The Wage Divide: Analyzing Wage Disparities between Contract and Permanent Workers

Mir Audil Bashir*
Research scholar, Dept of Economics, Islamic University of Science and Technology
Abrar Rehman Rather
Research scholar, Dept of Economics, Islamic University of Science and Technology.
Shubarat Shameem
University of Kashmir, Srinagar, jammu and Kashmir.
Sheeba Rasool
Dept of Economics, Islamic University of Science and Technology.
**Corresponding Author Email: miraudil975@gmail.com*

Abstract: *This study investigates wage differentials between formal and informal sectors in India's labour market, specifically focusing on the role of job contracts. Wage disparities, a critical issue in labour economics, have significant implications for socioeconomic inequality. While previous research has examined wage discrimination based on caste, gender, and productivity, limited attention has been given to the impact of employment contracts on wage inequality. Using unit-level data from the Annual Survey of Industries (ASI) and the Periodic Labour Force Survey (PLFS), this study applies a dual labour market framework to explore how contract type and duration influence wage-setting mechanisms in formal and informal employment. The study reveals that permanent workers earn a consistently larger share of total wages than contractual workers, even as the total wages and workforce in both categories have grown. The findings underscore the role of contract terms in shaping wage disparities, with shorter-duration contracts linked to lower wages. This study contributes to policy discussions by offering insights into how job contracts exacerbate wage inequality and identifying targeted interventions to address these gaps. The results emphasise the need for regulatory reforms that reduce wage disparities, enhance equity in wage-setting processes, and improve labour market outcomes in India's segmented economy.*

KEYWORDS: Formal & informal sector; Job contracts; Periodic labour force survey; Wage differential.

INTRODUCTION

Labour market discrimination is among the most widely studied issues in labour economics and has been explored the most (Neog et al. 2018). wages, earnings, and employment are among the most crucial factors of the labour market (Tachibanaki 1998). For those employed, wages make up a significant portion of income, and their distribution closely resembles income (Williamson 1982). wage determination is a complicated phenomenon that is specific to certain job situations and is abundant in informal contracts and agreements (Rustagi, 1999). The foundation of the world of work revolves around the structure of wage-based employment and the payment of wages (Singhari& Madheshwaran,2018). Wages are crucial to a country's economic performance (GWR 2008/09). The wage gap in the labour market has significantly grown in the last twenty to thirty years due to various factors (Kumar & Pandey, 2021). The wage gap among women in formal and informal sectors is smaller than men (Willams 2022). Economists have become interested in wage differentials among formal and informal sectors for several reasons (Kumar& Rajan,2015). A wage gap frequently leads to far more widespread socioeconomic inequality. Wages and earnings differences are largely to blame for the differences in wealth, spending, healthcare, educational achievement and additional recognised measures of health, particularly in developing nations. Additionally, this causal relationship tends to reinforce or even disparities by way of their influence on the development of human capital. In the broader neo-classical context, wages and salaries of the workforce strongly depend on the demand and supply of labour available. Strict labour market dualism does the same in developing countries (Heckman & Hotz, 1986) and strong restrictions on entry across different labour market sectors. According to lewis model, the existence of both traditional and modern job sectors accounts for a significant portion of wage differences in developing economies. Numerous studies reveal that India's labour market is segmented according to the organised and unorganised sectors, workers, employment status, and types of occupations (Unni 2001; Dutta, 2004). As a result, workers' earnings vary across various segments of the Indian labour market (Madheswaran 2010). The term "wage differential" is used to describe variations in pay rates which are influenced by a company's location, working conditions, hours worked, the kind of product manufactured, and many other factors.

Considering the significance of the issue for public policy and scholarly interest in the matter, the little knowledge

that exists regarding wage differentials in India is quite perplexing. It is well known that employees in the unorganised sector are paid less in comparison to those working in the organised sector (Glinskaya& lokshen, 2015). A substantial number of profitable public sector units have been transferred to private businesses to fulfil international standards and carry out the so-called structural adjustment program and the conditionalities set by the WB and the IMF. In the majority of transactions involving as a result of privatisation, many labors lost their employment and were mostly replaced by temporary employees (Das et al.,2009). This phenomenon we call in formalisation of the labour market, occurred due to this structural shift, enhanced by globalisation and technological change (Banerjee,2007).

India implemented a significant LPG program in 1991 and began allocating resources based on the invisible hand theory. Economic development has significantly increased following reforms, especially in the first ten years of the new millennium (Ahluwalia,2016). However, there has been a noticeable drop in the number of women entering the labour force this decade. (Seema, Kaul and Rangaragan,2011) As well as a rise in disparity throughout social strata (Jayaraj and Subramanian,2015). Further, due to economic reforms, growth rates also improved over time, giving rise to socio-economic inequalities. Thus, the process of liberalisation created a discriminatory situation in the Indian labour market by introducing such reforms over the years. Initiatives to lessen wage disparities between different societal segments have become a primary goal of policy for developing nations such as India. The minimum wage is becoming a popular legislative instrument for reducing poverty and ensuring social justice. However, there is scant research on how it impacts wage inequality (Khurana et al. 2023).

Current work attempts to investigate the topic of wage differentials between the formal and informal sectors and wage workers, whether formal or informal, aims to make it possible to understand the subject by inspecting wage differentials separately, then having a comparison and contrast between the two. Because the wage-setting processes in the formal and informal labour markets differ significantly, there is a chance that the degree of discrimination will differ in each. Antidiscrimination and equal treatment rules and regulations are found to be important in the context of formal employment. Conversely, however, in informal employment, these laws and wage bargaining procedures are nonexistent; and the primary factor that plays the role of social norms gratifying the dominant groups and competitiveness the upper hand (Saget,2016). Such notable distinctions between the two sectors' wage-setting systems enable us to empirically investigate how liberalisation and regulation shape discrimination.

In this framework, the paper is organised as follows: After the introduction, section 2 offers valuable insights into the literature review. Section 3 represents empirical evidence about wage differentials based on the type and length of the job contract, and Section 4 concludes.

LITERATURE REVIEW

The literature available on wage differentials among the formal and informal sectors can be broadly divided into two aspects: theoretical and empirical. Based on suppositions and frameworks, the theoretical literature offers a variety of explanations for the occurrence and continuation of wage disparities between the two sectors. Using various data sources and methodologies, the empirical literature assesses and tests the applicability and validity of these explanations. Three key elements have been the focus of the theoretical models in the "mainstream" literature on economics: human capital inequalities, partiality, and imperfect information. The first of these explains the gender wage primarily by focusing on variations in workers' attributes. The second highlights the preferences for discrimination among at least some members of the dominant group who disapprove of communication with minority group members ,(Altonji et, al 1999). Such discrimination grounded on taste is mentioned by Becker (1957) independently of the different viewpoints in cases where the employer, employee, or customer are biased agents.

The regular-casual dichotomy is the main focus of Indian studies that are currently available and analyze wage structure within a dual labour market framework (Sarkar, S & Mehta, B, S 2020). Dutta (2004) investigated the wage scale for male adult employees in regular and India's informal labour market utilizing NSSO survey data from 1983, 1993-94 and 1999-20. To calculate the factors that affect earnings in the job market, he found education a significant factor influencing worker wages in the traditional labour market, but not in the informal labour market, using the Mincerian wage formula. Karan et, al (2008) examined the structure and patterns of wages in the Indian labour market from 1983 to 2005. According to the report, among regular and casual workers, wage growth has decreased as wages have increased between various sectors in the years following liberalization. Madheswaran (2010) investigated survey data from the NSSO from 1983 to 2005 to understand labour market discrimination in India. The study discovers evidence of wage disparities in regular and informal labour by gender, caste, and religious groups. Wage discrimination based on caste hurts growth (Gupta and Kothe 2022). Jacoby and Das Gupta (2015) examined the data for the years 1993-94 & and 2011-12 to investigate how the wage structure is evolving in India. The relationship between demand and supply framework has been used to look at the cause of variations in the pay scale. According to the report, actual wages in the labour market have grown throughout the post-reform era, with a larger increase in rural areas, particularly for workers without experience. This examination of wage differentials in India's formal and informal sectors was not included (Singhari and Madheshwaran,2017).

There are two major categories into which the empirical literature on wage differentials can be broadly classified: cross-country and country-specific. Using various data sources and techniques, the cross-country literature examines salaries in the public and private sectors in various nations, areas, or eras. Using in-depth micro-level data and techniques, the country-specific literature investigates the wage differences among the public and private sectors within a particular nation. The latter group includes the empirical research on India's formal-informal wage gap. Numerous sociologists and anthropologists (Cox1959; Berreman 1979) have also conducted empirical analyses of labour market discrimination in emerging nations like India. However, the empirical research primarily focuses on caste discrimination in general rather than especially on labour market discrimination. Using primary data, Attewell and Thorat (2007) investigated the general discrimination in hiring practices in the private sector. The primary focus of all these

investigations has been salary discrimination connected to caste, geography, and gender.

Research Gap

Most research on Wage differentials between the formal and informal sectors mostly addressed discrimination in general as opposed to labour market discrimination in particular. A few targeted studies have been conducted on this topic, although they primarily focus on caste, gender, or productivity disparities. Research on wage differentials based on employment contracts has been quite limited. Furthermore, many studies use macro-level data to explain this problem. The present study will use unit-level data to arrive at more trustworthy conclusions. Since micro-level data are gathered at the unit level and are vulnerable to minute inaccuracies and differences when compared to large-scale data, the results and outcomes derived from the data at the unit level are more dependable and trustworthy. Consequently, given the context, a unit-level study of wage differentials based on job contracts will significantly advance the body of existing literature.

This study aims to investigate wage differentials in India's labour market, focusing on the impact of job contracts. Unlike prior research that primarily addresses wage discrimination, this study emphasizes wage differentials shaped by the type and length of employment contracts. Specifically, it seeks to examine the existence and intensity of wage differentials across various job contract types, analyse how it shapes wage inequality, and assess the role of contract duration in determining wage disparities. By addressing these objectives, the research contributes to a deeper understanding of labour market dynamics and offers insights for policy interventions aimed at reducing wage inequality.

METHODOLOGY & DATA

This study's major data source is the annual survey of industries (ASI), which is India's most reliable source of data on wages and the characteristics of employees and businesses.To draw relevant findings for this study, we examined the ASI data for 2010-11 and 2019-19 to gather information on total wages and the total number of workers. We categorised the total workers into permanent and contractual workers to analyse whether wage differentials exist. We calculated the respective wages for each category by dividing the total wages received by each category by the total number of workers in that category. This procedure provided the annual wages per permanent and contractual worker. To determine the daily wages for both types of workers, we then divided the per-worker annual wage by 300 days. The distribution of workers by contract type and social security benefit eligibility was also analysed. The latest rounds will be used in the study. The study uses other secondary sources, such as the Periodic Labour Force Survey (PLFS), which is India's most comprehensive and reliable source of data on wages and the characteristics of employees and businesses, to supplement and validate the data. The PLFS 2019-20, which was carried out by the Indian National Statistical Office (NSO), provides a thorough evaluation of the country's labour market dynamics, including employment status, sectoral distribution, and types of work contracts.

The process, which divides the wage gap, is identified as the B-O decomposition ie (Blinder 1973; Oaxaca 1973). This decomposition allows the wage gap to be classified into two categories: one that explains the wage gap because of individual characteristics, and the other that individual characteristics cannot explain. To put it in simpler terms, we can write.

Wage Gap = Endowment difference (Human capital) + Unexplained difference (discrimination in the labour market).

$G = \frac{Ym - Yf}{Yf}$ EQ 1 here the subscript m = male, f = female and G = wage gap.

$G = \frac{Ym}{Yf} - 1$ OR $G+1 = \frac{Ym}{Yf}$

Without labour market discrimination, the male and female wage differential would be reflected as a pure productivity difference. I.e.

$Q = \frac{Ym*}{Yf*} - 1$ EQ 2 $Q+1 = \frac{Ym*}{Yf*}$

The proportionate between G +1 and Q+1 is defined as the discrimination market coefficient (D).

$$D = \frac{Ym}{YF} - \frac{(Ym*)}{(Yf*)} / \frac{Ym*}{Yf*} \text{ EQ 3}$$

The logarithmic decomposition of gross earning differential i.e.

Ln (G+1) = Ln (D+1) + Ln(Q+1) EQ 4

The D can further be applied within the framework of semi-logarithmic earning equations (proposed) by Mincer in 1974 based theory of human capital and estimated via OLS.

$\ln Ym = B^*m + \sum BmXm + Em$ (male wage equation) EQ 5

$\ln Yf = B^*f + \sum BfXf + Ef$ (female wage equation) EQ 6

The gross differential in logarithmic terms is given by

Ln (G+1) $\ln Ym \div \ln Yf$

$$\text{Ln (G+1)} = \sum BmXm - \sum BfXf \quad \text{EQ 7}$$

This hypothetical female earnings function can be specified as (if females receive equal pay as males receive, how much she would have earned)

$\ln Ym = \sum BmXf$ EQ 8

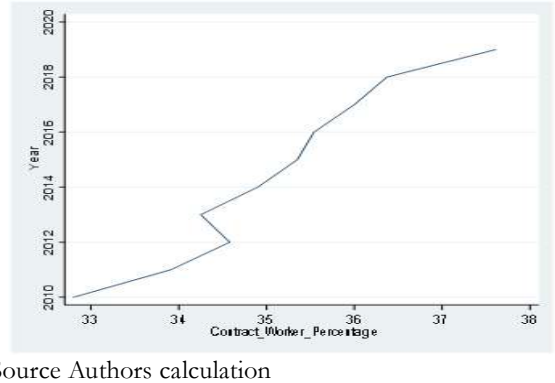
Or we get $\ln Ym - \ln Yf = \sum Bm(Xm - Xf) + \sum Xf(Bm - Bf)$ EQ 9.

Or

$\sum Bf(Xm - Xf) + \sum Xm\,(Bm - Bf)$ EQ 10.

The biggest problem associated with the equation is that it could sometimes face the index-no problem. It can decompose the unexplained component into over-payment (benefit of being male in the labour market) or under-payment (cost of being female in the labour market

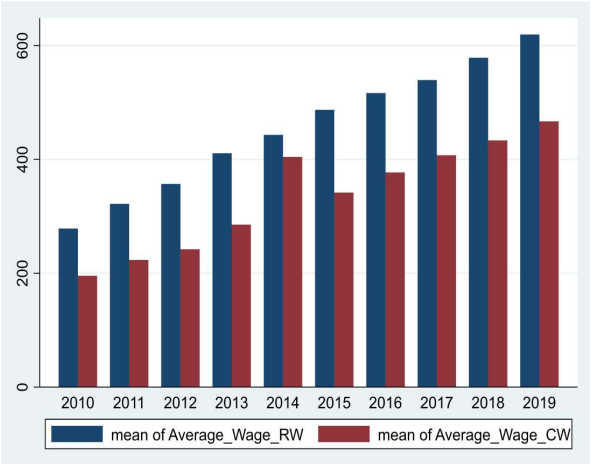
Graph 1: Contract worker trend over time (line graph)



Source Authors calculation

The graph above depicts the proportion of contract employees from the years 2010 to 2020, indicating an increase from thirty-three per cent to thirty-eight per cent over the period of ten years. This increase also indicates a growing dependence on the contract workforce across the industries. This could be due to underlying changes in recruitment systems, such as more flexible hiring policies or cost-cutting measures adopted by firms.

Graph 2: Wage Differential between Regular workers and Contract workers.



Source: Author's Calculations

The graph demonstrates a noticeable gap in the earnings of Average_Wage_Regular Workers and Average_ Wage_ Contract Workers from 2010 to 2019. Throughout this decade, the regular workers (RW) consistently earned higher wages than the contract employees (ranging from 400–600 for RWs and 200–400 for CWs), even when both groups did similar work. Overall, this pattern showcases some form of inequity likely resulting from differing employment relationships regarding contracts, job security, associated benefits, and bargaining coalition strength. The lack of significant change over time indicates divided contracts that cement disadvantageous terms for temporary workers. Solving these matters would call for state intervention such as stricter wage controls, title-based equal pay legislation coupled with non-discrimination policies, expanded legal protections concerning the classification of temp workers.

Table 1: Trends in Permanent vs. Contract Worker Wages Over Time

Year	Average Wage Rate	Permanent Worker Average Wage Rate	Contract Worker Average Wage Rate	Wage Differential (Permanent - Contract)
2010	251.24	278.47	195.47	83
2011	288.40	321.82	223.35	98.47
2012	319.50	356.72	242.11	114.61
2013	367.78	410.75	285.30	125.45
2014	431.86	443.10	404.32	38.78
2015	435.66	487.07	341.65	145.42
2016	466.97	516.55	377.07	139.48
2017	499.66	539.45	407.22	132.23
2018	525.73	578.54	433.37	145.17
2019	561.94	619.35	466.74	152.61

Source: Author's Calculations

The table above indicates that the wage gap between permanent and contract workers has widened significantly over the years 2010 to 2019. Contract workers have lagged behind permanent employees in pay received since 2010—growing from 83 in 2010 to an astonishing 152.61 in 2019. Though some fluctuations exist, such as the aforementioned dip of 38.78 in 2014, the overarching movement suggests that inequality is rising. This inability to resolve disparity points toward more fundamental issues—regardless of job-function similarities—in compensation systems for permanent versus contract workers. Achieving equity might necessitate policy changes aimed at improving wage equality.

Table 2: Distribution of Regular Wage Salaried Workers by Kind of Contract and Access to Social Security Benefits (2018-19).

Eligibility of Social Security benefits	No written job contract	Written job contract for < or=1 year	Written job contract 1 to 3 years	Written job contract > 3 years	Missing /NA	Total
Only eligible for PF/ pension	7.36	14.43	21.17	20.92	0.00	10.96
gratuity only	0.64	1.31	0.51	0.65	0.00	0.66
HC &MB only	0.54	2.41	1.66	1.52	0.00	0.87
only PF/ pension & gratuity	3.13	5.89	5.99	4.88	0.00	3.69
only PF/ pension & HC & MB	2.99	10.99	14.95	10.81	0.00	5.42
only gratuity, MB & HC	0.87	2.61	2.57	1.97	0.00	1.23
PF/ pension, gratuity,MB& HC	10.25	11.55	23.22	44.07	0.00	17.78
Only eligible for one SSB	25.77	49.19	70.06	84.82	0.00	40.61
not eligible for any SSB	66.70	44.13	26.98	12.58	0.00	51.70
Eligibility unknown	7.53	6.67	2.96	2.60	0.00	6.16
Data NA	0.00	0.00	0.00	0.00	100	1.54
Total	100	100	100	100	100	100
Distribution of all RWS workers by contract type	68.88	4.70	3.81	21.08	1.54	100

Source. PLFS, 2018-2019. Note MB, maternity benefits,HC health care,SSB social security benefits.

The Table illustrates the susceptibility of RWS workers by pointing out several elements, such as job contracts, in addition to social security benefits. The patterns in this instance are also somewhat disheartening. The percentage of RWS employees without a contract in 2018–19 reached 68.8%. Workers under RWS are equally susceptible to layoffs as are casual workers in the absence of formal contracts. In contrast, just 21.08% of RWS employees had signed employment contracts for more than three years, providing them with some guarantee of being employed during a crisis;66.7% of those without formal employment contracts were not eligible for social security payments. Conversely, 44.1% of individuals with signed contracts longer than three years qualified for all social security benefits. This was only 2.2% of the total workforce. One may argue that these employees, who have a longer tenure with the company and are more keen to develop firm-specific talents, are less susceptible to being let go than other employees. These positions make up a small fraction of all employment,between 2% and 3%—of the workforce.This implies that in India, having stable employment is a luxury enjoyed by a select few. The aforementioned data also imply that the often-quoted figure that 90% of Indian workers are employed informally understates the actual degree of worker vulnerability since it is predicated on a rather lenient explanation of what constitutes a formal job.

CONCLUSION

This study highlights the significant role of job contracts in shaping wage differentials between formal and informal sectors in India's labour market. The findings reveal that wage disparities are primarily driven by discriminatory factors, with skill-related variables playing a limited role. The lack of robust wage regulation system exacerbates these

disparities, as wage-setting mechanisms in India are heavily reliant on judicial interventions rather than structured wage boards. This underscores the urgent need to establish a rational and scientifically informed wage structure. Policies should focus on introducing wage boards, setting clear and evidence-based wage limits, and periodically revising minimum wages based on contemporary economic criteria rather than outdated norms. Addressing these gaps can contribute to reducing wage inequalities and fostering a more equitable labour market.

REFERENCES

1.Das, M. B. (2003), Ethnicity and social exclusion in job outcomes in India: Summary of Research Findings, World Bank Institute, Mimeo, Washington DC.

2.Glinskaya, E and M. Lokshin (2005): wage differentials between the public and private sectors in India, World Bank policy research working paper 3574, April.

3.Gupta, P., & Kothe, S. (2022). What Explains Caste-based Wage Inequalities and Earning Gaps in the Indian Labour Market? Theil and Oaxaca Decomposition Analysis. The Indian Economic Journal, 70(3).https://doi.org/10.1177/00194662221105554

4.Khurana, S., Mahajan, K. and Sen, K. (2023). Minimum Wages and Changing Wage Inequality in India. UNW-WIDER Working paper, pp.1-51.

5.Kumar, M and Rahul, R. (2015). The wage differential between informal and formal wage workers in India. Academic Journal of Economic Studies, Vol.1, no.4, p 9-19.

6.Kumar, M. And Pandey, S. (2021) Wage gap between formal and informal regular workers in India: evidence from the national sample survey. Global journal of emerging market economies, 13(1)104-121, Sage. https://doi.org/10.1177/0974910121989458

7.Oaxaca, R. L. and Ransom, R. (1994). On Discrimination and decomposition of Wage differentials. Journal of econometrics,61, 5-21. North-Holland.

8.Rangarajan, C., Kaul, P. I., & Seema. (2011). Where Is the Missing Labour Force? Economic and Political Weekly, 46(39), 68–72.

9.Roy, R., & Kundu, A.(2024), Recent trends in wages-income and its inequality among informal workers in India.

10.Sarkar, S., & Mehta, B. S. (2020). Increasing Dualism in Indian Wage Labour Market. Accelerators of India's Growth—Industry, Trade and Employment: Festschrift in Honor of Bishwanath Goldar, 279-300.

11.Singhari, S. Maheswaran, S. (2017). Wage structure and wage differentials in formal and informal sectors in India evidence from NSS data. Indian journal of labour economics,60(3),389-414.

12.Subramanian, S., & Jayaraj, D. (2015). Growth and Inequality in the Distribution of India's Consumption Expenditure: 1983 to 2009–10. Economic and Political Weekly, 50(32), 39–47.

13.Unni, J. (2001), "Gender and informality in the labour market in South Asia' "Economic" and Political Weekly, Vol. 36, No. 26, pp. 2360–2377.

14.Williams, C.C. orcid.org/0000-0002-3610-1933 and Gashi, A. (2022) Evaluating the wage differential between the formal and informal economy: a gender perspective. Journal of Economic Studies, 49 (4). pp. 735-750.