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**The Political Economy of Elite Dominance and Ethnic
Heterogeneity: An Analysis of Disparate
Social Development in the Indian States**

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Abstract: Despite more than four decades of planning efforts with an emphasis on balanced regional development, inter- and intra-state disparities in key indicators of quality of life in India are striking. Using Indian state-level data for the period 1960-92, the present paper examines the nature of political economy of elite dominance and ethnic heterogeneity, both of which could in principle be responsible for lower the provision of public services. Fixed-effects panel data estimates seem to confirm that (a) greater degree of elite dominance lowers the spending on education (but not that on health) while greater degree of ethnic heterogeneity lowers spending on both health and education. (b) Also, predominance of Indian National Congress regime has been higher in states with greater dominance of elite upper class and ethnic heterogeneity. Thus there is a close correspondence between political regimes and social development spending in the sample states though there is a clear lack of convergence in state spending on health and education suggesting the divergent agenda of the state governments in India.

Key words: Social development, Minority groups, Elite dominance, Ethnic heterogeneity.
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The Political Economy of Elite Dominance and Ethnic Heterogeneity: An Analysis of Disparate Social Development in the Indian States

1. INTRODUCTION

Despite more than four decades of planning efforts with an emphasis on balanced regional development, inter- and intra-state disparities in key indicators of quality of life in India are striking. While adult literacy rate in Kerala was about 91%, it was about half of that level (47%) in Bihar in 2001. Gender inequity continues to remain a serious problem in all the states, though it is far worse in the worse-performing ones; while the gender gap is about 7% in Kerala, it is about 30% in Rajasthan and Bihar. Similarly, literacy rates among the Scheduled Castes (SC) and Scheduled Tribes (ST) are significantly lower than that for the general population. For example, literacy rate among the backward castes was only 37.41% in 1991 as compared to 52.21% for India as a whole; it was even lower among women belonging to the backward castes (23.76% as compared to 39.29% for all Indian women). Recent health statistics too show very uneven levels of attainment of health not only across the geographical divide between the better-performing and poorly performing states, but also among certain minority groups (e.g., women and low caste people) within a given state.

It cannot be a matter of pure coincidence that all the better performing states, namely, Kerala, Maharashtra and Tamil Nadu are known to have better preserved public health systems as opposed to the poorly performing ones (e.g., Orissa, Bihar, Rajasthan, UP and MP). Differences in the nature of politicians elected are a possible mechanism

through which social structure could influence the availability and distribution of public goods in the Indian states. It is harder for a democratically elected government to be unresponsive to the needs and values of their clientele, especially when electorate is well informed and politically aware. Thus what a government can do and will in fact do with the available resources will depend, to a large extent, on the nature of the government. This political process would in turn affect the delivery of public services and the pattern of social development in the states.

Indeed some recent studies have highlighted the importance of the political process on the provision of public goods/services as well as on the pattern of public spending at different levels of administrative units in India. For example, Betancourt and Gleason (2000) highlight the importance of electoral participation, selectivity in the allocations against Muslims and Scheduled castes in the allotment of nurses, doctors and teachers to rural areas of the Indian districts. Banerjee and Somanathan (2001) however focus on the role of ethnic heterogeneity to suggest that more heterogeneous communities tend to be politically weaker and therefore are less likely to get the goods they want and more likely to get some of the inferior substitutes. Chattopadhyay and Dufflo (2004) highlight the distinctive role of female preferences in this respect: village councils with reserved seats for women tend to invest more in drinking water, fuel and employment generating activities such as road construction (compared to those unreserved village councils) in a district in the eastern Indian state of West Bengal.

Next turning to the studies pertaining to state-level spending on various accounts, Besley and Burgess (2001) identify the importance of government accountability to the electorates and find that states with more local language newspapers, greater political

competition and voter turnout enjoy greater public food distribution and calamity relief expenditure in the event of droughts. Foster and Rosenzweig (2001) argue that while landowners would favour expenditure on irrigation, budget allocation would shift more towards labour-intensive road construction projects, as landless gain more participation with increasing decentralisation. Khemani in a series of papers (2002, 2004) highlights the effects of federal politics on earnings and spending of the states. While Khemani (2002) suggests that intergovernmental transfers in the Indian states is sensitive to underlying political incentives (involving alliance with the centre), Khemani (2004) finds a pattern of election-year targeting of special interest groups possibly in return for campaign support as opposed to populist spending sprees to sway the mass of voters. Chhibber and Nooruddin (2004) however highlight the role of different party systems and argue that in a two-party system political parties may draw support from many social groups and may therefore respond to their needs by increasing the share of social development spending in an attempt to provide more public goods. In a multi party system however parties focus on mobilizing smaller segments of the population, which in turn may result in lower spending on social development.

In an attempt to explain the pattern of inter- and intra-state disparities in Indian social development, we focus on the political economy of 'elite dominance' and 'ethnic heterogeneity'; in the sample states. While Banerjee and Somanathan (2001) study the issue of ethnic heterogeneity in the provision of public goods, we consider its effects on public spending on education and health. Issue of elite dominance on state level social spending however remains hitherto unexplored though the issue appears to be quite important, especially for the lack of literacy among the minority groups in the Indian

states. Using 1960-92 state-level Indian data from sixteen major states, we find that (a) greater dominance of the upper-class elite lowers spending on education (but not on health) while greater degree of ethnic heterogeneity lowers spending on both education and health. (b) State spending on education and health is significantly lower in states with a higher proportion of scheduled tribe population while the proportion of scheduled caste or female population remains insignificant here. (c) There is also evidence that predominance of the Indian National Congress (INC) regime is higher in states with greater dominance of elite upper class and ethnic heterogeneity. Taken together, we argue that there is a close correspondence between social/political structures (highlighting the role of gender and caste in our sample) on the one hand and state-level spending on the other though there is a clear lack of convergence in state-level spending on education and health in our sample. Unfortunately, gender, caste and class based politics perpetuates inequality. Spread of human capital could help to overcome the traditional disparities of caste, class and gender, just as the removal of these inequalities helps the spread of human capital. In the light of our results, we argue that the political process could to some extent overcome these traditional disparities, especially by establishing a 'non-elitist' social democratic regime that could include the disadvantaged groups into the state political process.

The paper is developed as follows. Section 2 investigates the political economy issues of the provision of public goods in the Indian states and in this context analyses the central hypotheses of elite dominance and ethnic fractionalisation in explaining the observed inter- and intra-state disparities in Indian social development. Data are

described in section 3 and validity of these hypotheses in our sample is tested in section 4. The final section concludes.

2. POLITICAL ECONOMY OF THE PROVISION OF PUBLIC SERVICES IN THE INDIAN STATES

Given the pronounced unitary bias in the Indian federation, there are limits to the authority of the state government spending ability as dictated by the union, state and concurrent lists of the Indian constitution. While the union government is involved in general state-level development especially with respect to the development of the core sectors, states have the primary responsibility for most social sectors including education, health, community and social services. According to the constitution, health is entirely a state issue while education is a joint responsibility of the state and central governments. Each state has an elected assembly headed by the chief minister (CM), who is in charge of formulating and implementing social development policies in the states. We label the particular state government ruled by the majority party in power as a ‘political regime’. Political regimes may differ in terms of representation from and inclusion of different sections of population in their electoral base. This could result in differences in the democratic functioning of different regimes, which in turn could explain a part of the pronounced inter-state disparities in the delivery of public services in India.

The Indian National Congress (INC) has dominated Indian politics in most states well until 1977, important exceptions being Tamil Nadu and Kerala where alternative regimes came to power from as early as 1967. We distinguish INC regimes from non-INC national party regimes, non-INC left regime and non-INC regional party regime.

Non-INC national party regime included rule by national parties like Bharatiya Janata Party (BJP), Janata Party (JP), Janata Dal (JD) or Lok Dal (LKDP) and operated primarily in Bihar (JP, JD), Gujarat (JD), Haryana (JP, JD, LKDP), Karnataka (JP), MP (JD, BJP), Orissa (JP, JD) and Rajasthan (JP, BJP) during 1960-92. Haryana is quite different among these states where INC has not won any election since 1977. Non-INC left regime primarily refers to the rule of Communist Party of India (CPI) and/or Communist Party of India Marxist (CPIM) and their allies and operated in two states Kerala (since 1967) and West Bengal (since 1977).¹ Finally, regional party regimes differ from state to state and include rule of various regional parties primarily geared to promote issues of regional concerns.² Regional parties in India have been strongest in Tamil Nadu, where they have dominated state politics from as early as 1967 while the other regional parties have had a more recent origin. The list includes Ashom Gana Parishad (AGP) in Assam (1985 onwards), Jammu and Kashmir National Conference (JKNC) in Jammu and Kashmir (1975 onwards), Telegu Desam Party (TDP) in Andhra Pradesh (1983 onwards), Akali Dal (SAD) in Punjab (during 1967-71 and then again from 1977 onwards), Dravida Munnetra Kazagham (DMK) in Tamil Nadu (1967 onwards) and the like.

¹ The Communist Party of India (CPI) was founded in the 1920s to create an alternative mass movement to the existing Congress anti-imperialist movement. Due to its rather passive manner, the CPI split in 1964, thereby forming a second faction known as the Communist Party of India (Marxists) – the CPI(M). The CPI(M) called for a large scale revolt of workers. These people, mostly members of the lower castes and agricultural workers, were negatively affected by the elites trying to gain national power through capitalism by increasing India's industrial strength. Strength of the communist regimes in Kerala and West Bengal is ascribed to their success in implanting land reform policies through which large farm holdings were broken up and distributed among the poor.

² Often these include promotion of regional autonomy of some sort; for example, the guiding principle for DMK in Tamil Nadu or AGP in Assam has been the promotion of Dravidian and Assamese Nationalism respectively. In many cases, emergence of a regional party is also closely associated with the local caste/religion composition. In particular, Akali Dal in Punjab has close alliance with Sikhism or BSP in UP was formed explicitly to promote the interests of backward castes in the state. More interestingly, Dravidian nationalistic movement in Tamil Nadu has had its close link with Anti-Brahminism, giving rise to a distinctive political and popular culture.

2.1. Inequality in the Distribution of Public Services

Marked differences in human development across the states of India are captured by the Human Development Index (HDI);² India ranks 138 out of 175 countries for which the HDI is computed. Kerala ranks first among the Indian states with an HDI value of 0.603, which is comparable to that of China. At the bottom of the scale are Uttar Pradesh (HDI of 0.348) and Madhya Pradesh (HDI of 0.349). These two states have a rank similar to that of such countries as Madagascar, Nepal, Rwanda and Senegal, which have some of the lowest levels of human development in the world.

The Gender-related Development Index (GDI) for Indian states reveals not only the extent of gender inequalities within India, but also the country's poor performance vis-à-vis other countries. Topping the list of Indian states is Kerala with a GDI value of 0.565. Uttar Pradesh is again at the bottom with a GDI value of 0.293, ranked next to Benin. The GDI value of Uttar Pradesh is only half that of Kerala, reflecting sharp disparities within the country. There are, in fact, only 13 countries in the world with lower GDI values than those of Bihar (0.306) and Uttar Pradesh (0.293). Twice as many people live in Uttar Pradesh and Bihar (combined population of 225 million in 1991) as in the total of 13 countries that had lower GDI values.

Relative to the whole population, the situation is particularly bleak for the low caste people in India. A quarter of India's population belongs to communities classified as Scheduled Castes and Scheduled Tribes (SC/ST). The level of human development among SC/ST people remained below that of the total population. NCAER estimates show that infant mortality rates were 98 and 99 per 1,000 live births among Scheduled

Tribes and Scheduled Castes, respectively, nearly 45 percent higher than the rate for the rest of the population. Similarly, according to the 1991 Census only 24 percent of women in Scheduled Castes and 18 percent in Scheduled Tribes were literate. Literacy rates among rural women belonging to Scheduled Tribes were as low as 4 percent in Rajasthan and 9 percent in Andhra Pradesh.

There seems to be a close correspondence between social development and political regimes in the Indian states. Interestingly, Kerala has been ruled by some left alliance while Bihar, Rajasthan and UP have predominantly been ruled by INC over this period, especially during the first 30 years after independence. Tamil Nadu has been another success case with respect to human development, long ruled by a non-INC regional party DMK.³

2.2. Possible Political Economy Explanations

Thus the minority groups like women and low caste people are not only worse off compared to the general population when residing in any state, they are more so when residing in the poor performing states like Bihar, MP, Orissa, Rajasthan or UP. The question that we raise here is why some states or particular ethnic groups within a state have performed better than others.

³ Often the distinction between a truly regional rule and rule by the left alliance or even non-INC national party could be blurred at the state level. In particular, Harriss (1999) argues that the CPIM in West Bengal and Kerala and BJP in the north Indian states (Rajasthan for example in which it is relatively stronger and established distinctive regional versions of the overall ideology of Hindutva) function more like regional parties, as does the Janata Dal in Karnataka and Orissa.

Recent political economy models could shed some light into the possible mechanisms in this respect. First, the dominance by an elite, which does not support human capital investment in the masses is a theme in several theoretical models including Bourguignon and Verdier (1999), Acemoglu and Robinson (1998), Galor and Moav (2000). In particular, Bourguignon and Verdier (1999) argue that the oligarchy will oppose widespread education because educated people are more likely to demand political power, i.e., democracy, which may undermine the dominance of the elite. This may result in a lower human capital outcome than otherwise.

The second type of political economy approach stresses the link between ethnic fractionalisation and the poor delivery of public services. In this tradition, Alesina, Baqir and Easterly (1999) find that more ethnically diverse US cities and counties devote less resources to education and other public goods than more ethnically homogeneous cities and counties. In a similar vein, Goldin and Katz (1999) find lower public support for higher education in states with more religious/ethnic heterogeneity. The idea is that higher competition among rival factions for political power may mean that the electoral base of the ruling government is smaller than otherwise. This may result in lower public services, as the ruling government would cater to certain factions of the population, disregarding others.

Collier and Garg (1998) argued that the locally dominant tribal group exacts a 25% wage premium for its members in the public sector while there is no such premium in the private sector, presumably because the private sector restrains kinship patronage. This may reduce the efficiency of public service delivery. Collier (1998) further argues

that diversity may also damage economic performance by inhibiting the formation of social capital and trust, resulting in higher transaction costs.

Thus both elite dominance and ethnic diversity could work in the same direction to lower the provision of public goods to the minority groups residing in any state. Clearly the situation could be far worse in a worse performing state like Bihar or UP, especially so for the minority groups in the state. One could identify a number of reasons as to why the poor and the vulnerable in the worst performing states may not obtain the full attention of the politicians even in a democracy where they have the numerical strength. These groups are more likely to be less educated and poorly informed (note that literacy rates are significantly lower in these states; see Table 1) and are generally less inclined to vote than richer and better educated citizens (which in turn enhances the dominance of the ruling elite class). Clearly average voter turnout (especially among women and low caste voters) has been significantly lower in these worst performing states (see Table 3). Among other things, the latter could be a result of the criminalisation of politics (that resulted in many criminals being elected), especially in the Hindi heartland of North India (including some of the worst performing states like UP and Bihar), threatening/bribing the electorate during election times to vote or not to vote in a certain way. With widespread illiteracy in these states many voters are not able to gain the full information necessary to make an informed choice and the judiciary too has often failed to uphold this fundamental right. This apparent apathy to the political process may however make the politicians less responsive to the needs of the poor and the vulnerable.

One possible way of improving the delivery of essential public services including those on health and education would be: (a) to ensure the representation of minority

groups in the government and also (b) to widen the electoral base of the ruling political regime so as to include the minority disadvantaged groups, e.g., women and low caste/class people into the state political process. This could lower elite dominance and break the barrier of ethnic heterogeneity and thus would urge an elected government to respond to the needs of the population that elected them.

3. DATA DESCRIPTION

In this paper we test the validity of these two central hypotheses of ‘elite dominance’ and ‘ethnic fractionalisation’ to explain disparate social development in the Indian states. But before we can do that, we need to quantify these key concepts using available information. This section describes the source and nature of our data and how we measure ‘elite dominance’ and ‘ethnic fractionalisation’.

3.1. Data

The data set consists of state-level economic and political variables available from the World Bank (Ozler, Dutt and Ravallion, 1996), Besley and Burgess (2000) and Election Commission of India. It is not easy to isolate the effects of state politics from everything else going on in the country, especially since the launching of the Indian liberalisation programme in the early 1990s. Our analysis therefore focuses on the 1960-92 period, before the effects of liberalisation came to be realised.

The data points are the election years. The idea is that elected politicians will want to attain their targets by the time of the next election when the electorate decides

whether to re-elect them. In most cases elections take place every five years though there can be an election before the next scheduled one if the government in power collapses. There can however be problems in the estimates if, for example, policies implemented in year four takes a further two years to complete so that the model will assign the effect to the next election cycle. While we need to be cautious in interpreting these results, one election cycle lag appears to be the best available option.

3.2. Measurement of Elite Dominance and Ethnic Fractionalisation

In this subsection, we explain the measurement issues related to 'elite dominance' and 'ethnic fractionalisation'.

3.2.1. Elite Dominance

The founding principles of the Nehruvian nation building were state socialism, secularism and non-alignment. But secularism in practice all too often involved an active balancing and promotion of different communalisms, in the name of showing 'equal respect to all religions'. In the post-Nehru political vacuum, this was simply a recipe for instability. The social base for Congress had been the landed elite and the rural habitations they controlled resulting in a dominance of the upper class in Congress politics, especially in first 30 years after independence. The industrial classes were not the only new social groups outside Congress domination in the 1980s; so too was the rising 'kulak' class with its mass of aspiring capitalist family farmers. And becoming more volatile in their loyalties were the 'core minorities' of Muslims, Dalits (Untouchables) and tribal, making up close to 40 per cent of the electorate. Congress

rhetoric had raised their expectations, but state practice had failed to deliver.

Land is both the main productive asset and the basis of survival of the majority of the population in India still today. Thus land tenure is the foundation of social structure and political power. Very often there is also a close correspondence between caste and ownership of land in the Indian society; thus upper caste people often enjoy a much greater share of land while the low caste people turn out to be landless or marginal farmers. In the absence of a better indicator, we could form some idea of dominance of the elite, especially in the rural areas, from the distribution of land in these states. Table 2 shows the average percentage of total land area held by top 20% and bottom 40% of the population and also the Gini coefficient in the distribution of land (LANDGINI) over 1960-92.

Following Besley and Burgess (2000), we also use a composite index of different types of land reform legislations (CLR) in these states. Since land reforms are likely to have effects over time, we measure the extent of reform since the beginning of the data period by a cumulative variable that aggregates the number of legislative reforms. While crude, this could allow us to reasonably quantify the land reform measures. The underlying idea is that states where more land reform legislations were undertaken could be regarded as states with a more harmonious class relationship, thus alleviating the dominance of elite upper class. Table 2 clearly demonstrates the discrepancy in the distribution of land between top 20% and bottom 40% of the population in all the states; however the extent of the discrepancy is much higher in some states including Punjab and Maharashtra than in others like J&K, Assam or Kerala. Moderate degree of discrepancy persists in most other states though. There is also wide variation in the land reform

activities across the states. In particular, the average values of this land reform legislation index appear to be relatively higher in Kerala, Tamil Nadu and West Bengal, states known for their successful social development programmes.

A further measure of elite dominance could be derived from the available information on distribution of consumer expenditure per capita (which also includes expenses on consumer durables). In particular, we have information on rural (GINI1) and urban Gini (GINI2) indices in the distribution of monthly per capita consumer expenditure; clearly higher values of rural and urban Gini indices would account for higher levels of dominance of elite upper class in the state. Last two columns of Table 2 shows the inter-state variation in the average values of rural and urban Gini indices in the distribution of consumer expenditure per capita over 1960-92.

3.2.2. Ethnic Heterogeneity

Indian society has traditionally been multireligious (including majority Hindus (80% or above), Muslims, Christians, Sikhs, Buddhists and Jains), and multilingual (there are sixteen official languages in India). This social structure is further complicated by the prevailing caste system among the Hindus that distinguishes between upper caste (16%), other backward castes (43.7), scheduled caste (15%) and scheduled tribe (7.5%)⁴, giving rise to a pluralistic society.

This social structure however did not pose any problem in the feudal politics that remained non-competitive where different groups were loyal to one or other dynasty.

⁴ Source: Government of India, Report of the Backward Classes Commission (Mandal Commission Report), First Part, Vol. 1 (1980), p. 56. These figures are best estimates. The last caste census was taken in 1931.

However with the consolidation of the British rule, Indian politics became competitive when different religious and linguistic groups began to compete with each other for the share of political power and government jobs. This trend continued and even in modern India politicians continued to exploit this diversity and often catered to certain sections of the population, thus responding to their needs and disregarding the needs of others. Otherwise it is difficult for the ruling party to satisfy needs of all different factions and stay in power.

One could quantify ethnic fractionalisation in a number of ways. First, assuming that different parties cater to different sections of the population, we use an index of political heterogeneity (POLHETY). Following Laakso and Taagepara (1979), this is measured by $1/\sum p_i^2$ where p_i is the proportion of seats received by each party in the state assembly elections. We choose this measure since this is the relevant strategic environment in which policy decisions are made. The larger the political heterogeneity, the greater is the possibility that the ruling party caters to a smaller segment of the total population and thus may exclude some vulnerable groups of the population from its electoral base. This may result in lower provision of public services. At the same time this measure of political heterogeneity, could also reflect the extent of competition among different political parties in a state. Thus following Besley and Burgess (2000), one may also argue that greater degree of political competition may make the ruling government more accountable to its electorates and may thus urge the government to keep their promises resulting in better provision of public goods and services. In other words, effects of political heterogeneity may remain ambiguous in reality.

A second and a more direct measure of ethnic fractionalisation would be to construct a composite index of social heterogeneity (SOCHETY) from the proportion of the population belonging to various ethno-religious groups including upper caste Hindus, scheduled caste, scheduled tribes, Muslims, Jains, Buddhists, Christians, Sikhs and others.

Table 3 shows the inter-state variation in average values of different measures of ethnic heterogeneity. In particular, measure of political heterogeneity exceeds two in a number of worse performing states including Bihar, Orissa, Rajasthan and UP while the highest average is observed in Kerala (6.2), state known for its high level of social development. There is also some inter-state variation in the average level of social heterogeneity, with a minimum of 0.26 in J&K and a maximum of 0.70 in Bihar. But despite a relatively high level of social heterogeneity observed in Kerala (0.67) and West Bengal (0.66), these states are relatively better placed with respect to social development.

4. EMPIRICAL ANALYSIS

In this section we examine the correspondence between the dominant political regime and the provision of public services in the Indian states during 1960-92. Since INC has been the dominant political regime in most states during much of this period, we shall particularly focus on the predominance of the INC regime in our sample. Secondly, we use state-level spending on education and health (as a share of state domestic product) as two relevant measures of provision of public health and education in the states.

We start with the simplest possible relationship and test if there is a two-way relationship between Congress predominance and state-level social spending in our sample. Second, we bring in the hypotheses of elite dominance and ethnic fractionalization to reassess the nature of the two-way relationship between political regime and social spending. This is explained below.

4.1. Correspondence between Political Regime and State Spending

There is likely to be a two-way relationship between the predominant political regime and social development spending by the states. On the one hand, the level and pattern of state-level spending on various accounts in a given year may enhance/lower the probability of re-election of the ruling regime in the subsequent election. In fact, often a ruling regime would allocate the state budget rather strategically, depending on their target groups of voters in an attempt to be re-elected in the subsequent election. On the other hand, the nature of the ruling regime or its continuation is likely to influence the level/pattern of social development spending depending on their priorities/electoral base with a view to be re-elected in the subsequent election. In order to test the nature of this simple two-way relationship, we do two sets of regressions: (a) first we determine the re-election probability of an INC regime, using a fixed effect panel probit regression; explanatory variables here are the initial level spending on education and health. (b) We also determine the fixed effects estimates of changes in state spending on education and health where the explanatory variables include two binary variables: if the current political regime is headed by an INC Chief Minister (CMINC) and also whether the current INC regime has been re-elected from the last term (CONTINC).

Taking the share of particular spending in relation to state domestic product allows us to control for state's wealth. In each case, we consider the change in the value of the variable from the last election to be the dependent variable of interest. These differenced variables allow us to examine how the political regime would change the behaviour of the government in power while the level variable would simply reflect the correlation between political variables and some indicator of social development.

These results summarized in Table 4 suggest that current INC regime (CMINC) is associated with lower level of spending on both education and health in our sample. With respect to the reverse causation (i.e., whether pattern/level of current spending may enhance the probability of re-election of an INC regime), there is some confirmation that higher level of spending on education would enhance this probability; the level of health spending however remains insignificant.

This simple exercise is indicative of a two-way relationship between Congress regime and state-level spending. In the next two subsections (see Sections 4.2 and 4.3), we introduce the political economy considerations of elite dominance and ethnic fractionalisation and reassess the correspondence between Congress predominance and state spending on education and health. This is explained in the following subsections 4.2 and 4.3.

4.2. Determinants of Social Spending

In this section, we reassess how the political economy of elite dominance and ethnic fractionalisation could explain the effects of Congress predominance on subsequent social spending on education and health. In doing so, we replace the two Congress

variables by the measures of elite dominance and ethnic fractionalisation in determining the changing share of state spending on education and health (as a share of state output).

Among the explanatory variables, we now include measures of elite dominance (CLR or LANDGINI in two alternative specifications⁵) and ethnic fractionalisation (POLHETY or SOCHETY).⁶ In addition, we include initial values of the relevant expenditure (EDUEXPY or HLTHEXPY); negative signs on the coefficients of initial values of these spending variables would indicate if there is any convergence in level spending among the states over time. Finally we also include the proportion of minority population of various categories (share of female, scheduled castes, scheduled tribes and Muslims in the total population of the states).⁷ Using the first difference of the state spending variable allows us to reduce the possible problem of simultaneity between indicators of social development and measures of social or political heterogeneity, for example. Fixed effects panel data estimates are summarised in Table 5.

Values of the change in share of education or health in state output in response to a change in a particular explanatory variable could be positive or negative. Thus a positive (negative) coefficient estimate would indicate an increase (decrease) in the share of the particular spending associated with an increase in the value of the explanatory variable. For each type of spending (education and health), we show estimates for two

⁵ As possible alternative measures of elite dominance, we also tried including the share of land held by top 10% and 20% of the population as well as Gini indices in the distribution of average monthly consumer expenditure per capita; but these variables never turned out to be significant. See discussion in section 3.2.

⁶ We also tried including an indicator variable measuring if the state government is aligned to the government at the centre. INC has remained in power at the centre during most of this period, except 1977-80 (Janata Party rule), 1989-90 (National Front coalition government). Thus the binary variable takes a value 1 if the party in power at the state assembly is also the party in power at the centre and 0 otherwise. Alliance with the union could be important in determining both earning and spending patterns of the state (e.g., see Khemani, 2002). But the variable was never significant in explaining change in state level spending and that is why we exclude it from the final specification.

⁷ We also experimented with various other minority religious groups, but these were never significant in our sample.

specifications depending on whether we include Gini index in the distribution of land or the composite index of land reform legislations (see Table 5). Our main findings are summarized here. (a) There is no evidence of convergence in state spending across the states. This lack of convergence in state-level spending on education and health could perhaps be indicative of divergent political agenda of the state governments run by different political parties. (b) Measure of elite dominance (index of land reform legislation as well as Gini index in the distribution of land) is significant only in the equation for change in educational spending, but not in health spending equation. In particular, higher degree of elite dominance, as measured by, less land reform legislations or higher value of Gini in the distribution of operational landholding lowers the spending on education. In other words, the elite would continue to spend moderately on health, but not on education because universal education is likely to dilute their political dominance. (c) Higher degree of social heterogeneity would significantly lower spending on both education and health in our samples. Effect of political heterogeneity though not always significant, remains negative in each case. Thus net effect of political heterogeneity is to lower public spending on education and health in our sample. In other words, higher degree of competition among political parties (again captured by the measure of political heterogeneity) does not seem to induce the ruling government to be more accountable and thus to provide more allocate higher spending on health and education. (d) While proportion of scheduled castes or female population remains insignificant, states with higher proportion of scheduled tribe and Muslim population tend to have lower spending on both health and education. On the face of it, this result may be interpreted as a selective discrimination against the minority groups of scheduled tribe and Muslim in the

Indian states (e.g., see Betancourt and Gleason, 2000). But we cannot rule out the possibility that this could in fact reflect a lower demand for these services among these minority communities. In fact there is some evidence that Muslims in India tend to send their children more to Muslim community schools (known as Madrasas) rather than to the conventional state schools (Barooah and Iyer, 2004). Similarly, a large section of scheduled tribe population do not make use of conventional health facilities offered by the state and tend to make use of the alternative health care facilities (e.g., herbal or homeopathic treatment). The latter could be a result of the lack of accessibility to public schooling/health facilities, especially in remote areas and/or the general concern about the quality of these services, even when they are accessible.

4.3. Determinants of Congress Predominance

Finally, with respect to the reverse causality (from spending to Congress Predominance, see column 2, Table 4), we replace the initial spending variables with the measures of elite dominance and ethnic fractionalization in determining Congress predominance; this will help us establish the effect of the political economy considerations on the predominance of the Indian National Congress and therefore the correspondence between social spending and political regimes. In particular, we consider two possible measures in this respect: (a) a binary variable indicating if an INC Chief Minister heads the government in power (the reference group therefore includes all other national and regional parties) and (b) a second binary variable CONTINC that indicates continuation of an INC regime from the last election. Clearly, continuity of an INC regime is a better

measure of the predominance of the INC. Among the explanatory variables, we include measures of elite dominance (CLR or LANDGINI in two alternative specifications), measures of social and political heterogeneity and proportions of Scheduled Castes, Scheduled Tribes and Muslims as well as female in the total state population.

Fixed effects panel data probit estimates are summarised in Table 6. Likelihood of an INC regime decreases with increase in land reform legislations, greater degree of political heterogeneity, but increases with higher proportion of Scheduled Tribe and Muslim population. More interesting results are obtained from the regression on the continuation of an INC regime from the last election. In addition to the earlier results, in this case both social heterogeneity index and share of female in total population becomes significant; while greater social heterogeneity increases likelihood of INC predominance, higher proportion of female in total population tends to lower it.

Taken together, there is some confirmation of a direct correspondence between Congress predominance, on the one hand, and state level spending on education and health on the other. On the basis of our results, we can also argue that this link operates through the political economy considerations of ‘elite dominance’ and ‘ethnic fractionalisation’.

5. CONCLUDING COMMENTS

This paper explains the striking social disparity in the process of Indian social development where low caste and female population are not only worse off when residing in any state, but more so when residing in one of the worse performing states of India.

Following recent political economy models, we argue that this social disparity is a result of elite dominance and ethnic fractionalisation of the society. Results based on the Indian state-level data for 1960-92 suggest that states with greater degree of elite dominance suffer from lower spending on education though not on health; also greater degree of ethnic heterogeneity lowers the allocation of state spending towards health and education. There is also some confirmation that predominance of Congress regimes increases with greater degree of elite dominance and ethnic heterogeneity in our sample. Taken together, we argue that there is a close correspondence between state spending and social/ political structures, as captured by the division of the society in terms of gender, caste and religion, though there is a clear lack of convergence in state spending on health and education suggesting the divergent agenda of the state governments in India.

Unfortunately, gender, caste and class based politics perpetuates inequality. Spread of human capital could help to overcome the traditional disparities of caste, class and gender, just as the removal of these inequalities helps the spread of human capital. Results of our analysis however indicates the importance of including women, low caste and other disadvantaged groups into the state political process in an attempt to improve the effective delivery of public services on education and health and this could be facilitated by ensuring: (a) active participation of the disadvantaged sections of the population in the voting process so that their voices are heard through the ballot box as well as (b) representation of disadvantaged sections of the population in the government. This however is not an isolated process and needs to be implemented in conjunction with the literacy campaign enabling the disadvantaged voters to make an informed choice. Impartial judiciary has also a very important role to play to uphold this crucial

fundamental right, especially in its fight against criminalisation of the political process.

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Table 1: Economic and social development in the Indian states

State	PCSDP		Growth rate of pcsdp (% per year)		Literacy rate (%)		IMR (per 1000 livebirths)	
	1991-92 Rs./Year (rank)	2001-02 Rs./Year (rank)	1980- 90	1991- 2001	1991	2001	1990- 92	2001
AP	5570 (5)	17642 (9)	1.7	21.67	44.10	61.11	71	65
Assam	4230 (11)	10951 (12)	2.9	15.88	52.90	64.28	76	75
Bihar	2904 (17)	5445 (15)	1.8	8.75	38.50	47.53	72	62
Gujarat	6425 (4)	21276 (5)	2.2	23.01	61.30	69.97	69	62
Haryana	8690 (2)	24820 (2)	3.2	18.56	55.80	68.59	71	67
J&K	4051 (14)	-	-0.1	-	-	54.46	69	47
Karnataka	5555 (6)	18324 (7)	3.0	22.99	56.00	67.04	73	57
Kerala	4618 (9)	21310 (4)	0.3	36.17	89.80	90.9	17	14
MP	4077 (12)	12027 (11)	3.1	19.5	44.20	64.11	111	87
Maharastra	8180 (3)	24736 (3)	2.8	20.24	64.90	77.27	59	48
Orissa	4068 (13)	10234 (13)	2.7	15.16	49.10	63.61	120	96
Punjab	9643 (1)	25652 (1)	3.2	16.60	58.50	69.95	57	52
Rajasthan	4361 (10)	13825 (10)	2.4	21.70	38.60	61.03	84	79
Tamil N	5078 (8)	21239 (6)	2.5	31.83	62.70	73.47	58	51
UP	4012 (15)	9749 (14)	2.2	14.3	41.60	57.36	98	83
W Bengal	5383 (7)	17769 (8)	2.5	23.0	57.70	69.22	66	51

Table 2. Characterisation of Elite Dominance, 1960-92

State	% of land held by top 20%	% of land held by bottom 40%	Gini coefficient in land distribution	Cumulative land reform legislation	Rural Cons. Gini	Urban Cons. Gini
AP	76.85	0.79	0.74	1.58	29.6	32.4
Assam	59.13	2.53	0.60	2.18	20.7	31.5
Bihar	70.85	1.76	0.68	4.61	27.2	34.6
Gujarat	69.96	0.73	0.69	3.33	27.6	30.2
Haryana	-	-	-	-	27.1	30.8
J&K	51.36	10.43	0.49	1.45	24.3	26.9
Karnataka	67.57	1.29	0.67	2.55	29.3	34.5
Kerala	74.22	7.95	0.69	5.64	32.6	40.6
MP	63.55	2.61	0.63	3	31.0	35.6
Maharastra	70.97	0.58	0.70	1.97	31.8	37.2
Orissa	64.50	2.26	0.64	5.33	27.7	33.1
Punjab	71.08	-	0.74	0.64	31.7	33.4
Rajasthan	64.69	4.65	0.63	1	36.0	32.5
Tamil N	77.75	0.60	0.74	4.36	29.9	35.4
UP	64.36	3.05	0.62	2.48	28.6	32.5
West Bengal	68.77	1.32	0.67	5.18	26.7	33.1

Table 3. Characterisation of Ethnic Heterogeneity, 1960-92

State	Ethnic heterogeneity index		Voter turnout (%)		
	Social Heterogeneity	Political heterogeneity	SC/ST	Women	All
AP	0.47	2.2	59.2	64.0	68.3
Assam	0.64	2.5	57.5	56.0	61.3
Bihar	0.70	3.3	41.7	42.5	53.5
Gujarat	0.48	2.1	49.0	50.5	55.6
Haryana	0.46	2.4	31.2	64.2	67.4
J&K	0.26	1.9	31.7	51.2	69.0
Karnataka	0.51	2.2	62.9	62.6	67.2
Kerala	0.67	6.2	70.3	65.8	75.6
MP	0.53	2.1	43.3	40.9	51.2
Maharashtra	0.46	2.4	51.9	57.0	61.2
Orissa	0.56	3.3	38.4	35.0	46.7
Punjab	0.55	3.1	31.4	65.3	67.9
Rajasthan	0.54	2.5	48.6	41.0	55.4
Tamil Nadu	0.44	1.9	63.3	66.1	69.7
UP	0.63	2.7	35.9	43.6	50.5
West Bengal	0.66	3.3	64.2	57.8	67.3

Table 4. Correspondence between Congress Predominance and Social Spending: Fixed Effects Estimates, 1960-92

	(1) INC rule/predominance → Change in social spending		(2) Prior social spending → INC predominance
	Change in education spending	Change in health spending	Continuity of an INC regime
Variable	Est. (T-stat)	Est. (T-stat)	Est. (T-stat)
INC rule	-0.06 (3.050)**	-0.002 (3.015)**	
Continuation of INC rule	0.02 (1.232)	0.001 (0.535)	
Initial education spending	-	-	0.13 (1.743)*
Initial health spending	-	-	0.16 (1.012)
Log-L	-	-	-49.02662
Log-L0	-	-	-68.68864
LR (chi-square)	-	-	39.32404**
R ²	0.39	0.46	-
F-Stat	3.61**	4.72**	-
Nobs.	121	121	121

Note: '*' denotes significance at 10% or lower level while '**' denotes that at 1% or lower level.

Table 5. Fixed Effects Estimates of Changes in Social Spending, 1960-92

Variable	Change in Education spending		Change in Health spending	
	Est. (T-stat)	Est. (T-stat)	Est. (T-stat)	Est. (T-stat)
Initial share of education	0.13 (1.796)*	0.05 (0.692)	-	-
Initial share of health spending	-	-	0.11 (0.434)	0.05 (0.691)
Land reform legislation index	0.008 (1.845)*	-	0.002 (1.249)	-
Land Gini	-	-0.04 (1.691)*	-	0.002 (0.171)
Social heterogeneity	-0.16 (2.823)**	-0.17(2.757)**	-0.003 (1.682)*	-0.003 (1.906)*
Political heterogeneity	-0.008 (1.903)*	-0.001 (1.883)*	-0.0003 (1.190)	-0.0005 (1.741)*
Scheduled caste	-0.06 (0.698)	0.03 (0.423)	-0.01 (0.322)	0.005 (0.154)
Scheduled tribe& Muslims	-0.09 (2.404)*	-0.08 (1.999)*	-0.07 (3.534)**	-0.07 (3.270)**
Female population	0.03 (0.524)	0.006 (0.101)	0.005 (0.185)	0.005 (0.173)
R ²	0.59	0.59	0.65	0.65
F-Stat	5.40**	5.32**	6.91**	6.89**
Nobs.	113	113	119	119

Note: '*' denotes significance at 10% or lower level while '**' denotes that at 1% or lower level.

Table 6. Fixed Effects Binary Probit (panel) estimates of Congress Predominance

	Current CM is from INC		Continuity of an INC regime from the last election	
Land reform legislation index	-0.28 (2.960)**	-	-0.28 (1.877)*	-
Land Gini		0.47 (0.769)	-	0.73 (0.856)
Social heterogeneity	-0.36 (0.189)	-0.15 (0.904)	0.44 (1.889)*	0.34 (1.651)*
Political heterogeneity	-0.30 (2.193)*	-0.19 (1.388)	-0.30 (1.707)*	-0.16 (1.520)
Scheduled caste	-0.14 (0.622)	-0.43 (2.244)*	0.13 (0.510)	-0.20 (1.014)
Scheduled tribe+Muslims	0.16 (1.731)*	0.20 (1.780)*	0.42 (1.762)*	0.45 (1.797)*
Female population	0.77 (0.532)	0.22 (0.676)	-0.71 (2.518)*	-0.53 (1.727)*
Log-L	-56.403	-55.70323	-41.61432	-40.9888
Log-L0	-73.68279	-73.68279	-60.68864	-60.68864
LR (chi-square)	34.55958**	35.95912**	38.14864**	39.39952
Nobs.	121	121	121	121

Note: '*' denotes significance at 10% or lower level while '**' denotes that at 1% or lower level.