

Employer Social Security Benefits and Its Impact on Job Retention

Insights from the Indian Labour Market

SWAPNANIL SENGUPTA

The impact of employer social security benefits on job retention by employees in the Indian labour market is investigated, using the propensity score matching technique. By analysing data from the Longitudinal Ageing Study in India 2017–18, the article assesses how these benefits influence job tenure and job-seeking behaviour. The results reveal that receiving employer benefits is associated with an increase in job tenure by approximately 2.6 years and a reduction in job-seeking likelihood by 2.8%.

Labor was the first price, the original purchase-money that was paid for all things. It was not by gold or by silver, but by labor, that all wealth of the world was originally purchased.

—Adam Smith
(Scottish economist and philosopher)

Employee retention is vital to the labour market and, consequently, macroeconomic stability. Employee turnover contributes to increased unemployment and slows economic growth (Vasquez 2014). However, employee retention is one of the biggest challenges in the labour market globally (Silva et al 2019).

Employer social security benefits, including pensions, health insurance, and other forms of compensation, play a crucial role in shaping employee retention. These benefits provide employees with a safety net, reducing their financial uncertainty and enhancing job satisfaction. Such benefits not only attract talent but also retain it, as employees are less likely to leave jobs that offer substantial security.

Given the profound nature of the employee retention challenge, particularly in India (for example, Dash 2019; Haque 2024), the striking deficiencies in the employer social security benefits system are concerning (for details, read Sarkar 2023). Addressing these labour market challenges is important for India as it strives to achieve its \$10 trillion economy goal by 2030. Stabilising the labour market is key to fostering a productive workforce, which is essential for sustaining long-term economic growth.

While a few studies exist discussing the impacts of employer benefits on employee

retention, they are mostly qualitative and from the management perspective. To the best of my knowledge, no research exists analysing the causality quantitatively and from a socio-economic standpoint. This article fills in the gap. Using the propensity score matching (PSM) technique, I analyse the causal relationship between employer social security benefits (employer benefits hereon for brevity) and job retention in the Indian labour market. The PSM technique reduces selection bias by matching recipients of employer benefits with non-recipients who have similar observable pre-treatment characteristics, addressing issues related to high dimensionality in the matching process. I resort to cross-sectional analysis using the nationally representative Longitudinal Ageing Study in India (LASI), 2017–18 microdata.

Empirical Framework

Data and variable descriptions: The study uses nationally representative LASI (Main Wave 1, 2017–18) data. It includes data on 73,396 individuals. The dataset is filtered and consists of currently working, not self-employed, and salaried workers.

Table 1: Definitions of the Variables Used

Variable	Definition
Outcome variables	
Tenure	Duration of work in main job in years
Seeking job	Dummy variable equal to 1 if the respondent is looking for another job
Covariates	
Male	Dummy variable equal to 1 if the respondent is male
Married	Dummy variable equal to 1 if the respondent is currently married
Secondary education	Dummy variable, equal to 1 if the highest education is secondary
HS education	Dummy variable equal to 1 if the highest education is higher secondary
University education	Dummy variable equal to 1 if the highest education is university level
Occupation type	Type of occupation (categorical variable)
Age	Age of respondent on last birthday (years)
MPCE amount	MPCE amount in ₹
Children	Total number of children the respondent has

The treatment variable (receiving employer social security benefits) is constructed based on whether a worker is covered by either of the following: (i) Work-related pension; (ii) provident fund; (iii) company health insurance (but not LIC); (iv) medical reimbursement

Swapnanil SenGupta (senguptaswapnanil1@gmail.com) is Faculty of Economics and Business, Goethe University Frankfurt, Frankfurt am Main, Germany.

from employer; (v) worker's employment insurance; (vi) worker's injury insurance; (vii) other work-related pension; (viii) maternity/paternity benefits.

I use the duration of employment in the current job and the respondent's job-seeking status as proxies for employee retention. I select different socio-economic characteristics that could explain the likelihood of receiving employer benefits, including age, number of children, monthly per capita consumer expenditure (MPCE), sex, marital status, education level, and occupation type (Table 1, p 14).

Estimation and Analysis

I first present observational results in Table 2, which facilitates preliminary analysis on how employer benefits might affect job retention by employees. I summarise relevant statistics for the treatment group, the control group, and the entire sample. It can be seen that employees who receive employer benefits work an average of 23.3 years, compared to 21.5 years for those who do not. I also find that 2.8% of respondents in the treatment group are actively seeking jobs, compared to 5.4% in the control group. Clearly,

Table 2: Selected Summary Statistics

	All	Treatment Group	Control Group
Tenure (mean)	22.01	23.30	21.53
Seeking job (%)	4.70	2.80	5.40
Age (mean)	52.54	51.92	52.77
Children (mean)	2.85	2.67	2.91
MPCE amount (mean)	3,816.48	5,095.6	3,342.68
Male (%)	64.24	73.13	60.95
Married (%)	83.25	89.55	80.92
Secondary education (%)	13.37	18.15	11.6
HS education (%)	8.28	14.64	5.93
University education (%)	12.89	25.62	8.17
Occupation type (%)			
Legislators and senior officials	1.91	4.40	0.99
Professionals	9.03	18.95	5.36
Technicians and associate professionals	3.79	8.59	2.01
Clerks	6.62	13.52	4.07
Service workers	10.82	8.99	11.5
Skilled agricultural and fishery work	3.79	1.60	4.60
Craft and related trade	4.48	1.73	5.50
Plant and machine operators	4.80	8.23	3.53
Elementary occupations	16.51	7.12	19.99
Not classified	19.17	7.7	23.41
Others	19.08	19.17	19.05
Number of observations	8,317	2,248	6,069

the post-employer benefits group (treatment group) displays better statistics in terms of job tenure and willingness for a new job.

However, self-selection between the two groups is a common source of bias in observational analysis. For instance, age, level of education, occupational type and other factors could influence the respondent from receiving an employer benefit. This analysis also assumes, albeit problematically, that without employer benefits, employee retention would have remained unchanged. It also assumes that any changes in employee retention are solely due to the benefits, with no influence from other factors. Hence, a suitable causality analysis like PSM is necessary.

I start with estimating the probability of receiving employer benefits as a function of the socio-economic characteristics mentioned earlier. The estimated coefficients of the logistic model are reported in Table 3. All the coefficients are found significant at 1% level, indicating an appropriate selection of covariates.

I then estimate a propensity score model, using parametric logistic regression to calculate the probability of an individual being in the treatment group based on the vector of selected observed characteristics. I only report the average treatment effect on the treated (ATT) to identify the causal effect among those who receive the employer benefits because it is the parameter of interest in quasi-experimental techniques (Becker and Ichino 2002). In any case, the average treatment effect (ATE) may exhibit bias in observational data due to selection bias, because the treatment and control groups may not be fully comparable based

Table 3: Logit Model Estimating the Probability of Receiving Employer Benefits

	Coefficients	Standard Errors
Male	0.469***	(0.065)
Married	0.279***	(0.088)
Secondary education	0.656***	(0.077)
HS education	0.970***	(0.091)
University education	0.874***	(0.085)
Occupation type	-0.131***	(0.009)
Age	-0.013***	(0.004)
MPCE amount	0.000***	(0.000)
Children	0.046***	(0.017)
Constant	-0.955***	(0.238)
Number of observations	8,317	

***, ** and * represent 1%, 5% and 10% significance levels, respectively.

on unobserved characteristics (Caliendo and Kopeinig 2008; Pan and Bai 2015).

From Table 4, it is observed that receiving employer benefits is associated with an increase of approximately 2.6 years in job tenure for the treated employees. It is also established that being in the treatment group reduces the likelihood of seeking a new job by 2.8%. Both relationships are found to be significant at the 1% level. I further segregate the dataset by sex to shed more light on the relationships. Interestingly, I find larger impacts for females. Receiving employer benefits increases women's job tenure by approximately 3.9 years as compared to 1.2 years for men. Similarly, the likelihood of seeking a new job for the women in the treatment group is reduced by 4.2% as opposed to 3% for the male counterpart. The relationships are found to be significant at the 1% and 5% level.

Sensitivity analysis is performed by using nearest neighbour matching and inverse probability weighting techniques to check if the PSM results are robust to other matching methods. From the results of the two methods presented in Table 5, it is seen that the outcomes are largely similar, and hence, the results of

Table 4: Propensity Score Matching—Main Model

	All	Male	Female
Tenure	2.596*** (0.421) [8,096]	1.216*** (0.456) [5,216]	3.858*** (0.421) [2,880]
Seeking job	-0.028*** (0.009) [8,164]	-0.030*** (0.010) [5,255]	-0.042** (0.017) [2,909]

***, ** and * represent 1%, 5% and 10% significance levels, respectively, and observation counts are reported in () and [], respectively.

Table 5: Sensitivity Analysis

	All	Male	Female
Nearest neighbour matching			
Tenure	2.007*** (0.359) [8,096]	1.566*** (0.427) [5,216]	3.252*** (0.642) [2,880]
Seeking job	-0.019** (0.007) [8,164]	-0.017** (0.009) [5,255]	-0.028* (0.015) [2,909]
Inverse probability weighting			
Tenure	1.774*** (0.422) [8,096]	0.961 (0.601) [5,216]	3.518*** (0.499) [2,880]
Seeking job	-0.021*** (0.005) [8,164]	-0.018*** (0.007) [5,255]	-0.029*** (0.010) [2,909]

***, ** and * represent 1%, 5% and 10% significance levels, respectively. Robust standard errors and observation counts are reported in () and [], respectively.

the PSM model are robust and are not sensitive to matching techniques.

Conclusions

This article applies the propensity score matching technique to examine the effects of employer social security benefits on employee retention (quantified by employment duration and job-seeking status). The results suggest that receiving employer social security benefits increases the duration of working at the present job as well as reduces the likelihood of seeking new employment. The impacts are more pronounced for the female labour force. This suggests that women derive substantially more job stability from such benefits, and value or depend on these benefits more, thereby leading to greater job commitment and reduced turnover intentions. This could be attributed to various factors, such as differing levels of job market attachment or the specific nature of employer benefits addressing needs more prevalent among female employees.

From a policy perspective, these findings suggest that employer social security

benefits programmes must be regularly evaluated and enhanced for a stable workforce. Additionally, targeted benefits programmes can play a crucial role in addressing gender disparities in the Indian labour market. Policymakers might consider structuring or enhancing benefits schemes to further support female employees, thereby contributing to more equitable labour market outcomes. This becomes particularly important given the potentially significant role women have to play in achieving India's growth targets.

Future research should explore the specific types of employer benefits that most effectively enhance job retention across different demographic groups. Longitudinal studies could assess the long-term impacts of these benefits, while comparative analyses across industries and regions might reveal variability in their effects. Additionally, examining how employer benefits interact with factors such as workplace culture and individual career objectives could provide insights for optimising benefits programmes. Conducting similar research for other economies will provide valuable

insights by facilitating comparative analysis and examining the universality of the outcomes.

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