# 'PUTNAM IN INDIA': IS SOCIAL CAPITAL A MEANINGFUL AND MEASURABLE CONCEPT AT INDIAN STATE LEVEL?

### IDS WORKING PAPER 92

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#### SUMMARY

In a seminal and provocative book, Putnam argues that levels of trust, interest in public affairs and political participation are the most important explanatory features of the differential institutional performance across Italian regions over time. Despite the long-standing debate this work has generated on the concept of social capital, there is a surprising lack of attempts to test his thesis empirically in other contexts. This paper examines the possibility of replicating Putnam's argument in the context of Indian states, by discussing available data at Indian state level, constructing new indicators, and attempting some preliminary statistical analysis of the relationship between social capital and state performance. At each step of the process, a number of factors are identified that restrict the validity of the exercise. Far from discounting Putnam's research question and methodology, this paper points out the specific empirical and conceptual issues one needs to pay attention to, when addressing the important topic of the roots of differential institutional performance in the Indian context. Recommendations for future research in this area are to interpret data and design surveys very carefully; shift the focus from states as units of analysis, to either clusters of states identified according to historical and cultural features, or to selected areas for fieldwork comparison; and, finally, pay attention to the theoretical framework, in particular to the dynamics of the institutions – social capital relationship and to the role of education as a fundamental intervening variable in a country with widespread illiteracy such as India.

<sup>\*</sup> This paper was written when I was a Research Officer working for the DfID funded Programme 'Public Policy for Poverty Reduction, Political Forces, Social Agency and Economic Dynamics' at the Institute of Development Studies at the University of Sussex. I would like to thank Prof. John Toye, head of the research project on Social Capital in India, for his support and encouragement throughout, and the other members of the IDS Poverty Programme, in particular Stephen Devereux, Anu Joshi, Jim Manor and Mick Moore, for their extremely useful suggestions. A large number of people offered invaluable help and support during fieldwork in Delhi. I would like to thank them all, especially Ajay Mahal, Mark Robinson and A.K. Shiva Kumar. I would also like to thank the Centre for the Study of Developing Societies, Delhi, for providing me with some state-level data from their 1996 Post-Poll Survey. Earlier outputs from this research project have been presented at the IDS Poverty Conference, at a seminar at the Ford Foundation, Delhi, and at the IARNIW Golden Jubilee Conference in Delhi. I would like to thank the many participants who made very helpful contributions.



### 1 INTRODUCTION

Does 'social capital' help in explaining the differential success of states and communities in improving their material well being, reducing deprivation and enjoying a better quality of life? Recent literature has emphasised the importance of mutual trust, norms of co-operation and previous experiences of collective endeavours within societies to explain higher incomes (Narayan and Pritchett 1995), economic growth (Knack and Keefer 1996) and institutional performance (Putnam 1993). Much effort is now being put into collecting data on social capital from various communities, to test how far it is linked to various aspects of well being.<sup>1</sup>

The notion that features of social organisation, levels of trust within groups and previous history of cooperation affect social and economic outcomes is not new, as a long-standing tradition within sociology and political economy can attest.<sup>2</sup> However, the new elements in the recent interest in 'social capital' within the social sciences are the notions that, first, one can *measure* the level of trust and cooperation, and compare these levels across communities, regions or countries and, second, that one can *assess empirically* the influence of these measured variables on various micro and macro social phenomena. While absorbed in theoretical elaboration of the concept along new and old directions, social scientists have been keen to attempt measures of social capital under different forms (level of trust, extent of inter-personal commitments, density of social networks, number of tertiary associations, social homogeneity, political participation), and at various levels (the community, the village, the region, the state).<sup>3</sup>

Part of this recent enthusiasm for the empirical application of the social capital notion derives from certain dissatisfaction with existing explanatory frameworks of development. The question of why some countries are more successful than others in managing to develop their economies and establish democratic government is still a pressing puzzle, which decades of exercises in cross-country econometric analysis has not been able to solve. It is apparent that the issue is not the amount of sheer resources pumped into a country, but the existence of certain conditions for resources to be channelled effectively into priority goals. Government commitment to development and the transparency and efficiency of the bureaucracy are crucial factors in this respect. However these two conditions do not emerge in a social vacuum. The role of civil society, of citizens' awareness of their own rights and responsibilities, and of features of social organisation must also be taken into account. The recent attention of empirical analysis to some of these features is documented by a significant number of studies which make use of non-conventional explanatory factors, such as indicators of corruption, accountability, and potential for social conflict. The evidence is that some of these indicators may be important in accounting for the observed differentials in social and economic development across countries and regions, although the lines of causation and the transmission process often remain an open issue.

Among the most influential theoretical and empirical contributions on social capital is Putnam's (1993) analysis of Italian regional governments' differential performance. The main argument of the book is that features of social organisation that enhance trust and cooperation increase societies' well-being by making government institutions more democratic and more efficient in delivering public goods. This work has enjoyed an extraordinary success and spurred a continuing debate. Is it possible to use Putnam's methodology in other countries, and explain differentials in institutional performance among governments with identical organisational forms? This issue has been examined in the context of Indian states. The objective has been not so much to replicate Putnam's methodology (given that the main instruments of the enquiry were a short field

visit and existing aggregate data) but to analyse the feasibility and the validity of both measuring social capital at Indian state level and identifying its role in explaining the differential performance of states.

The present paper presents some reflections on this research. Its structure is as follows. The next section introduces the concept of social capital and briefly describes Putnam's methodology. Sections 3-5 identify, respectively, three types of problems in the application of this methodology to inter-state analysis in India. First, there is the difficulty of finding appropriate measures for the aspects of social capital proposed in Putnam (1993). This is due not just to the lack of data per se, but to the ambiguity of the interpretation of those data that already exist (Section 3). Second, even when searching for alternative aspects that are deemed more appropriate to take into account the diversity of the social and political context in India, problems arise since these are, if anything, more elusive aspects to measure and the state as a unit of analysis turns out to be quite inappropriate (Section 4). Third, even when there is an indication of a statistical association between measures of social capital and performance, this association may be spurious or the line of causation doubtful. One problem is the powerful influence of literacy as an intervening variable, in a country where education is so unevenly spread geographically and socially. In modern societies, literacy is fundamental for ensuring generalised trust and cooperation, as it enables people to overcome the limits of informal and personal links, and to participate in society at large; in turn, it provides citizens with the confidence and ability to deal with government officials and put a pressure on government action. This is a point that emerges as decisive in the context of India, whereas it was (predictably) not so important in the case of Italy. Section 6 presents some conclusions.

### 2 SOCIAL CAPITAL, INSTITUTIONAL PERFORMANCE AND SOCIO-ECONOMIC DEVELOPMENT

#### 2.1 The General Framework

The importance of the existence of generalised trust and co-operation within communities for achieving collective goals cannot be overemphasised. One of the most cited recent examples is the case of Russia, afflicted by a pervasive wave of distrust and individualism, which is held responsible for the inability of this society to recover from its chronic economic and social problems (Rose 1995), and for the deterioration of mortality indicators, especially among children (Kennedy et al 1998). Although the connection between trust and wellbeing is universally assumed, the mechanisms by which these two factors feed into one another are complex and not easily predicted. Moreover, it is still unclear how trust and cooperative attitudes are generated and maintained within societies.

Broadly, the link between trust and collective welfare can be analysed in two different frameworks. In the first, social capital among a set of people affects their welfare directly, that is, co-operation and mutual trust enable people to achieve **together** an outcome they would not be able to attain individually. Examples are industrial districts, where small firms can compete with larger enterprises in export markets, thanks to the lower costs and higher technology secured through mutual co-operation (Nadvi and Schmitz 1996); neighbourhood associations, which in many US towns, seem to keep the level of juvenile crime under control, by parents agreeing to share responsibilities for each other's children; and extended family networks, which assist their members to emigrate or to start a new business, by providing the necessary financial and emotional support.

In the second framework, trust and co-operation generate their effects only through the mediation of government institutions. This framework, as developed in Putnam (1993), posits that societies where citizens trust one another and are more inclined to co-operate give rise to more accountable and efficient governments, which in turn are able to deliver a higher and better quality of public goods and create the conditions for society to develop faster. This link is not simply unidirectional, since a vibrant civic society and a democratic and efficient government are two sides of the same coin. However, the link from society to the institutional context is particularly emphasised in Putnam's analysis: pressure from below through the different instruments of voting, protest, and other expressions of disagreement induces representatives to adhere more closely to their mandate.

In the first conceptualisation, social capital could in principle be measured at the individual level as it amounts to the number and extent of relationships in which one is involved, and from which one draws from, when in need of support, trust and favours. For instance, Coleman (1990) draws a map of social relations in which individuals are nodes and social capital is represented as lines uniting them. The more lines connect to an individual, the higher is the individual's level of social capital. The intensity and the direction of the obligations embedded in these relationships are also important,<sup>4</sup> with the amounts of net benefits from existing cooperation changing according to one's position within the social fabric. This type of social capital functions as a public good, but mainly within the group; this is more appropriately called a 'club' or 'network' good (Sandler and Tschirart 1980). Club goods may generate externalities for societies at large, which can be either positive or negative, according to whether the network is, for instance, a business association or a criminal organisation.

In the second framework, social capital cannot be measured at the individual or group level, since it is an eminently public good, which benefits every member within a given society, including those who are neither trusting nor trustworthy. This is so because, if there is a critical mass of people who keep trust and co-operation high, the institutions that are the expression of that society will be efficient and accountable. When focusing on this particular form of social capital, one should measure not the individual or the group's endowment of social capital, but that of the society as a whole (this could be a state or region, as long as it has formal institutions with some governing power).

The above distinction is important to avoid confusion regarding the meaning of social capital and its potential role. This problem is particularly present, as will be seen later, in the Indian context, where the interpretation on the basis of the first definition is more likely to be taken for granted. Clearly, the difference between the two mechanisms just described is not so neat. Co-operation at the micro-level between groups is always mediated by institutions (however informal) whose (implicit) role is to allocate rights and responsibilities among members. Moreover, the relationship between informal institutions, such as the family, the neighbourhood, the cluster of firms, and formal institutions may be one of interdependence and interaction.

Nonetheless, the two forms do not have to co-exist. High levels of trust and cooperation among members of micro and informal institutions can be observed in societies characterised by widespread distrust in formal government institutions. Surely, it may be the case that informal institutions in these conditions monopolise the provision of trust and other services that the state is not able to ensure, and require exclusive loyalty from their members in order to pursue particularistic goals rather than the collective good.<sup>5</sup> On the other hand, relatively effective and trustworthy institutions can operate among individuals who have no social fabric and no inter-

personal networks. The case of 'anomie' has been recognised since Durkheim as a hallmark of modernisation, leading to increasing rates of disaffection, suicide and violent crime across society, and is for instance increasingly found in the rapidly transforming societies of Central and Eastern Europe.<sup>6</sup>

More likely, therefore, the existence of one form of social capital in the absence of the other is dysfunctional. Not only are there different forms of social capital, but it is their combination and dynamics through time that determine whether social relationships have positive developmental effects (Woolcock 1998). The relationship between these forms is possibly the main challenge today facing research in this area. In Putnam (1993) relationships between micro and macro forms of social capital are not explicitly discussed, and the main focus remains the interface between generalised trust and horizontal associations, on one side, and responsive and democratic government institutions on the other.

Putnam's (1993) enquiry originated from the aim to explain differential government performance (and economic growth) across the 20 regions of Italy. The institutional performance of each region is measured by a composite index based on 12 elements, which include promptness in approving the budget by the regional assembly, extent of legislative innovation, provision of day care centres and of family clinics, industrial policy instruments, local health unit expenditures and bureaucratic responsiveness to citizens' queries. This composite indicator is shown to be highly consistent with opinions given by the region's citizens and with the degree of satisfaction expressed by a sample of community leaders.

After arguing that the observed differences in institutional performance cannot be explained by modernisation theories (as socio-economic indicators show a poor correlation with institutional indicators), the author proceeds to test the potential explanatory power of some indicators of the degree of civicness in the community. According to the neo-Tocquevillian framework embraced by Putnam, a civic community is characterised by active participation in public affairs; horizontal, e.g. egalitarian, relations of reciprocity and cooperation (as opposed to vertical relations based on authority and clientelism), bonds of solidarity and trust, and distinctive social structures and practices characterised by thriving local associations.

The degree of civicness in each region is measured by means of quantitative and qualitative indicators; in particular, voter turnout at referenda, lack of candidate preference voting in political elections, newspaper readership and density of sport and recreational associations. The statistical relationship between regional variation in institutional performance and differences in the degree of civicness is found to be more significant than in the case of socio-economic variables. This is taken to suggest that an effective government-citizen relationship is the outcome of successful solutions to dilemmas of collective action. Norms of reciprocity and networks of civic engagement favour this outcome, because they raise the costs of defection, facilitate information among people, reduce uncertainty and provide models for future cooperation. Particular importance is attributed to membership of cultural and recreational associations, as opposed to that of business groups, unions and parties. Since the former types of associations do not entertain a specific economic and political purpose, they are more likely to provide the context within which people internalise principles of trust and cooperation.

### 2.2 Application to the Indian Context

India is divided into 24 states and 7 union territories. Indian states share many fundamental political features and have similar government structures, and yet the contrast between their achievements in terms of social stability, economic performance and social indicators could not be greater. Differences in terms of the operation of the political system, the party in power and the type of policies pursued are undoubtedly crucial to explain this divergence (Weiner 1968; Kohli 1987). However, there is also a perception that features such as state-wide identification, previous experience of mass mobilisation and high political participation can have a profound influence, not only on the type of policies to be chosen, but also on their effectiveness.

It has been argued, for instance, that states with greater administrative efficiency and socio-political development are also those which in the post-independence period had an active political community claiming a state formation on the basis of linguistic homogeneity (Weiner 1968, 1989). States like Tamil Nadu, West Bengal and Punjab are thus set against Uttar Pradesh, Rajasthan and Madhya Pradesh. Shared historical roots and a negotiated unification process were important to establish, among both administration and citizens in the former group of states, a greater civic sense, to use Putnam's words. This does not imply, however, a lower level of conflict within society or the absence of other kinds of divisions along caste, religious or political lines (a point to which we will return later); Punjab, for instance, has been most severely afflicted by conflict and violence.

The uneven distribution of the British legacy, in terms of the development of the administrative system, and of communications and infrastructure, represents another complicating factor. States along the coast (especially Gujarat, Maharashtra, and West Bengal) have been exposed for some time to various waves of European influence, and were those where colonial policy had some developmental effects. On the other hand, Madhya Pradesh and Rajasthan suffer from a backward administrative system, most of their territory being divided, during colonisation, either into several small principates or into scattered units of British administration. At independence, they became states not out of the united fight of the people, nor on the basis of a common social or cultural identity, but because there was nothing else to do with the various constituent parts.

With independence, the constitution gave state governments the power and the duty to play an important part in the overarching objectives of the newly formed India: to eradicate poverty, grant universal education and access to health care, and ensure participation of every citizen to collective and political life. States take expenditure decisions in the sectors of health, education, infrastructure, agriculture and rural development, among others. Not surprisingly, the observed disparities across states in terms of their economic and social development, in the presence of similarly designed government institutions, have constituted a focus of primary attention in recent decades.

Poor performances have been explained in terms of previous historical experiences (more exploitative colonial domination), archaic productive relations in the countryside, lack of social change, ideology of the state in power, type of family systems etc. All these elements, although sometimes studied separately, are inextricably linked to one another. In particular, it seems that political failures at the top are as important causes as corruption of the local bureaucracy, and malfeasance or inertia on the part of the population. There might be a

common root for the observed government inefficiency, bureaucratic corruption and inertia of the people in some Indian states. The question is whether this is at all similar to the one Putnam has found for Southern Italy, namely low mutual trust, absence of the conditions for individuals to pursue collective endeavours, lack of historical experience of cooperation — in summary, what Putnam calls a lack of 'social capital'.

This seems to be a legitimate research question. The problems lie with the tasks of constructing and interpreting measures of social structures of co-operation, solidarity and trust, which may imping on state-citizen relations. These issues are dealt with in the next three sections.

## 3 PUTNAM'S INDICATORS: PROBLEMS OF DATA AVAILABILITY AND INTERPRETATION

In this section we consider the problems of arriving at a measure of the degree of society's 'civicness' in India, as in the neo-Tocquevillian definition endorsed by Putnam in his study of Italy. Is it possible and meaningful to construct indicators for Indian states similar to those derived for Italian regions? As mentioned above, a civic community is characterised by active participation in public affairs, horizontal relations of reciprocity and cooperation, bonds of solidarity and trust, and distinctive social structures and practices characterised by thriving local associations. Regional indicators for Italy were turnout at national referenda, lack of candidate preference voting in parliamentary elections, membership in associations and newspaper readership. We consider thus the possibility of constructing similar indicators for Indian states, leaving aside preference voting, which is peculiar to the proportional electoral system then present in Italy, and does not therefore apply to the Indian context.

**Political Participation.** The extensive participation of the masses in political life has been a notable feature in India since independence, and contrasts with the more limited participation in many new states in Africa and Asia (Weiner 1989). The electoral process is among the most important and widespread forms of participation. It has remained fundamental despite recurrent intense political violence and the suspension of democracy in 1975-77.

However, casting a vote to elect politicians is not necessarily dictated by civic-minded motives. If Putnam was wary of turnout data for political elections in the case of Italy, why should they be more valid indicators of social capital in India, where the politics of patronage and the exchange of vote are no less? In the complex and internally divided Indian society, political parties tend to align themselves, at least at local level, on caste and ethnic lines, with the consequence that voting patterns often reflect not the individual's conscious choice but the dictates of one's group's leaders (Nuna 1989). As the author of a recent publication on electoral politics states, 'it is quite ironical that, even after 50 years of Indian independence, 90 per cent of women in India go to vote for reasons other than political - either because it provides a good outing or because they are persuaded by their fathers, husbands and sons, who in turn are persuaded in the name of caste, class, religion or monetary favours in the majority of cases' (Ahuja 1998: p.273).

In the Italian context, Putnam selected turnout at national referenda as a more pertinent indicator of a behaviour driven by social and moral concerns, rather than by the game of politics (as topics of referenda ranged from divorce to abortion). Unfortunately, there are no analogous consultations in India, or features for which similar indicators are available. Participation in the elections of the recently revived Panchayati Raj bodies, which have been hailed as an opportunity at last for people to take a role in the government of local issues, is too recent to generate significant indicators for all states. Those elections to Panchayats held before the recent constitutional amendment were very often plagued by a politics of patronage and exchange of votes to be useful.<sup>7</sup>

In the absence of alternative measures of political participation, figures on voter turnout at assemblies elections will be taken as the best available indicators (on the grounds that it is better to consider them with due caution than to reject them altogether). Figure 1 shows the time trends in election turnout at the Lok Sabha and Vidhan Sabha (respectively national and state assembly) for 15 major states from the first elections in 1952 until 1991.8 Trends over time do not exhibit any particular pattern (except for an ascending one for Bihar, Orissa and possibly West Bengal); their erratic behaviour is not only due to the typical mood swings of the electorate but also to exceptional episodes, such as economic or political crises (like for instance in the 1981 elections in Assam). A generalised rise in turnout is discernible, if anything, from the first to the third or fourth round of election (all-states average turnout goes from 51% in 1952 to 62% in 1967), which is likely due to the increase in literacy and in political awareness in the new nation.

Spatial comparisons averaged over time are highlighted in Table 1, which reports for 16 major states (including Himachal) the mean turnout at the Lok Sabha and Vidhan Sabha elections over the period 1952-1991, along with the corresponding state ranking. Average turnout ranges from over 75 per cent in Kerala to 45.7 per cent in Orissa (the latter is affected by the very low participation during the first few elections). Besides Kerala, the other states with above average turnout are West Bengal, the southern states of Tamil Nadu, Andhra Pradesh and Karnataka and the three northern states of Haryana, Himachal and Punjab.

What leads to greater participation in these states? Certainly, explanations focused on the contrasting patterns of kinship between the South and the Centre-North (whereby prevalent matrilineal and endogamous family structures in the South lead to lower conflicts within the extended family, higher female status and a more 'progressive' and open culture) come to mind; as well as those arguing that favourable agro-climatic conditions have induced more flexible and dynamic social structures, for example, in Punjab and Haryana (Banerjee 1997). The role of historical factors has been mentioned earlier. Areas which were formerly part of British India and/or states with established movements for independence have experienced higher political participation than those ruled by Maharajas or constituting part of the larger Hindi linguistic area (Weiner 1968). But one factor may be very crucial, namely, literacy.

Average literacy across the four decennial censuses 1961-91 has been calculated for the 16 major states (see Table 1). The states with higher than average literacy (the mean for all states is 40 per cent) are, in descending order, Kerala, Himachal, Haryana, Maharashtra, Tamil Nadu, Gujarat, and West Bengal (note that Himachal and Haryana are near the top because literacy data are available only from the two last censuses, thus leading to a higher average than would otherwise be the case). The two state rankings with respect to turnout and literacy exhibit only a few differences: the two western states of Gujarat and Maharashtra have a turnout much lower than predicted by their mean literacy levels, whereas the southern state of Andhra Pradesh has a

low literacy but high participation at elections; moreover, Punjab and Karnataka are slightly below the average literacy but above the average turnout.

The correlation coefficient between the average turnout at the election and average literacy is positive and high ( $R^2 = 0.73$ , significant at 0.001 per cent level). This high value implies that either greater literacy in a state induces higher turnout, by empowering people not only with the mere technical ability to vote but also with a heightened political consciousness and sense of collective identity; or a greater political consciousness of the people leads to better public services, e.g. more functioning schools, hence higher literacy levels. The latter, if true, would confirm the social capital hypothesis (for the empirical problems in disentangling this relationship see Section 5) but it cannot be denied that the causal process from literacy to turnout is also at work. States with above average literacy in 1991 are in general the same as those with greater literacy at the time of independence. The legacy from the pre-colonial and post-colonial past, in terms of both the type of government in power and the policies pursued, appears as important as the actions undertaken by state governments since independence.

**Membership in Associations.** The only data on membership in associations at state level are those available from the Ministry of Rural Development in relation to a number of associations constituted under government initiatives. In its emphasis on participatory rural development, the Indian government has tried to establish, since 1952 with the launch of the Community Development Programme, various rural associations, for the promotion of members' well being and also as a link to government programmes. Data on the number and membership of women's associations (*Mahila Mandals*) have been used elsewhere as state-level indicators of social capital (see Morris 1998). However, these data cannot be considered as satisfactory measures, since many of these associations exist merely on paper, or their members' list is arbitrarily inflated in order to qualify for government funding. Being set up by means of a top-down initiative, these associations cannot represent a relevant example of a society's way of dealing with collective problems.

Voluntary associations is another matter, and their vibrancy in India is quite extraordinary in many respects, both for their geographical coverage and their capacity to involve poor and otherwise powerless groups. These various forms of collective expression have shown their strength not only in achieving important material goals (as they set objectives such as minimum wages, new literacy and health programs, and inclusion of disadvantaged groups) but also in giving opportunities to people to connect with one another and find a common identity. Voluntary agencies can play a useful role in training people in methods of co-operation and organised work, but also in enhancing democratic participation in society at large by empowering individuals and raising their social understanding.

However, data on the numbers, membership and activity of voluntary associations are neither available nor comparable at state level. The large amount of work devoted to the analysis of the extraordinary role of these associations as an instrument of democratic development has not yet led to attempts to derive a comprehensive picture of the activity of these associations over the whole Indian territory.<sup>10</sup>

**Newspaper readership.** Turning to aspects other than participation, the data situation is not necessarily better. There is no comprehensive survey on newspaper readership in India nor on access to media in general, which would indicate to what extent people are able to get information on issues relevant at the local or state level.

Only data on newspaper circulation or of number of TV sets per capita are available, which are clearly insufficient given the often public nature of the media, even more so in India, where papers can pass through many hands and people often gather together at public places to watch TV.

Overall, the above remarks show the inappropriateness of existing aggregate data (with the possible exception of voter turnout) for measuring three of the four aspects taken into account by Putnam, because of the failure of such measures to reflect closely people's disposition to cooperate in order to attain collective goals. As mentioned earlier, surveys may represent more valid means for getting information on people's views of politics, their level of trust in governments, types of associational activity, and interest in public affairs. However, the virtual absence of surveys covering these topics makes it difficult to confirm this impression.

A survey conducted by the Centre for the Study of Developing Societies (CSDS), the **1996 National Election Study Post-Poll Survey**, is practically the only one, to our knowledge, which allows us to compare aspects of social capital across states.<sup>11</sup> Although the survey is conceived as a post-poll survey, aimed at analysing voting patterns and changing political allegiance of the electorate, it also asks questions on social structures of participation and cooperation. In particular, thirteen questions are relevant to the social capital concept.<sup>12</sup> They identify broadly two areas, the first on electors' views about their community, the role of elections and their representatives and officials; the second covering electors' participation in community and public affairs: membership in associations, extent of contact with public officials and media usage. State aggregate data have been considered, since state-wise comparison is the focus here.

Responses are typically qualitative categories of the type **Yes/No** or **A great deal/somewhat/never**. For each question, we have selected the type of response that is most consistent with the notion of trust, adherence to democratic politics and active participation in public affairs. For instance, to the question on whether one has trust in state governments, the percentage of people who answered 'a great deal' has been considered. Table 2 lists the thirteen questions together with the answers that most interest us, and Table 3 shows the corresponding percentages of respondents in each of the main 16 states.

All-India values for the social capital variables so generated are quite low (none is over 50 per cent). The highest scores are obtained on the issue of caste-related vote (48 per cent of the entire sample believe one's vote should not be influenced by caste membership), on the trust in state and local governments (around 40 per cent), and on the utilisation of any media at the time of an election. But, overall, people in India appear to have little interest in politics, little confidence that elections may make governments aware of ordinary people (just over 13 per cent of the sample believe they do), and to be little exposed to media in general.

Particularly puzzling are the low percentages of respondents who declare membership of any organisation/association. Membership of caste or religious associations is below 6 per cent in most states and only greater than 10 per cent in Kerala, whereas membership in other organisations (recreational, cultural, cooperatives) is over 10 per cent in just Kerala, Assam and West Bengal. These figures seem lower than what one would expect on the basis of the impression typically formed of India of a lively associational life. One possible explanation is that these figures only capture membership of formal associations and organisations, and exclude, for instance, informal yet locally recognised collective structures that are very important, especially in villages. In other words, features of associational life may prove to be more elusive than one might think. This would

require either a more sophisticated and penetrating set of questions, or complementary instruments of investigation, like direct observation of specific village reality.

One feature which the questionnaire has been able to indicate quite well, is the exceptionality of Kerala. This state exhibits the highest scores on almost all variables, and exhibits a quite unique profile with respect to all other states.<sup>13</sup> Such findings attest to the marked political consciousness of Kerala people, which has led, as is widely recognised, to a highly effective state-citizen interaction and to a very democratic society. Kerala appears as the best Indian example of a society with high social capital. Uncovering why this is so is key to a better understanding of social capital (see Section 5).

In order to get a comprehensible picture of the relationship existing between the features measured by the survey, pair-wise correlation coefficients were calculated (see Table 4). Of the three variables that we have named 'election variables', two seem to be highly related to one another (those named 'elected' and 'elections'). The perception that elected representatives care about what electors think is highly correlated across states with the belief that elections induce governments to pay more attention to the people (coefficient 0.77). Moreover, it is significant that in those states where this view of elections prevails, people place greater trust in state government (coefficients are 0.67 and 0.55 respectively), are more interested in politics (0.57 and 0.55) and are also more likely to have contacted officials about some problems (coefficients are 0.71 and 0.61). Moreover, exposure to papers, radio or other media is significantly positively correlated with interest in politics and with contact of officials.

On the other hand, one notes the lack of correlation between the election variables mentioned above and the belief in a vote unfettered by the influence of caste or religious leaders. Also, the three 'trust variables' are predictably highly correlated with one another, but there seems to be no relation with interest in politics, media usage and the belief that votes should not follow suggestion from one's own caste or community group. The correlation coefficient with the feature 'contacts with officials' is also low (coefficients are, respectively, 0.33, 0.26 and 0.14). Positive and significant relationships are evident with the two 'association variables'. This would support the notion that trust in members of societies and trust in government/representatives do feed into one another, especially because the coefficient attached to 'other associations' is greater than to those identified by caste and religious affiliation. However, as mentioned above, the membership variables must be taken with caution in this survey.

The absence of relationship between trust in governments/officials and most other features is a problematic element from the viewpoint of social capital theory, according to which trust in institutions is fundamental in maintaining an effective relationship between government and citizens. Moreover, trust cannot be discarded here as a low key variable, as is the case for association membership. The majority of people in India do have some trust in their state and local government (only 19.2 per cent and 23.2 per cent do not trust their state and local governments, respectively). What then does trust reflect in this case? Is it possible that, when governments and officials are themselves not too deserving, the presence of trust on the part of citizens should be taken as a negative rather than a positive element? That is, admission of one's trust may not always reflect a conscious knowledge of government actions and trustworthiness, but sometimes a mechanic and passive compliance, and maybe, even the existence of collusion with corrupt behaviour. The problem is how to distinguish these two meanings across different contexts. Here, the lack of significant relationship between trust

in governments/officials, on the one hand, and most other variables, in particular interest in politics, contact of officials and newspaper readership, on the other, may represent a warning as to the interpretation to be given to trust.

If this is the case, it means that some of the aspects measured by the CSDS survey are not unambiguous indicators of civic behaviour, as one might have thought. This is a similar problem to that identified earlier with other data, for instance those on turnout at elections. One way of separating out the independent factors among a set of variables is to apply factor analysis, more precisely principal component analysis. The latter aims to find a small number of orthogonal components that can linearly reconstruct a larger set of variables, and is often resorted to when the latter are highly collinear, as this makes them unsuitable to regression analysis. Principal components are identified for eleven of the original variables, after excluding the two association variables due to their low significance and to the lack of observations for Andhra Pradesh.

The top of Table 5 shows that only the first two components are highly relevant, as they have eigenvalues greater than one, and together explain over 80 per cent of the total variance. They are therefore retained for the estimation of the score coefficients. On the first factor, all loadings are positive (see bottom of Table 5). This factor can be easily interpreted as a general 'social capital' variable, in the sense that states that score high on these eleven questions can be expected to have citizens who participate to a greater extent in community issues at large and accept the rules of the existing democratic system.

The second factor loads negatively on 'vote', 'interest', 'contact' and the three media variables, and positively on all others. It identifies a sub-set of states where citizens are ready to answer positively to questions about attitudes and trust (in the electoral mechanism, in government representatives and in officials), but they are themselves not interested in politics, rarely contact officials, have a very limited exposure to media, and, especially believe that it is important to vote according to the opinions of caste or religious leaders (this has the highest negative loading). This second factor could be interpreted as conservative compliance to existing order, implying no direct personal commitment. It may indicate a passive attitude on the part of citizens, possibly due to unresponsive and disinterested governments, so that there is a lack of a predisposition to co-operate and engage for better change.

The ranking of states with respect to these two components is quite revealing (Table 6). In relation to the first factor, Kerala appears to be well ahead of other states, followed by Assam and West Bengal. Gujarat and Punjab are at the bottom. However, the scores on the second component modify radically the state ranking with Kerala just ahead of Punjab and Gujarat, but at the opposite end to Assam. The reason why Kerala and Assam are so different in terms of the second factor can be gauged by looking again at Table 3. While Kerala scores high on all questions, Assam's citizen-government relationship appears problematic: around 65 per cent of the population declare their trust in government but only 7 per cent are interested in politics and less than 10 per cent regularly read newspapers.

Punjab, on the other hand, scores very low on most questions, of the first and second 'type'; government institutions have little credit in the eyes of citizens, who might react to such disaffection by retreating to private and closed forms of collective life. This does not necessarily imply that Punjab has a low value of social capital in its more extensive connotation, but only with respect to the notion captured by the CSDS questionnaire, which may well denote a restricted version. Given the highly conflictual political situation in particular during

the mid-1990s in Punjab, respondents to the questionnaire are likely to have been conditioned, even more than usual, by current events, and conveyed their anxieties and disaffection with politics.

In conclusion, the set of variables derived from the CSDS 1996 survey shows that there is a significant relationship among some of the factors in the literature groups under the heading 'social capital', but there is also a lack of significant correlation between some crucial variables. Rather than implying the failure of Indian social features to meet theoretical predictions about the mutual reinforcement of engagement and trust, this may be due to a combination of two reasons. First, that the measured variables are unable to capture what we mean by generalised trust and collective structures of cooperation. Second, forms of participation apparently in line with the notion of civic virtue may not be so. Situations whereby trust in government institutions is high but forms of participation in collective life are scarce cannot be taken as exhibiting high levels of social capital in the Putnam sense. These two possibilities suggest the need for further research with more refined methodologies, and for the analysis of survey data to question the assumption that certain variables are unambiguous indicators of civic virtue.

# 4 INTERPRETATION AND QUANTIFICATION OF OTHER ASPECTS OF SOCIAL CAPITAL IN INDIA

The problems identified in the previous section, one might argue, result from attempting to find measures of political engagement and mutual solidarity in India similar to those found in Italy. When applying a theory to a very different context from the original one, it is important to be able to adapt and modify concepts, while maintaining the basic idea. But to what extent can one stretch the original formulation to search for genuine and meaningful forms of social capital in India? And in what measure can one thus overcome the criticisms of those who raise doubts as to whether the concept of social capital, in the Putnam sense, is at all appropriate for Indian society?

Among Indian scholars and development practitioners the term 'social capital' is intended mostly to describe social networks based on kinship ties or on caste and religion, which provide vital support to individuals. Absence of social capital in this sense means inability to face life contingencies, poverty, exclusion and powerlessness. Structures of cooperation are regarded as alternative, and sometimes antithetic, to formal institutions, as they arise to provide those goods and services that the latter are too weak or too corrupt to ensure. Governments and officials are regarded as distant and often hostile by ordinary Indian people. All this implies a certain resistance to conceptualising social capital as an ingredient for effective and fruitful interaction with governments. It is instead more often conceived as a source of support for an identifiable and connected set of people. It is the first and not the second definition, out of those given in Section 2, which more naturally comes to mind when thinking of social capital in India.

Nonetheless, various strands within the current literature do provide good examples that attest the validity, in the Indian context, of a concept of social capital à *la* Putnam. Studies on educational structures and facilities suggest that the source of the higher quality of services in Kerala as opposed to Uttar Pradesh lies with the attitudes of parents, and their willingness and capability to voice their protest and take appropriate action if needed, when teachers are absent, infrastructure is decaying, and promised funds do not arrive.<sup>15</sup> Mobilisation

is possible when people share their understanding of the common good and trust one another to achieve this objective. That citizens' voices and reactions might be what makes the difference between malfunctioning and efficient schools in India provides an appropriate example of the notion that greater social capital makes existing physical and human capital more effective (Ostrom 1996).

The contribution of the social capital factor emerges also in another sphere, that of anti-poverty programmes. Poor people's political mobilisation may be crucial to force governments (of whatever ideology) to be accountable and adhere to electoral promises, and various important examples in this direction exist in the distant and recent past in India. Not just political or organisational factors, but also social features (and the type of social relations), determine whether anti-poverty programmes are successfully implemented.

But what are the elements that enable poor people to give voice to their dissent and defend their own rights? Qualitative evidence has shown that previous experience of collective action, local presence of NGOs, and literacy rates are important factors in accounting for local communities' capacity to interact with institutions to achieve better outcomes. It has been suggested that the presence of social movements from the last century is, for instance, able to explain in part the current distribution of modern forms of mobilisation, such as workers' movements, peasant movements, anti-caste movements and women's movements, which have managed at times to exert great pressure on governments.

However, these phenomena are hard to capture by means of quantitative indicators, due to a lack of comprehensive figures on these movements and activities. It would also be difficult to gauge their presence in terms of states as units of analysis. Despite the state-wide resonance of some of these movements, the fact that some Indian states are as big and diverse as the world's largest nations makes state comparison quite meaningless.

In looking for other sources of trust and cooperation, one might consider whether some of the theories that have been discarded by Putnam as irrelevant for Italy might be more appropriate in the case of India. In particular, the notions of social cohesion and political harmony need to be considered, not only for the potential role these features can have in a highly diverse society like India, but also because they are increasingly held up as very crucial in other contexts (Klitgaard and Fedderke 1995; Easterly and Levine 1995). Ethnic and linguistic fragmentation has been found to be an important empirical factor associated with slow economic growth or difficult democratic transition. Easterly and Levine (1995), for instance, found that a measure of ethnic diversity is negatively correlated with economic growth, schooling attainment, availability of infrastructure and sound policies in a number of African countries.

The basic tenet is that people similar to one another in terms of language, ethnicity and culture, manage to cooperate more successfully due to ease of communication, possibility of building reputation and trust, and the presence of common values and conventions. On the other hand, history has repeatedly shown that this notion is much more difficult to substantiate in practice, as many other factors intervene in determining whether trust can ensue, to the point that the factor of diversity can become marginal.<sup>17</sup>

Indian society is characterised by a great degree of fragmentation in ethnicity, caste, religion and class. The importance of linguistic identity has already been noted. Basically India is divided between states which were formed out of linguistic homogeneous areas, and those which belong to the larger Hindi speaking area. The

former group includes, Andhra Pradesh, Assam, Gujarat, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu and West Bengal.

Leaving aside caste composition,<sup>18</sup> religion is a very divisive and complex issue at the state level. In our sixteen states Hinduism (or its Sikh version in Punjab) constitutes the main religion, which co-exists with various others, the most important of which, by far in most states, is Islam. Kerala is the only state with an equal and significant proportion of two minority religions, as Muslim and Christian communities each account for approximately 20 per cent of the population.

Can any measure based on a state's linguistic or religious composition bear any statistical relationship with indicators of state performance? I found no evidence of such a relationship when using various combinations of fragmentation measures and performance indicators. One important reason for the failure of either religious or linguistic fragmentation to account for differences in state performance may be the multiplicity of the divisive lines running through Indian societies. The co-existence of these many and non-over-lapping dimensions has prevented a single element ever to prevail and factions of a permanent nature to crystallise (Manor 1996). Indian societies witness constant fluidity and frequent changes in alliances, quite unlike the ethnically diverse but otherwise relatively homogeneous societies of Africa. It is a fact that Nehru's fear of separatist tendencies, as supposedly resulting from the constitution of states along linguistic lines, has not materialised, because of the many other differences dividing citizens within each state (notably caste and religion). Paradoxically, the complex stratification of Indian society has acted in favour of its unity.

In conclusion, therefore, whether the co-existence of several linguistic and ethnic groups is an obstacle to developmental outcomes is not an issue that can be resolved on the basis of aggregate data on the relative proportion of the population in different religious or linguistic groups. It requires instead more attentive and thorough analysis.

# 5 THE RELATIONSHIP BETWEEN SOCIAL CAPITAL AND STATE PERFORMANCE: THE PROBLEM OF THE INTERVENING VARIABLES

In the previous two sections we discussed the problems associated with identifying aspects of social capital which are both meaningful in the Indian context and measurable. Some indicators have been retained, namely turnout at elections and the two composite variables derived from the CSDS survey (Table 6), yet doubts have been raised as to their ability to reflect appropriately the elements of cooperation, generalised trust and solidarity. This conjecture cannot be confirmed, however, until a test of their empirical significance is carried out. This section presents a preliminary analysis of the role of the social capital indicators identified so far in explaining state differences in performance and socio-economic outcomes.

A problem with inter-state analysis is the extreme complexity underlying regional economic, political and social variation, because of the multiple ways in which all these factors combine together locally.<sup>19</sup> Typically, 'good' performance in one aspect is often accompanied by poorer performance in another yet equally important dimension, making the task of drawing lessons for development more difficult than ever.

This is particularly evident when comparing socio-economic indicators. Table 7A shows the achievements of the 16 major states in terms of: growth in national income during the period 1980-93; 1992-93 headcount

poverty index; 1991-92 per-capita state domestic product; 1992-93 infant mortality rates; 1989-91 life expectancy at birth; 1991 female literacy rates, and 1991 human development index (HDI). The latter is calculated on the basis of three indicators: per capita consumption (GDP), life expectancy and literacy rates.

Table 7B shows the ranking of states in terms of the indicators in Table 7A. The variation of states' positions across rankings is quite remarkable. Only states at the bottom maintain similar rankings, in particular Bihar and Madhya Pradesh, and also Uttar Pradesh to a lesser extent (it was 6<sup>th</sup> in the poverty ranking). Rajasthan, the other BIMARU state,<sup>20</sup> although ranking low on human development variables, has, on the positive side, a good record in terms of growth.<sup>21</sup> Orissa, another backward state in many respects, also exhibits a good performance recently in terms of poverty. Overall, these data confirm that the five mentioned states are 'problem' states, where lack of growth and especially greater poverty is interlinked with low human development.

For the other states, instead, the picture is less consistent. There are not best performing states as such, and states that rank high on some indicators are clearly less good at others. In fact, Table 7 provides a snapshot of different types of development achieved by Indian states, a topic extensively analysed in the literature. On the one hand, there is the model of agricultural growth, increases in per capita income and investment in infrastructure, represented by Punjab and Haryana. On the other hand, there is the Kerala model of development, which is evident to a lesser extent also in Tamil Nadu, involving massive investment in human development and an emphasis on redistribution (land reforms, minimum wage legislation).

Although Kerala and Punjab have the highest HDI in India, they differ significantly with respect to the elements composing this indicator. Kerala's life expectancy at birth, infant mortality rates and education, particularly of women, are at the level of the world's middle-income countries.<sup>22</sup> However, growth and employment are stagnating, and therefore per capita SDP is low.<sup>23</sup> On the other hand, Punjab has achieved the fastest growth and ensured the highest per capita income in India, but it occupies only 8th position in the state ranking with respect to mean literacy in 1961-91 (see Table 1). Another interesting case is that of Haryana, which has the second highest per capita state domestic product (SDP), but ranked 9th in terms of literacy during the last census, and 10th in terms of female literacy.

The Kerala model is about how to achieve rapid and effective social development at low levels of per capita income, whereas the Punjab-Haryana model is about the trickle-down effect of growth. However trickle-down processes have not been successful everywhere, translating into lower human development indicators. Low education and health inhibit people at large from enjoying the fruits of the expansion in economic activity. For instance Gujarat, though one of the richest states, exhibits a comparatively low level of human development, and persistent inequality and poverty (14th position in the ranking with respect to poverty headcount in the early 1990s).

The complex multi-dimensionality of Indian development implies the difficulty, here more than ever, of explaining differential success in terms of a single indicator. On the contrary, Putnam's analysis of Italian regions shows there is a rough correspondence between regions with greater economic growth and those with better performing democratic institutions and higher quality of public services. Putnam finds that his constructed index of 'social capital' can explain both growth and democracy.

We thus confine the analysis to one specific dimension of state governments' institutional performance, that of health. This particular choice reflects the great importance attributed to the provision of health services for the well-being of the general population, the richness of studies on determinants of health indicators in India (Dasgupta *et al.* 1995, 1997), and the fact that health improvements are only weakly related with pure economic factors (per capita income) (Caldwell 1986). Our selected indicators relate both to the level of inputs ensured by the government (the level of expenditures in the state budget, the availability of infrastructures and medical personnel) and to outcome measures, such as life expectancy and the human development index. The latter is itself both an outcome and an indicator of the extent to which people are able to benefit from existing facilities. More precisely, five indicators are considered: per capita health expenditures (which include five items, namely medical and public health, family welfare, nutrition, water supply and sanitation, and child welfare and disabled welfare), per capita number of centres in rural areas (including Primary Health Centres, Sub-Centres and Community Health Centres), per capita number of doctors, life expectancy at birth, and HDI, all measured in or around the year 1991 (see Table 8A).

There is a rough consistency between the state rankings with respect to these indicators. Table 8B shows the difference between the state value for each indicator and the average value. The best performing states are Kerala and Himachal, which are always above the average, followed by Tamil Nadu and Punjab, each with just one negative difference. The worst performing states are Andhra, Bihar and Uttar Pradesh (always below the average).

Given the high collinearity between these indicators of performance, factor analysis is applied to derive a general performance measure. The first factor is highly significant, explaining 68 per cent of the total variance (Table 9), and is thus retained for the calculation of the scoring coefficients. Above average performance states (that is those with a score coefficient greater than zero) turn out to be, in descending order, Kerala, Himachal, Punjab, Maharashtra, Haryana, Tamil Nadu and Karnataka.

Table 10 (top half) shows the simple correlation coefficients between the performance indicator just obtained and the measures of social capital so far identified, namely turnout at elections, and the two components derived from the set of eleven variables from the CSDS survey. It is evident that only turnout at elections exhibits a significant correlation with the performance indicator.

However, in section 3 we noted a remarkable positive correlation between turnout and literacy. In order to allow for this intervening factor, we also measure the partial correlation coefficients. Table 10 (bottom half) shows that the partial contribution of turnout to the explanation of performance variation across states, once the influence of literacy alone or with the other social capital indicators is taken into account, is no more significant. The reverse is true for literacy, e.g. the latter's correlation with performance, after allowing for social capital, is still very significant.

This suggests that political participation does affect state performance, but merely because it implies higher literacy levels. Education appears as a powerful element determining whether citizens are able to participate in society at large, interact effectively with government, and promote democracy. The line of causation from social capital to state performance is not proved in the context of Indian states, since, if literacy is a fundamental intervening variable, it is itself a product of public policy.

Kerala presents an interesting case in this respect. It is very much recognised that high social capital, whereby trust in institutions, interest in public affairs and high degree of mobilisation go hand in hand, might be regarded as a product as well as a cause of the observed good state performance in delivering public services (Heller 1996; Krishnan 1998). It is an effect to the extent that initial high levels of literacy, which are in turn a legacy of the enlightened policies of the princes of Travancore and Cochin during the last century, have enabled this society, since independence, to give rise to democratic governments, which have ensured effective access of public services to the population at large (including raising the living standards of the Malabar region, which, not being formerly under the above mentioned principates, had very low literacy to start with). That Kerala is not an isolated, curious product of history, and that deep-rooted factors are crucial, is indicated by the fact that Sri Lanka would also appear as having a high social capital if it were included in the analysis, and this is a society which shares with Kerala many cultural, ethnic and historical features.<sup>24</sup>

Citizens' level of education is a good predictor of the extent to which various kinds of public services are effectively put to use in India (Minhas 1991). The analysis in this paper suggests that the role of literacy is even more pervasive, as it impinges directly on social capital and democratic performance. In a country where the majority of the population is still illiterate, access to the main instruments of democratic participation (voting, newspapers, but also self-confidence and assertive attitudes in the face of public officials) may be severely limited. This issue has been understandably underplayed in Putnam's analysis of Italian regions, but it may be the most crucial element to take into account in India, if democracy and people's well-being are to be promoted. Widespread illiteracy represents the main paradox in the largest democracy of the world (Weiner 1991).

### **6 CONCLUDING REMARKS**

This paper has aimed to contribute to current debates on social capital by examining the applicability to the Indian context of a definition, used in Putnam (1993), based on the Tocquevillian notion of the civic community. Whereas much of the current debate on social capital is seemingly trapped in a never-ending controversy on which kind of social relationships are good, in what sense they are good, and for whom, Putnam's notion at least has the merit of focusing on a specific set of social relationships, and on a particular framework, which assesses effects on institutional performance. There is plenty of qualitative evidence from India to suggest that features such as the level of trust and norms of cooperation crucially impinge on social well-being and on the effectiveness of government actions. However, so far there has been no study attempting to assess the role of measurable aspects of social capital in accounting for observed differences in performance across Indian states. This paper discusses the limits involved in such exercises and, in so doing, provides suggestions as to the direction further analysis in this area should take. Three types of conclusions and implications emerge from our analysis.

First, Indian state data for the indicators that are normally used to proxy civic behaviour are hard to identify, or the data that already exist cannot be interpreted unambiguously as a measure of civicness. Not only aggregate data but also survey data might be unable to capture relevant aspects, even when they are high quality enquiries carried out by a prestigious institute, as in the case of the CSDS survey analysed in Section 3. We have noted for instance problems related to the very important questions of participation in associations and trust in

government institutions. The percentages of respondents who are members of associations seem too low in the light of the perception of a more vibrant associational life derived from direct field observations. With regard to trust variables, there is the difficulty of interpreting whether low trust is due to malfeasance of representatives or lack of interest from the people, and whether it is restricted to existing governments or extends to all previous ones.

These dilemmas suggest the need for survey questions to be very carefully designed, and for future research in this area to accompany the use of aggregate and survey data with other methods of data collection, such as direct field observation, in order to capture more effectively the desired characteristics. Possibly, for the case of India, one would require an even richer combination and analysis of data sources than the one relied upon by Putnam for Italy, because of the lower data quality and the greater complexity of features.

Second, features which supposedly reflect collective structures of co-operation in Indian society and culture, are elusive to measurement and meaningless to frame within states as units of analysis. Indian states are complex and internally differentiated entities; moreover, there is no consistency between their performance indicators. Whereas the neatness of Putnam's theory as applied to regional development in Italy is due to the fact that social capital explains not only differential democratic performance but also delivery of public goods and long-run growth, in India such a clear-cut theory is ruled out by the fact that states rank very differently according to the particular aspect under consideration. One cannot expect a single indicator, however composite, to be able to account for either the diversity of Indian regional development, or state institutional performance as such. This does not amount to the conclusion that social capital cannot be measured or is not relevant for socio-economic development in India, but rather that it may be better located at a different level than the state.

One possible direction for future research would be to carry out the analysis at two levels, respectively larger and smaller than the state. Clusters of states within India can be fruitfully compared, for instance the North versus the South,<sup>25</sup> or Hindi versus non-Hindi states, or 'Bimaru' states versus the rest.<sup>26</sup> At the same time, a number of small areas within each cluster may be identified for carrying out fieldwork and derive first-hand information on the different aspects of social capital.<sup>27</sup> Differences in terms of institutional performance might then be more clearly grounded in prevailing cultural patterns and types of social relationships, whose origin in India rests in deep-rooted factors that are only weakly reflected by recently drawn state borders.

The third and most important implication of our research is that the relationship between social capital and institutional performance is characterised by complex dynamics. Whereas people's involvement in public affairs and their civic character might be important to explain current government performance, these elements are also affected by education, which is itself a product of previous policies. Future research must therefore address this issue and disentangle the elements of this relationship. This might imply re-qualifying the frequently made policy recommendation to invest in social capital. A more relevant point could be that public policy, insofar as it promotes universal education, might have a great impact on social capital.

Putnam himself recognised the complex interaction between social capital and institutional practices, and suggested that the experience of Italian regional governments, in the South as well as in the North, does indicate that 'changing formal institutions can change political practice' (Putnam 1993: p.184). However, he did not explore the implications of this fact in his work on Italy. The analysis of the process by which institutional

change can take societies out of their vicious circle of distrust, defection and exploitation is a challenge mostly lying ahead. Education policies may provide an essential element of this process in the Indian case.

#### **NOTES**

- The World Bank is particularly involved in this process: a major project led by Deepa Narayan aims to collect, on the basis of an extensive questionnaire, data on social capital from several countries. A discussion list has been set up on the web on social capital, with the objective, among others, of promoting exchange of views and information on practical problems of measurement and their implication for policy intervention.
- <sup>2</sup> For references see Toye (1998) and Woolcock (1998).
- The success of 'social capital' within modern economics explains, and is explained by, the use of the term 'capital': this term emphasises both the measurability aspect and the instrumental role in producing desirable outcomes. Although largely used as if it were a neutral and unambiguous concept, the notion of capital within economic thought has a long history of controversies, which started with the debate on physical and financial capital, and has continued more recently when the terms 'human capital' and 'natural capital' were introduced. The term 'social', on the other hand, refers to something that inheres in neither individuals nor material things, but in inter-personal relationships.
- The sociologist Bourdieu has particularly emphasised the implications of differential power and positions of individuals within social networks. See Bourdieu (1990) and (1992).
- Gambetta (1988) explains in detail how this condition lies at the heart of the Mafia phenomenon in Southern Italy.
- <sup>6</sup> For references on this point see Woolcock (1998).
- With the 72<sup>nd</sup> amendment to the Indian constitution, passed in 1991, the establishment of lower levels of government (the three-tier Panchayati Raj structure) was at last included in the enforceable part of the constitution. The fact that up until then it had only figured under the Provisions was held as the reason for the low political profile of these bodies, which were dormant in most states with elections constantly deferred.
- The dates for national and state assemblies coincide during 1952-67 and then start to diverge most of the time. For years when both a state and a national election were held, the average turnout is obtained. Data for Vidhan Sabha are obtained only up to 1989 rather than 1991.
- For a discussion of the contrasting kinship patterns between the south and the north see Sopher (1980), also Dyson and Moore (1983), who analyse the consequences in terms of female status and demographic indicators.
- This deficiency will hopefully be filled thanks to an ongoing study on the voluntary sector in India, coordinated by Participatory Research in Asia, an NGO based in Delhi.
- The CSDS has conducted various other surveys, but only the 1996 National Election Study and a similar one in 1972 cover all of India (a third, conducted after the 1998 elections, has yet to generate final results). As the 1972 survey was based on a smaller sample and on a much shorter questionnaire, it was not taken into account. The 1996 National Election Study covers constituencies in 21 of the major states and union territories of India, on the basis of a representative sample of the Indian electorate, stratified by gender,

- age, education, occupation, caste, religion, economic class and rural-urban location. The sample consisted of slightly less than 10,000 people.
- None of these figures, nor any study based on these data, has ever been published. I would like to thank Prof. V.B. Singh, Director of CSDS, for making available the state-level data relative to these 13 questions.
- The Union Territory of Pondicherry has scores not that different from those of Kerala. They are not, however, included in Table 3.
- Against some possible arguments that a higher prevalence of contact with officials could indicate greater scope for corruption, the interpretation is endorsed here that it is a manifestation of a personal and direct involvement with public service providers, and an opportunity to exercise rights of protest and criticism.
- See Drèze and Gazdar (1997), Krishnan (1998); also Probe Team (1999).
- See Putnam (1993, Ch. 3). Putnam states that 'the success or failure of Italy's regional governments was wholly uncorrelated with virtually all measures of political fragmentation, ideological polarisation and social conflict' (p.117). Measures of the distance between parties (in terms of strength and ideology), of the distribution of voters' opinion on crucial issues, of fragmentation of parties at regional level, on economic conflicts and social tensions, on geographic disparities and on the level of conflict in society as seen by leaders, were all tried but none offered the least support that social and political strife is incompatible with good government.
- Moreover, religious and ethnic differences may suddenly become a hindrance where they were not before, following changes in external circumstances. Examples of conflicts suddenly arising between groups who had peacefully co-existed in the past include, Yugoslavia, Palestine to some extent before the formation of the state of Israel, and Kashmir, where Muslim and Hindu had long co-existed relatively peacefully up to the rule of Sheikh Abdullah (Bose 1995).
- Note that caste fragmentation cannot be considered because of the lack of census data on caste composition since 1931 (the 1941 Census suffered from serious disruption due to India's involvement in World War II). After independence, the abolition of questions relative to caste was decided for political reasons (commitment to a united India where social divisions of all kinds would be underplayed).
- In the following we are mainly concerned with inter-state comparisons, thus overlooking the crucial variations occurring within each state, some of which are more populous than most world nations. However, since state governments in India hold powers of decision in policy areas which are more relevant for the people at large, notably agriculture and social sectors, an understanding of patterns of development by state is a prerequisite to examine development issues in India.
- <sup>20</sup> 'Bimaru' is an acronym derived from the initials of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, but it also means 'ailing/sick' in Hindi.
- See also Nagaraj et al. (1998) for an account of Rajasthan's recent growth performance.
- The record in terms of poverty reduction is also impressive. In 1972-73 Kerala was only 10th among Indian states in terms of the headcount poverty index (which was then greater than 60 per cent) but

- managed to reach fourth position in 1987-88, by almost halving the proportion of people below the poverty line.
- Increases in per capita consumer expenditures (which are reflected in a decrease of headcount poverty) were achieved not by means of national income growth (SDP has grown very slowly during the past decades) but thanks to the remittances from migrants abroad, especially from those working in the Gulf countries.
- <sup>24</sup> I am indebted to Mick Moore for making this connection.
- See also footnote 9.
- I am indebted to Stephen Devereux for this suggestion.
- A team of researchers from the Centre for Political Studies, School of Social Sciences, J.N.U., Delhi, is collecting data on horizontal relationships and other aspects of civic behaviour from four localities in India. However, the purpose of their research, which is part of a larger programme on social capital and democracy in segmented societies, is not comparison within India as much with South Africa.

### APPENDIX: FIGURES AND TABLES

Figure 1 Turnout at Lok and Vidhan Sabha elections, 1952-91

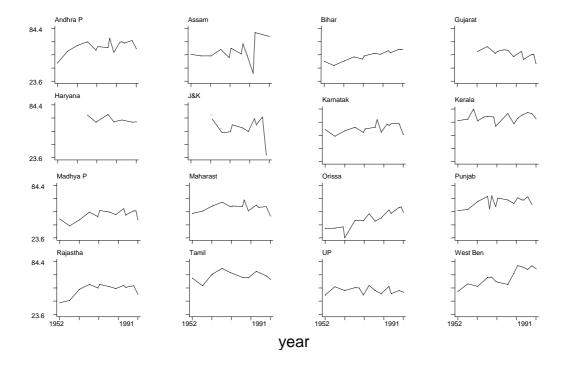


Table 1 Average Turnout at Elections and Literacy

STATE	TURNOUT	DIFFT	LITERACY	DIFFL
Andhra Pradesh	63.52	3.82	32.62	-9.14
Assam	59.58	-0.12	38.47	-3.29
Bihar	53.45	-6.25	28.08	-13.68
Gujarat	55.54	-4.16	46.37	4.6
Haryana	67.28	7.58	49.59	7.83
Himachal Pradesh	61.17	1.47	57.35	15.59
Karnataka	62.15	2.45	41.1	-0.66
Kerala	74.6	14.9	72.18	30.41
Madhya Pradesh	50.06	-9.64	30.29	-11.47
Maharashtra	58.86	-0.84	48.61	6.85
Orissa	45.67	-14.03	35.44	-6.32
Punjab	65.19	5.49	41.04	-0.72
Rajasthan	52.05	-7.65	26.67	-15.09
Tamil Nadu	67.7	8	47.23	5.47
Uttar Pradesh	51.25	-8.45	29.52	-12.24
West Bengal	67.09	7.39	43.63	1.87

TURNOUT: Mean turnout at Lok and Vidhan Sabha elections, 1952-91 (%) DIFFT: Difference between mean state turnout and 16-states average turnout LITERACY: Mean literacy rate, 1961-91 (1981-91 for Haryana and Himachal) (%) DIFFL: Difference between mean state literacy and 16-states average literacy

Sources: Singh and Bose (1984); Singh (1994); Butler et al. (1991).

Table 2 Variables from CSDS Questionnaire

Question asked	Answer	Groupings of	Short name for
	considered	variables	variable
Opinion	ns/Views		
Do you think it is important or not important for	Not important	Election	Vote
you to vote the same way your caste		Variables	
group/community votes?			
Would you say that persons we elect by voting	Care		Elected
generally care about what people like you think, or			
that they don't care?		Trust	
How much does having elections from time to	Good deal	Variables	Election role
time make the government pay attention to the			
people- good deal, somewhat or not much?			
How much trust/confidence do you have in the	Great Deal		Trust in SG
state government- a great deal, somewhat or no			
trust at all?			
How much trust do you have in local	Great Deal		Trust in LG
government/panchayat/municipality- a great deal,			
somewhat or no trust at all?			
How much trust do you have in government	Great Deal		Trust Officia
officials- a great deal, somewhat or no trust at all?			
'Action'/Personal Involvement			
Leaving aside the period of elections, how much	Great Deal		Interest
interest would you say you have in politics and			
public affairs, a great deal of interest, some interest,			
or no interest at all?			
Let us talk about associations and organisations	Yes	Membership in	Rel/caste
other than political parties: are you a member of		Association	
any religious or caste organisation?			
Aside from caste and religious organisation, do you	Yes		Other ass
belong to any other associations and organisations			
like the co-operatives, farmers' association, trade			
unions, welfare organisations, cultural and sports			
organisations, etc.?			
Have you ever contacted any government official	Yes		Contact
for any need or problem?		3.5.3.	
Do you read newspaper? (If yes) How often-	Regularly	Media	Paper
regularly, sometimes or rarely?		Variables	
Do you listen to Radio? (If yes) How often-	Regularly		Radio
regularly, sometimes or rarely?			
Of those, on which source did you depend most	Any answer		Information
for getting information about elections, parties and	apart from NO		
candidates? None, newspaper, radio, TV, any	is considered		
combination of two, all three.	and the sum is		
	derived		

Source: National Election Study 1996, Centre for the Study of Developing Societies, Delhi

Table 3 State-Level Values for Different Variables from 1996 CSDS Survey

State	Vote	Elected	Elections	Trust SG	Trust LG	Trust Off	Interest	Rel/caste	Other ass	Contact	Papers	Radio	Media
ANDHRA P.	53.3	32.3	11.5	31.2	31.8	18.8	4.8			17.5	12.1	13.9	49.5
ASSAM	43	35.5	44.3	64.5	64.9	35.1	7	4.4	14	20.6	9.6	14.5	49.1
BIHAR	27.2	14.2	11.9	30	29.8	16	9.5	3.1	3.5	15.5	5.8	10	40
GUJARAT	72.5	9.1	7	22.2	39.8	11.6	3.3	1	3.5	11	16.6	3.9	43.7
HARYANA	45.2	25	16.1	32.7	28	7.7	7.1	0	3	14.9	7.1	7.1	24.4
HIMACHAL	24.2	19.4	4.8	56.5	77.4	24.2	4.8	4.8	9.7	8.1	6.5	19.4	30.6
P.													
KARNATAK	47.9	13.7	3.6	29.3	34.6	17.3	9.6	3	7.3	13.7	11.3	17.3	40.4
A													
KERALA	74.9	45.2	40.8	54.2	58.6	18.7	19.5	12	23.6	35	29.7	35.9	83.4
MADHYA P.	36.8	22.9	7.1	37.8	35.2	27.3	6.6	2.5	3.5	15.6	3.7	5.9	33.5
MAHARASH.	52.5	22.2	8.8	34.1	40.8	14.5	6.3	3.7	9.1	19.7	14.4	15.1	37.7
ORISSA	48.3	20.1	2.4	49	51.5	34.3	5.6	2.1	7	16.1	5.6	7.5	29.8
PUNJAB	29.2	10.3	8.2	15.9	13.8	5.6	4.1	2.1	1	10.8	11.3	8.2	24.1
RAJASTHAN	39.3	26.9	11.7	50.3	36.4	11.1	2.8	1.9	2.2	14.3	11.3	12.1	32.8
TAMIL	73.1	21.8	6.1	36.5	40.3	14.1	7.5	7.4	9.1	11.7	16.1	17.8	66.1
NADU													
UTTAR P.	44.8	22.6	14	37.7	42.1	18.6	7.1	2.9	9.6	27.5	9.3	12.5	51.1
WEST B.	52	29.6	13.8	41	50.6	15.6	11.7	3.6	16.5	32	11.6	15.3	42.1
Mean	47.76	23.18	13.26	38.93	42.23	18.16	7.33	3.63	8.17	17.75	11.38	13.53	42.39

Source: National Election Study 1996, Centre for the Study of Developing Societies, Delhi

Table 4 Matrix of Correlation of CSDS Data

	Vote	elected	election	trust SG	trust LG	trust Off	rel/caste	other ass	interest	contact	papers	radio	media
Vote	1.00												
.141	0.00	1.00	1.00										
elected	0.32	0.77*	1.00										
election	$0.22 \\ 0.22$	0.00	0.55*	1.00									
election	0.22	0.67*	0.33	1.00									
trust SG	-0.03	0.00	0.03	0.85*	1.00								
trust 5G	0.90	0.45*	0.36	0.00	1.00								
trust LG	0.09	0.43	0.26	0.68*	0.65*	1.00							
trust LG	0.74	0.32	0.33	0.00	0.01	1.00							
trust Off	-0.12	0.23	0.52*	0.44*	0.48*	0.18	1.00						
	0.67	0.64*	0.05	0.10	0.07	0.53							
rel/caste	0.47*	0.01	0.65*	0.57*	0.67	0.34	0.81*	1.00					
	0.08	0.78*	0.01	0.02	0.01	0.22	0.00						
other ass	0.47*	0.00	0.55*	0.26	0.26	0.07	0.75*	0.80*	1.00				
	0.08	0.57*	0.03	0.34	0.33	0.79	0.00	0.00					
interest	0.38	0.02	0.61*	0.33	0.26	0.14	0.50*	0.80*	0.75	1.00			
	0.14	0.71*	0.01	0.22	0.32	0.62	0.06	0.00	0.00				
contact	0.36	0.00	0.46*	0.05	0.13	-0.28	0.73*	0.62	0.59*	$0.47^{*}$	1.00		
	0.18	0.45*	0.07	0.85	0.62	0.29	0.00	0.01	0.02	0.06			
papers	0.77*	0.08	0.52*	0.48*	0.51*	0.09	0.92*	0.84*	0.76*	0.54*	0.72*	1.00	
•	0.00	0.65*	0.04	0.06	0.05	0.75	0.00	0.00	0.00	0.03	0.00		
radio	0.36	0.01	0.55*	0.27	0.31	0.10	0.87*	0.75*	0.68*	0.58*	0.79*	0.75*	1.00
M 1:	0.17	0.59*	0.03	0.31	0.24	0.71	0.00	0.00	0.00	0.02	0.00	0.00	
Media	0.72*	0.02											
	0.00												

Table 5 Factor Analysis: Social Capital Variables

Factor	Eigenvalue	Difference	Proportion	<b>Cumulative</b>
1	5.47137	3.16139	0.5746	0.5746
2	2.30998	1.52807	0.2426	0.8172
3	0.78191	0.27107	0.0821	0.8993
4	0.51084	0.14506	0.0536	0.9529
5	0.36578	0.21239	0.0384	0.9913
6	0.15339	0.04254	0.0161	1.0074
7	0.11085	0.11713	0.0116	1.0191
8	-0.00628	0.03897	-0.0007	1.0184
9	-0.04525	0.00438	-0.0048	1.0137
10	-0.04963	0.03098	-0.0052	1.0085
11	-0.08061 .		-0.0085	1

Scoring Variable	Coefficients FACTOR1	FACTOR2
vote	0.13167	-0.14906
elected	0.15081	0.01907
election	0.13678	0.08446
trustsg	0.12751	0.45413
trustlg	0.06523	0.26091
trustoff	0.05158	0.08342
interest	0.12604	-0.06586
contact	0.1149	-0.01467
papers	0.11658	-0.47635
radio	0.22308	-0.02856
media	0.10616	-0.01813

Table 6 State Rankings with Respect to the First Two Factors (Social Capital)

STATE	FACTOR1	STATE	FACTOR2
KERALA	3.05	ASSAM	1.85
ASSAM	1.03	HIMACHAL PRADESH	1.85
WEST BENGAL	0.59	ORISSA	1.1
TAMIL NADU	0.35	MADHYA PRADESH	0.64
UTTAR PRADESH	0.09	RAJASTHAN	0.41
ANDHRA PRADESH	0.05	UTTAR PRADESH	0.13
MAHARASHTRA	-0.03	BIHAR	0.04
HIMACHAL PRADESH	-0.22	WEST BENGAL	0.04
KARNATAKA	-0.28	HARYANA	-0.13
RAJASTHAN	-0.29	ANDHRA PRADESH	-0.51
ORISSA	-0.39	MAHARASHTRA	-0.53
HARYANA	-0.59	KARNATAKA	-0.6
MADHYA PRADESH	-0.64	TAMIL NADU	-0.85
BIHAR	-0.68	KERALA	-0.99
GUJARAT	-0.71	PUNJAB	-1.17
PUNJAB	-1.33	GUJARAT	-1.29

Table 7 Selected Socio-Economic Indicators, by State

STATE	GROWTH	HDC	SDP	IMR	LEB	<b>FEMLIT</b>	HDI	
Andhra Pradesh	2.1	36.9	5570	70.4	60.6	32.72	0.4	0.4
Assam	2.1	42.4	4230	88.7	54.9	43.03	0.379	0.379
Bihar	1.1	58.29	2904	89.2	58.5	22.89	0.354	0.354
Gujarat	3.6	43.13	6425	68.7	60.1	48.64	0.467	0.467
Haryana	3.1	20.72	8690	73.3	62.9	40.47	0.489	0.489
Himachal Pradesh	2.4	15.46	5355	55.8	63.6	52.13	0.454	0.454
Karnataka	2.4	42.73	5555	65.4	61.9	44.34	0.448	0.448
Kerala	3.6	33.8	4618	23.8	72	86.17	0.603	0.603
Madhya Pradesh	1.7	47.93	4077	85.2	54	28.85	0.349	0.349
Maharashtra	3.8	43.05	8180	50.5	64.2	52.32	0.523	0.523
Orissa	1.3	27.14	4068	112.1	55.5	34.68	0.373	0.373
Punjab	3.2	16.78	9643	53.7	66.4	50.41	0.529	0.529
Rajasthan	3.6	38.96	4361	72.6	58	20.44	0.356	0.356
Tamil Nadu	4.1	42.02	5078	67.7	62.4	51.33	0.438	0.438
Uttar Pradesh	1.9	36.88	4012	99.9	55.9	25.31	0.348	0.348
West Bengal	2.3	39.11	5383	75.3	61.5	46.56	0.459	0.459

GROWTH: Annual rate of growth of state domestic product, 1980-93 (%)

HDC: Headcount index of poverty, 1992-93 (%)

SDP: Per-capita net state domestic product at current prices, 1991-92 (Rs/year) IMR: Infant mortality rates, 1992-93 (per 1,000 live births) LEB: Life expectancy at birth, 1989-91 (number of years)

FEMLIT: Female literacy, 1991 (%) HDI: Human development index, 1991

Sources: Shenggen et al (1998); Drèze and Sen (1995), Table A.3; Shiva Kumar (1996),

Census of India 1991; Government of India, Ministry of Health (1992).

Table 7B State Ranking

STATE	GROWTH	HDC	SDP	IMR	LEB	FEMLIT	HDI
Andhra Pradesh	12	7	5	8	9	12	10
Assam	11	11	12	13	15	9	11
Bihar	16	16	16	14	11	15	14
Gujarat	5	14	4	7	10	6	5
Haryana	7	3	2	10	5	10	4
Himachal Pradesh	8	1	8	4	4	3	7
Karnataka	9	12	6	5	7	8	8
Kerala	3	5	10	1	1	1	1
Madhya Pradesh	14	15	13	12	16	13	15
Maharashtra	2	13	3	2	3	2	3
Orissa	15	4	14	16	14	11	12
Punjab	6	2	1	3	2	5	2
Rajasthan	4	8	11	9	12	16	13
Tamil Nadu	1	10	9	6	6	4	9
Uttar Pradesh	13	6	15	15	13	14	16
West Bengal	10	9	7	11	8	7	6

Table 8A Selected Indicators of State Performance

STATE	HEALTH EXPEND	HEALTH CENTRES	DOCTORS	LEB	HDI
Andhra Pradesh	32.77	13.87	2.34	60.6	0.4
Assam	35.28	25.01	2.61	54.9	0.379
Bihar	21.35	19.56	2.46	58.5	0.354
Gujarat	47.27	17.61	1.49	60.1	0.467
Haryana	42.36	16.44	2.81	62.9	0.489
Himachal Pradesh	118.92	33.61	4.82	63.6	0.454
Karnataka	42.65	20.17	1.81	61.9	0.448
Kerala	58.11	20.74	4.09	72	0.603
Madhya Pradesh	37.16	20.04	2.04	54	0.349
Maharashtra	39.31	14.16	3.62	64.2	0.523
Orissa	35.02	20.32	1.32	55.5	0.373
Punjab	43.97	23.11	7.96	66.4	0.529
Rajasthan	54.56	20.98	2.17	58	0.356
Tamil Nadu	44.95	18.15	4.52	62.4	0.438
Uttar Pradesh	22.87	17.95	1.63	55.9	0.348
West Bengal	40.86	13.96	1.77	61.5	0.459

HEALTH EXPEND: Per-capita state government health expenditures, 1991-92 (current price Rs) HEALTH CENTRES: Number of PHC centres, Sub-centres and Community Health centres, 1990 (per 10,000 population)

DOCTORS: Doctors at Primary Health Care centres, 1991 (per 10,000 population)

LEB: Life expectancy at birth, 1989-91 (number of years)

HDI: Human development index, 1991

*Sources*: Reddy and Selvaraju (1994); Government of India, Ministry of Health (1992); IIPS (1995); Shiva Kumar (1996).

Table 8B Differences between State Indicators of Performance and Average Values

STATE	Health Exp	Health C.	Doctors	LEB	HDI
Andhra Pradesh	-12.07	-5.86	-0.63	-0.18	-0.04
Assam	-9.56	5.28	-0.36	-5.88	-0.06
Bihar	-23.49	-0.17	-0.51	-2.28	-0.08
Gujarat	2.43	-2.12	-1.48	-0.68	0.03
Haryana	-2.48	-3.29	-0.16	2.12	0.05
Himachal Pradesh	74.08	13.88	1.85	2.82	0.02
Karnataka	-2.19	0.44	-1.16	1.12	0.01
Kerala	13.27	1.01	1.12	11.22	0.17
Madhya Pradesh	-7.68	0.31	-0.93	-6.78	-0.09
Maharashtra	-5.53	-5.57	0.65	3.42	0.09
Orissa	-9.82	0.59	-1.65	-5.28	-0.06
Punjab	-0.87	3.38	4.99	5.62	0.09
Rajasthan	9.72	1.25	-0.8	-2.78	-0.08
Tamil Nadu	0.11	-1.58	1.55	1.62	0
Uttar Pradesh	-21.97	-1.78	-1.34	-4.88	-0.09
West Bengal	-3.98	-5.77	-1.2	0.72	0.02

Table 9 Factor Analysis: Peformance Variables

	Factor	Eigenvalue	Difference	Proportion	Cumulative
	1	2.58	1.32	0.68	0.68
	2	1.26	1.10	0.33	1.01
	3	0.17	0.22	0.04	1.05
	4	-0.05	0.10	-0.01	1.04
	5	-0.15 .		-0.04	1.00
Variable	Fa	actor Loadings	2	3	Uniqueness
HDI		0.84	-0.44	-0.08	0.10
LEB		0.89	-0.38	-0.05	0.06
Doctors		0.72	0.05	0.32	0.37
Tcentre		0.40	0.79	0.07	0.21
Meanexp		0.64	0.54	-0.23	0.24

Scoring Coefficients		Score Coefficients		
Variable	1	State	Perform.	
HDI	0.24	Kerala	2.09	
LEB	0.59	Himachal	1.63	
Doctors	0.06	Punjab	1.41	
Tcentre	0.32	Maharashtra	0.35	
Meanexp	0.07	Haryana	0.21	
		Tamil	0.17	
		Karnataka	0.16	
		Gujarat	-0.17	
		WB	-0.27	
		Rajasthan	-0.52	
		Andhra	-0.58	
		Assam	-0.61	
		Bihar	-0.65	
		Orissa	-0.91	
		UP	-1.13	
		Madhya	-1.16	

Table 10 Simple and Partial Correlation Coefficient Matrices between Performance and Social Capital Variables

### **Matrix of Simple (Pearson) Correlation Coefficients**

	Perform.	Turnout	Factor1	Factor2	Literacy
Perform.	1				
Turnout	0.7185 (0.0017)	1			
Factor1	0.3402 (0.1973)	0.5156 (0.0409)	1		
Factor2	-0.2745 (0.3036)	-0.4328 (0.0941)	-0.0042 (0.9877)	1	
Literacy	0.8477 (0)	0.7283 (0.0014)	0.5829 (0.0178)	-0.223 (0.4064)	1

Significance level in brackets

### **Partial Correlation Coefficients of the Performance Variable with:**

Variable	Corr.	Sig.
Turnout Literacy	0.2782 0.6806	0.315 0.005
Factor1	-0.3398	0.235
Factor2	-0.1176	0.689
Literacy	0.8372	0
Turnout	0.3517	0.239
Literacy	0.7468	0.003
Factor1	-0.4241	0.149
Factor2	0.0527	0.864

(Obs=16)

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