

**IDEOLOGY, PARTY FRAGMENTATION,
AND PUBLIC SECTOR EMPLOYMENT IN THE INDIAN STATES***

Pradeep Chhibber

Department of Political Science
University of California, Berkeley
chhibber@calmail.berkeley.edu

Irfan Nooruddin

Department of Political Science
The Ohio State University
nooruddin.3@osu.edu

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INTRODUCTION

Government jobs in India, as in most developing countries, have traditionally been highly sought after, bringing as they do status, decent remuneration, and high job security. Political parties and entrepreneurs, scholars argue, exploit this fact by using their control over the allocation of these jobs to generate rents. Of course, one form these rents can take is corruption, but the other is political support at the ballot box. Further, to the extent that ethnicity forms a basis for this exchange, voters might be induced to support a party if it can develop a credible reputation for favoring their co-ethnics with patronage (Chandra 2004). In these explanations, political incentives to provide patronage are constant, but as the next section makes clear there exists considerable variation across the Indian states in the size of the public sector – understood here as the number of people employed by the state. To explain this variation, scholars typically emphasize social factors, economic considerations, and the competitiveness and fragmentation of the political system.¹

¹ This paper addresses on what basis do politicians compete for office in Indian elections? This question has broad comparative resonance and speak to a vigorous debate about the nature of democratic elections in developing countries (see Remmer 2007 for a concise statement of this debate). In most research on Indian politics the conventional wisdom appears to be that the debate has been answered, and patronage-based explanations appear to be the winner. Little credence is given to the view that Indian elections, especially at the sub-national level, are contested on the basis of programmatic appeals to the citizenry, or that parties differ meaningfully on the basis of partisan labels. Rather, the consensus is that Indian parties develop clientelistic relationships with vote blocs that trade votes for patronage.

In this paper, we offer a “return to the past” explanation for variations in the size of the public sector across 15 major Indian states. While competitiveness and fragmentation are undoubtedly important for creating incentives to provide some types of public policies versus others, we cannot understand public sector employment patterns across India without a deeper consideration of the nature of *ideological competition*. Specifically, we argue that parties of the Left, and consequently states in which party competition is between a centrist party and a Leftist party, favor a large State, and therefore have higher levels of public sector employment. This argument is supported by data for 1967-2004 for the 15 largest states in India.

The paper is organized in four sections. The next section describes variations in the size and growth of the public sector in India over the past forty years. We then offer a theoretical explanation for such variation, and contrast our argument with others drawn from the existing literature. The penultimate section reports on a statistical model of public sector employment designed to test expectations derived from our argument against others from the literature, and reports the results. We conclude with a consideration of the implications of our research for future work on the political economy of democracy in developing societies.

THE SIZE OF THE STATE ACROSS INDIAN STATES

Just how large is the public sector in India and how does its size vary across states? To answer this question, we gathered data on levels of employment for 15 major states. We define state-level public employment as the sum of three categories of public sector employees: state government employees, employees of quasi-state organizations, and local government employees.² We therefore exclude central government and quasi-central-government employees

² Quasi-state organizations are autonomous organizations or bodies controlled by the State, *i.e.*, they are wholly or substantially financed by the State. Our data suggest that employment in such

located in the states, since those would reflect different political considerations than those on which we are focused here.

Over the period for which we have data, the average share of total employment in the organized sector comprised by public sector employment is 46% (41% if you exclude quasi-state employees). This average, however, masks considerable variation. The standard deviation for this variable is 10, and it ranges from a low of 23% to a high of 69%. Figure 1 describes the variation in average levels and growth of public sector employment across the Indian states.

/INSERT FIGURE 1 ABOUT HERE/

The top panel provides a bar chart for the average relative size of the public sector.³ West Bengal is at one end, with slight less than a quarter of its total organized sector finding employment in the public sector. At the other end is Orissa, where over 60% of those working in the organized sector are employed by the state. There is also clearly significant variation with a cluster of states (Assam, Maharashtra, Kerala, Bihar, and Gujarat) having between 30% and 40% of their organized sector in the public sphere, and another cluster (Andhra Pradesh, Uttar Pradesh, Haryana, Punjab, Madhya Pradesh, and Rajasthan) between 50% and 60%. In the middle are two Southern states, Karnataka and Tamil Nadu.

The bottom panel of Figure 1 plots the variation by state in the growth of the state (the y-axis is the growth of the percent share of the public sector). The boxes for each state cover the

organizations has become an increasingly large portion of overall public sector employment.

However, all results reported in the paper are robust to excluding this category of public sector employment from the analysis. Definition of quasi-state organization is from the Directorate-General of Employment & Training, Ministry of Labour and Employment, Government of India.

³ The state codes used in the figures can be found in the Appendix.

range from the 25th to 75th percentile (*i.e.*, the interquartile range), and the white line within the box marks the state's median growth of the public sector. The whiskers mark the upper and lower adjacent values, and any outlier points falling beyond the adjacent values are marked by dots.⁴ The box-and-whisker plot of the growth rates of the public sector reveals some other interesting patterns. First, the relative size of the public sectors in most states have not grown rapidly, with growth rates typically in the lower single digits. This said, however, most states have in fact *grown*, rather than shrunk, with the bulk of the ranges of their growth rates falling on the positive side of the y-axis. Second, some states have grown more than others, with West Bengal, Maharashtra, Madhya Pradesh, and Orissa having average growth rates of 3% or higher, while others have contracted (Punjab and Karnataka particularly), and the remainder have maintained their sizes or grown only slightly.

Figure 2 shows the public sector employment data summarized above in more detail, plotting the size of the state by state over time.

/INSERT FIGURE 2 ABOUT HERE/

Figure 2 reinforces the patterns identified above: there exists considerable variation in the relative size of the public sector across states, and less, but nonetheless important, variation in the growth rates of that sector over time.

Figures 3 and 4 present different takes on the public sector employment data. Figure 3 presents the per capita public sector employment rate by state. While the dominant impression

⁴ The upper adjacent value is defined as the largest data point less than or equal to the 75th percentile + 1.5 x the interquartile range. The lower adjacent value is the smallest data point greater than or equal to the 25th percentile – 1.5 x the interquartile range. Outliers are any values beyond the whiskers.

formed by looking at Figure 3 is that of the variation in per capita rates of public employment, a closer look reveals a few puzzles. Consider West Bengal, for instance. While West Bengal, Maharashtra, and Madhya Pradesh were all identified as experiencing growth in the size of the public sector when it was measured as a share of total organized sector employment, from a per capita perspective these three states appear to be shrinking the size of their public sector. While there's nothing inherently inconsistent with these seemingly opposite tendencies, it does lead us to suspect that the denominators might be driving the trends thus far.

/INSERT FIGURE 3 ABOUT HERE/

Therefore, we consider the raw growth of the state, measured in terms of the number of employees in the public sector.

/INSERT FIGURE 4 ABOUT HERE/

Obviously, given the different population sizes of the states, an unconditional comparison of the levels of number of public sector employees across the states may not be seen as particularly useful. But the trends over time within states are more informative and make clear that there has been an expansion of the public sector in some states in India, a contraction in some others, and little change in yet others. In the next section, we develop a theoretical framework rooted in the nature of the ideological competition in the state to explain this variation.

THEORETICAL EXPECTATIONS

One can conceive of government jobs in one of two ways. First, as is true in most of the current political science literature, one can think of government jobs as patronage. In fact, the most common tendency is to *define* patronage as 'government jobs', thereby making the two synonymous, so that states and countries that have larger public sectors are therefore, by

definition, indulging in patronage politics or even if that is not the case it is asserted that all political parties rely on patronage to mobilize support. If it is assumed that all political parties rely on patronage – especially in the allocation of jobs (the classic patronage disbursement). It is extremely difficult to draw a clear set of expectations regarding the role of party competition on the disbursement of patronage. If each party mobilizes support using patronage - the limits to the number of jobs is determined solely by hard budget constraints. Hence, there should be no relationship of the nature of party competition (measured as number of parties) on patronage. What of the nature of party competition? It is possible that there could be competitive bidding for more jobs in a system with greater competitiveness but by the same token a non-competitive system would let a party 'stack the deck'. So, if one assumes that all parties rely on patronage to mobilize support one cannot derive clear expectations either about the number of parties or party competitiveness on the number of jobs created by a state.

An alternative conception of public sector employment, however, treats it as an ideological matter, reflecting the preference of political actors for a large state sector. By this telling, variations in the size of the state reflect not different incentives to provide patronage, but different ideologies. Note, however, that we are not arguing here that parties with an ideological predilection for large states do not use their control over the allocation of jobs to dole them out to political supporters. What we are saying is that we cannot infer this from simply observing variations in the size of the state, or levels of spending on personnel and so on. Whether and how parties provide such jobs to supporters is an empirical question that deserves attention in future research. Third, bureaus can be expected to grow as it is in the bureaucrat's interests to have a larger organization – measured either through the size of the budget of the organization or the number of employees.

In this paper, we leverage the two distinct politician-centered conceptions of what government employment ‘means’ to distinguish between ideological- and patronage-based theories of electoral democracy in India. Consider the former first. The broader comparative politics literature has long identified partisan identity to be an important indicator of a party’s preference for the size of the state. Left parties have been found to favor redistribution, funded by higher levels of taxation. Further, such parties are thought to seek a larger role of the state in the domestic political economy, both in terms of ownership of the means of production and with regards to performing regulatory functions to monitor the actions of the private sector. These preferences are reinforced by the parties’ societal support coalitions (*i.e.*, constituencies). Accordingly, parties-of-the-left form deeper ties to members of the working class, and to labor unions. Parties on the right, conversely, are thought to have a preference for a smaller state, the political manifestations of which are reducing the size of the bureaucracy, privatizing previously state-owned enterprises, reducing taxation, and creating a policy environment favorable to private business interests.

Parties, regardless of their ideological preferences, do not simply implement their ideal policies, but rather adapt to the strategic environment within which they are required to compete for office. This environment is shaped most heavily by the electoral and party systems within which they are located. In the Indian case, there is no variation in the electoral rules used to govern elections, whether to the *Lok Sabha* (the national parliament) or the *Vidhan Sabhas* (the state parliaments). Therefore, explanations for variations in public policies across the Indian states must focus instead on aspects of the party system, and partisan explanations must concentrate on the ideological dimensions along which elections are competed in a given party system.

Indian elections are administered using a first-past-the-post (or single-member-simple-plurality) electoral system. In such elections, parties seek to appeal to the median voter. The location of the median voter depends on the ideological complexion of the party system. Three scenarios are possible: (1) Centrist: the main parties competing for power are centrist parties; (2) Center-Left: the principal competition is between centrist parties and those on the Left; and (3) Center-Right: the principal competition is between centrist parties and those on the Right.⁵ Given our assumptions of how partisan identity maps onto preferences for the size of the state, this analysis suggests that states in which politics is defined by Center-Left competition should have larger public sectors, while states of the Center-Right should have the smallest public sector. We can thus formulate the following testable hypotheses:

H1: States with Center-Left political competition should have higher levels of public sector employment, ceteris paribus.

H2: States with Center-Right political competition should have lower levels of public sector employment, ceteris paribus.

The preceding discussion has sought to explain variations in public sector employment as a function of the ideological landscape of the political system. Broadly speaking party systems can be thought to differ on two other dimensions: (1) *fragmentation*: the number of parties

⁵ Following Downs (1957), we would not expect to see robust Right-Left competition (*i.e.*, no centrist party) since at least one party has an incentive to move to the center. Further, Further, while it is possible to describe a multi-party ideological landscape of multi-party systems such as Left-Center-Right, the possibility of cycling of preferences makes predicting the policy outcomes of such systems on the basis of ideology impossible (Arrow 1951) depending on the coalitions that form.

competing for power and (2) *competitiveness*: the margin by which the ruling party gains power. How should we expect each to affect the size of the state?

Party system fragmentation has been linked in prior research to incentives to provide public goods because it shapes the size of the winning coalition parties must secure to win an election (Chhibber and Nooruddin 2004). By this argument, if we think of jobs either as club or private goods (a job can only be enjoyed by one person—the employee, or the allocation of jobs to a particular vote bloc can signal the allocation of club goods to that bloc), we would expect more fragmented party systems to have larger public sector bureaucracies. An alternative explanation that yields the same observable implication is offered by Persson, Roland, and Tabellini (2005). In their framework, party system fragmentation has an indirect effect on the size of government because multi-party systems are more likely to yield coalition governments, which in turn they argue are more likely to expand the state due to an ‘electoral common-pool problem’. Voters can discriminate between members of a coalition, and the Persson-Roland-Tabellini model assumes that they only reward their own party—rather than the whole coalition—for good economic performance. This creates competition within the coalition as each party seeks to cater its supporters. Coalitions therefore create incentives to log-roll and to expand the size of the pie so that each member can provide resources to its constituency.⁶ This discussion suggests two more testable hypotheses:

⁶ Note that a similar conclusion can be reached by considering the impact of party unity (cohesion) on government spending. Franzese, Jusko, and Nooruddin (2007), building on Weingast, Shepsle, and Johnson (1981), argue that low party unity creates incentives to provide more distributive spending via log-rolls between party members. Applied here, coalition governments can be conceived as parties with low party unity, yielding therefore the same

H3: Public sector employment should increase as the effective number of parties in government increases, ceteris paribus.

H4: Coalition governments should have higher levels of public sector employment than single-party governments, ceteris paribus.

The final aspect of the party system that bears on the discussion here is the competitiveness of the party system. Systems in which politics is very competitive, which we define as having a small margin of victory (or winning differential), should induce in parties a higher incentive to cater to the wishes of their constituency. However, whether the result is a greater emphasis on providing supporters government jobs is unclear; quite the opposite could also be true. For instance, one expectation might be that more competitive systems give voters greater bargaining leverage in their dealings with political parties, and allow them to extract more valuable resources, such as jobs, from the state. But, another, equally intuitive, expectation is that, in competitive systems, parties must target swing voters, and therefore privilege broad-based public service provision over particularistic patronage politics as an electoral strategy. We specify two hypotheses to capture both possibilities, and will allow our data to discriminate between them:

H5a: Public sector employment should increase as the winning differential decreases.

H5b: Public sector employment should decrease as the winning differential decreases.

Non-political explanations for the size of the state also exist, and we consider three below: (1) political demand; (2) sources of state income; and (3) time. First, scholars argue that incentives to build a large state apparatus reflect political demand generated by higher levels of

prediction that coalition governments should spend more than single-party governments but via a different causal mechanism.

poverty and economic uncertainty (Remmer 2007). Citizens in poor states might be expected to demand more redistribution from the government, especially if the private sector is poorly developed. Similarly, under conditions of high economic uncertainty, the security of government jobs would be particularly assuring, and would suggest a positive correlation between uncertainty and public sector employment.

Second, Remmer argues that “the incentives to expand public employment and other forms of patronage distribution will vary with the sources of state income.” Specifically, she suggests that “the higher the level of nontax revenues, including external aid and transfers, the greater the incentives for state expansion” (Remmer 2007: 365; see also Rodden 2002, 2003; Rodden and Wibbels 2002). The argument is that states use resources for which they did not have to turn to domestic taxpayers to expand the size of government. When governments must raise revenues primarily through taxation, however, this argument suggests that citizens demand a greater emphasis on public services.

Lastly, given the dramatic changes in the nature of the Indian economy over the time period we study here, time is likely to be an important consideration. Specifically, we expect that the period since 1991 should be negatively correlated with the size of the state since the core of the reform package passed that year involved liberalization of the economy and a reduction in the size of the state.

RESEARCH DESIGN, DATA, AND RESULTS

We test the hypotheses described in the previous section using data from 15 major Indian states. The period covered is 1967-2004. Using sub-national data to investigate the effects of political factors on economic outcomes has become increasingly popular, and has important advantages for the controls it provides due to similarities in sub-national institutions (e.g., Calvo

and Murillo 2004; Chhibber and Nooruddin 2004; Nooruddin and Chhibber N.d.; Remmer 2007). Our unit of observation is the election cycle, and all economic and demographic variables are measured as averages for the inter-election period. The appendix lists all the states and elections in the dataset, as well as summary statistics for all the variables utilized in the analyses reported below.

To measure the size of the state, we use both a spending-based measure and an employee-based measure. The spending measure is that share of total revenues spent on civil administration expenses. The employee-based is the share of total employment formed by state-level public sector employment. We define state-level public sector employees as those working for the state government, quasi-state organizations, and the local government. Prior to 1980, however, the Government of India lumped quasi-central and quasi-state organization employees into a single category, which means those observations cannot be utilized in the statistical models described below. When we exclude quasi-state organization employees, our time-series is longer and our results are hold. However, since quasi-state-organization employment is an increasingly common (and important) form of government employment in India, we prefer to report below the results using those data.

The nature of ideological competition is based on coding rules developed by Chhibber and Nooruddin (2004), and we update those data through 2004. Table 1 reports our coding of each state as being characterized by Center-Left or Center-Right competition, while the Centrist category (no clear competition from either a Left or Right party) is treated as the reference category in the regression models estimated below.

/INSERT TABLE 1 ABOUT HERE/

Effective number of parties is calculated using the inverse of the Herfindahl index based on the party's seat shares in the state legislature ($ENOP = 1/(\sum s_i^2)$, where s is the share of seats controlled by the party). Higher values indicate higher levels of party system fragmentation. We measure the competitiveness of the party system by calculating the absolute change in the ruling party's vote share. Higher values indicate larger margins of victory for either the incumbent ruling party or the opposition. Finally, we update the coalition government variable used in Chhibber and Nooruddin (2004) so that we can test the hypothesis that coalition governments solve their collective action dilemmas by providing more patronage to supporters.

Turning to the economic factors that might influence the size of the state, we begin by collecting data on the different sources of state revenues. Scholars have argued that resources for which the government does not have to rely on taxpayers will fuel state expansion. We collect two data on the shares of total revenues comprised by non-tax revenues and grants from the center. Both of these do not require the state governments to extract resources from their citizenry, and the latter in particular should soften any budget constraints felt by the state government.

To capture the effects of state economic performance and demographics, we include a set of four control variables. First, we control for the logged level of state per capita income, which is a proxy here for state economic development. Alesina, Baqir, and Easterly (1998) have argued that poorer states should encounter greater demands for redistributive public employment, which effect this variable should capture. Second, to model the effect of economic expectations and performance, we include the growth rate of per capita income. States with high growth rates should engender greater confidence from citizens and reduce demands for public employment as a means of improving economic security. Third, we include the growth rate of the state's

population since states in which the population is growing rapidly might be expected to face greater demands for public employment. Fourth, we control for the state's population size since we expect larger states to have a more substantial public sector.

Finally, we include a dichotomous indicator for the post-1991 period. The Government of India enacted far-reaching economic reforms in 1991, many of which were aimed at reducing the size of the public sector. This indicator will allow us to assess if this period is in fact different from the earlier one.

Our data structure is a panel in which the observations are election cycles across states. Such data cause well-known difficulties for ordinary regression techniques, and we follow best practices in the comparative politics literature to deal with these problems (Beck and Katz 1995). Specifically, to account for serial correlation caused by 'stickiness' in spending and employment levels, we first-difference the dependent variable so that our models estimate the effect of our independent variables on the *change* in the level of our dependent variable; we also include the lagged value of the change in the dependent variable, as well as the lagged level of the dependent variable. Next, since observations within states are unlikely to be independent of each other, we use robust standard errors that have been corrected for possible clustering by state. To ensure any relationships we uncover are not spuriously generated, we include the election number, which serves as a time trend. Finally, we include a set of state fixed effects, which capture any unmeasured factors and unobserved sources of heterogeneity in the data.

The general form of the model, which we estimate using Ordinary Least Squares, is as follows:

$$[1] \quad \Delta Y_{i,t} = \Delta Y_{i,t-1} + Y_{i,t-1} + \mathbf{X}'\beta + \mathbf{D}'\gamma + \varepsilon$$

where, Y is the dependent variable in question, i and t index states and election periods, \mathbf{X} is a matrix of the independent variables, \mathbf{D} is a matrix of state fixed effects, β and γ are vectors of coefficients to be estimated, and ε is a white-noise error term. All independent variables are lagged one period.

Table 2 below reports the results of estimating equation [1] using the share of total revenues spent on civil administration and the share of total employment formed by public sector employment. Since there is considerable overlap between the Leftist competition variable and the Coalition Government variable, we initially exclude the latter from the model. Models 1 and 3 in Table 2 therefore exclude the coalition government variable, while models 2 and 4 include it.

/INSERT TABLE 2 ABOUT HERE/

We begin our discussion of the results in Table 2 with the civil administration spending variable. As we hypothesized, the Left competition variable is statistically significant with a large positive coefficient. The estimated coefficient on this variable is 2.63, which means that states in which elections were primarily contested by Centrist and Leftist parties allocated 2.63% more on civil administration. The average level of civil administration spending in our sample is 10.43%, making clear that this effect is substantively quite important too. Interestingly, the Center-Right competition variable also has a positive coefficient (recall that Center-Center competition is the reference category), and this effect is statistically significant at the .10 level. The effect is also one-third the size of the Left effect.

Of the other political variables included in Model 1, what can we say? Party system fragmentation, as measured by the effective number of parties holding seats in the state legislature, is not statistically significant, and, in fact, never achieves statistical significance in

any of the models reported here. The winning differential, however, does appear to matter. We find that, contra to H5a but in support of H5b, that the size of the winning differential is positively related to the level of civil administration spending. More secure governments, it would seem, are more likely to allocate resources towards the public sector.

None of the other variables included in the model come close to conventional levels of statistical significance, which is arguably explained by the inclusion of a lagged dependent variable (Achen 2000) and the state fixed effects, which together account for much of the variance. The addition of the coalition government variable, which we do in Model 2 in Table 2, does not alter any of the substantive results described above, and the coalition variable itself is not statistically significant.

The models of the share of total employment comprised by public sector employment fare far worse. None of the variables in Models 3 or 4 are statistically significant, and several are estimated quite poorly. The small sample size necessitated by our inability to distinguish between quasi-central and quasi-state organization employees prior to 1980 undoubtedly contributes to this imprecision.

At this point, then, we have a mixed set of results. On the one hand, our argument that the nature of ideological competition in the states can help explain the relative size of the public sector is supported by our analysis of civil administration spending but not in our analysis of public sector employment.

One concern with the latter analysis, however, is that the dependent variable – public sector employment as a share of total employment – is a function of two separate factors: the numerator (the number of public sector employees) and the denominator (total employment, which includes private sector employees). Our argument, that the ideology of Leftist parties

leads to a preference for a large state sector, should also speak to the preference of the Left for a smaller private sector. If this is correct, then, in fact, Left competition should have contradictory effects on public and private sector employment. That is, it should lead to an increase of the former, and a decrease of the latter. Is this true?

Table 3 reports results from a set of models designed to test these claims. Models 5 and 6 report two different specifications (with and without the coalition government variable) in which the dependent variable is the number of public sector employees, measured in lakhs.⁷ Models 7 and 8, on the other hand, use the number of private sector employees as the dependent variable.

In fact, this second analysis makes our case more convincing. Left party competition increases the number of public sector employees in the state, even after controlling in the regression model for the lagged level and the state's population, as well as for state fixed effects. This effect is substantively large and precisely estimated ($p < 0.05$). The inclusion of the coalition government variable weakens the effect of left party competition slightly, which is to be expected since slightly over half our cases of left party competition are also coalition governments, but the effect of left party competition is still positive and statistically significant at the 90% confidence level.

Turning to the private sector employment models (7 and 8 in Table 3), the results are reversed. Left party competition has a negative and statistically significant coefficient in both models, which means that even after controlling for other plausible factors as well as for the past level of private sector employment, a time, trend, and fixed effects, having left party competition leads to a crowding out of the private sector in the state. The state grows, and the private sector shrinks.

⁷ One lakh = 100,000.

Do any of the other political factors identified in the existing literature affect either public or private sector employment? No. In none of the models reported in Table 3 are any of the other political variables near conventional levels of statistical significance. In fact, the only other factors that matter consistently are the state's level of economic development and its population growth, both of which lead to an increase in public sector employment.

Putting the results from the eight models reported in Tables 2 and 3 together, we conclude that the data from the Indian states support the main argument of this paper, *viz.*, that the ideological landscape of elections must be understood to explain the relative size and growth of the public sector in India over the past forty years. We would summarize our results as follows. First, left party competition leads to an increased allocation of resources to spending on civil administration. Second, left party competition leads to higher levels of public sector employment and lower levels of private sector employment in the state. These findings are consistent with the argument that trends and variation in public sector employment reflect ideological preferences of parties. Third, the size of the winning differential is positively related to allocations of resources to the civil administration, though it does not affect the actual levels of employment in the states. Fourth, the source of revenues does not matter in our data, though it should be noted that the grants-from-the-center variable is consistently positively signed and approaches the 0.10 level of statistical significance in several models. Given the small sample size and conservative specification of our models, we would suggest that this factor be given consideration in future analyses. Finally, our results offer little support to theories that locate demand for a large public sector in poverty, though one could easily argue that there's insufficient variation (unfortunately) on that dimension in India.

In our concluding section, we consider the implications of these results for our understanding of electoral democracy in India.

DISCUSSION AND CONCLUSIONS

Political scientists studying India have come to view Indian politics as a patronage game in which political parties utilize power to dole out jobs to supporters. This exchange, of jobs for political support, leads to the development of patron-client relationships. However, this argument, that strategic political factors lead to the distribution of patronage, is rarely tested empirically. Rather scholars assume the answer by defining public sector employment as patronage, though this definition is rarely applied consistently across the globe.⁸

In this paper, we have sought to gain theoretical leverage on this important question by specifying a set of testable expectations derived from different conceptions of the role public sector employment plays in Indian society, and from different aspects of India's electoral democracy. Our argument has been that the ideological contours of elections must be considered more fully to explain the size of the state. Specifically, we argued that the Left has an ideological preference for a large state sector and that, therefore, states characterized by left party competition should have higher civil administration spending and greater public sector employment. Our analysis of data from 15 Indian states between 1967 and 2004 bear out this expectation, and yields an additional finding that left party competition crowds out the private sector.

This argument is usefully contrasted with expectations derived from a consideration of the effects of party system fragmentation, competitiveness, and coalition governments. Our

⁸ For instance, the US Government is the largest employer in this country, but few scholars would label the United States a patronage democracy. At any rate, we are aware of none.

reading of patronage theories suggests that evidence that public sector employment in India is treated as patronage would be consistent with positive relationships between these three factors and the size of the public sector. That is, if parties must dole out resources to stay in power, then having more parties in the state should lead to larger states. Likewise, being embroiled in more competitive elections should lead to greater patronage to shore up one's support. And, finally, coalition governments should expand the state to solve their common pool problem and maintain unity. While intuitively plausible, none of these explanations receive consistent support – indeed only competitiveness receives *any* support and then too in the opposite direction – in our data, which leads us to question the utility of explanations of Indian politics rooted in patronage politics.

Where do we go from here? To our minds, the finding that left party competition leads to a decrease in private sector employment is especially provocative and worthy of future research. What are the causal mechanisms underpinning this result? Do left parties create greater uncertainties in the minds of private economic actors seeking to forecast future policy? Or are the economic policies enacted by left parties inimical to private actors, leading them to seek greener pastures? At this stage we simply do not know, but the policy implications of the answers to these questions are important enough to bring them to the forefront of our research agendas.

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Figure 1. Size and Growth of the Public Sector in India, 1967-2004

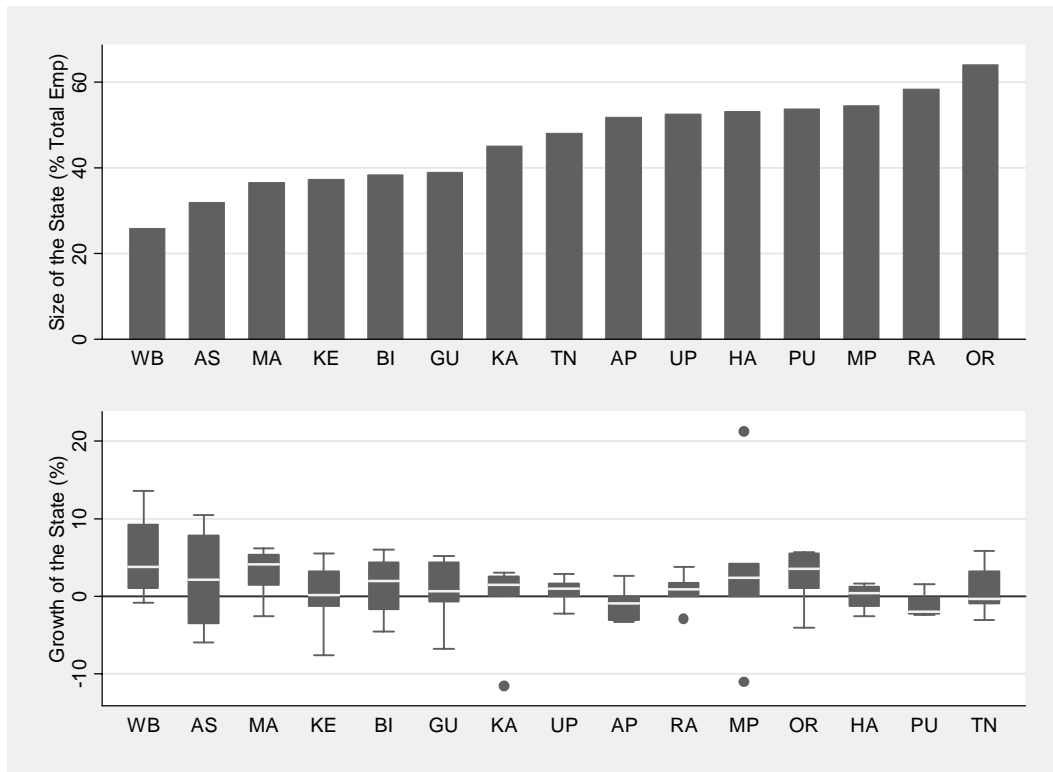


Figure 2. Public Sector Employment, as share of total organized sector, by state

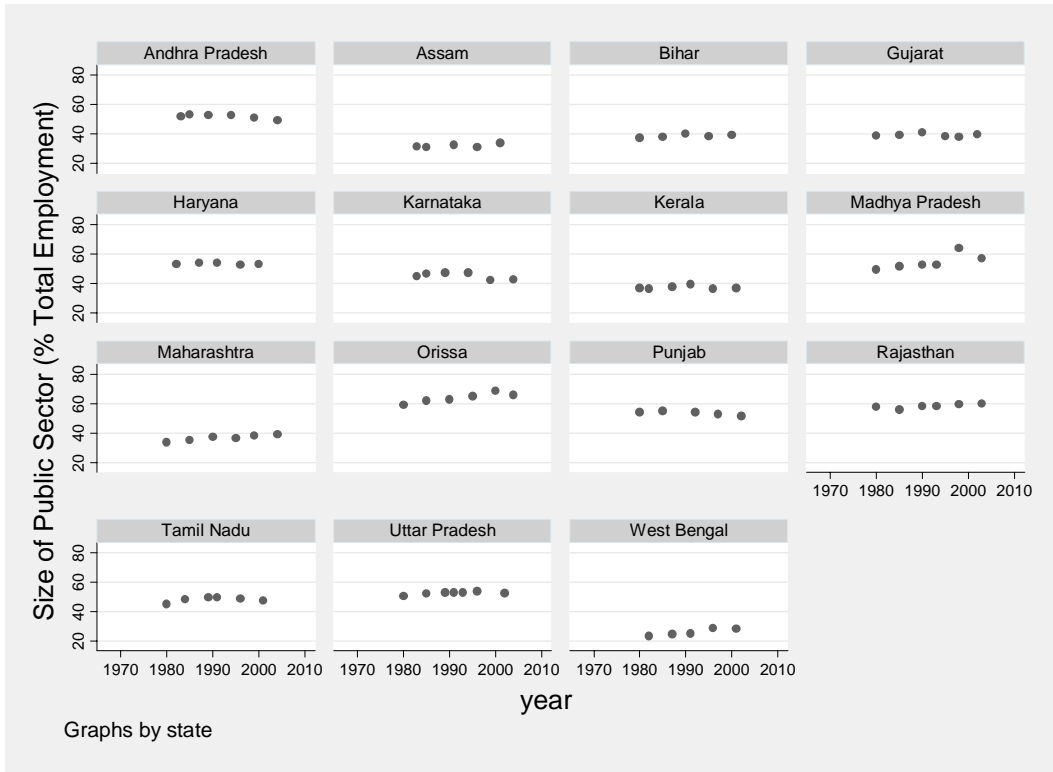


Figure 3. Per capita public sector employment, by state

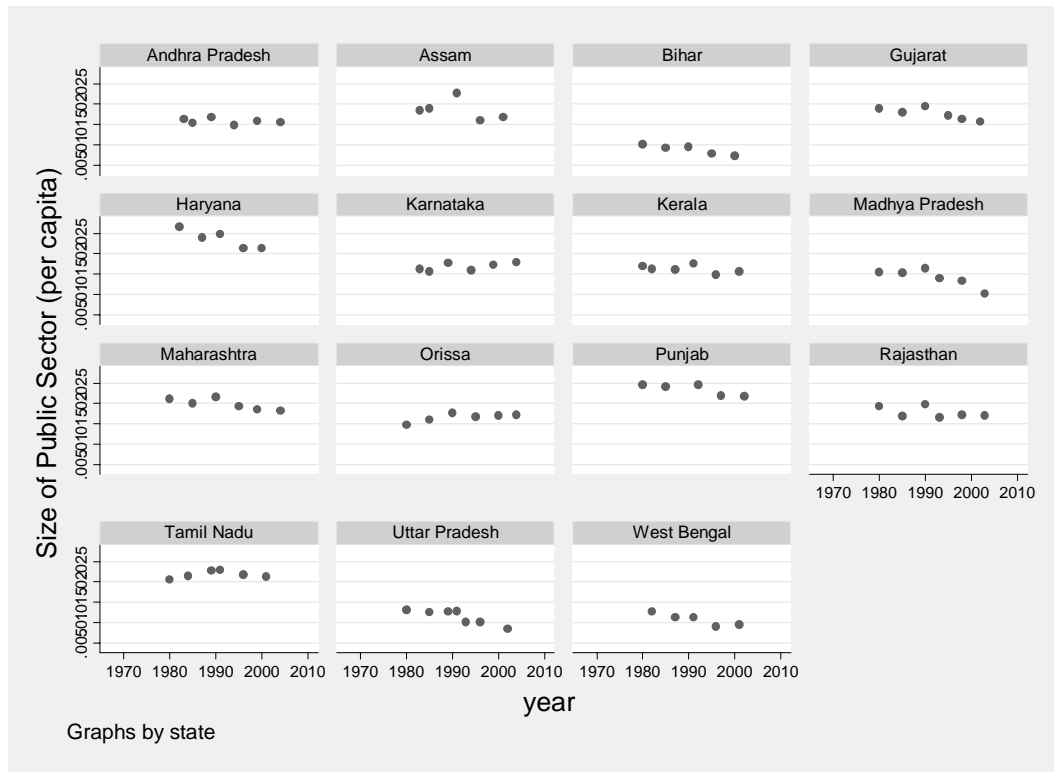


Figure 4. Public Sector Employments, in lakhs of employees, by state

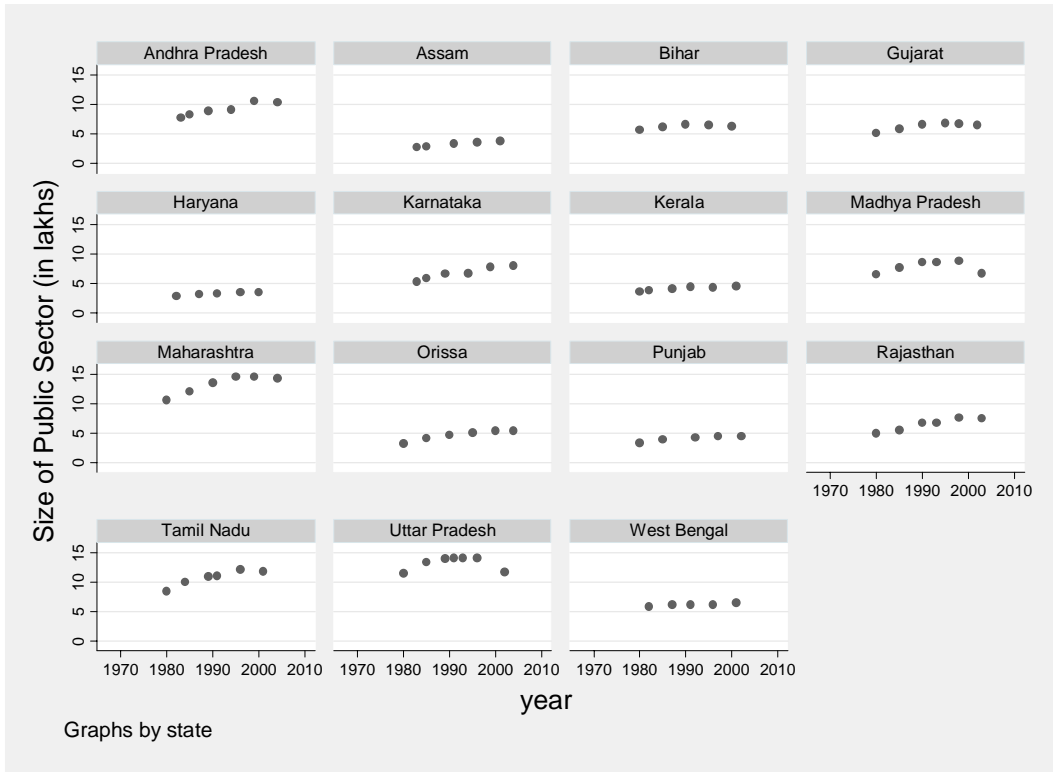


Table 1. Coding of Ideological Competition

State	Left Competition	Centrist	Right Competition
Andhra Pradesh		1967-2004	
Assam		1967-2004	
Bihar		1967-1989	1990-2004
Gujarat			1967-2004
Haryana		1977-1986 1991-1994 2001-2004	1967-1976 1987-1990 1996-2000
Karnataka		1967-1993 1999-2003	1994-1998 2004-
Kerala	1967-2004		
Madhya Pradesh		1977-1979	1967-1976 1980-2004
Maharashtra	1999-2004	1967-1989	1990-1998
Orissa	2000-2004	1967-1994	1995-1999
Punjab			1967-2004
Rajasthan		1977-1979 1985-1989	1967-1976 1980-1984 1990-2004
Tamil Nadu		1967-2004	
Uttar Pradesh		1977-1979	1967-1976 1980-2004
West Bengal	1967-2004		

Source: Authors' Codings

Table 2. Ideological Competition and the Size of the Public Sector

<i>Dependent Variable</i> →	Δ Civil Administration Exp. (% of total revenues)		Δ Public Sector Employment (% of total employment)	
	1	2	3	4
<i>Independent Variables</i>				
Lag Δ Civil Adm Spending	0.006 (.065)	-0.001 (.076)		
Lag Civil Adm Spending	-0.719*** (.122)	-0.715*** (.122)		
Lag Δ Public Sector Employment			-0.484 (0.505)	-0.387 (0.476)
Lag Public Sector Employment			-0.311 (.437)	-0.368 (.393)
Lag Effective # of Parties	-0.119 (.349)	-0.184 (.374)	-0.005 (.912)	0.492 (1.201)
Lag Coalition Government		0.198 (.716)		-1.823 (1.362)
Lag Winning Differential	0.032** (.013)	0.032** (.013)	-0.047 (.079)	-0.047 (.076)
Lag Left Ideological Competition	2.627*** (.732)	2.709*** (.676)	-1.493 (1.593)	-2.126 (1.762)
Lag Right Ideological Comp.	0.876 (.490)	0.905 (.568)	-1.518 (2.996)	-1.629 (3.051)
Lag Non-Tax Revenues (% of total revenues)	-0.057 (.056)	-0.058 (.057)	-0.007 (.145)	0.016 (.144)
Lag Grants from Center (% of total revenues)	0.033 (.081)	0.032 (.082)	0.122 (.189)	0.166 (.207)
Lag Log State per capita Income	-0.537 (.973)	-0.502 (.915)	-2.969 (2.812)	-3.592 (2.455)
Lag Growth Rate	-0.039 (0.056)	-0.041 (0.055)	-0.017 (.107)	0.010 (.117)
Δ Log Population	-2.160 (3.380)	-1.981 (3.271)	0.778 (5.094)	0.063 (4.929)
Log Population	7.218 (5.577)	7.415 (5.416)	11.396 (12.375)	9.854 (12.077)
Post-1991 Indicator	-0.045 (0.902)	-0.081 (0.967)	1.629 (2.513)	2.282 (2.532)
Election Number (time trend)	-0.379 (.618)	-0.389 (.601)	-1.231 (1.373)	-1.086 (1.272)
<i>No. of Observations</i>	98	98	56	56
<i>No. of Clusters</i>	15	15	15	15
R^2	0.62	0.62	0.62	0.64
<i>Root Mean Squared Error</i>	1.46	1.47	2.17	2.15
<i>State Fixed Effects</i>	Yes	Yes	Yes	Yes

Notes: *** p<0.01; ** p<0.05; * p<0.10; Standard errors corrected for clustering by state reported in parentheses; Coefficients on state fixed effects suppressed.

Table 3. Ideological Competition's Effects on Public versus Private Sector Employment

<i>Independent Variables</i>	<i>Dependent Variable</i> → Δ Public Sector Employment (in lakhs)		Δ Private Sector Employment (in lakhs)	
	5	6	7	8
Lag Δ Public Sector Employment	-0.184 (.251)	-0.169 (.256)		
Lag Public Sector Employment	-0.342 (.223)	-0.321 (.201)		
Lag Δ Pvt Sector Employment			-0.079 (0.189)	-0.079 (0.188)
Lag Private Sector Employment			-0.168** (.064)	-0.172*** (.056)
Lag Effective # of Parties	0.008 (.111)	0.081 (.168)	0.111 (.075)	0.133 (.111)
Lag Coalition Government		-0.251 (.361)		-0.079 (.226)
Lag Winning Differential	0.007 (.015)	0.007 (.016)	0.007 (.006)	0.008 (.006)
Lag Left Ideological Competition	1.239** (.512)	1.100* (.561)	-0.556** (.253)	-0.572** (.251)
Lag Right Ideological Comp.	0.366 (.397)	0.357 (.386)	0.185 (.375)	0.185 (.371)
Lag Non-Tax Revenues (% of total revenues)	-0.027 (.025)	-0.024 (.024)	0.002 (.015)	0.002 (.016)
Lag Grants from Center (% of total revenues)	0.078 (.053)	0.083 (.049)	-0.008 (.014)	-0.006 (.016)
Lag Log State per capita Income	2.287** (.999)	2.114* (1.033)	0.853 (.746)	0.823 (.728)
Lag Growth Rate	0.029 (.026)	0.036 (.034)	0.003 (.013)	0.004 (.013)
Δ Log Population	2.402** (.985)	2.279** (.993)	-0.005 (.717)	-0.015 (.716)
Log Population	3.512 (2.249)	3.257 (2.164)	-1.737 (1.676)	-1.746 (1.653)
Post-1991 Indicator	-0.324 (0.409)	-0.252 (0.394)	-0.017 (.261)	0.002 (.248)
Election Number (time trend)	-0.957 (.385)	-0.927 (.370)	0.102 (.183)	0.101 (.183)
<i>No. of Observations</i>	56	56	107	107
<i>No. of Clusters</i>	15	15	15	15
<i>R²</i>	0.71	0.72	0.43	0.43
<i>Root Mean Squared Error</i>	0.50	0.50	0.52	0.53
<i>State Fixed Effects</i>	Yes	Yes	Yes	Yes

Notes: *** p<0.01; ** p<0.05; * p<0.10; Standard errors corrected for clustering by state reported in parentheses; Coefficients on state fixed effects suppressed.

APPENDIX

1. List of Elections

State	Code	Election Years
Andhra Pradesh	AP	1967, 1972, 1978, 1983, 1985, 1989, 1994, 1999, 2004
Assam	AS	1967, 1972, 1978, 1983, 1985, 1991, 1996, 2001
Bihar	BI	1967, 1969, 1972, 1977, 1980, 1985, 1990, 1995, 2000
Gujarat	GJ	1967, 1972, 1975, 1980, 1985, 1990, 1995, 1998, 2002
Haryana	HA	1967, 1968, 1972, 1977, 1982, 1987, 1991, 1996, 2000
Karnataka	KA	1967, 1972, 1978, 1983, 1985, 1989, 1994, 1999, 2004
Kerala	KE	1967, 1970, 1977, 1980, 1982, 1987, 1991, 1996, 2001
Madhya Pradesh	MP	1967, 1972, 1977, 1980, 1985, 1990, 1993, 1998, 2003
Maharashtra	MA	1967, 1972, 1978, 1980, 1985, 1990, 1999, 2004
Orissa	OR	1967, 1971, 1974, 1977, 1980, 1985, 1990, 1995, 2000, 2004
Punjab	PU	1967, 1969, 1972, 1977, 1980, 1985, 1992, 1997, 2002
Rajasthan	RA	1967, 1972, 1977, 1980, 1985, 1990, 1993, 1998, 2003
Tamil Nadu	TN	1967, 1971, 1977, 1980, 1984, 1989, 1991, 1996, 2001
Uttar Pradesh	UP	1967, 1969, 1974, 1977, 1980, 1985, 1989, 1991, 1993, 1996, 2002
West Bengal	WB	1967, 1969, 1971, 1972, 1977, 1982, 1987, 1991, 1996, 2001

APPENDIX

2. Summary Statistics

Variable	N	Mean	Std. Dev.	Min	Max
State and Local Employment (lakhs)	138	4.91	2.59	0.97	11.99
State, Quasi-State, and Local Employment (lakhs)	86	7.26	3.38	2.70	14.63
State and Local Employment (% of Total Organized Sector)	138	41.98	13.55	19.34	66.81
State, Quasi-State, and Local Employment (% of Total Organized Sector)	86	46.45	10.45	23.30	68.75
Private Organized Sector Employment (lakhs)	138	4.85	3.48	0.78	15.04
Total Expenditures (% of Net State Domestic Product)	131	14.81	4.79	4.43	26.97
Dominant Party in State?	138	0.072	0.26	0	1
Coalition Government in State?	142	0.32	0.47	0	1
Effective Number of Parties in the Legislature	138	2.81	1.20	1.41	7.39
Winning differential	139	10.12	11.61	0	45.1
Center-Left Competition	138	0.07	0.26	0	1
Center-Right Competition	134	0.31	0.46	0	1
Center-Center Competition	138	0.39	0.49	0	1
State per capita income (Log)	134	8.53	0.44	7.83	9.61
Growth rate (%)	133	2.42	3.96	-11.97	12.02
Population (Log)	138	17.43	0.63	16.12	18.75
Post-1991	153	0.39	0.49	0	1
Total Taxes (% total revenues)	129	66.00	11.01	23.28	84.39
Non-Tax Revenues (% total revenues)	129	32.26	9.56	8.89	55.85
Grants from Center (% total revenues)	129	15.67	8.87	2.42	44.00