond to the need to combat natural calamities, political instabilities, and post-war recovery between the 1940s and 1970s (Zohir, 2004; ADB, 2008). Their operational capacities centered around social service delivery, mainly providing relief to vulnerable communities (Zohir, 2004). According to Zohir (2004), the rise of these NGOs was first, to address the government's shortcomings in providing "certain social services" and, secondly, to allow better use of the external donor funds that targeted the marginalized. Characterized by their "participatory" or pro-poor nature, dual onus towards the donor agency and the government, and their own goals and motivations, the scope of these not-for-profit organizations has widened over the years to one of today's largest global NGO sectors (Zohir, 2004, p. 4112; ADB, 2008).

With assistance from foreign donors and international NGOs (INGOs), Bangladesh's dynamic and rich NGO sector has expanded its functional spheres ranging from the provision of non-formal education, microfinance, health, women empowerment initiatives, disaster management, and more, and has managed to turn the tides against malnutrition, illiteracy, "rural employment" levels, poverty, accessibility and affordability of essential services and as such (Zohir, 2004; Mahmud, Otsuka, Sawada, & Yamada, 2018). They play a vital role in ensuring that resource mobilization through higher employment generation, education, health, and empowerment programs are "responsive," "sustainable," participatory, and efficient (ADB, 2008, p.8).

Currently, Bangladesh has 2533 NGOs registered under NGOAB, with $27.65 billion in donor funds committed for the FY2021-2022, a steep drop from last fiscal year's commitment by 67 percent, owing to the global pandemic (NGOAB, 2021). This sector helped generate 0.3 million jobs and has as many as 30.08 million people "involved" with 1.4 million as "paid employees" (Wardad, 2019).

The plan for the remaining sections is as follows. The following section reviews existing literature on gender wage disparity and the importance intrinsic motivation holds for nonprofits. Section 3 describes my data and the empirical strategy adopted. Section 4 discusses the findings and the limitations of the study. Finally, the concluding section pulls together the key findings per the research objective and the lessons learned.

Chapter 2

Theoretical and Empirical Literature

Before delving into the divergence of the gender wage gap between nonprofits and their for-profit counterparts, it is crucial first to form an understanding of the theoretical basis of gender wage discrimination itself, followed by the economic impetus behind nonprofits. This section shall focus on both.

With a conceptual framework informed by Becker's (1964) classic Human Capital Theory, Mincer (1974) in his groundbreaking paper, aimed to empirically investigate a life-cycle earnings model that would cement the gender wage gap in terms of accumulation/acquisition of relative human capital. His wage model proxied age as a measure of experience alongside education variables indicating returns to schooling, that went on to demonstrate that an increase in experience increases the proverbial wage rates but at a decreasing rate.

Following Mincer (1974), Mincer and Polachek (1974) also empirically looked at the accumulation of human capital on female earnings. The duo finds that labour force participation of married women, specifically mothers, varies over their life cycles. Owing to this "discontinuity in work experience" and "intermittent participation," investments in human capital happen to be non-monotonic, which, alongside the declining labour force attachment per se, explained the gender wage gap in their study (p. S83). Although this erodes the market

earning power of mothers, the authors state that this opportunity cost presents "family investment" in human capital, namely that of the children (p. S104).

The claim that productivity factors at the individual and household levels primarily drive the variations in the gender wage gap has been borne out in broad literature since. Becker (1985) further enriched the theoretical framework by bringing "sexual division of labour" as decided upon by spouses into focus. He argues that rigid gender roles and the onus of household responsibilities adversely affect married women's labour market outcomes; they earn relatively less than both married men and single women. Given how such nonmarket activities are more energy and effort-intensive, married women seek 'less' demanding jobs that require less energy per hour of work than their male counterparts. As a result, the lower earnings per hour discourage adequate investment in human capital and eventually lower the labour force participation rate of married women relative to their husbands.

As a segue to the discussion above, the distinctive features of nonprofits make them a fascinating study in the labour wage-setting/equity structures continuum. The contemporary theory of the firm that outlines the profit maximization motive does little to explain such. Rather, the economics behind a nonprofit's wage equity decisions begin with a long-standing debate on the formation of the majority of nonprofits by what is known as 'intrinsic motivation.' Intrinsic motivations can be easily described by Maslow's Hierarchy of Needs (1943, 1954), where the higher-level needs[11] on the scale can be akin to that of intrinsic motivation, while the term itself takes its most well-known definition from Deci (1975):

"One is said to be intrinsically motivated to perform an activity when he receives no apparent reward except the activity itself."

[11] The fourth-level category of the pyramid called 'esteem' identifies the need to gain appreciation, respect, and self-esteem, and the peak-most category called 'self-actualization' identifies the need to reach the highest personal and professional growth/potential.

Simply put, nonprofits tend to hire/attract employees committed to the cause/public good that they produce rather than monetary compensation. In other words, nonprofits operate under the notion of 'doing well by doing good.' Since nonprofits usually predominate in industries/markets where the non-excludable and non-rival nature of the public goods makes it difficult to assess the quality, output, and pricing of these goods, nonprofits rely heavily on intrinsic motivation instead to facilitate high-quality work (Hansmann, 1980; Handy & Katz, 1998; Faulk, Edwards, Lewis, & McGinnis, 2013). Thus, these workers have subordinate interests in pecuniary rewards driven by altruistic motives. To this end, several authors have penned down the economic theory behind a nonprofit's philosophy of employing mission-oriented workers who best meet their "organizational goals" and the subsequent equilibrium wage equity[12] (Hansmann, 1980; Preston, 1989; Rose-Ackerman, 1996; Handy & Katz, 1998; Leete, 2000; Becchetti, Castriota, & Tortia, 2013). While there are unanimous empirics on the claim that nonprofit employees earn relatively lower wages than observably similar workers in for-profit firms, which the subsequent subsections will highlight- some insights into a few alternative objectives that drive nonprofit providers would help to understand the ideology.

Hansmann (1980), for instance, has particularly reasoned that the lower wage in the nonprofit sector acts as a "negative screening device" to dissuade those workers from attaching relatively higher value to pecuniary gains from their employment in a nonprofit (p. 876). Hence, fringe benefits[13] such as work-life balance and a conducive working environment motivate high-quality work within the nonprofits (Faulk, Edwards, Lewis, & McGinnis, 2013). As for the supply of labour, two arguments called the donative-labour hypothesis and the intrinsic motivation-productivity hypothesis branch out in two differing directions (Becchetti, Castriota, & Tortia, 2013). While the former argues an inverse relationship between wages and intrinsic

[12] According to Leete (2000), "nonprofits use wage equity to provide appropriate motivational conditions" (p. 438).
[13] Preston (1990) states that, since the service provision of nonprofits is 'labour-intensive' to account for the apparent difficulties in measuring the quality of the said services, compensation packages are effected to attract the right people for the job (p. 564).

motivation, the latter emphasizes the positive relationship between them- intrinsically motivated workers have higher productivity and thus earn more (Becchetti, Castriota, & Tortia, 2013).

Corresponding to the compensating wage differential principle, the variants of the donative-labour hypothesis rationalize that worker (managers) who find nonprofit work more socially rewarding are willing to 'donate labour' for a reduced compensation/pay (foregone profits) (Weisbrod, 1983; Mirvis & Hackett, 1983; Preston, 1989; Frank, 1996; Rose-Ackerman, 1996; Narcy, 2009; Hirsch, Macpherson, & Preston, 2017). The hypothesis implies that as long as there exists a surplus of altruistic workers (the marginal worker), the equilibrium wage for nonprofits will be negative (Becchetti, Castriota, & Tortia, 2013, p. 381; Hirsch, Macpherson, & Preston, 2017, p. 4). Citing Ito and Domian (1987), Handy and Katz (1998) argue that this theory may appear counter-intuitive regarding the efficiency wage hypothesis. Given how the efficiency wage theory links a higher wage to reduced monitoring of shirkers, in the case of nonprofits that suffer from unobserved worker quality, lower wage rates than that of the for-profits, as such, add to the difficulties (p. 249).

Meanwhile, there may be workers whose altruism may drive 'extra' productivity, leading to higher earnings. This efficiency wage argument, termed as intrinsic motivation-productivity hypothesis, implies that intrinsic motivation may compensate for the "amount of work donated" raising the equilibrium wage (Becchetti, Castriota, & Tortia, 2013, p. 397). Alternatively, since both the quality of the goods and the workers are hard to measure, higher pay to like-employees by nonprofits or as a form of "managerial largesse" to boost worker morale also lay claim to this thought (Hirsch, Macpherson, & Preston, 2017, p. 3). Such nonprofits are often associated with industries producing goods of superior quality (Hirsch, Macpherson, & Preston, 2017, p. 4). It should be noted that the nature of intrinsic motivation itself may not be homogenous and

may depend on other factors across industries, occupations, and firms (Preston, 1989; Leete, 2001; Becchetti, Castriota, & Tortia, 2013).

As discussed above, the nature of goods and services produced, worker motivation/behavior, and its nondistribution constraint determine nonprofit wages. The rest of this section will attempt to unearth the story that the linkage between economic theory and gender wage differentials has weaved, coupled with my understanding of the nonprofit philosophy.

2.1 Economy-wide studies

Wage differentials among white-collared workers form the primary research objective of most economy-wide papers. Mirvis and Hackett (1983), for starters, using data from the 1977 Quality of Employment Survey, showed that although nonprofit workers received lower mean compensation compared to their for-profit counterparts, the satisfaction gained from their respective jobs in terms of greater "autonomy", "challenge" and "variety," was higher on an average (p. 8). The authors, however, do not resort to any quantitative methodologies to support their notions.

Using a 1980 Survey of Job Characteristics (SJC) with an estimated 300 white-collar workers and a 1979 CPS of the US Bureau to authenticate the SJC outcomes, Preston (1989) analyzed the wage differential between nonprofit and for-profit employees. The economy-wide study found that in both datasets, managers and professionals employed within the nonprofit sector earn approximately 15-30 percent less than the for-profit managers and professionals, despite having higher educational qualifications, while controlling for human capital characteristics and the occupational background. The author argues that while this supports the donative-labour hypothesis, external factors such as "motivations of the workers and the firms" and "observed and unobserved differences in the quality of the workers", among others, can also contribute to the negative pay gap (p. 445; 460). She, however, did not find any such negative

wage gap among clerical/blue-collar workers while also stating that the existing pay gap fails to reflect productivity differences between for-profits and nonprofits. Arriving at a similar conclusion, Handy and Katz (1998) argued that the lower "monetary wage" paid to nonprofit managers while was partially compensated by fringe benefits leads to "positive self-selection among the managers" and thus, helps a nonprofit entice managers who are "committed to the cause"; workers at the lower end of the distribution, however, did not fit the bill (p. 259). In her thorough empirical analysis of the 1990 US Census PUMS data, Leete (2001) found that when finer occupational and industrial controls (approximately 47,000) are in place, the economy-wide nonprofit pay gap is "close to zero or slightly positive" (p. 153). The author suggests that this revelation could be the effect of "several forces affecting nonprofit wages simultaneously"(p. 138). Estimates from Ruhm and Borkoski (2003) corroborate Leete's data on 25–55-year-olds from the 1994-98 CPS Outgoing Rotation Groups. They find a negative 11 percent nonprofit differential owing to shorter working hours and the concentration of nonprofit jobs in fewer, low-paying industries. If this is so, nonprofit workers are paid at the market wage rate approximate to their for-profit equivalent. Both these papers found little to no evidence of the labour-donative hypothesis.

2.2 Industry-based studies

Researchers focusing on specific industries such as Weisbrod (1983), Frank (1996), and Preston (1988), obtain equivocal findings. Using multivariate regression analysis and nationally representative surveys from 1973, Weisbrod (1983) documented a 20 percent wage gap between for-profit and public interest lawyers with similar qualifications. Frank (1996), on the other hand, showed that fresh Cornell University graduates working in the for-profit sector, on an average, earned 59 percent more than their counterparts working in the nonprofit sector-controlling for sex, academic qualifications, and the curriculum of choice at college. On the other hand, Preston's (1988) findings from a 1976-77 National Day Care Center Supply Study

indicated that “federally regulated” nonprofit daycare centers receive a wage premium of 5-10 percent compared to the federally regulated for-profit ones while no difference was observed among the “non-federally regulated” centers.

2.3 The Gender Pay Gap Empirics

This sub-section is devoted to a brief narrative of what the global, regional, and local studies have to say about gender wage disparity across the board, followed by the nonprofit and for-profit empirics.

The literature on gender wage differentials is both extensive and variable. Many researchers believe that a greater female representation in professional/technical/managerial roles can ensure a more gender-equal workplace, while others are firm in the view that educational attainment or qualifications are only part of the story.

For example, Blau and Kahn (2006) offers that academic qualifications do little to explain the 20 percent wage differentials that their study found in the US in 1998, using the PSID dataset. The duo also reported a 41 percent residual gap accounting for “non-wage aspects of the job” (Blau & Kahn, 2007, p. 12). Results from the findings of Cohen and Huffman (2007) are consistent with the contention aforementioned: female managers dampen gender inequality. Using “three-level hierarchical linear models,” the researchers reveal that a reduction in the wage gap is associated with a gender composition within the upper-managerial positions in favor of females. As per the authors, women undoubtedly suffer from a glass ceiling effect that adversely impacts an entire workplace. Contrastingly, when most empirical studies look at the individual or micro-level data, Terada-Hagiwara, Camingue-Romance, and Joseph E. Zveglich (2018) primarily focused on macro-level factors driving the gender wage gap using a ‘cross-country aggregated panel’ dataset of 53 economies (both developed and developing). Applying Lewbel (2012)'s technique and spanning over the period 1995-2010, the authors firstly note

that irrespective of a country's stage of development, a concentrated manufacturing sector in favor of females widens this disparity. Secondly, only developing economies see a statistically significant impact of birthing more children to a higher wage variation, while the same gap dampens with more "female labour market entrants" in first world countries (p. 6). Finally, Blau and Kahn (2016) found a declining gender wage gap trend from 1980 to 2010 when estimating their PSID and CPS datasets. The BO decomposition results delineated that the effect of human capital factors in education and experience fell from 27 percent in 1980 to an 8 percent single digit in 2010; similarly, the unexplained wage gap also saw a 0.144 log points reduction in 2010 from 1980. However, the latter accounts for most of the earnings gap in both years, standing at a massive 85 percent in 2010 compared to 71 percent in 1980. The duo also found an increasing trend in the glass ceiling effect which they stated is the result of penalizing (thereby offering a compensating wage rate) highly skilled women working shorter hours and subsequent "workforce interruptions" (p.11). The study's salient underlying factors are human capital and occupational and industrial differences, gender-based discrimination in the labour market, gender roles, and noncognitive skills.

Most of the research concerned with Asian economies had similar reflections: there is a distinct glass ceiling within the wage distribution, and the majority of the said gap is due to gender inequality (Joseph E. Zveglich & Rodgers, 2004; Xiu & Gunderson, 2014). The study by Xiu and Gunderson (2014) found 63 percent of the wage gap to be unexplained (thereby known as the discriminatory effect) and attributed its corresponding 37 percent to the differences in endowment among males and females. However, this discriminatory effect is more substantial at the higher deciles- indicating that females in professional or technical roles earn lower than their male counterparts, given similar endowments. The authors used the Recentered Influence Function modification of the conventional BO decomposition method based on an urban dataset of 1790 observations from the 1996 LHSCCC Survey and concluded that education,

job experience, and domestic care work among others, are the factors behind China's sticky-floor effect that negatively impacts women. On the other hand, Joseph E. Zveglich and Rodgers (2004), using a BMZ[14] decomposition approach for Taiwan's Manpower Utilization Survey for 1978-2000 finds that Taiwan's gender wage disparity exponentially increases from 87.4 to 93.8 percent "within-occupations" only (p. 863). The researchers posited that such a trend is evident of women not only transitioning to occupations that "should" be waged fairly but are not receiving equal pay for "work of equal value," once again consistent with the theories discussed above (p. 867).

Meanwhile, a series of studies investigating the region of South Asia place ethnicity front and center. The results reveal that labour market discriminations drive much of the wage variation rather than differences in the accumulation of productive characteristics. This is the case for Ajwad and Kurukulasuriya (2002) for Sri Lanka and Sengupta and Das (2014) for India. Using the Sri Lanka Integrated Survey 1999-2000 and the BO technique, Ajwad and Kurukulasuriya (2002) did not find ethnicity statistically significant to affect wage rates, while a 16 percent wage inequality is present in favor of men when controlled for ethnicity. As per the result of the quantile regression, the paper also found that males earn a 15 percent additional "premium." Along the same vein, Sengupta and Das's (2014) paper found Hindu female employees earning higher wages than their Muslim counterparts and a steady decline (increase) in the positive (negative) wage gap between Hindu (Muslim) male and female workers over the quinquennial periods between 1993-1994 and 2009-2010 that the study used. The authors used unit-level data from the Employment and Unemployment Survey and Heckman's selection model with a two-step estimation (Heckit) procedure as their methodology. Meanwhile, by incorporating both the BO and Cotton (1998) decomposition methods and using the 1993-1994 Household Income and Expenditure Survey of Pakistan, Siddiqui, Siddiqui and Akhtar (1998) found that

[14] See Brown, Moon, and Zoloth (1980).

55 percent of the pay gap is attributable to labour market discriminations against women, and with determinants of HCT increasing, the variables education and experience (proxied by age) in the model, led to a decline in the existing discrimination.

A number of studies exploring the gendered variations in wages in Bangladesh have a common denominator in the form of the BO methodology. Most of the outcomes tilt heavily towards gender based inequalities against women employed at the lower end of the wage distribution- the evidence tending to confirm the existence of a sticky-floor within the labour market. Economy-wide studies by Ahmed and Maitra (2010, 2015) reveal an increase in the wage differentials between men and women from 57 percent in 1990 to 91 percent in 2005, attributable to gender disparity within the labour market, especially for low wage earners. Additionally, the studies found the gender wage gap within the urban labour market at 95 percent to be relatively higher than its rural counterpart at 43 percent. The authors used the LFSs from 1999-2000 and 2005 and the BO decomposition and Heckman's two-step (to correct selection bias) estimation technique to form their conclusions. Lastly, a large portion of the wage gaps the papers found are unexplained-what the authors term the "discrimination effect" or the "female disadvantage" (p. 100).

Hypothesis 1 (H1): *A negative industry-wide pay gap between the NGO and private sectors is induced by intrinsic motivation.*

Industry/sectoral-wide studies document a similar pattern in terms of the relative endowment effect being heavily skewed at the lower wage distribution (attuned to gender inequality); however, the papers found that this differential reduces significantly at the upper distribution (Kapsos, 2008; Nordman, Sarr, & Sharma, 2015; Siddiquee & Hossain, 2018; Menzel & Woodruff, 2019; Rahman & Al-Hasan, 2019). Using the 2007 Occupational Wage Dataset by BBS, among non-agricultural workers, Kapsos' (2008) Mincerian regression and BO

decomposition results found that the average gender wage gap is 22.5 percent in favor of men, with 118.8 percent of the gap remaining 'unexplained,' while Siddiquee and Hossain (2018) and Menzel and Woodruff (2019) found female RMG sector workers, on average, earn 33 and 8 percent less than men, respectively. The latter study concluded that women being the 'less ambitious' sex with lower skill sets are less occupationally mobile, while the former states that despite the higher labour force participation in the manufacturing sector, the pay gap is very substantial.

Sectoral-based papers by Nordman, Sarr and Sharma (2015), who employed the 2012 Bangladesh Enterprise-based Skills Survey dataset for the formal sector, Siddiquee and Hossain (2018), who used the LFS 2010 for the urban sector and Rahman and Al-Hasan (2019) who applied the Quarterly LFS 2015-16 for the formal and informal sector (full-time paid employees), all applied the traditional the BO decomposition estimation to examine gender wage differentials. Nordman, Sarr, and Sharma (2015) found that firms with more females in managerial positions observe lower gender wage differentials. Findings from Siddiquee and Hossain (2018) reveal a 21.2 percent earnings gap that increases to 29.2 percent (in absolute terms) above the age of 55, with the Dhaka division having the highest wage gap of about 37 percent (in absolute terms); the authors also find that if women's endowments were to be raised to that of the men's, the female wage rate sees a rise of 12.1 percent. Lastly, findings from Rahman and Al-Hasan (2019) show that the gender wage gap, which stands at 12.2 percent, can be explained by the presence of the informal sector within the sample (women earn 14.4 percent less than men in this sector) since the wage discrimination between men and women is not statistically significant within the formal sector.

Hypothesis 2 (H2): *The gender wage gap is lower for the NGO sector than its private counterparts because of intrinsic motivation.*

To my knowledge, there is a paucity of studies that outline the gender wage disparities between profits and nonprofits in Bangladesh, thereby identifying a potential area for further research and exploration.

Hypothesis 3 (H3): *A glass ceiling exists in the NGO sector owing to intrinsic motivation.*

2.4 The Nonprofit and For-profit Empirics

While each author offers a slightly different rationale and formulations, in most cases, the verdict veers towards the nonprofit dogma as discussed above (Preston, 1990; Leete, 2000; Narcy, 2011). In her paper, Preston (1990) examines an exciting notion termed "occupational crowding" regarding nonprofit empirics (p. 561). Using the 1977 Quality of Employment Survey, she hypothesizes that wage patterns, occupational locus, or relative compensating differentials may explain the phenomenon of more females choosing "traditionally female-dominated, white-collared occupations" such as nursing or teaching, that the nonprofits serve at dampened wages compared to for-profits (p. 561). The findings reveal that women are 19 percent less likely than men to settle for nonprofits as their sector choice when controlled for expected wages and job characteristics and corrected for self-selection (p. 567). The author concludes that while the results vouch for comparative equality in wages, non-pecuniary benefits such as greater job satisfaction and better work opportunities play key roles in underpinning the greater presence of women in the nonprofit sector. Leete (2000) investigated the 'unexplained' gender wage gap within the nonprofit and for-profit sectors following Freeman's (1980) decomposition method, which measures the actual, predicted, and residual variances of wage equity. She finds the actual for-profit earnings variance higher at 0.587 and lower at 0.494 for nonprofits across the entire PUMS dataset, and the nonprofit gender wage differences lower at 45 percent than the for-profit equivalent. The paper further argues that several competing explanations can underlie the intrinsic motivation-wage equity implication,

such as occupational segregation. Her results found that 79 percent of nonprofit males are employed at "traditionally female" dominated jobs, which is lower for for-profits at 41 percent (p. 440). Finally, the research also found nonprofit workers in managerial and professional roles to be subjected to a higher wage gap than for-profit sector workers. Later studies, such as Etienne and Narcy (2011), use the Machado and Mata quantile regression approach to examine the French nonprofit and for-profit sectors over the 1994-2001 LFS dataset. They find that when occupational segregation is accounted for, the unexplained nonprofit gender pay gap is lower at 8.8 percent than the for-profit's 12.1 percent. When corrected for self-selection, the for-profit sector has a more pronounced gender earning differential within its top deciles than its nonprofit counterparts- indicative of a glass ceiling effect in both cases. The study asserts that the former can result from the French nonprofit sector being occupationally underrepresented within the economy. Furthermore, the authors also put forth that the relatively lower compensation received by nonprofit white-collar women may lead to reduced intrinsic motivation towards work, induced by a hierarchical and skills level mismatch.

Lastly, veering into another nexus, Hirsch, Macpherson, & Preston (2017) argue that there is essentially no gender wage disparity across the two sectors among men and women of similar characteristics and jobs. Using the 1994-2015 CPS MORG dataset, the paper finds that the nonprofit gap hovered around a negative 5 percent over the 22 years with diminishing gender discrimination. However, the nonprofit men suffer from an 11 percent nonprofit/for-profit wage disadvantage, while the women enjoy a mere 1 percent wage gain from 2011 to 2015. From the results based on panel estimates, the authors found no substantial gender wage penalties in terms of nonprofit occupational mobility. In a similar vein to Leete (2001) and Ruhm and Borkoski (2003), the paper concludes that the ease of occupational mobility is the likelihood of the labour donation impacts being "inframarginal" (p. 23).

Chapter 3

Methodology and Data

Blinder (1973) and Oaxaca (1973) pioneered an extensively used quantitative measure of outcome differentials between two groups in their seminal work. The BO decomposition is a practical approach to understand the existence/potential of discrimination and its measurement, i.e., when equivalent people receive unequal pay, through the estimation of a counterfactual equation (where women are treated equally as men) at the mean. Newer studies, however, have attempted to seek more profound insights into the narrative of wage disparity within each distribution in lieu of decomposing the differences at the mean. Some of these studies, such as Reimers (1983), Neumark (1988), Cotton (1988), and Machado and Mata (2005), attempted to arrive at a non-discriminatory wage structure to address the 'index number problem'[15] of the BO technique- either using a weighted average of the wage equations or a reproduced quantile regression approach. This study undertakes a modest BO approach to relate the various theories discussed to the empirical estimates of the wage differentials in the nonprofit and for-profit sectors.

Using the Oaxaca package by Ben Jann (2008), my paper attempts to decompose the existing sectoral and gendered pay gaps into two components. The 'explained' or endowment component that arises due to differences in observable characteristics/qualifications when both groups receive similar treatment. In my paper, the nonprofit and the male pay structures are the non-discriminatory norms. The 'unexplained' or coefficient component on the other hand, arises due to the differences in regression coefficients or returns to those endowments, i.e., when one group receives favorable treatment than the other given similar individual

[15] Refers to estimating wage structure using a specific non-discriminatory wage equation, thereby running the risk of over/underestimating one group (female or male) or the other (Cotton, 1988).

characteristics. This coefficient component is often interpreted as a measure of labour market discrimination.

The generalized BO specification that estimates male (m) and female (f) Ordinary Least Squares (OLS) wage regressions separately for individual i (suppressed for simplification) are as follows:

1. $ln\ Y_m = X_m\beta_m + \mu_m$
2. $ln\ Y_f = X_f\beta_f + \mu_f$

where Y is the log of weekly wages, X is the vector of human capital characteristics such as education and job experience, β is the vector of coefficients, and μ is the error term.

Thus, the OLS regression with the mean of residuals equaling zero, the estimated mean outcome difference (expressed as RG for raw wage gap) using the male wage structure as the non-discriminatory norm[16], is:

3. $RG = \overline{lnY_m} - \overline{lnY_f}$

$= \overline{X_m}\widehat{\beta_m} - \overline{X_f}\widehat{\beta_f}$

$= \overline{X_m}\widehat{\beta_m} - \overline{X_f}\widehat{\beta_m} + \overline{X_f}\widehat{\beta_m} - \overline{X_f}\widehat{\beta_f}$

$= (\overline{X_m} - \overline{X_f})\widehat{\beta_m} + \overline{X_f}(\widehat{\beta_m} - \widehat{\beta_f})$

The first term is the gender wage differentials arising from relative endowments/productive characteristics, known as the explained wage gap, à la the endowment effect. The second term is the unexplained wage differential evaluated using the mean female residual from the male wage equation, à la the discriminatory effect. Equation 3 will form the basis for my sectoral

[16] In case of sectoral wage disparity, the for-profits form the non-discriminatory norm

and gender wage differential estimations. A checklist of the independent variables for each model is depicted in Table A2.

3.1 Data Description and Variables

This paper uses a nationally representative random sample from the Bangladesh Labour Force Survey for 2016-17 conducted by BBS. The dataset consists of 493,886 individuals, of whom 246,850 (49.98 percent) and 247,036 (50 percent) are females and males, respectively. Given that the objective of this study is to unpack the aggregate effects of wage and gender wage rates within the nonprofit and for-profit sectors, the sample size amounts to 3,133 observations across the agricultural, manufacturing, and service industries, of whom 615 (19.63 percent) and 2,518 (80.37 percent) are females and males respectively. Respondents report to the "Type of Ownership" question and comparing persons whose main job is with an NGO to those working in a for-profit organization, is my primary variable of interest. Individuals from the public sector were excluded from the sample to align with the definition of nonprofits aforementioned and ensure that the comparisons made are strictly between nonprofits and for-profits. My sample is also restricted to permanent contract-holders from the formal sector, and my analysis only looks at comparable workers hailing from comparable occupations and industries within both sectors- to mainly ensure homogeneity across job/industry types.

The outcome variable of the wage equation is the natural log of the hourly wage rate for the respondent's main job. This has been calculated by dividing the net monthly income by 4.33 and multiplying by the respondent's weekly working hours. Age; age squared[17] ; the number of weekly hours worked; five education dummies; ten occupation dummies; twenty industry dummies; dummy variables for gender, employment status, homeownership, location of

[17] The dataset does not have any information on actual labour market experience. Age is used as an approximate variable, and a quadratic term is included to capture the concave relationship between wage-age

employment (rural/urban), marital status[18], and any vocational training received the last 12 months are the predictor variables assumed to influence the wage rate[19].

Tables A4 and A5 show how nonprofit shares within industries and occupations are dispersed- by identifying the top five within the sample. Other service and financial and insurance activities are the top two industries with 64.25 percent of nonprofit shares, while clerical support and managerial jobs make up 50.84 percent of occupations within the same sector. It is worth noting that industrial and occupational shares heavily lean towards the service sector.

Table 1: Descriptive Statistics

	Nonprofit sector		**For-profit sector**	
	Women (W)	**Men (M)**	**Women (W)**	**Men (M)**
Monthly income (BDT)	22,077.17 (5701.89)	26,892.85 (19,249.73)	23,818.13 (10,810.64)	26,052.25 (16,376.73)
Age (in years)	36.40000 (8.370402)	38.97015 (9.234571)	36.24211 (9.473169)	41.47022 (10.82183)
20-24	----	----	0.075439	0.029362
25-30	----	0.149254	0.212281	0.138423
31-40	0.377778	0.425373	0.408772	0.305789
41-50	0.266667	0.30597	0.203509	0.299077
51-65	0.066667	0.067164	0.085965	0.201762
>65	----	0.014925	0.001754	0.012584
Married (%)	0.866667	0.932836	0.8245614	0.8917785
Urban	0.800000	0.671642	0.7684211	0.7151846
House_rent	0.355556	0.380597	0.3789474	0.3066275
Qualifications	11.11111 (2.732151)	11.51493 (3.729047)	10.55789 (4.466747)	10.83138 (5.570749)
No schooling	0.022222	0.059702	0.1000000	0.0553691
Primary education	0.022222	0.044776	0.0684211	0.0780201
Secondary education	0.488889	0.231343	0.2491228	0.3552852
College graduate	0.311111	0.320896	0.254386	0.221896
Post-graduate	0.155556	0.343284	0.3280702	0.2873322
Madrasah	----	----	----	0.0020973
Occupation				
Other Occupations	----	----	----	----
Managers	----	0.268657	----	0.1166107
Professionals	0.333333	0.149254	0.5666667	0.3435403
Technicians and Associate Professionals	0.244444	0.126866	0.0438596	0.0822148
Clerical Support Workers	0.222222	0.298508	0.0578947	0.091443
Service and Sales Workers	----	0.029851	0.0368421	0.1908557
Skilled Agricultural, Forestry and Fishery Workers	0.044444	0.052239	0.0350877	0.0260067
Craft and Related Trade Workers	0.022222	0.044776	0.1087719	0.0822148

[18] A potential omitted variable here, "number of children," has not been explicitly stated in the LFS and hence, for my dataset, has no observations

[19] See Table A3 for details

Plant and Machinery Operators, and Assemblers	----	0.007463	0.0122807	0.0364933
Elementary Occupations	0.022222	0.014925	0.0842105	0.0302013
Industry				
Agriculture, forestry and fishing	----	----	---	----
Mining and quarrying	----	----	----	0.0016779
Manufacturing	0.022222	0.037313	0.1684211	0.1451342
Electricity, gas, steam and air conditioning supply	----	----	0.0052632	0.0138423
Construction	----	0.007463	0.0017544	0.0247483
Wholesale and retail trade, repair of motor vehicles and motorcycles	----	0.052239	0.0070175	0.1354866
Transportation and storage	----	0.014925	0.0052632	0.033557
Accommodation and food service activities (Hotels and restaurants)	----	----	0.0035088	0.017198
Information and communication	----	----	0.0105263	0.0125839
Financial and insurance activities	0.111111	0.253731	0.0596491	0.0868289
Real estate activities	----	----	0.0017544	0.0050336
Professional, scientific and technical activities	----	0.014925	0.0087719	0.0608221
Administrative and support service activities	----	0.029851	0.0035088	0.010906
Public administration and defense, compulsory social security	0.066667	0.044776	0.0280702	0.0461409
Education	0.155556	0.08209	0.5561404	0.335151
Human health and social work activities	0.066667	----	0.0403509	0.0142617
Arts, entertainment and recreation	----	----	0.0017544	0.0004195
Other service activities	0.511111	0.395522	0.0157895	0.0192953
Activities of households as employers, undifferentiated goods and services	----	0.007463	0.0070175	----
Activities of extraterritorial organizations	----	----	---	----
Job characteristics				
Part-time employed	0.111111	0.014925	0.077193	0.028104
Weekly hours worked	46.46667 (10.6741)	53.61194 (9.12067)	46.83333 (8.717512)	50.81921 (13.05389)
<30	----	----	0.0260067 (0.1591885)	0.0263158 (0.1602133)
>30	0.200000 (0.40452)	0.067164 (0.251245)	0.1690436 (0.3748691)	0.1421053 (0.3494648)
>40	0.355556 (0.48409)	0.261194 (0.440934)	0.3519295 (0.4776723)	0.5947368 (0.4913741)
50+	0.400000 (0.495434)	0.664179 (0.474049)	0.4488255 (0.4974786)	0.2333333 (0.4233241)
Train_voca	0.111111	0.08209	0.117544	0.066695

Standard deviations in parentheses

Table 1 outlines the summary statistics of the data, where the average age of women in the sample is 36 years in both sectors, against 38.9 and 41.5 years for men in the nonprofit and for-

profit sectors, respectively. The for-profit sector has a younger workforce, with a higher proportion of women within the 24-30 years age bracket, which is distinctly missing in the nonprofit sector. This perhaps reflects the choice of the younger female labour force in favor of the for-profit sector. While men have an educational advantage over women in both sectors, the nonprofit workforce is relatively more educated than their for-profit counterparts. However, in the for-profit sector, there is a clear female advantage in education, with women overtaking men in the attainment of both college and post-graduate degrees; along the spectrum, the for-profits seeing a reduced gender education gap. In terms of weekly hours, men work more than 50 hours compared to women, but the men working in the nonprofit sector work comparatively longer hours. As argued in studies by Landers, Rebitzer, & Taylor (1996), Goldin (2014), and Blau and Kahn (2016), longer working hours may act as a signaling device for worker motivation and subsequent efforts, linking the intrinsic motivation-productivity hypothesis to the significant pay differential (logged) observed between the nonprofit men and women. Since more women work part-time in the nonprofit sector, this may account for the shorter number of hours offered to their jobs. This perhaps is an indication of flexible working hours within the nonprofit sector, which may accompany a wage penalty due to the costs a firm may incur on account of this temporal flexibility- perhaps directing a nonprofit to settle for a compensating wage (Goldin, 2014; Blau & Kahn, 2016). In the nonprofit and for-profit sectors, relatively more women are employed in professional roles (33.3 and 56.7 percent).

In comparison, proportionately more men work in clerical support jobs in nonprofits (29.9 percent)- this forms one digression from the national average aforementioned- fewer women take up professional/technical roles. According to Blau and Kahn (2016), who arrives at a similar discovery, there may be two plausible interpretations for this. Women's increased relative representation in such jobs may indicate their increasing investment in human capital (such as education, as the numbers indicate) and their commitment to the labour market-

leading to substantive occupational gains as they shift jobs from the clerical levels. This may also mean that labour market discriminations traditionally linked with such positions have reduced. However, the lack of female managerial representation across both sectors is both stark and telling, reinforcing the claims of national statistics. Also, within my sample, the education industry has considerable bearing as women's preferred choice of industry; more than half of the female nonprofit employees picked other service activities as their choice, followed by education, while education and manufacturing are the apparent winners in for-profit's case. More than 65 percent of the population sample are employed in urban regions in both cases.

Tables 2 and 3 present the monthly pay gap by sector, accounting for the impacts of gender. Interestingly, nonprofits pay their workforce marginally more than for-profits (0.24 percent difference). Nonprofits also pay a higher salary to workers at both the upper and lower deciles with the wage gap of 21.43 percent being larger at the bottom of the wage distribution, while the median wage rate is similar to that of the for-profits.

Table 2: Monthly Wage Gap by Sector

	Nonprofit	Profit	Diff
Mean wage	25,682.20 (17,008.79)	25,621.15 (15,483.07)	0.24%
Median wage	25,624.64	25,624.64	0.00%
10^{th} percentile (1)	14,000.00	11,000.00	21.43%
90^{th} percentile (2)	35,000.00	34,000.00	2.86%
(2)/(1)	2.50	3.09	
N	179	2, 984	

Source: Bangladesh Labour Force Survey (2016-17).
Standard deviations in parentheses.

When segregated by gender, as per Table 3 men earn more than women across the board, the nonprofit pay gap exceeding the for-profit gap by 12.43 percent. However, female nonprofit workers at the lower decile earn at par with male workers leading to a wage gap in favor of women- the opposite being true in the case of for-profits. There is no apparent gender wage

gap at the upper decile of the for-profit sector compared to nonprofits' 48.15 percent.

Table 3: The Gender Monthly Wage Gap by Sector

	Nonprofit			For-profit		
	Men	Women	Diff	Men	Women	Diff
Mean wage	26,892.85 (19,249.73)	22,077.17 (5,701.89)	21.81%	26,052.25 (16,376.73)	23,818.13 (10,810.64)	9.38%
Median wage	25,624.64	24,000.00	6.77%	25,624.64	25,624.64	0.00%
10^{th} percentile (1)	14,000.00	15,000.00	-6.67%	12,000.00	9,300.00	29.03%
90^{th} percentile (2)	40,000.00	27,000.00	48.15%	34,000.00	34,000.00	0.00%
(2)/(1)	2.86	1.80		2.83	3.66	
N	134	45		2,384	570	

Source: Bangladesh Labour Force Survey (2016-17). Standard deviations in parentheses.

It is evident from the tables that the wage gap is not uniform across the wage distribution. Regarding the sectoral wage gap (Table 2), the lower decile suffers from a greater wage variation than the top decile. On the other hand, this pay gap is bigger at the top of the distribution in the case of nonprofits, with the opposite being true for for-profits when disaggregated by sex. Perhaps a glass-ceiling phenomenon exists in nonprofits and a sticky-floor in the case of for-profits- once again, the findings paint a different picture in contrast to the national average.

Chapter 4

Empirical Results and Analysis

Tables 4 and 5 offer results from the BO methodology focusing on sectoral decomposition. Interestingly, the mean log wage is higher at 12.49 for nonprofits than 12.36 for for-profits, yielding a wage gap of 0.123 in favor of nonprofits. Table 4 shows two specifications; the first regression excludes industrial and occupational controls, while the second model allows for the potential effect of industrial and occupational dummies on wage rates. When industrial and occupational dummies are excluded, the wage gap is reflected by both the endowment and discriminatory effects- albeit more by observable factors. Conversely, the endowment effect

only reflects the wage gap when industrial and occupational controls are included in the wage equation. This shows that differences in productive characteristics explain why nonprofits pay higher wages than the for-profits in both cases. Table 5 reports the detailed decomposition output of Model 2.

Table 4: BO Decomposition: The Nonprofit and For-Profit Wage Gap

	(Nonprofit & For-profit differentials: no industrial and occupational controls) **Model 1**		**(Nonprofit & For-profit differentials: with industrial and occupational controls)** **Model 2**	
Nonprofit	12.49***		12.49***	
	(0.0345)		(0.0345)	
For-profit	12.36***		12.36***	
	(0.00867)		(0.00867)	
Raw gap	0.123***		0.123***	
	(0.0356)		(0.0356)	
Explained		0.065***		0.156***
		(0.0207)		(0.0347)
Unexplained		0.0578*		-0.0328
		(0.032)		(0.033)
Observations	3,133		3,133	

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

Column 2 of Table 5 expresses the results in the original scale as opposed to the logarithmic form shown in Column 1. The mean wages are BDT 26,4951.6 for nonprofits and 23,4323.6 for for-profits, with an actual wage gap of 13.1 percent. This is almost entirely attributable to the predicted wage portion (the residual wages bearing no significance here), which Panel B details. Differences in industrial dummies and weekly hours make up most of this endowment component at 12.2 and 5.3 percent. While unconventional, the positive nonprofit wage differential supports the intrinsic motivation-productivity notion, assuming similar occupations, industries, and worker characteristics (Becchetti, Castriota, & Tortia, 2013; Hirsch, Macpherson, & Preston, 2017). This may mean that intrinsic motivation at the workers' end allows them to be more productive, the weekly hours worked being an indication (the signaling device argument as aforementioned) leading to higher pay. Refuting the claim of the labour donation hypothesis, this may imply that workers' willingness to donate labour and settle for a lower compensation did not sufficiently satisfy a nonprofit's 'doing well by doing

good' hiring demand- instead, opting for a competitive wage setting to attract more workers (Leete, 2001; Ruhm and Borkoski, 2003). The lack of a younger workforce shown in the descriptive statistics, is perhaps an indication. Coupled with this, industry choice concentrated chiefly within the services sector, i.e., other service activities and education - as Table 3 shows- might mean the products are of excellent quality, thereby acting as a catalyst to the higher nonprofit pay-scale. However, extrinsic forces in the likes of individual heterogeneity and "interindustry wage differentials" can also affect the nonprofit wage gap (Preston, 1989, p. 445; Leete, 2001). It should be noted that the number of nonprofits within my sample is very small, which may not be representative of the larger national nonprofit population.

Table 5: The Nonprofit and For-Profit Wage Gap Using BO Decomposition

Outcome variable: log of hourly wage	**(1) Coefficients**	**(2) Exponentiated coefficients**
Panel A: Overall		
Nonprofit	12.49***	264951.6***
	(0.0345)	(9151.486)
For-profit	12.36***	234323.6***
	(0.00867)	(2030.816)
Raw Wage Gap	0.123***	1.130708***
	(0.0356)	(0.0402656)
Explained	0.156***	1.168461***
	(0.0347)	(0.0404867)
Unexplained	-0.0328	0.9676904
	(0.033)	(0.0317359)
Panel B: Endowments		
Age	-0.00909*	0.99095*
	(0.00468)	(0.00464)
Experience	0.00346	1.00346
	(0.00417)	(0.00419)
Hours worked/week	0.0514***	1.05276***
	(0.0112)	(0.0118)
Education	0.00774*	1.00777*
	(0.00443)	(0.00446)
Female	-0.000124	0.99988
	(0.000971)	(0.00097)

Occupation	-0.0126 (0.0246)	0.98746 (0.02428)
Industry	0.114*** (0.0207)	1.12112*** (0.02324)
Location of Employment	-0.00126 (0.00209)	0.99874 (0.00208)
Marital status	0.000282 (0.000853)	1.00028 (0.00085)
Tenancy	0.00187 (0.00151)	1.00187 (0.00151)
Part-time	0.0000906 (0.000888)	1.00009 (0.00089)
Training	-0.000395 (0.000748)	0.9996 (0.00075)

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

Tables 6 and 7 estimate the gender effect on logged wages by sector. Similar to Table 4, Table 6 presents the industrial and occupational segregation in Model 2 to understand their possible effect on the gender wage gap. The mean log wage is unsurprisingly higher for men at 12.54 and 12.37, with the women trailing behind at 12.34 and 12.32 for nonprofits and for-profits, respectively. This yields a wage gap of 0.193 and 0.0514 in favor of men in both cases. In the case of for-profits, gender differences in measured characteristics account for most of the wage gap in Models 1 and 2, while in contrast, the same is observed for nonprofits only in Model 1, i.e., in the absence of industrial and occupational controls. This indicates that if relative endowments for women were similar to that of men, the mean wages for women would increase by 0.1086 for nonprofits and 0.0418 for for-profits with no occupational controls, and 0.0573 with occupational controls for for-profits' cases only. The discriminatory effects in both cases are not significant and mostly account for less than half the pay gap found. This indicates that labour market discrimination against females cannot explain the wage gap in the respective models and that no substantive wage penalties exist when job and industry variations are controlled.

Table 6: Blinder-Oaxaca Decomposition: Nonprofit Vs. For-Profit Gender Wage Gap

	(Gender differentials: no industrial and occupational controls)				(Gender differentials: with industrial and occupational controls)			
	Nonprofit		**For-profit**		**Nonprofit**		**For-profit**	
Male	12.54***		12.37***		12.54***		12.37***	
	(0.0422)		(0.00954)		(0.0422)		(0.00954)	
Female	12.34***		12.32***		12.34***		12.32***	
	(0.0501)		(0.0205)		(0.0503)		(0.0206)	
Raw gap	0.193***		0.0514**		0.193***		0.0514**	
	(0.0655)		(0.0227)		(0.0657)		(0.0227)	
Explained		0.1086**		0.0418***		0.0851		0.0573***
		(0.0473)		(0.0125)		(0.0604)		(0.0171)
Unexplained		0.0846		0.00958		0.108		-0.00589
		(0.0705)		(0.0195)		(0.0657)		(0.0170)
Observations	179		2,954		179		2,954	

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

Table 7 sub-decomposes the dominant predicted effect to portray each explanatory variable's contribution to this component. With male nonprofit workers earning BDT 27,8137.1 on an average exceeds their female counterparts' average of BDT 22,9275.8, the actual wage gap amounts to 21.3 percent. This gender differential is wider for nonprofits than their equivalent's 5.3 percent but is ambiguous at best, given how neither observable nor unobservable factors can significantly determine the underlying cause (s). Thus, this study cannot conclusively claim that the gender earnings gap within nonprofits is largely negative compared to for-profits. Interestingly, if we looked at the wage rates across groups, male for-profit workers suffer from a substantive wage penalty compared to those employed in nonprofits with similar quantified attributes. No such penalty is found for women. This latter finding mirrors Hirsch, Macpherson, & Preston (2017) 's paper, as discussed earlier.

Table 7: The Nonprofit and For-Profit Gender Wage Gap Using BO Decomposition

Outcome variable: log of hourly wage	**(1) Coefficients**		**(2) Exponentiated coefficients**	
	Nonprofit	**For-profit**	**Nonprofit**	**For-profit**
Panel A: Overall				
Men	12.54***	12.37***	278137.1***	236658.6***
	(0.0422)	(0.00954)	(11746.46)	(2257.244)
Women	12.34***	12.32***	229275.8***	224804.5***
	(0.0503)	(0.0206)	(11529.05)	(4621.899)
Raw Wage Gap	0.193***	0.0514**	1.213111***	1.052731**
	(0.0657)	(0.0227)	(0.079661)	(0.023859)
Explained	0.0851	0.0573***	1.088798	1.058945***
	(0.0604)	(0.0171)	(0.065755)	(0.018134)
Unexplained	0.108	-0.00589	1.114175	0.9941329
	(0.0657)	(0.0170)	(0.07317)	(0.016909)
Panel B: Endowments				
Age	-0.00435	0.0287***	0.99566	1.029157***
	(0.0104)	(0.00873)	(0.010317)	(0.008983)
Experience	0.0288	-0.0104	1.029252	0.989615
	(0.0233)	(0.00891)	(0.023955)	(0.008816)
Hours worked/week	0.0877***	0.0341***	1.091701***	1.034678***
	(0.0327)	(0.00692)	(0.035694)	(0.007164)
Education	0.0113	-0.00145	1.011358	0.998547
	(0.0109)	(0.00304)	(0.011038)	(0.003033)
Occupation	-0.0362	-0.0632***	0.964486	0.938759***
	(0.0473)	(0.0169)	(0.04563)	(0.0159)
Industry	0.0180	0.0752***	1.018133	1.078057***
	(0.0335)	(0.0100)	(0.034151)	(0.010816)
Location of Employment	-0.00377	-0.00308**	0.996237	0.996924**
	(0.00817)	(0.00141)	(0.008142)	(0.00141)
Marital status	0.0110	0.0000762	1.011079	1.000076
	(0.0107)	(0.00153)	(0.010812)	(0.001531)
Tenancy	0.00232	-0.00242*	1.002324	0.997585*
	(0.00787)	(0.00130)	(0.007884)	(0.001299)
Part-time	-0.0298	-0.00194	0.970605	0.99806
	(0.0207)	(0.00216)	(0.020089)	(0.002156)
Training	0.0000158	0.00174	1.000016	1.001738
	(0.00377)	(0.00135)	(0.003767)	(0.001354)

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

For-profit estimates from Panel B demonstrate that differences in industry, weekly hours worked, and age (7.8 percent, 3.5 percent, and 2.9 percent, respectively) are the usual suspects explaining the outcome differential. Although variables occupational sorting, tenancy, and

employment location are statistically significant, their magnitudes are not large enough to bear much importance. Lastly, differences in experience, educational attainment, marital and employment status, and degree of vocational training seemingly do not matter within the decomposition spectrum. The negative residual wage gap or discriminatory component will likely cause the sample to be "sensitive to the specification used" (Ahmed & Maitra, 2010, p. 107).

The age factor positively affects the wage differential in a for-profit setting. This phenomenon may be attributed to several factors. Firstly, women work shorter hours due to family responsibilities as evident from my dataset and also tend to choose low-paying industries, such as the manufacturing sector as per my dataset (IZA, 2015)[20]. Secondly, as a result, there is a distinct underrepresentation of women in leadership roles, once again evident from my dataset (Hilder & Doherty, 2022)[21]. Lastly, the for-profit sector has a younger female workforce, which indicates that perhaps more and more young women are investing behind education and skill development to obtain jobs in traditionally male dominated industries (Dowell, 2022)[22].

The weekly hours worked next positively correlate with the for-profit gender wage disparity. Most of the for-profit workers are full-time employees in the sample, more in the case of the for-profit women instead of their nonprofit equivalent sex. Dating from the HCT and Mincer and Polachek's (1974) influential work, longer working schedules are incompatible with nonmarket responsibilities, which tend to be gendered. Even if both men and women are equally productive per weekly hour given to their respective jobs, men work excessive hours, as evident from my sample, and are seemingly available at off-peak hours. This has career-family tradeoffs for women. Given how most of the women in my dataset work in professional roles, maintaining a work-life balance and associated expectations dictated by traditional

[20] See Gender pay gap increases with age
[21] See Why does the gender wage gap increase with age?
[22] See Gender Pay Gap Widens as Women Age

gender roles (à la the motherhood wage penalty, for instance) may stagnate a woman's career prospects. Cha and Weeden (2014) revealed that females in professional occupations shouldered the negative 10 percent gender pay gap that long working hours and consequent "rising return" led to. Thus, based on this rationale, the gender pay gap may, at least in part, widen further if working hours are to be longer.

Finally, industrial sorting too, has a direct relationship with the wage gap segregated by gender. It can be argued that women make conscious decisions when it comes to picking their industry of choice, and thus, as per (Blau and Kahn, 2016; Schieder and Gould, 2016[23]), most of the gender wage gap is driven by occupational and industrial sorting. My sample saw women preferring the educational and manufacturing industries, and perhaps shedding light on certain related aspects can help understand why this is so. Firstly, more than 60 percent of the female labour force are employed in our booming RMG sector, making it a lucrative industry to work in (ILO, 2020)[24]. Additionally, the job security facet associated with a female-dominated and low-skilled industry provides another layer of boon. Similarly, the relative flexibility in working hours besides job safety makes the education industry a top choice for women. Secondly, the for-profit sector has a young female workforce in my dataset, making it likely that it is providing amenities based on merit rather than age- as the male-female wage gap is somewhat narrow. Hence, it can be deduced that the choice of the industry may compound the gender wage gap issue, although there is a lack of studies that highlights this (Blau and Kahn, 2016, p. 27). However, it should be noted that this study has not corrected for selectivity bias in terms of industry, which may undermine some interpretations

[23] See "Women's work" and the gender pay gap
[24] See Understanding the gender composition and experience of ready-made Garment (RMG) workers in Bangladesh (2020)

4.1 RIF Quantile Decomposition by Decile

In order to explore the varied wage patterns across the earnings distribution reported in Tables 2 and 3, Tables 8, 9, and 10 document RIF regression coefficients for the 10th, 50th, and 90th percentiles. The RIF technique suggested by Firpo, Fortin, and Lemieux (2009) and Fortin, Lemieux, and Firpo (2011) allows changes in unconditional wage to be decomposed at any quantile of the wage spectrum with an added advantage of providing information on the relative contribution each covariate has on the endowment and coefficient components in each decile. Given its somewhat "analogous interpretation" to the BO method, I use the stata command 'oaxaca_rif' proposed by Rios-Avila (2019) to simply investigate the glass-ceiling and sticky-floor wage effects without venturing into the covariate breakdown (Xiu & Gunderson, 2012, p. 311).

Table 8: Nonprofit and For-Profit Earning Decomposition Using RIF

	(1)	(2)	(3)	(4)
	10^{th} percentile	50^{th} percentile	90^{th} percentile	OLS
Nonprofit	11.98***	12.38***	13.05***	12.49***
	(0.0700)	(0.0291)	(0.130)	(0.0345)
For-Profit	11.76***	12.48***	12.82***	12.36***
	(0.0243)	(0.00512)	(0.0170)	(0.00867)
Wage Gap	0.228***	-0.0984***	0.232*	0.123***
	(0.0741)	(0.0295)	(0.131)	(0.0356)
Endowment	-0.161	0.0572	0.0785	0.156***
	(0.123)	(0.0455)	(0.217)	(0.0347)
Discrimination	0.389***	-0.156***	0.154	-0.0328
	(0.135)	(0.0459)	(0.228)	(0.033)
N	3,133	3,133	3,133	3,133

*Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1*

The results detailed in Table 8 are pretty striking regarding the positive 10th and 90th percentile gaps for nonprofits. The differences in the wage structure are larger at the white-collar level and smaller at the blue-collar level- signifying wage reductions in typically high-paid jobs in the likes of managers, and professionals. As several authors argued, this phenomenon can be easily ascribed to the nondistribution constraint and how nonprofits operate. Given their reliance on organizational practices that promote motivational conditions, employees holding top positions are expected to have greater knowledge and information about relative wages and

the attached social benefit; blue-collar workers are far removed from this supposition. Managers, professionals, and technicians thus see a wider nonprofit gap (Easley & O'Hara, 1983; Frank, 1985; Preston, 1989; Handy & Katz, 1998; Leete, 2000; Hirsch, Macpherson, & Preston, 2017). Finally, since this gap (at the 90th percentile) is not attributable to either the endowment or the discriminatory causes, the observed wage pattern likely reflects unmeasured sectoral differences.

Table 9: Nonprofit Gender Earning Decomposition using RIF

	(1)	(2)	(3)	(4)
		Nonprofit		
	10^{th} percentile	50^{th} percentile	90^{th} percentile	OLS
Men	11.99***	12.41***	13.22***	12.54***
	(0.0960)	(0.0360)	(0.142)	(0.0422)
Women	11.98***	12.41***	12.80***	12.34***
	(0.107)	(0.0594)	(0.0849)	(0.0503)
Wage Gap	0.0135	-0.00338	0.425**	0.193***
	(0.144)	(0.0695)	(0.165)	(0.0657)
Endowment	0.144	0.00739	-0.0926	0.0851
	(0.177)	(0.0643)	(0.257)	(0.0604)
Discrimination	-0.130	-0.0108	0.518*	0.108
	(0.210)	(0.0841)	(0.286)	(0.0657)
N	179	179	179	179

*Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1*

The estimated nonprofit gender differential revealed in Table 9 due to differences in productive characteristics is non-significant for employees who belong to the bottom of the earnings distribution; in fact, it is non-significant across the board. In this instance, the for-profit sees a flipped outcome, i.e., the endowment effect is sternly significant, as evident from the high standard errors in Table 10. Meanwhile, the differences in the returns to characteristics are both positive and significant only at the top and bottom of the wage distribution within the nonprofit and for-profit sectors respectively. This illustrates that female nonprofit workers encounter a glass ceiling phenomenon driven by labour market discrimination, but they also perhaps attach a higher intrinsic value to their professions to settle for such a disparity (Michel-Etienne & Narcy, 2011).

Table 10: For-Profit Gender Earning Decomposition using RIF

	(1)	(2)	(3)	(4)
		For-Profit		
	10th percentile	50th percentile	90th percentile	OLS
Men	11.81***	12.42***	12.83***	12.37***
	(0.0255)	(0.00227)	(0.0265)	(0.00954)
Women	11.59***	12.42***	12.82***	12.32***
	(0.0391)	(0.0143)	(0.0303)	(0.0206)
Wage Gap	0.224***	-0.00168	0.00626	0.0514**
	(0.0467)	(0.0145)	(0.0403)	(0.0227)
Endowment	0.137***	0.0333***	0.0921**	0.0573***
	(0.0406)	(0.00344)	(0.0383)	(0.0171)
Discrimination	0.0865*	-0.0350**	-0.0858*	-0.00589
	(0.0494)	(0.0137)	(0.0460)	(0.0170)
N	2,954	2,954	2,954	2,954

*Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1*

The for-profit sector cannot say the same, as the pay gap at the top is virtually non-existent. While a gender wage parity is seemingly achieved at the top, blue-collar for-profit women suffer from a distinct, sticky-floor driven by both the endowment and coefficient effects. So, the multi-faceted implications of gender inequality are glaringly present at the lower end of the for-profit gender earnings distribution- highly impacting its wage structure.

4.2 Data Limitations

Two major shortcomings of this analysis are the relatively small nonprofit and subsequent gender sample size, which may not be representative of the national statistics, and the failure to correct for selectivity bias. Therefore, the results should be interpreted with caution. Secondly, the LFS 2016-17 did not provide any information on actual years of education or work experience/number of years on the job, which prompted a proxy for potential experience. This might overestimate the predictor's effect on the wage gap. Thirdly, the probability of biased estimations due to unobserved impacts and probable misspecification and misclassification (as survey respondents reported nonprofit status) errors may remain. Lastly, because of excluded/omitted variables such as employee motivation or job tenure, unobserved

differences may also lead to underestimating and overestimating the endowment and the coefficient components.

Chapter 5

Conclusion

The paper investigated the gender wage gap within Bangladesh's nonprofit and for-profit sectors to gather insights into the growing literature on wage equity and employee motivation. Using the Blinder-Oaxaca decomposition technique, followed by the unconditional quantile regression, RIF proposed by Firpo, Fortin, and Lemieux (2009) and Fortin, Lemieux, and Firpo (2011), I find that both sectoral/gender wage differentials are positive/higher for nonprofits than for for-profit organizations. While the sectoral phenomenon underlines the intrinsic motivation-productivity hypothesis, the relatively higher gender earnings gap cannot conclusively attribute to the intrinsic motivation and wage equity theory- suggestive of external forces. In the case of for-profits, differences in productive characteristics favoring men are the primary factor behind the gender wage gap. Moreover, my findings also suggest the presence of a glass ceiling effect within the nonprofits and a sticky-floor effect within for-profits- indicative of female nonprofit workers being more intrinsically motivated than their for-profit counterparts, and in the latter case, the prevalence of gender inequality at the lower end of the wage distribution.

To a certain extent, this study contests the original premise of nonprofits exhibiting more significant wage equity to fulfill its organizational notion of seeking and maintaining worker motivation and offers alternate explanations. While it lends some evidence to the gender wage equity argument and inadvertently questions the broad-scale national gender parity achievements, the study does pave the way for future research on this subject keeping the deficiencies within the dataset, methodological constraints such as selection effects, and the

other un-studied contexts such as non-wage/pecuniary benefits in mind. Doing so would require more detailed sector, industry, and firm characteristics-wide data; the focus should also be on more refined specifications.

Gender equality remains a bitter pill to swallow, and the severe pangs of COVID-19 have austerely shown us that. This 'new normal,' that has seen a steep decline in women's employment-to-population ratio particularly for low-income/low-middle-income countries,[25] has to place women and girls at the center of every socio-economic and normative recovery framework- if we are to keep to all our national strategic plans and international commitments.

[25] See An uneven and gender-unequal COVID-19 recovery: Update on gender and employment trends 2021

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Appendix

Table A1: Gender Wage Gap by Economic Activity in Bangladesh in 2017

No	Economic Activity	Men	Women	Gender Pay Gap (%)
		Nominal Annual Earnings ($)		
1	Accommodation and food service activities	2537	1375	54%
2	Activities of extraterritorial organizations and bodies	3538	2091	59%
3	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	3074	1076	35%
4	Administrative and support service activities	3631	2946	81%
5	Agriculture; forestry and fishing	2435	1125	46%
6	Arts, entertainment and recreation	3605	2518	70%
7	Construction	3675	1367	37%
8	Education	1745	2855	164%
9	Electricity; gas, steam and air conditioning supply	1685	3287	195%
10	Financial and insurance activities	4180	4079	98%
11	Human health and social work activities	4970	3058	62%
12	Information and communication	2051	2892	141%
13	Manufacturing	3511	1552	44%
14	Mining and quarrying	1809	1134	63%
15	Not elsewhere classified	1586	1143	72%
16	Other service activities	1819	1730	95%
17	Professional, scientific and technical activities	1443	2754	191%
18	Public administration and defense; compulsory social security	2673	3444	129%
19	Real estate activities	4364	5357	123%
20	Transportation and storage	1920	1909	99%
21	Water supply; sewerage, waste management and remediation activities	1445	1496	104%
22	Wholesale and retail trade; repair of motor vehicles and motorcycles	1225	1606	131%

*Source: ILOSTAT database and World Bank (2020); *2022 exchange rate has been used*

Table A2: Chart of Variables in Model Estimation

	Model 1: Wage Gap	**Model 2: GPG (Reference category: male)**	**Model 3: GPG (Reference category: male)**
	Nonprofit vs. For-Profit	**Nonprofit**	**For-Profit**
Outcome variable			
Log of hourly wages	☑	☑	☑
Predictor variables			
Age	☑	☑	☑
Age squared	☑	☑	☑
Education	☑	☑	☑
Hours worked/week	☑	☑	☑
Occupation	☑	☑	☑
Industry	☑	☑	☑
Married	☑	☑	☑
Urban	☑	☑	☑
Tenancy (Rented home)	☑	☑	☑
Status of employment (part-time)	☑	☑	☑
Vocational training received	☑	☑	☑
Gender	☑	☒	☒

Note: GPG stands for Gender Pay Gap

Table A3: Definition of Variables Used in the Estimation of the Wage Equations

Dependent Variable

lwge	Natural log of hourly wage rate

Explanatory Variables

age	Individual's age measured in years (15 years and above)
age2	Age of individual squared
hr/week	Number of weekly hours worked
Education	
no_school	1 if individual has no schooling; 0 otherwise

prim(1-5)	1 if individual is between levels 1 and 5; 0 otherwise
second (6-HSC)	1 if individual is between levels 6 and HSC and equivalent; 0 otherwise
college	1 if individual is a college graduate (including diploma); 0 otherwise
post_grad	1 if individual has a post-graduate; 0 otherwise
Madrasah	1 if individual is from a Madrasah background; 0 otherwise
Marital status	
married	1 if individual is married; 0 otherwise
Occupations	
OCCUP_OTHER	1 if occupation category is other occupations ; 0 otherwise
OCCUP_MNG	1 if occupation category is managers ; 0 otherwise
OCCUP_PROF	1 if occupation category is professionals ; 0 otherwise
OCCUP_TECH_AP	1 if occupation category is technicians and associate professionals ; 0 otherwise
OCCUP_CLERIC	1 if occupation category is clerical support workers ; 0 otherwise
OCCUP_SALES	1 if occupation category is service and sales workers ; 0 otherwise
OCCUP_AGRO	1 if occupation category is killed agricultural, forestry and fishery workers ; 0 otherwise
OCCUP_CRFT_TRD	1 if occupation category is craft and related trade workers ; 0 otherwise
OCCUP_PLNT_MACHN	1 if occupation category is plant and machinery operators, and assemblers ; 0 otherwise
OCCUP_ELMNT	1 if occupation category is elementary occupations; 0 otherwise
Industries	
INDS_AGRO	1 if industry category is agriculture, forestry and fishing; 0 otherwise
INDS_MIN_QRY	1 if industry category is mining and quarrying; 0 otherwise
INDS_MANU	1 if industry category is manufacturing; 0 otherwise
INDS_ELEC	1 if industry category is electricity, gas, steam and air conditioning supply; 0 otherwise
INDS_CONST	1 if industry category is construction; 0 otherwise
INDS_WHL_REPAIR	1 if industry category is wholesale and retail trade, repair of motor vehicles and motorcycles; 0 otherwise
INDS_TRNSP	1 if industry category is transportation and storage; 0 otherwise
INDS_HOTEL	1 if industry category is accommodation and food service activities (Hotels and restaurants); 0 otherwise

INDS_ICT	1 if industry category is information and communication; 0 otherwise
INDS_FIN	1 if industry category is financial and insurance activities; 0 otherwise
INDS_REALST	1 if industry category is real estate activities; 0 otherwise
INDS_PRF_SCIEN	1 if industry category is professional, scientific and technical activities; 0 otherwise
INDS_ADMN	1 if industry category is administrative and support service activities; 0 otherwise
INDS_PUB_SS	1 if industry category is public administration and defense, compulsory social security; 0 otherwise
INDS_EDUC	1 if industry category is education; 0 otherwise
INDS_HEALTH	1 if industry category is human health and social work activities; 0 otherwise
INDS_ARTS	1 if industry category is arts, entertainment and recreation; 0 otherwise
INDS_OTHR	1 if industry category is other service activities; 0 otherwise
INDS_UNDIFF	1 if industry category is activities of households as employers, undifferentiated goods and services; 0 otherwise
INDS_ETORG	1 if industry category is activities of extraterritorial organizations; 0 otherwise
Home ownership	
h_rent	1 if individual is renting accommodation; 0 otherwise
Employment status	
pemply	1 if individual is part-time employed; 0 otherwise
Location of employment	
urban	1 if individual is located in the urban area; 0 if rural
Training	
train_voca	1 if individual has vocational training; 0 otherwise
Gender	
female	1 if individual is female and 0 if male

Table A4: Top 5 Industries based on Nonprofit Share

Rank	Industries	Share of Nonprofit
1	Other service activities	42.46%
2	Financial and insurance activities	21.79%
3	Education	10.06%

4	Agriculture, forestry and fishing	5.59%
5	Public administration and defense; compulsory social security	5.03%

Source: Bangladesh Labour Force Survey (2016-17) using the ISIC Rev-4

Table A5: Top 5 Occupations based on Nonprofit Share

Rank	Occupations	Share of Nonprofit
1	Clerical Support Workers	27.93%
2	Managers	22.91%
3	Professionals	19.55%
4	Technicians and Associate Professionals	15.64%
5	Skilled Agricultural, Forestry and Fishery Workers	5.03%

Source: Bangladesh Labour Force Survey (2016-17) using the ISCO 2008