From Temporary to Permanent Employment? How Education and Labor Laws Shape Job Mobility in Indian Manufacturing

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Abstract: *India's registered manufacturing sector experienced a noteworthy change in employment structure in the early 2000s, marked by a significant increase in the use of contract workers compared to permanent employees. This study investigates whether workers with temporary contracts climb the job ladder or find themselves trapped in periods of temporary labor (focusing on dualistic labor segmentation), with particular emphasis on the influence of educational attainment and the enforcement of Employment Protection Legislation (EPL). Utilizing comprehensive data from the Center for Monitoring Indian Economy (CMIE), we analyze how individuals' educational attainment and the stringency of EPL shape employment patterns, specifically affecting the likelihood of securing permanent employment. The results show that educational attainment does not positively impact the upward job mobility of contract workers. Additionally, stricter enforcement of the EPL makes it less likely for individuals to transition from contractual to permanent employment, possibly due to the increased job security of permanent workers or to evade labor laws.*

Keywords: Contract Workers, Job Ladder, EPL, Permanent Workers

Jel Codes: J24, J41, J61, J88, J62

INTRODUCTION

India's manufacturing sector has undergone significant reforms, including trade liberalization and industrial de-licensing, to enhance productivity, output, and employment. However, despite these measures, the sector has not achieved the same level of growth as that of China and other East Asian economies. While India's economy has expanded at an average annual rate of approximately 7% over the past two decades, the manufacturing sector's contribution to the GDP has stagnated at around 16% (Das et al., 2015). Notably, India's registered manufacturing sector has witnessed a sharp rise in temporary contract labor in recent years, a trend that has sparked debate in academic and policy circles. According to the Annual Survey of Industries (ASI), employment in organized manufacturing increased from 7.7 million in 2000–01 to 13.7 million in 2015–16. However, the composition of the workforce shifted dramatically during this period: the share of regular workers declined from 61.2% to 50.4%, whereas contract workers surged from 15.5% to 36.9%. This expansion was largely driven by formal firms under the Factories Act, with contractual labor accounting for over half of the job growth. While this trend reflects employment generation, the growing dependence on temporary contracts raises concerns about workforce instability and higher labor turnover. Such conditions can negatively impact both worker welfare and the long-term growth of the industrial sector.

PREVIOUS LITERATURE

Previous literature has concentrated on identifying the productivity effects of contractualization (Maiti, 2013; Sofi and Sharma,2015; Hsieh & Tsivanidis, 2022). Little attention has been paid to investigating the upward job mobility of contract workers. In this context, job mobility refers to transitions from lower to upper segments of the labor market, such as moving from a temporary to a regular position (Passaretta & Wolbers, 2016; McVicar et al., 2018; Kabátek et al., 2022). The fundamental question that has attracted the attention of researchers across developed countries is whether contractual employment acts as a stepping stone for receiving a regular position. Is it a trap or a dead end? The steppingstone hypothesis argues that contractual employment acts as a stepping stone for permanent employment by providing access to workplace experience and facilitating job-specific skill development, which are necessary for a permanent employment contract

(Wang & Weiss, 1998). In addition, contractual employment acts as a screening device, enabling employers to identify potential and suitable candidates before entering a long-term employment relationship (Autor, 2001). However, these hypotheses are contradicted by the labor market segmentation theory (Doeringer & Piore, 1971), which argues that firms hire workers through two labor market segments (primary and secondary labor markets) and that there are significant barriers between them. Contract labor is used as a buffer against market fluctuations, with limited chances of transition from the secondary to the primary segment.

The literature on contractual jobs often contrasts "good" and "bad" jobs by comparing temporary positions with permanent employment. However, temporary employment also has positive aspects for employees. According to Polivka (1996), some workers intentionally choose temporary jobs for their flexibility. Booth et al. (2002) argue that temporary contracts can act as a "bridge" to regular employment. Employer strategies can significantly impact workers' career trajectories. If the primary reason for employing temporary contracts is screening, we anticipate a significant level of mobility between different types of jobs to screen workers. Once workers pass the screening process, these contracts can serve as "stepping stones" or "bridge" to regular employment. Essentially, temporary contracts function as "probationary contracts, allowing employers to evaluate employees' abilities before offering longer-term employment (Wang and Weiss, 1998; Henguelle, 1994). From this perspective, it is reasonable to expect workers to transition from contractual to permanent employment. Although the "integration scenario" developed by Giesecke and Groß (2003) does not predict this for the entire labor market, it anticipates that a significant percentage of contract workers will eventually secure permanent positions in the future. The integration scenario suggests mutually beneficial results for both forms and employees through the implementation of contract work. For employers, contract workers provide flexibility to adjust the labor supply according to demand and reduce costs. For employees, the benefits of an open market and more efficient economies should create more opportunities for mobility between temporary and regular employment (Schmid et al., 2002).

However, mobility between the core and periphery of the labor market is expected to be restricted if firms primarily employ contract workers for external flexibility and labor markets are segmented into contractual and regular jobs. According to Gebel and Giesecke (2011), contract employees can function as a safeguard, offering employers numerical flexibility (buffer stock) and the capacity to adapt workforce size based on changes in market demand. Labor market segmentation theory suggests that the shift from contractual to permanent jobs is rare, with few workers advancing to permanent positions (Gash 2008). Additionally, contract workers often begin with lower skill levels, and there are fewer incentives for businesses and employees to invest in their training compared to those in permanent roles (McVicar et al. 2016). Consequently, these workers may struggle to acquire the necessary human capital to advance their careers (Olsthoorn, 2016). When employers prefer using contract labor to reduce labor adjustment costs, it leads to limited worker mobility. Contract workers are often employed because they offer lower costs in terms of hiring and terminating employment (Kapoor and Krishnapriya, 2019). However, this reliance on contract labor creates barriers to mobility, as these workers are less likely to move to permanent positions. Consequently, contract workers remain in precarious positions and are unable to achieve stable, long-term employment. Given these scenarios, there is little reason to assume that temporary positions will lead to standard employment. Consequently, employees in the secondary sector could experience "churning" a sequence of contract jobs followed by periods of unemployment or become "trapped" in a sequence of unstable jobs.

In this section, we present empirical studies that both support and contradict our results. Passaretta and Wolbers (2016) argue that strict employment protection legislation (EPL) for permanent employees reduces the likelihood of job loss for contract workers but also prolongs their tenure in temporary positions. This aligns with our findings, indicating that strict labor laws do not facilitate the transition to regular employment. Similarly, several studies (de Lange et al., 2014) reveal that a stringent EPL for permanent contracts increases the potential costs of recruiting and dismissing workers for employers. Consequently, this leads to higher rates of temporary employment and fewer transitions to regular jobs. Similarly, Barbieri and Cutuli (2016) find that temporary workers have the lowest likelihood of moving to permanent jobs in southern Europe, where EPL gaps are significant. Additionally, Lee and Shin (2017) conclude that in Korea and Japan, non-regular employment does not facilitate progression towards regular employment but instead acts as a trap, leading to stagnant situations with limited advancement prospects.

While some studies present findings that contrast with our results, (Booth et al., 2002; Gash, 2008; Addison et al., 2015) suggest that contractual employment often leads to permanent employment. Similarly, Högberg et al. (2019) observed that partial deregulation—with stringent Employment Protection Legislation (EPL) for permanent positions but more relaxed EPL for temporary ones increases job mobility. They assert that education systems emphasizing vocational training typically exhibit higher transition rates, and that the influence of EPL depends on the vocational specialization of the education system. Gash (2008) also concludes that a significant disparity in EPL between regular and contract workers might incentivize employers to hire non-standard workers as a method of evaluating potential candidates for permanent roles. Along the same lines, Booth et al. (2002) reveal that increased transition rates from non-standard to standard jobs are positively correlated with vocationally focused educational systems.

This study analyzes the job mobility of contract workers and investigates the conditions under which they can climb the job ladder. To this end, we assess the impact of educational attainment and labor laws, particularly employment protection legislation, on the upward mobility of contract workers. Despite the growing interest in this topic, the available evidence for India remains inconclusive, and insufficient attention has been paid to educational attainment as a determinant of contractual employment. Conducting an empirical analysis of these contract workers' job mobility is crucial, as it has significant implications for

both workers' well-being and the overall vitality of the business sector. To address this gap, we utilize a micro-level analysis

METHODOLOGY AND DATA

$$yi=\beta 0+\beta 1\ (EPL)+\beta 2(Edu)+ X'k\beta k+ \varepsilon i$$

To analyze the job mobility of contract workers and its association with educational attainment and the enforcement of labor law, we used the following model specification. Where those workers who are contractual workers in time period t and permanent workers in time period t+1 are coded 1 and workers in contractual employment in both time periods are coded 0. In addition, the educational attainment of an individual and EPL are the independent variables in this regression. Educational attainment **(Edu)** is constructed so that individuals with no education are coded 0, individuals who passed the first standard are coded 1, individuals who passed the second standard are coded 2, and so on. The independent variable EPL is constructed so that states that are observed as pro-worker are coded 1 and states that are pro-employer are coded 0. The vector $X`k\beta k$ denotes the set of control variables, which includes region, gender and age of an individual, while εi signifies the error term in the model.

This study utilizes a micro-level dataset derived from various waves of the Consumer Pyramids Household Survey (CPHS) from 2018-2021 to examine job mobility among contract workers. The study focuses on major fifteen states of India including Assam, Andhra Pradesh, Punjab, Karnataka, Maharashtra, Uttar Pradesh, Kerala, Bihar, Orissa, Gujarat, Rajasthan, Madhya Pradesh, Tamil Nadu, West Bengal and Haryana, considering the availability of the indicator of EPL. Moreover, to quantify EPL at the state level, we follow the methodology outlined by (Sofi, 2025). The final sample comprised 7357 observations across 15 states and manufacturing industries.

Table 1: Summary statistics

Variable	Mean
Mean level of education	8.93
Mean level of education among Males	8.99
Mean level of education among Females	6.84
Mean level of education among urban individuals	8.78
Mean level of education among rural individuals	8.97
Average age	34.95

The table provides descriptive statistics related to the mean level of education and average age across the different demographic groups in the study. Overall, the mean level of education for the entire sample was 8.93 years. Among males, the mean level of education is slightly higher at 8.99 years, whereas among females, it is lower at 6.84. When comparing urban and rural individuals, the mean level of education is slightly lower among urban individuals at 8.78 years compared to 8.97 years among rural individuals. The average age of the participants was 34.95 years. These statistics offer insights into the educational attainment and age distribution within the study population, highlighting potential demographic differences that may influence research outcomes.

Table 2: Industry wise distribution of our sample individuals

Industry of Occupation	Number of sample Individuals
Automobiles and other Transport Equipment Manufactures	320
Cement, Tiles, Bricks, Ceramics, Glass and other construction materials	321
Chemical Industries	1170
Food Industries	750
Footwear and other Leather Industries	831
Gems and Jewellery	434
Handicraft Industries	59
Machinery Manufacturers	992
Metal Industries	1024
Pharmaceutical Manufacturer	223
Soaps, Detergents, Cosmetics etc	42
Textile Industries	1191
Total	7357

The table presents the distribution of individuals across various industries. This indicates that the highest number of individuals are employed in the textile industry (1,191), followed by the metal industry (1,024) and Machinery Manufacturers (992). Industries with relatively lower employment numbers include Handicraft Industries (59), Soaps, Detergents, Cosmetics, etc. (42), and pharmaceuticals (223). Overall, the data highlight the varying workforce sizes across different industrial sectors, reflecting the diverse employment patterns within the studied region or population.

Table 3: Distribution across states of our sample individuals

S.No	State	Number of sample Individuals
1	Andhra Pradesh	157
2	Assam	127
3	Bihar	7
4	Gujarat	2853
5	Haryana	224
6	Karnataka	130
7	Kerala	48
8	Madhya Pradesh	178
9	Maharashtra	1139
10	Odisha	14
11	Punjab	143
12	Rajasthan	40
13	Tamil Nadu	455
14	Uttar Pradesh	1218
15	West Bengal	624
16	Total	7357

The table presents the distribution of individuals across the different states in India. Gujarat has the highest number of individuals (2, 853), followed by Uttar Pradesh (1, 218) and Maharashtra (1, 139). States like Tamil Nadu (455), West Bengal (624), and Andhra Pradesh (157) also have significant numbers of individuals, while Bihar (7), Odisha (14), and Rajasthan (40) have comparatively fewer individuals. This distribution provides insights into the regional representation of the sample population, highlighting the concentration of individuals in certain states within the study.

EMPIRICAL RESULTS AND DISCUSSION

Table 4: Estimates of the effect of education and EPL on workers Job Mobility

Independent variables	Dependent Variable (Yi) is Job mobility (Yi = 1 if individual is engaged as permanent worker, zero otherwise.	Dependent Variable (Yi) is Job Mobility (Yi = 1 if individual is engaged as permanent worker, zero otherwise	Dependent Variable (Yi) is Job Mobility (Yi = 1 if individual is engaged as permanent worker, zero otherwise
Enforcement of EPL	-0.90***	-0.93***	-1.00***
	-0.06	-0.06	-0.06
Educational Attainment	-0.01	0.01	0.09
	-0.06	-0.06	-0.06
Urban dummy	----	-0.25	0.11
		-0.07	-0.07
Male dummy	----	-0.63***	-0.57***
		-0.16	-0.16
Age	----	0.01***	0.01***
		0	0
Constant	-1.00***	-0.56***	0.08
	-0.04	-0.2	-0.24
Industry dummies	No	No	Yes
Number of Observations	7357	7357	7357

Notes: Figures in parentheses ares tandard errors
***=pd"0.01;**=0.01<pd"0.05;*=p<0.10

The negative coefficient of Employment Protection Laws (EPL) indicates that stricter enforcement of these laws is associated with a reduced likelihood of individuals moving from contractual to permanent employment. This may be due to increased job security for permanent workers, which could make employers hesitant to convert contractual positions into permanent ones. Consequently, stringent labor laws may trap contractual workers, hindering their upward mobility. Furthermore, the level of educational attainment does not significantly affect the probability of transitioning from contractual to permanent employment. This suggests that educational qualifications do not play a crucial role in determining whether an individual shifts their employment status.

The coefficient for the urban dummy variable is statistically insignificant, suggesting that residing in an urban area does not significantly affect the likelihood of job mobility compared with living in a rural area. Conversely, the coefficient for the male dummy variable is negative and statistically significant, indicating that males are less likely to transition from contractual to permanent employment than females. Additionally, the positive and significant coefficient for age implies that older individuals have a higher likelihood of moving from a contractual to a permanent employment status.

Table 5: Estimates of the effect of education and EPL on workers Job Mobility (robust standard errors).

Independent variables	Dependent Variable (Yi) is Job mobility (Yi = 1 if individual is engaged as permanent worker, zero otherwise.	Dependent Variable (Yi) is Job Mobility (Yi = 1 if individual is engaged as permanent worker, zero otherwise	Dependent Variable (Yi) is Job Mobility (Yi = 1 if individual is engaged as permanent worker, zero otherwise
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Educational Attainment	-0.01	0.01	0.09
	-0.06	-0.06	-0.06
Urban dummy	----	-0.25***	-0.11
		-0.07	-0.07
Male dummy	----	-0.63***	-0.57***
		-0.16	-0.17
Age	----	0.01***	0.01***
		0	0
Constant	-1.00***	-0.56	0.08
	-0.04	-0.2	-0.24
Industry dummies	No	No	Yes
Number of Observations	7357	7357	7357

Notes: Figures in parentheses are standard errors
***=pd"0.01;**=0.01<pd"0.05;*=p<0.10

Our analysis, which includes robust standard errors, consistently demonstrates that stricter enforcement of Employment Protection Legislation (EPL) decreases the likelihood of transitioning from contractual to permanent employment. Additionally, educational attainment does not significantly affect the upward job mobility of contract workers. The findings also reveal that gender plays a role, with males being less likely to move to permanent positions than females, who, along with older individuals, are more likely to secure permanent employment. Moreover, factors such as educational attainment and urban residency did not have significant effects on job mobility.

CONCLUSION

This study analyzes whether contractual employment acts as a stepping stone toward permanent positions or whether workers remain towards in ed to temporary contract roles. The results indicate that educational attainment does not significantly impact the upward job mobility of contract workers. Additionally, the enforcement and stringency of labour laws (EPL) do not facilitate upward mobility for these workers. These findings suggest that labor laws contribute to labor market segmentation, with stringent protections for permanent employees and flexibility for contract workers, creating a dual labor market structure. In this structure, contract workers face considerable barriers to advancing to more secure and stable employment. This aligns with the labor market segmentation theory (Bentolila et al., 1990; Polavieja, 2003; Boeri et al., 2007), which found that hiring and firing costs, a component of EPL, reduce the likelihood of workers transitioning from temporary to permanent positions. Our results contradict the stepping-stone hypothesis, which posits that contract workers may improve their chances of

transitioning to permanent employment by gaining work experience and accumulating human capital during their contract tenure (Scherer 2004).

Given these findings, policymakers should consider reforms that balance the protection of permanent employees with the need for greater flexibility and upward mobility among contract workers. This could involve revising the EPL to reduce the rigidity that discourages employers from transitioning contract workers to permanent positions. Additionally, active labor market policies, such as job training programmes, career counseling, and employment subsidies, can help workers in the secondary sector acquire the skills needed to move into the primary market. Efforts to create a more inclusive labor market should focus on providing better access to social protection and career advancement opportunities for contract workers. These measures can reduce labor market segmentation and promote a dynamic and equitable employment landscape.

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