Social Networks in India: Caste, Tribe and Religious Variation

Reeve Vanneman
James Noon
Mitali Sen
Sonalde Desai
Abusaleh Shariff

India Human Development Survey Working Paper No. 3

IHDS

Social Networks in India: Caste, Tribe and Religious Variation

Reeve Vanneman
University of Maryland College Park
reeve@umd.edu

James Noon
University of Maryland College Park
jnoon@socy.umd.edu

Mitali Sen
University of Maryland College Park
msen@socy.umd.edu

Sonalde Desai
University of Maryland College Park
sdesai@socy.umd.edu

Abusaleh Shariff
National Council of Applied Economic Research
New Delhi
ashariff@ncaer.org

Version:
March 2006

India Human Development Survey
Working Paper No. 3

ABSTRACT

Using original data from a newly collected nationwide survey for 40,000 households in India, we examine variation in social capital in India across caste, tribe, and religion. Our primary measure uses a positional generator of social networks, counting how many ties the household has to persons in medical, educational, and governmental institutions. We find the expected hierarchy of Brahmins, high caste Hindus, other backward castes (OBCs), dalits, and tribals (adivasis) in access to these networks. Muslims score relatively low while other minority religions appear similar to high caste Hindus. We also assess the degree to which these group differences are explained by their socio-economic positions. After controls for wealth, education, and other household characteristics, the advantages of Brahmins and the disadvantages of adivasis and Muslims remain substantial. However, the weak networks of OBCs and dalits are a consequence of their relative poverty and low education; compared to equivalent high caste Hindus, OBCs and dalits have nearly as good network access to these important institutions. In urban areas, dalits and adivasis do especially well, an effect we attribute to India's strong affirmative action policies.

INTRODUCTION

In recent years, social capital has received growing interest as both a social outcome and a social predictor, operating at the micro level as a property of individuals as well as functioning at the macro level as a feature of communities. While the recent interest has been impressive, the ideas derive from the theories of Marx, Durkheim, and Weber (Portes 1998). Durkheim's focus on solidarity and Marx's attention to class consciousness both rest on the notion that social participation can provide individuals and communities with benefits otherwise more difficult to achieve.

Weber's analysis of status groups (19xx) also recognizes the importance of people's interactions with others. Who one knows and associates with is a primary source of social status (Milner 1994). While recent work emphasizes the instrumental value of social networks, those networks are also a primary expression of one's position in society. Conversely, one's networks are constrained by the social closure that status groups can impose on a lower status groups.

This paper investigates the importance of status groups for social networks in India, one of the world's most stratified societies. We find that status groups as defined by caste and religion have the expected hierarchical relationship to contacts with three crucial institutions: education, medicine, and the state. Brahmins have the most contacts followed by other high caste Hindus, then other backward castes (OBCs), scheduled castes (dalits), and, at the lowest levels, tribals (adivasis). Smaller non-Hindu groups such as Christians and Sikhs fare quite well, being about as well connected as other high caste Hindus but with fewer contacts than Brahmins. Muslims, on the other hand, are among the most excluded groups; their contacts are no more extensive than those of

dalits. Urban India shows a somewhat different ordering however. There, OBCs, dalits, and adivasis are not so disadvantaged, a result that probably reflects independent India's sustained programs of affirmative action. Muslims, who have not benefited from these programs, are consequently the most excluded group in urban areas.

The Setting.

India is an enormously diverse country with broad language, religious, geographic, and political variations across its territory. Politically, it is organized as a federal system with powers delegated by the constitution to over two dozen states; administration of basic government services within the country are often state level responsibilities, usually organized at the level of India's 500-plus districts. The constitution recognizes 14 official languages; northern, southern, and northeastern languages are not even part of the same language families.

While constitutionally secular, India is predominantly Hindu, but with substantial religious diversity. Muslims form about 12 percent of the population with other religious minorities such as Christians, Sikhs and Jains forming another 3 percent. However, the remaining population is also highly differentiated. About 8 percent of the population identifies itself as being *adivasi* (the original inhabitants of the land) or tribal, located outside the Hindu caste system[1]. Another 15 percent of the population is considered *dalit*, belonging to the lowest castes that were considered impure by high caste Hindus. Dalits

---

[1] These religious and ethnic differences are to some extent geographically organized (e.g., the state of Jammu and Kashmir has a Muslim majority; Meghalaya has a tribal majority), but there are often substantial religious, ethnic, and caste diversity within a local community as well.

and adivasis are officially listed in a schedule appended to the Indian constitution and called scheduled castes (SC) and scheduled tribes (ST).

By tradition, the Indian caste system divides people into four main castes or *varna*s with the Scheduled Castes and Scheduled Tribes falling outside of this structure. But many small subcastes, known as *jatis,* govern social life (Bayly 1999; Beteille 1969). Although there are some suggestions that caste differences have been eclipsed by class differences in modern India (Beteille 1992b), most scholars continue to find caste or *jati* to be a significant factor in the Indian social stratification system (Srinivas 1996; Gupta 1991). These jatis are endogamous with clear boundaries and permeate Indian social life in many ways. Caste associations are set up as mutual aid societies and carry out activities such as poor relief, festival celebrations and group weddings. Some caste associations even run co-operative banks. Many castes still retain the traditional judicial system in which a council of elders adjudicates personal disputes. Most importantly, residential clustering in villages is organized around caste with neighborhoods often being known by caste or occupation names to the extent that even a postal address may read "The Barber Street." Scheduled Caste (SC) households are often located outside the village since ritually they are viewed as being impure and are not allowed to participate fully in the village life, including sharing a well or a water pump (Mendelsohn and Vicziany 1998). The Scheduled Tribes (ST) live largely on reserved forests and frequently have very little contact with the mainstream Indian life. Even when they migrate into villages, they often live apart from the village (Maharatna 2005)

Caste or jati shapes the individuals' social relations in many ways. Traditionally ritual distance between jatis defined commensality, or who one may or may not eat with.

While this stylized distance is declining in modern India – at least between the upper

castes, endogamous marriage and close knit kinship patterns preserve the distance

between various jatis. Residential segregation in village life makes inter-group

relationships difficult to build. Even in urban areas, many residential co-operative

societies are set up by people from the same community resulting in a continuation of

traditional distance. A fascinating study in Mumbai slums documents jati and language

clustering at the level of the streets (Sharma 2000).

For dalits and adivasis, social distance is characterized by a climate of mistrust

and fear. The dalits, in particular, are seen as being "impure" because they have engaged

in occupations such as scavenging, curing leather, operating crematoriums, etc. Few high

caste Hindus feel comfortable inviting dalits into their homes and sharing a meal with

them. Stories about atrocities against dalits who dare to encroach on the territory of

higher castes appear daily in the news papers (Mendelsohn and Vicziany 1998).

However, for half a century since Independence, India has sponsored an

aggressive system of affirmative action for the dalits and adivasis; other backward castes

have been added to this system in 1990s. These affirmative action programs target the

type of network contacts we analyze in the survey. In colleges, including highly

competitive medical and engineering colleges, 15 percent of the seats are reserved for

dalits and 7.5 percent of the seats are reserved for adivasis. Since the 1990s this quota

has been increased to 50 percent with the rest of the seats going to other backward castes.

Similar reservations exists in government and public sector employment which employs

most of the teachers and a vast number of health service providers. Thus, we would

expect to see a weakening of caste differences in access to these positions, indeed many

social scientists have argued that caste has been overtaken by class as the major axis of social stratification in India (Beteille 1992a).

Religion impinges upon Indian social life similar in some ways to caste. After the migration of upper class Muslims to Pakistan following the partition of India and Pakistan in 1947 (Engineer 2001), the Muslim community in India consists disproportionately of the urban self employed. Muslims form about 12 percent of the Indian population and occupy a niche in the Indian labor market consisting of skilled craftsmen and small entrepreneurs. The social distance between Hindus and Muslims is vast, exacerbated by political posturing of Hindu fundamentalist political parties. Periodically since Independence, outbursts of communal violence result in widespread killings and reprisals (Varshney 2002, Brass 2003). Apart from some minor exceptions, Muslims do not benefit from government reservation programs.

Education and urban residence form another axis of stratification in India. Higher education often leads to salaried employment and participation in the formal sector that increases an individual's contact with the outside world. The cultural capital acquired with that education enables one to negotiate those contacts better, especially with elite institutions. Household wealth also confers status that eases entrée into those circles.

Urban residence increases the proximity to people from different castes and occupations thereby expanding social networks. These more varied contacts can strengthen the "weak ties" or the "bridging networks". On the other hand, urban residence may well attenuate the solidarity of family and kin networks and weaken the strong ties or the "bonding networks".

<u>Social Capital</u>

Social capital has developed as a multi-dimensional concept encompassing networks, group memberships, civic and political participation as well as subjective aspects such as confidence in institutions and trust in people. Research can be considered as falling into two schools. One approaches social capital as a property of individuals and their social networks, the other treats social capital as a feature of the community and the degree of civic engagement and trust among its members. As a property of individuals, social capital "is embodied in the relations among persons" (Coleman 1990, 304), something in the social structure external to the knowledge, skills, or abilities that a person possesses internally. The importance of social networks lie in their value as social capital. Whereas human capital lies within the individual, social capital resides in the structure of social relationships a person has within their own social network (Coleman 1988).

Social capital is productive to the extent that it creates opportunities that would otherwise not be possible or would be more costly. It is the other in the relationship who provides the advantage (Portes 1998), the resources such as information and social support built up within social relations. Extensive research has documented the connection between social networks and economic outcomes, as well as the potential for social contacts to translate into social capital. Notably, Granovetter's (1973, 1974) "strength of weak ties" theory illustrated the connection between social contacts and finding a job. The status and quality of the social contact appears to increase wages and occupational prestige (Lin 1999), supporting the argument that who you know is an important factor in explaining economic outcomes. People who have well-placed

contacts benefit from the information and influence that these networks ties can provide. And those who hold key positions in low density social networks are advantaged because their position gives them better access to these resources (Burt 1992, 2000).

Research on social capital in the development literature has constructed a variety of empirical measures reflecting its multi-dimensional nature and has linked these measures with a variety of social outcomes. Several scholars have measured social capital as a function of trust and membership in associations (Inglehart 1997; Grootaert et al. 2004; Krishna 2002; Onyx and Bullen 1997; Sudarsky 1999). Grootaert, et al (2004) integrated a measure of social networks focusing on three items—size of the network, the internal diversity of the networks as indicated by the economic status of members, and the extent to which the networks provided assistance when needed. Social capital has been linked with the quality of government, levels of crime, and subjective reports of well-being (Narayan and Cassidy 2001), early stages of economic development (Inglehart 1997), political activity and mobilization (Krishna 2002), and household welfare and poverty (Grootaert 2001).

Status Groups

Social networks are important not only for their instrumental value but because they also express one's standing in society. Others judge one's importance in life largely by how important the people are that we associate with. High status associates confer high status and associating with low status groups will lower one's own status (Milner 1994). These status dynamics generate incentives for social exclusion to avoid contacts with lower status groups. Nowhere has this been more institutionalized than in India

where high caste interactions with the lowest castes were governed by "untouchability". Network contacts with elite institutions should also reflect these status dynamics with lower status groups more excluded from significant interaction.

The data used here are unique in their detail, collecting information on caste, tribe, religion, and socioeconomic status at the household level from a national representative sample. Furthermore, the data on social networks are rich. Recent attention on the concept of linking social capital (Woolcock 1998; World Bank 2000) has emphasized the vertical network ties connecting people to positions of authority that possess key resources. The data for this analysis includes exactly this type of information, thus allowing us to consider how linking social capital varies across status groups in India.

DATA AND METHODS

In 2004 and 2005, the University of Maryland and the National Council of Applied Economic Research designed and fielded a survey of over 40,000 Indian households. The India Human Development Survey, 2004-2005, was conducted throughout India in 33 states and Union Territories and included urban as well as rural areas.[2] This data collection was funded by grants from the National Institute of Health to the University of Maryland.

The social networks component of the survey collected information from respondents regarding the type of ties the household has to major institutions. Respondents are asked about network ties to medical care, the educational system, and

---

[2] Only the small island Union Territories of Lakshadweep and the Andaman and Nicobar Islands are excluded.

the government[3]. Among the households in our preliminary data, 32 percent have ties to

the medical institution, 39 percent have ties to schools, and 33 percent have ties to the

government (see Figure 1).

----- Figure 1 about here -----

We construct a four category scale of the extent of network ties by counting how

many of the three possible ties are reported by the household. Even with just three items,

the scale has a good estimate of reliability (Cronbach's alpha= 0.72). Only 17 percent of

the sample has all three types of network ties; 16 percent have two, 21 percent have one

and 46 percent of the households report no such ties (see Figure 2).

----- Figure 2 about here -----

Our main independent variable of interest classifies households by status group

membership. Caste, tribe, and religion are used to distinguish seven different social

groups: Brahmins (5%), other upper caste Hindus (18%), other backward castes (33%),

dalits or scheduled castes (22%), adivasis or scheduled tribes (8%), Muslims (12%), and

other religions (3%). Caste-like divisions among non-Hindus are ignored. These groups

are included in the regression analyses as dummy variables with high caste Hindus

serving as the comparison group.

Educational and economic stratification are measured by a series of variables

common in developing country surveys. Educational attainment is operationalised as the

highest years of education of any adult male and of any adult female in the household.

---

[3]   The exact wording was:
Among your acquaintenances and relatives, are there any who …
15.1 … are doctors or nurses or who work in hospitals and clinics?
15.2 … are teachers, school officials, or anybody who works in a school?
15.3 ... are in government service? [other than doctors, teachers, above]

Wealth is measured with two standard indicators of economic status: assets and expenditures. Household assets is a constructed scale of the number of consumer goods owned from a list of 23 (e.g., television, chair or table, car). Because the list included several fairly expensive items, it is skewed to the right so we took a log transform of the number of items plus one. The survey also included a standard set of questions of consumer expenditures covering almost 50 categories. The expenditure measure is also logged. The last measure of economic position is a dummy variable recording land ownership.

We also included three measures of family structure because a more extended family might be expected to have more opportunities for contacts with elite institutions. A control for joint family structure is included as a count of the number of ever married women in the household. We also included dummy variables recording the absence of an adult male or an adult female in order to adjust for missing data for the two educational variables.

Respondents are classified as living in rural or urban areas based on the Indian census definition. Regional diversity is so large in India that we control for it in all regression analyses. State dummies are used to capture region effects[4]. To control for sample design, we also use a dummy variable to identify whether the household is part of the panel roster.

We use ordinal logistic regression to model the effect of group membership on social capital. We proceed stepwise, first estimating a reduced form model with only social groups then we add the controls for the other household status factors. Finally, we

estimate separate models for rural and urban areas to examine how the group differences vary in these two settings.

----- Table 1 about here -----

Hypotheses

We expect caste, tribe, and religious divisions to be reflected in the extent of social networks as measured by the presence of ties to major institutions. We also recognize the commonly found relationships of social capital to individual-level educational and economic status. Some of the caste and religious differences will be explained by their relative educational and economic standing, but we expect the relative status of the groups to be associated with the extent of their social networks even after educational and economic controls. We test the following hypotheses:

1. The extent of network ties reflects a household's position in the caste hierarchy.

2. Muslims and other religions have weaker social networks than high caste Hindus.

3. Wealth and education will explain only part of the caste and religious differences.

RESULTS

Preliminary results for 40,449 households from a relatively early version of the data confirm that social capital does indeed vary as expected across caste, tribal, and religious boundaries. Figure 1 shows the average number of contacts for each group. Brahmins have more network contacts than any other group. The remaining caste groups follow in the expected order. High caste Hindus have fewer contacts than Brahmins but

---

[4] All descriptive statistics and regression models are calculated using state-level weights.

more than other Hindus. OBC networks are substantially weaker than those of high caste

Hindus, dalit networks are even weaker, and adivasi networks weaker yet.

----- Figure 3 about here -----

Of special interest here are the positions of non-Hindus since they can sometimes

be seen as outside the Hindu caste hierarchy. Christians, Sikhs, and Jains have excellent

social networks, not significantly different from high caste Hindus. But Muslims are

especially disadvantaged; their network ties are similar to dalits' networks.

Table 2 presents the ordinal logit regressions, first the reduced form models and

then with controls for socioeconomic position and family structure. The reduced form

models confirm the predicted status group hierarchy found in Figure 3. The education

and economic controls change the hierarchy in important ways. After controls, Brahmins

continue to have significantly wider social networks than other groups, although their

advantage is reduced. At least some of the Brahmin advantage lies in the fact they are

more highly educated and financially better off, but this alone does not explain their more

extensive social networks. Brahmins enjoy the privilege of better contacts in schools,

medical facilities and the state than equally educated and affluent non-Brahmins.

----- Table 2 about here -----

However, after controlling for education and wealth, the variation among other

castes is virtually eliminated. Differences among high caste Hindus, OBCs, and even

dalits are not statistically significant. Christians, Sikhs, and Jains also have social

networks of similar extent as equivalent high caste Hindus.[5] These status group

---

[5] Nor do these minority religions differ among themselves (results not shown).

distinctions appear now to be mostly a function of their class position, at least for

structuring their associations with these three major institutions.

Adivasis are an exception; they continue to have smaller networks than equivalent

high-caste Hindus. Their geographic isolation in hills and forests may account for their

social isolation from schools, medical facilities, and the state. Although state and rural

residence are controlled in this analysis, that leaves substantial within-state geographic

variation unaccounted for.

Most striking in these results is the continued low position of Muslims whose

networks are more limited even than equivalent dalits. While Muslims' poverty and low

education explain some of their weak social networks, their social exclusion is not fully

explained by these social class disadvantages.

The education and economic variables have their expected associations with

network ties. Both male and female education lead to more social contacts, although not

surprisingly, the men's coefficient is somewhat larger. The absence of an adult male in

the household restricts social networks although extended families seem to have no

particular advantage. And both economic indicators have independent associations with

network ties.

These preliminary data also suggest that, all else equal, social networks are better

in rural areas, especially among those who own land. However, this rural advantage is

observed only after controls for education and wealth. Urban households tend to be

wealthier and have more educated adults, so on balance, urban households have an

advantage in network ties. But compared to rural households of equivalent wealth and

education, urban households do slightly less well than rural households, perhaps

reflecting the anonymity and individualism of urban life.

Table 3 reports separate regressions for urban and rural areas. Before education

and economic controls, the expected status group hierarchy is observed in both rural and

urban areas: Brahmins have the most extensive networks, followed by high caste Hindus,

OBCs, and dalits. The advantage of Brahmins to other castes and religions is more

pronounced in rural areas than in the urban setting, but is statistically significant in both

places. This is true both before and after controls for education and economic position.

Adivasis have especially weak networks in rural areas, again suggesting the possibility of

geographic isolation. Muslims have especially weak networks in urban areas, smaller

than even dalits' or adivasis'

----- Table 3 about here

Perhaps the most surprising result of the urban analysis is the strength of dalit and

adivasi social networks after controls for education and economic position. Networks for

urban dalits and adivasis are more extensive than for equivalent high caste Hindus and,

perhaps, OBCs and do not appear to be much different from those of equivalent

Brahmins.

This is an interesting observation. Urban areas appear to offer anonymity in both

ways. On the one hand, urban residence depresses social contacts for everyone. On the

other hand, the marginalization of dalits and adivasis is far more modest. The nature of

urbanization in India may also influence this. While 29 percent of our sample is urban,

only 11 percent of adivasis and 22 percent of dalits are urban. Thus, urban migrants

among these two groups may form a somewhat select population who migrated to the

urban areas to take advantage of government reservations and hence may be somewhat

more privileged then their rural peers.   The importance of these affirmative action

programs may also be seen by their absence for Muslims, who remain the most excluded

group in urban areas.

Tables 4 analyzes each type of social network contact separately. Not

surprisingly, results mirror our findings in Table 2 for the scale combining all three

network ties. In each case, Brahmins are the most privileged, although the differences due

to caste, ethnicity and religion diminish after the addition of controls for education, rural

residence and household wealth.

Nevertheless, there are some interesting differences across the three different

types of ties. Adivasis, one of the most disadvantaged groups, are only 0.55 times likely

as Brahmins to have government contacts, 0.62 times as likely as Brahmins to have

medical contacts, and 0.63 times as likely to have school contacts. A similar difference is

seen for many of the other groups. This suggests that government contacts are

particularly vulnerable to social exclusion, particularly for Muslims who do not benefit

from affirmative action. The cross-equation difference in coefficient between government

contacts and other contacts is statistically significant only for Muslims.

----- Table 4 about here -----

DISCUSSION

Our results confirm that social capital does indeed vary in the expected

hierarchies of caste, tribe, and religion in India. Since status is determined in part by who

you associate with, it should not be surprising that Brahmins' network ties to elite

institutions are more extensive than are other status groups' networks. High caste

Hindus, OBCs, dalits, and adivasis follow in an order consistent with their traditional

status in Indian society. The social exclusion of Muslims is also apparent in these data.

These variations are, in part, a product of the variations in wealth and education

among these groups. Even the differences between dalits and Brahmins are moderated

when comparing households of comparable wealth and education. But some status group

differences remain after educational and economic controls: Brahmins remain privileged,

and Muslims and adivasis, disadvantaged, in their access to elite institutions.

These results make an interesting contribution to the research on social

inequalities in India. Historically, personal relationships in India have been structured by

primordial divisions of caste and religion. However, some social scientists have argued

that while caste divisions denote "difference" they do not always denote "hierarchy"

(Gupta 1991). Others have suggested that class is now more important than caste in India

(Beteille 1992a). We do find important variations by class in the extent of social

networks, but caste and religious differences in social networks are not negligible and

they do follow the traditional hierarchies.

In urban areas, the social networks of scheduled castes and tribes may indicate

some success of the reservation system. The contrast with the results for Muslims is

striking. India has not had a similar program of reservations for religious minorities. In

fact, in the past, adivasis or dalits who converted to another religion lost their reservation

preferences. The weak network ties of Muslims is only partially explained by their lower

economic and educational attainments. Their marginal social position reflects both their

social exclusion from the dominant institutions and their lower economic and educational

position.

On the other hand, the privileged position of Brahmins remains apparent, even

after holding constant their higher education and wealth. This is an important finding in

the Indian context. The Government of India has not conducted a full caste census since

1931. Surveys which collect information on caste in India tend to ask people whether

they belong to one of the categories subject to affirmative action i.e. scheduled castes and

tribes and, more recently, OBCs (other backward castes). But little distinction is made

within the upper caste segment. These data are the only large scale survey in India to ask

individuals to identify themselves as Brahmins.

The Indian public discourse on affirmative action is full of complaints from upper

castes that by allowing as many as 50 percent of the college seats and jobs to be reserved

for lower castes, upper castes are now the discriminated against group rather than the

privileged group. Thus, a persistence of Brahmin privilege in social networks – in spite of

the fact that they form less than 5 percent of the population – is an important finding for

India. Even in urban areas, Brahmins enjoy better access to schools, medical facilities,

and the government than do other groups.

REFERENCES

Bayly, Susan. 1999. *Caste, Society and Politics in India From the Eighteenth Century to the Modern Age*. Cambridge: Cambridge University Press.

Beteille, Andre. 1969. *Castes: Old and New, Essays in Social Structure and Social Stratification*. Bombay: Asia Publishing House.

———. 1992a. *The Backward Classes in Contemporary India*. Delhi: Oxford University Press.

Beteille, Andre. 1992b. "Caste and Family: In Representations of Indian Society." *Anthropology Today* 8(1):13-18.

Brass, Paul R.. 2003. *The Production of Hindu-Muslim Violence in Contemporary India*. Delhi: Oxford University Press.

Burt, Ronald S. 1992. *Structural Holes*. Cambridge, MA: Harvard University Press.

———. 1997. "The Contingent Value of Social Capital." *Administrative Science Quarterly* 42(2):339-65.

———. 2000. "The Network Structure of Social Capital." Pp. 345-423 in *Research in Organizational Behavior*, eds. Robert Sutton and Barry Straw. Greenwich, CT: JAI Press.

Coleman, James. 1988. "Social Capital in the Creation of Human Capital." *The American Journal of Sociology* 94(supp):S95-120.

———. 1990. "Social Capital." Pp. 300-21 in *Foundations of Social Theory*, Cambridge: Harvard Press.

Engineer, Asghar A. 2001. *Muslim Middle Class and It's Role*. Mumbai, India: Center for Study of Society and Secularism.

Granovetter, Mark S. 1973. "The Strength of Weak Ties." *The American Journal of Sociology* 78(6):1360-1380.

———. 1974. *Getting a Job*. Chicago, IL: University of Chicago Press.

Grootaert, Christiaan. 2001. "Does Social Capital Help the Poor? A Synthesis of Findings From the Local Level Institutions Studies in Bolivia, Burkina Faso, and Indonesia." Local Level Institutions Working Paper 10. World Bank, Social Development Department, Washington, D.C.

Grootaert, Christiaan, Deepa Narayan, Veronica Nyhan Jones, and Michael Woolcock. 2004. "Measuring Social Capital: An Integrated Questionnaire." World Bank

Working Paper; no.18. World Bank, Washington, DC.

Gupta, Dipankar, Editor. 1991. *Social Stratification*. New Delhi: Oxford University
Press.

Inglehart, Ronald. 1997. *Modernization and Postmodernization--Cultural, Economic, and
Political Change in 43 Societies*. Princeton, NJ: Princeton University Press.

Krishna, Anirudh. 2002. "Enhancing Political Participation in Democracies: What Is the
Role of Social Capital?" *Comparative Political Studies* 35(4):437-60.

Lin, Nan. 1999. "Social Networks and Status Attainment." *Annual Review of Sociology*
25(1):467-87.

Lin, Nan and Mary Dumin. 1986. "Access to Occupations Through Social Ties." *Social
Networks* 8(4):365-85.

Maharatna, Arup. 2005. *Demographic Perspectives on India's Tribes*. New Delhi: Oxford
University Press.

Mendelsohn, Oliver and Marika Vicziany. 1998. *The Untouchables: Subordination,
Poverty and the State in Modern India*. Cambridge: Cambridge University Press.

Milner, Murray. 1994. *Status and Sacredness: A General Theory of Status Relations and
an Analysis of Indian Culture*. New York: Oxford University Press.

Narayan, Deepa and Michael F. Cassidy. 2001. "A Dimensional Approach to Measuring
Social Capital: Development and Validation of a Social Capital Inventory."
Current Sociology 46(2):59-102.

Onyx, Jenny and Paul Bullen. 1997. "Measuring Social Capital in Five Communities in
NSW: An Analysis." Working Paper No.41. Centre for Australian Community
Organisations and Management, Sydney.

Portes, Alejandro. 1998. "Social Capital: Its Origins and Applications in Modern
Sociology." *Annual Review of Sociology* 24(1):1-24.

Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American
Community*. New York: Simon & Schuster.

Sharma, Kalpana. 2000. *Rediscovering Dharavi: Stories From Asia's Largest Slum*. New
Delhi: Penguin Books.

Srinivas, M. N., Editor. 1996. *Caste: Its Twentieth Century Avatar*. New Delhi: Penguin
Books.

Srinivas, M. N. and Andre Beteille. 1964. "Networks in Indian Social Structure." *Man*

64165-68.

Stanton-Salazar, Ricardo D. 2001. *Manufacturing Hope and Despair: The School and Kin Support Networks of U.S.-Mexican Youth*. New York: Teachers College Press.

Stanton-Salazar, Ricardo D. and Sanford M. Dornbusch. 1995. " Social Capital and the Reproduction of Inequality: Information Networks Among Mexican-Origin High School Students." *Sociology of Education* 68: 116-35.

Sudarsky, John. 1999. "Colombia's Social Capital: The National Measurement With the Barcas." Papers in Progress on Social Capital. World Bank, Social Capital Library, Washington, D.C.

Varshney, Ashutosh. 2002. *Ethnic Conflict and Civic Life: Hindus and Muslims in India*. New Haven: Yale University Press.

Wilson, William J. 1990. "The Truly Disadvantaged: The Inner City, the Underclass and Public Policy." Chicago, IL: University of Chicago Press.

———. 1996. "When Work Disappears: The World of the New Urban Poor." New York: Knopf.

Woolcock, Michael. 1998. "Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework." *Theory & Society* 27(2):151-208.

World Bank. 2000. *World Development Report 2000/2001: Attacking Poverty*. New York: Oxford University Press.

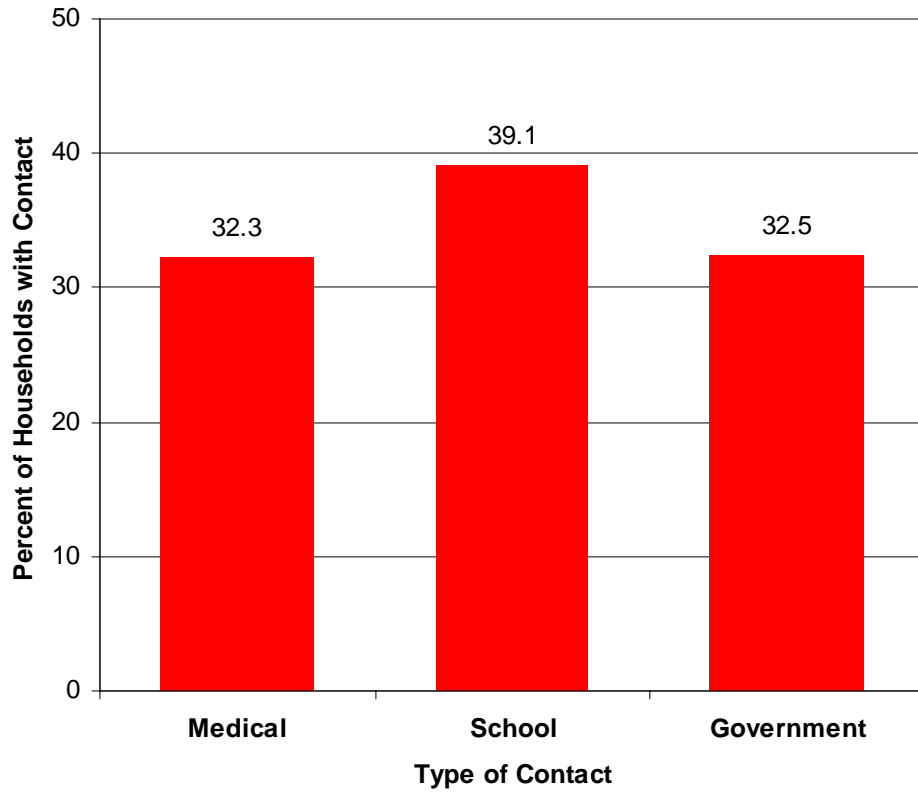Figure 1. Social network contacts with three Indian institutions.
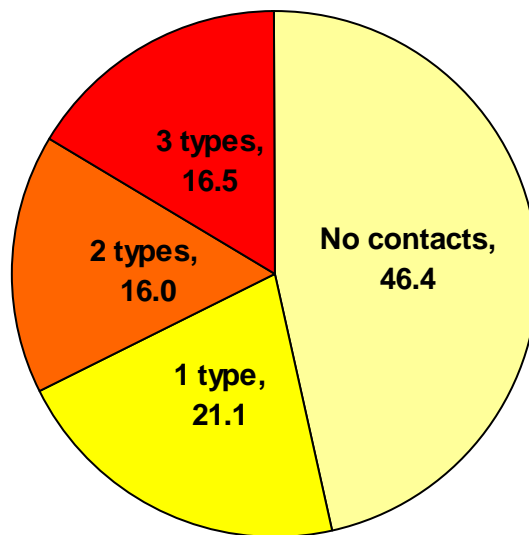
Figure 2. Extent of social network contacts.

Figure 3. Social Network Contacts by Status Group.
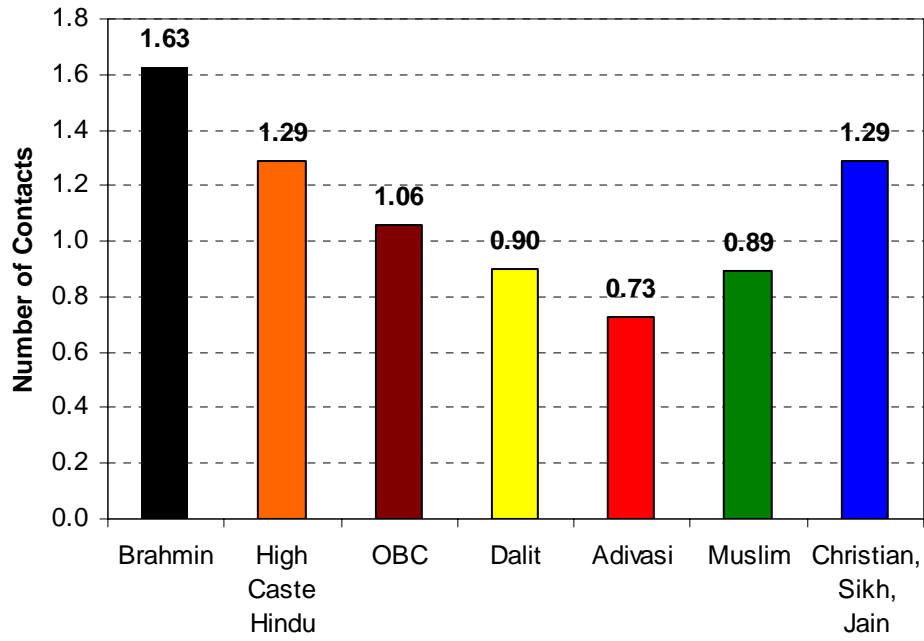
Table 1. Means and Ranges of variables.

	Mean	Standard Deviation	Minimum	Maximum
Brahmins	0.045	0.208	0	1
Other High Caste Hindus	0.180	0.384	0	1
OBCs	0.330	0.470	0	1
Dalit (Scheduled Castes)	0.217	0.412	0	1
Adivasi (Scheduled Tribes)	0.078	0.269	0	1
Muslims	0.122	0.328	0	1
Christians, Sikhs and Jains	0.027	0.163	0	1
Consumer Assets (log x+1)	2.043	0.522	0	3.178
Expenditures (log)	9.658	0.716	4.094	13.412
Owns or Cultivates Land	0.426	0.495	0	1
Highest Adult Female Education	5.019	4.966	0	19
Highest Adult Male Education	7.358	4.819	0	19
No Adult Female	0.024	0.154	0	1
No Adult Male	0.050	0.219	0	1
Number of Married Females	1.217	0.719	0	8

Table 2. Ordinal Logit Regression of Social Networks on Status Groups.

Variables	Model 1 (Reduced)	Model 2 (Full)
Group Membership (Other high caste Hindu omitted)		
Brahmin	0.570**	0. 328**
	(0.055)	(0.056)
Other Backward Caste	-0.399**	-0.006
	(0.032)	(0.034)
Dalit	-0.689**	0.014
	(0.035)	(0.038)
Adivasi	-1.055**	-0.156**
	(0.047)	(0.050)
Muslim	-0.725**	-0.173**
	(0.041)	(0.044)
Christian, Sikh, Jain	-0.001	-0.065
	(0.065)	(0.064)
Rural		0.208**
		(0.034)
Consumer Assets (log x+1)		0.768**
		(0.039)
Expenditures (log)		0.504**
		(0.023)
Owns or Cultivates Land		0.229**
		(0.028)
Highest Female Adult Education		0.037**
		(0.003)
Highest Male Adult Education		0.060**
		(0.003)
No Adult Female		-0.130
		(0.090)
No Adult Male		-0.252**
		(0.061)
Number of Married Females		-0.028
		(0.016)
State Dummies	yes	yes
Panel Sample Control	yes	yes
Psuedo R-squared	0.060	0.126
Observations	39548	39365

Table 3. Ordinal Logit Regression of Social Networks on Status Groups by Rural and Urban Residence.

Variables	Rural		Urban	
	Model 1 (Reduced)	Model 2 (Full)	Model 1 (Reduced)	Model 2 (Full)
Group Membership (Other high caste Hindu omitted)				
Brahmin	0.656**	0. 377**	0.426**	0.290**
	(0.082)	(0.083)	(0.069)	(0.720)
Other Backward Caste	-0.313**	-0.039	-0.353**	0.093
	(0.043)	(0.044)	(0.048)	(0.051)
Dalit	-0.632**	-0.042	-0.558**	0.214**
	(0.047)	(0.049)	(0.054)	(0.058)
Adivasi	-1.011**	-0.266**	-0.418**	0.279**
	(0.056)	(0.060)	(0.108)	(0.109)
Muslim	-0.576**	-0.107	-0.897**	-0.149*
	(0.057)	(0.059)	(0.060)	(0.067)
Christian, Sikh, Jain	-0.180*	-0.203	0.167**	0.145
	(0.091)	(0.089)	(0.092)	(0.092)
Consumer Assets (log x+1)		0.753**		0.842**
		(0.047)		(0.075)
Expenditures (log)		0.426**		0.661**
		(0.028)		(0.040)
Owns or Cultivates Land		0.225**		0.279**
		(0.032)		(0.070)
Highest Female Adult Education		0.035**		0.038**
		(0.004)		(0.005)
Highest Male Adult Education		0.060**		0.061**
		(0.004)		(0.006)
No Adult Female		-0.126		-0.131
		(0.112)		(0.140)
No Adult Male		-0.390**		0.179
		(0.075)		(0.099)
Number of Married Females		-0.008		-0.051
		(0.021)		(0.031)
State Dummies	yes	yes	yes	yes
Panel Sample Control	yes	yes	yes	yes
Psuedo R-squared	0.075	0.133	0.040	0.118
Observations	25617	25507	13931	13858

Table 4. Logistic Regression of Type of Social Network Contact on Status Groups.

Variables	Medical reduced	Schools reduced	Govt reduced	Medical full	Schools full	Govt full
Group Membership (Brahmin omitted)						
Other High Caste Hindu	-0.470** (0.062)	-0.444** (0.061)	-0.591** (0.061)	-0.302** (0.066)	-0.242** (0.065)	-0.369** (0.068)
Other Backward Caste	-0.748** (0.061)	-0.826** (0.059)	-0.996** (0.060)	-0.286** (0.065)	-0.300** (0.064)	-0.356** (0.067)
Dalit	-0.984** (0.063)	-1.153** (0.062)	-1.265** (0.062)	-0.308** (0.069)	-0.362** (0.068)	-0.311** (0.071)
Tribal	-1.296** (0.076)	-1.385** (0.072)	-1.763** (0.076)	-0.473** (0.083)	-0.469** (0.079)	-0.589** (0.086)
Muslim	-0.944** (0.068)	-1.096** (0.066)	-1.384** (0.067)	-0.365** (0.074)	-0.385** (0.072)	-0.654** (0.076)
Christian, Sikh, Jain	-0.239** (0.087)	-0.525** (0.086)	-0.775** (0.087)	-0.046 (0.089)	-0.331** (0.091)	-0.585** (0.092)
Rural				0.218** (0.041)	0.312** (0.041)	-0.062 (0.042)
Asset Decile				0.138** (0.007)	0.135** (0.007)	0.223** (0.007)
Land Ownership or Cultivation				0.157** (0.035)	0.335** (0.034)	0.274** (0.036)
Highest Female Adult Education				0.032** (0.004)	0.039** (0.004)	0.032** (0.004)
Highest Male Adult Education				0.046** (0.004)	0.076** (0.004)	0.062** (0.004)
Number of Married Females				-0.006 (0.021)	-0.008 (0.020)	-0.076** (0.021)
State Dummies	yes	yes	yes	yes	yes	yes
Panel Sample Control	yes	yes	yes	yes	yes	yes
Constant	0.207** (0.063)	0.092 (0.064)	0.472** (0.062)	-1.638** (0.088)	-1.843** (0.087)	-2.313** (0.093)
Pseudo R2	.10	.07	.09	.15	.16	.17
Observations	39900	39672	39840	37301	37249	37092

Note: Unless otherwise noted, numbers in parentheses are standard errors

*p<.05   **p<.01 (two-tailed tests)