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# Influence of Political Alignment and Federal Structure on Public Sector Employment: The case of India

Ritika Jain  
*Centre for Development Studies*

### Abstract

The study examines political alignment and central government's influence on employment in enterprises owned by the state governments in the Indian context. Using data on 625 Indian SLPEs between 2007-08 and 2009-10, the study employs regression and propensity score matching methods to understand the effect of these variables on employment outcomes. The results suggest that employment in SLPEs is higher if the SLPE is located in a state that is run by the same party that governs the Centre. Further, SLPE employment rises with a rise in the loan amount given by the Centre to these enterprises. In fact, the effect of Centre loans on employment in SLPE is stronger if the SLPE operates in a politically aligned (with Centre) state.

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**Contact:** Ritika Jain - ritika@cds.ac.in.

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## 1. Introduction

According to the Rawlsian theory of social justice, public sector leadership can act as a strong instrument in ensuring just social arrangements, correcting regional inequalities and advancing public interest. If the public sector is competent, resourceful and legitimate, public sector enterprises can act as important institutions in developing economies. These enterprises shift away from the narrow paradigm of profit maximization and bring a wider set of objectives under its umbrella, such as investing in certain areas and projects that have long gestation periods, providing certain goods and services at a subsidized rates and so on. One of the most important objectives that these enterprises fulfill is providing employment (and thus better opportunities) to the masses. The study focuses on public sector employment in India. The federal structure of the government (Centre and state) in India is combined with public sector enterprises owned by both levels of the government. However, employment features in the concurrent list (shared with Centre and state) of items. This includes trade unions, welfare of labour including conditions of work, provident funds, employers' liability, workmen's compensation, invalidity and old age pensions and maternity benefits. This suggests that examining employment situations in enterprises owned by the state government does not isolate the role of the Centre in it. The current study aims to examine this feature using a political economy perspective. Specifically, political alignment between the Centre and the state governments boost employment opportunities in SLPES and hence contribute to reducing regional inequalities and poverty.

On November 19, 2016, The Tribune reported regularization of more than twenty seven thousand ad hoc, temporary and contractual state department employees by the Punjab state government despite opposition from the personnel department. The personnel department had suggested that since these employees were recruited under certain schemes by the central government and were paid from the funds given by the Centre, the state would find it difficult to manage funds for them. The state government, on the other hand, had suggested that the role of the state was to make arrangements for social welfare of the needy.<sup>1</sup>

This news piece reflects two situations in most State Level Public Sector enterprises (SLPEs) in India. The first one is the impact of federal structure on SLPEs in India. SLPEs are enterprises owned by the respective state governments. However, these enterprises are partially funded by the Centre. According to a Planning Commission Report (2002), SLPEs are viewed as extended hands of the state governments for promoting economic and social development. They are also seen as tools to operationalise certain central schemes at the ground level in various states. Of the total loans received by all SLPEs in India for the year 2009-10, approximately 27% was financed by the central government. The role of central government in SLPEs was also highlighted when the Supreme Court of India had dismissed the allocation of 153 coal blocks allocated to state PSUs in 2014 since no state government or PSUs of the state governments are eligible for mining coal for commercial use.<sup>2</sup>

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**1Source:** <http://www.tribuneindia.com/news/punjab/state-ignored-objections-to-regularise-employees/325393.html>

**2Source:**

[http://www.telegraphindia.com/1140826/jsp/nation/story\\_18761900.jsp#.WD56urJ961s](http://www.telegraphindia.com/1140826/jsp/nation/story_18761900.jsp#.WD56urJ961s)

The second point that the story highlights is the appointment of employees (contractual) in SLPEs under certain central schemes. As an example, the Central government recently announced a scheme in which free coaching services were to be provided for all scheduled caste (SC) and other backward caste (OBC) children in all states. This required all central and state level universities and Centres to be used as implementing agencies. At the same time, the total costs were to be borne by the central government.<sup>3</sup> This suggests that under certain schemes introduced by the Union government, the Centre may even fund salaries and wages of SLPE employees.

The current study aims to understand these two features of SLPEs in India. While doing so, the study takes explicit account of political influence in the context of public sector enterprises. Specifically, the paper captures the role of central government on employment of SLPEs in India by using the loans and subsidy given by the Centre to each of the SLPE. Further, the study employs a political variable capturing the effect of having the same party at both levels of the government- Centre and state. Political alignment at both levels of the government is expected to have a positive influence on SLPE employment through three channels. First of all, if both Centre and State are ruled by the same party, it is possible that those states have better bargaining power against the Centre in mobilising financial resources. It may lead to better allocation of financial and physical resources to public sector enterprises and thus create employment through increased activity of those industries.<sup>4</sup>The second channel emerges from the fact that employment is a concurrent item and hence the party at the Centre will have a strong influence in the functioning of SLPEs. The last channel, political in essence, is driven by the fear of vote bank loss. To take workers into confidence, Centre-aligned states have better coordination with the Centre than non-aligned states. Thus, the central government would direct higher funds to these states to create employee friendly environment just to appease them for their political gains.

The study contributes to the existing literature on analyzing public sector employment using the political economy perspective. The strand of literature on SLPE in India has received less attention as compared to the Central Public Sector Enterprises (CPSEs).Further, research on employment in SLPEs is even sparse. Few studies that have focused on SLPE employment have examined different features. D'Souza (2002) examines the human resource practices in the public sector banks in the nineties. Sharma and Bajpai (2010) conduct a survey of 250 public and private sector employees in India and find that employees in public sector organization have greater degree of organizational commitment in comparison to private sector organizations. Singh and Sanjeev (2013) attempt to examine the drivers that influence engagement of employees in PSEs and suggest factors beyond salaries, such as recognition, job satisfaction and opportunities lead to better engagement of employees in PSEs.Muralidharan (2015) suggests a new approach to public sector hiring in India for better service delivery.The idea is to introduce a contract or internship for a period of three to five years at the entry level and provide regular training and certifications with reviews to increase competence. As evident, the political

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<sup>3</sup>Education, as an item features in the concurrent list shared by the Centre and the state. However, trade unions, Welfare of labour including conditions of work, provident funds, employers' liability, workmen's compensation, invalidity and old age pensions and maternity benefits also feature in the concurrent list.

**Source:** <http://www.skilldevelopment.gov.in/nsqf.html>

<sup>4</sup> Calculations from the data suggest that profits are higher for SLPEs located in politically aligned states as compared to non-aligned states.

economy of employment in Indian SLPEs has been relatively unexplored. The current study aims to fill this gap in the literature.

## 2. Data and variables

The data used in the current study is created by combining financial and political data of SLPEs owned by different states of India spanning from 2007-08 to 2009-10. The financial data is collected using the latest comprehensive survey on SLPEs in 2012 covering approximately 625 SLPEs by the Department of Public Enterprises. The study uses standardised employment in SLPEs as the dependent variable. The study also uses profit after tax to capture profitability of SLPEs, loans and subsidies given by the Centre and state firms and firm size as firm specific explanatory variables. For comparability, all variables have been standardized between 0 and 1.

The study uses two variables to capture political factors in the state. The first variable captures if both levels of the government have the same party in power. During 2007-2009, Indian National Congress led coalition was in power at the Centre. The study uses a dummy variable, namely “same party” that takes a unit value only if the state is run by INC in the given year. Secondly, we use ideology of the state to capture if the state is right or left winged. In order to construct the ideology scores for the state governments, I rely on Chhibber and Nooruddin (2004) and Dash and Raja (2014), who have coded ideology scores of all national and major regional parties in India based on the parties' objectives, past prescribed policies and actions. For the few remaining regional parties, I collected the relevant information from the parties' websites and media reports. The ideological stand takes integer values from one to five, where right is coded 1, right-center 2, center 3, left-center 4 and left 5. Next, by identifying the party that had won the most recent Vidhan Sabha (state-level) elections I get the state government's ideology during the year.

The study takes account of some socio-economic factors that affect the industrial environment at the state level. Favorable external environment boosts performance and as a consequence may lead to employment expansion. This data is collected from Reserve Bank of India website, CMIE reports and other state-level documents. The different variables are:

*Road connectivity:* To capture connectivity in a state, the study uses the ratio of total length of roads in the state to the total area covered by the state

*Electricity generation:* The total electricity generated in a particular state over population of the state captures electricity generation in a state

*Credit availability:* Industrial credit availability is captured as a ratio of the total industrial credit as a ratio of the state domestic product.

*Labor market rigidity:* The ratio of total man days lost in a state due to strikes and lockouts to the total workforce in a state captures labor market rigidities in a particular state.

*Taxation policy:* Since data on tax rates are unavailable, the study uses total excise duty expressed over the gross state domestic product collected as a proxy.

Finally, the study uses information on the industry type to control for overall industry effects.

## 3. Descriptive Statistics

Table I presents comparison of the enterprises owned by both the levels of the government-Centre and state.

	CPSE		SLPE	
	2008-09	2009-10	2008-09	2009-10
Number of operational enterprises	213	217	614	624
Number of employees (in Lakhs)	15.34	14.91	15.31	15.21
Investment (in Rs. Crores)	513532	580784	454471	518209
Turnover (Rs. Crores)	1271521	1244805	317316	366814
Net profit/Loss	83867	92203	-17866	-13227

**Source:** Public Enterprise Survey, 2009-10

**Table I: Selected financial variables compared for CPSEs and SLPEs**

From Table I, the number of enterprises owned by the state governments is thrice the enterprises owned by the Centre. Despite this, the number of employees working with these enterprises is comparable. With investments being comparable, this suggests that either the central government enterprises are over staffed or the state ones are under staffed. To explore the second question, we focus on SLPE employment. The study includes 625 firms for the analysis. We winsorize the data at 95% on total assets and profitability to do away with outliers. This leaves us with 613 SLPEs.

States	Total Employees	% Share
Maharashtra	240316	15.8
Andhra Pradesh	222353	14.62
Tamil Nadu	179007	11.77
Karnataka	145889	9.59
Uttar Pradesh	122638	8.06

**Source:** Public Enterprise Survey (2009-10)

**Table II: Top five states in terms of Employment in SLPEs**

Table II suggests that Maharashtra and Tamil Nadu account for over thirty percent employment in SLPEs across all states. On the other hand the top four states, namely Maharashtra, Tamil Nadu, Karnataka and Uttar Pradesh account for half employment generation in all SLPEs. This suggests that the distribution of employees across all states is not uniform. The top five states in terms of the number of SLPEs has been presented in Table III.

States	Total Number of SLPEs
Kerala	54
Karnataka	53
West Bengal	52
Tamil Nadu	49
Gujarat	43

**Source: Public Enterprise Survey (2009-10)**

**Table III: Top five states in terms of number of SLPEs**

Table III shows the top five states according to the number of SLPEs operating in that state. This ranking has only Tamil Nadu and Karnataka as the common states from Table II ranking. This suggests that the states ranked according to the number of employees (in Table II) are not systematically different according to the number of enterprises. The factors affecting employment in SLPEs require further investigation. The trend of selected variables is presented in Table IV.

Year	Number of employees	Profits	Exchequer Contribution	Subsidies
2007	1520973	-1322727	3092871	3660591
2008	1521150	-1786602	3065004	3012874
2009	1472854	-919539	6822562	2095343

**Note:** Profits, loans and subsidies are in Rs. Lakhs.

**Source:** Calculated from the dataset

**Table IV: Selected variables aggregated for all SLPEs from 2007-2009**

According to Table IV, the number of employees has recorded a modest decline from 2007 to 2009 (approximately 3%). Simultaneously, the total losses in SLPEs have also declined suggesting an improvement in the performance of these enterprises. Additionally, the total contribution to the state and central governments doubled from 2008 to 2009. Simultaneously, there has been a drop in the amount of subsidies given by the governments too. Declining profits, drops in subsidies and rise in exchequer contributions suggest performance improvement of SLPEs from 2007 to 2009. We explore it further using selected econometric methods.

#### 4. Econometric Methodology

To examine the influence of state level political and socio-economic factors on employment of SLPEs we use an industry level fixed effects regression

$$M_{it} = \alpha_i + \beta_t + \gamma x_{it} + \eta z_{st} + \varepsilon_{ij} \quad (1)$$

Where  $M_{it}$  is the employment level of the  $i$ th SLPE in  $t$ th year.  $\alpha_i$  and  $\beta_t$  the industry and time fixed effects.  $X_{it}$  are the set of firm specific factors that influence employment in SLPEs. Further, the state specific political and socio-economic factors are included in  $z_{it}$ . To capture the influence of political factors in employment decisions indirectly we use an interaction of loans given by the Centre to the SLPE with the same-party dummy variable. It is expected that the effect of loans given by the Centre to the enterprises will be stronger in states that are run by the same party at both levels of the government. The regression includes industry, geographical and year dummies to control for unobserved effects.

As a robustness check, I use a propensity score matching to compare employment of SLPEs that were operating in the “same party” state as opposed to a “different party” state. Propensity score matching is implemented by estimating a probit model where the dependent variable is “Same Party”. Selection of SLPEs in the same party states is captured as a function of firm specific, industry and state specific factors. We include time dummies to capture unobserved year effects.

$$p_i = \alpha_i + \beta x_i + \eta z_s + \varepsilon_{ii} \quad (2)$$

Based on the propensity scores obtained from (2), SLPEs in politically aligned states are matched with that in the non-aligned ones. Finally, the average treatment effect in employment for the matched sample between the same party and different party state enterprises, captures the effect of political alignment on SLPE employment.

## 5. Results

### 5.1. Regression

The results of the industry fixed effects regression has been presented in Table V.

<b>Employment</b>	<b>Model I</b>	<b>Model II</b>	<b>Model III</b>	<b>Model IV</b>
<b><i>Firm specific factors</i></b>				
Profits	-0.113*** (0.036)	-0.114*** (0.036)	-0.112*** (0.036)	-0.116*** (0.036)
Capital	0.183*** (0.020)	0.183*** (0.020)	0.183*** (0.020)	0.183*** (0.020)
Subsidy from the government	0.020 (0.033)	0.020 (0.033)	0.021 (0.033)	0.019 (0.033)
Loan from the state	0.246*** (0.032)	0.246*** (0.032)	0.247*** (0.032)	0.246*** (0.032)
Loan from the Centre	0.104* (0.058)	0.104* (0.058)	0.104* (0.058)	0.104* (0.058)
<b><i>State level Political Factors</i></b>				
Ideology of the state	0.001 (0.002)	0.001 (0.001)	-0.006 (0.004)	
Same party dummy variable	0.004 (0.003)	0.005* (0.003)	0.007** (0.003)	0.005* (0.003)
<b><i>Political and Economic interaction</i></b>				
Centre Loan* Same Party	0.000004** * (0.0000005)	0.000003** * (0.0000004)	0.000003** * (0.0000004)	0.000003** * (0.0000004)
<b><i>State level Economic Factors</i></b>				
Road density	-0.0001 (0.001)			
Industrial credit availability	0.005 (0.003)	0.005* (0.003)	0.005* (0.003)	0.004 (0.003)
Electricity tariff difference	0.009 (0.008)	0.009 (0.007)	0.008 (0.007)	0.009 (0.007)
Labor market rigidity	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.00003 (0.0001)
Tax rate	-0.019* (0.001)	-0.019* (0.001)	-0.020* (0.001)	-0.020* (0.001)

	(0.012)	(0.012)	(0.011)	(0.011)
<b><i>Other controls</i></b>				
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Geographical area dummies	Yes	Yes	Yes	Yes
No. of observations	1761	1761	1761	1761
R squared	0.1627	0.1627	0.1631	0.1622

**Note:** The table presents results of an industry fixed effects regression of factors affecting employment of SLPEs. Model I defines ideology as the scale defined by Dash and Raja (2012)- spreading from 1 to 5 where 1 denotes right and 5 denotes left. Model II, III and IV control for relevant state specific factors. Model III defines ideology as a variable which takes that value 1 if the state is “right” or “Centre-right”, that takes the value 0 if the state is Centre and the value -1 if the state is “left” or “left wing”. Model IV does not include ideology as a control variable. Standard errors are reported within parentheses. \*,\*\* and \*\*\* indicate significance at 10%, 5% and 1% respectively.

**Table V: Determinants of Employment of SLPEs in India**

Table V suggests that employment in SLPEs is influenced by a combination of firm specific factors, state specific political and economic factors. In terms of firm specific factors it is observed that low profits, high capital, huge loans from both levels of the government lead to higher employment generation in SLPEs. In terms of state specific political factors, ideology of the state does not have any significant impact on employment in SLPEs. In contrast, employees in SLPEs located in states that are governed by Indian National Congress (governing party at the Centre) is higher than those in states governed by other parties. This suggests that same party at both levels of government makes it favorable for employment. Further, the effect of loans given by the Centre to the SLPEs is strongly conditioned by political alignment. Specifically, if the same party governs the Centre and the state, the effect of the loans on employment is higher. Among state specific political factors, credit availability and low tax rates boost employment in SLPEs. Surprisingly, labor market rigidities do not have any impact on employment. The models discussed in Table V have controlled for a series of unobserved effects- yearly, industry wise and geographical area.

### 5.2. Propensity score matching

In order to test the robustness of the effect of political alignment on employment of SLPEs we use a propensity score matching exercise. Table VI depicts that the mean tests of these covariates is statistically insignificant for the matched sample, indicating that the treatment and control groups are similar.

	<b>Before Matching</b>	<b>After Matching</b>
Capital employed	1.94*	0.38
Employee size	1.92*	-1.03
Subsidy from the government	2.91***	-0.14
Loan from the state	3.23***	2.45**
Loan from the Centre	-0.04	-0.05

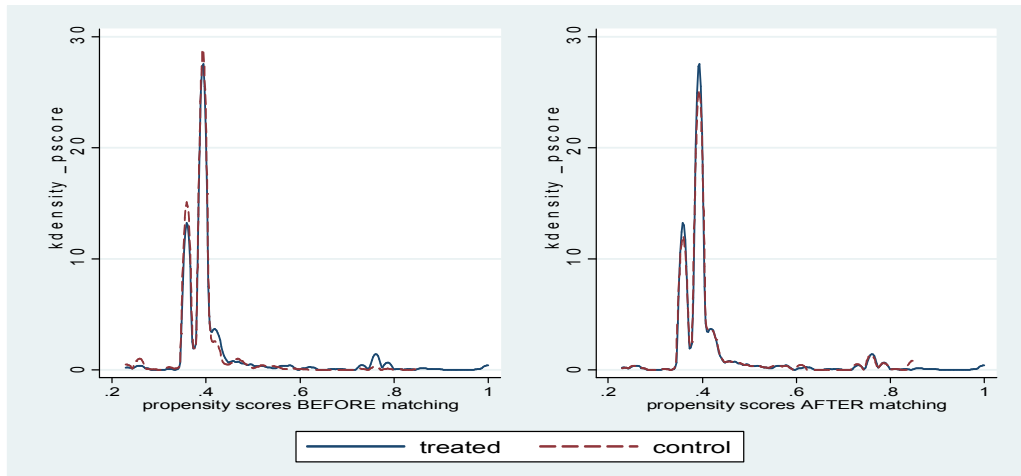


<b>Control Factors</b>		
Industry dummies	Yes	Yes
Year dummies	Yes	Yes
No. of observations	1761	768

**Note:** The table presents the **t statistic** obtained for each variable. \*, \*\*, \*\*\* indicate significance at 10%, 5% and 1% respectively.

**Table VI: Covariates before and after the matching exercise**

The distribution of the propensity scores for the sample before and after matching has been presented in Figure 1.



**Figure 1: Propensity score distribution of the treatment and control groups before and after matching**

The average treatment effect of the propensity score matching was 0.007. It was statistically significant at 10% level. This suggests that employment in an SLPE is higher if that SLPE is located in a state that is run by the same party that governs the Centre.

Results of both the industry fixed effects regression and propensity score matching reiterate the significance of the same party governing both levels of the government for SLPE employment.

## 6. Conclusion

The Indian context provides a unique set up of a federal structure of the government, sets of public sector enterprises owned by respective wings of the government and the influence of the central government on the functioning of the enterprises owned by the state government. Using a three year panel data of 625 SLPEs in India, the study examined the effect of political alignment and federal structure on SLPE employment. The results iterate the significance of political alignment for employment in SLPEs. Since employment is a concurrent item, the Centre's allocation of funds to different states is strongly driven by the same party effect. This explains why SLPEs in states run by the Central government experiences a positive impact on employment due to loans given by the Centre. The study recommends policy tools that may impact performance of SLPEs which may result in employment expansion.

Keeping in mind the federal structure of the Indian economy, it is impossible to have all states politically aligned with the Centre. The current study, thus, asserts the need of certain policy tools that may provide autonomy to SLPEs in decision making and day-to-day functioning. Borrowing from the experience of their central counterparts- CPSEs, SLPEs can sign a Memorandum of Understanding (MoU) with the respective state governments that is a non-negotiable document that states the roles and rights of the government and the enterprises.

There are some caveats of the study. The study has investigated a single dimension of employment- employee size. The more relevant and important aspect- wages has been unexplored due to unavailability of data. Further, unavailability of data after 2009-10 does not allow analyzing SLPE employment for recent years. Finally, a word of caution must be exercised with regard to the causal interpretation of the results. Since we are matching enterprises only on those variables that are observables, we *assume* that after matching political alignment is exogenous to the model. One may argue the presence of unobservables influencing political alignment but with observational data it stands as a limitation in the current study.

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