Household Social Capital, Loans and Educational Achievement in India

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In the last 15 years, India's economic growth has been almost unparalleled. This economic development has increased the availability of formal credit and the vast expansion of banks scattered over the countryside (Mohan 2006). While poverty remains a problem, the wider availability of credit could increase the chances of upward mobility for many households. But, access to formal credit is still elusive for many Indians (Basu and Srivastava 2005). Understanding the social and economic barriers to this credit could provide needed policy inputs to the development process.

Much of this economic progress has been fueled by rapidly broadening educational attainments. Increasing family incomes have in turn led to an explosive growth in the demand for more and better schooling. Secondary and tertiary enrolments have grown rapidly; private schools have proliferated; private tuitions have become a standard element of adolescent life.

At the same time, across a variety of national and local contexts—and various conceptualizations (Adler and Kwon 2002)—scholars have come to recognize that social capital, is essential in efforts for individuals and communities to improve their livelihoods. While the poor may be unlikely to lift one another out of their current circumstances due to their lack of resources or skills (Narayan, Pritchett, and Kapoor 2009), simply knowing someone situated higher up in one's community, like a slum leader in Dehli (Jha, Rao, and Woolcock 2007) can improve one's livelihood. A valuable vertical connection is the essence of "linking" social capital (Szreter and Woolcock 2004) – a testament to the importance of bridging social capital compared to the perceived less useful horizontal connections or bonding social capital. In India, such connections have even been claimed to reduce ever-present caste inequalities and to increase the political participation of the poor (Krishna 2012). Thus, social connections like civil servants can improve a household's odds of applying and qualifying for loans, gaining entrance to higher education, and thus be advantageous in families' effort to move out of poverty.

In this paper, we build upon this research on the expansion of credit and schooling and on the importance of social capital by examining how group memberships and vertical social contacts increase a household's chance of acquiring a formal loan or sending their children to college. Social capital, especially bridging vertical social capital, should, in theory, increase the chance for success of a household applying for a formal loan or sending a child to college.

Further, since social connections are often developed through the established trustworthiness of others (Coleman 1988), individuals who migrate to another village, town, or state may have to re-invest and develop new contacts. Thus migration may temporarily lower the social capital available to such individuals and put them at a disadvantage for credit and educational advancement of their children.

Hypotheses

Our research is guided by the following hypotheses:

1) The greater number of memberships in development groups (e.g., business or non-governmental associations) the higher the chances of a household acquiring a formal loan.

> 1b. Memberships in traditional organizations (e.g., caste or festival associations) will not have the same positive relationships with loan success.

2) The more contacts that a household has with government, health care, and educational systems, the greater the chance of a household acquiring a formal loan.

3) The greater number of memberships in development groups, the greater the chance a household will have sent a 20-25 year old to college.

> 3b. Memberships in traditional organizations will not have the same positive relationships with loan success.

4) The more contacts that a household has with government, health care, and educational system, the greater the chance a household will have sent a 20-25 year old to college.

5) Migration and recent household divisions will lower household social capital and thus the chances of acquiring a formal loan or sending a 20-25 year old to college.

Data

We use the 2004-2005 and 2011-2012 waves of the India Human Development Survey (IHDS-I and IHDS-II, respectively, see Desai et al. 2010), to examine these relationships. The IHDS is a unique, nationally representative face-to-face survey of over 41000 households in 1503 villages and 971 urban blocks throughout India. The wave-1 households, including ones that have split off from one another, were re-surveyed in 2011-2012. Household, education and health, and community-level questionnaires were translated into 13 Indian languages and administered by pairs of local interviewers. The wave-1 fieldwork was carried out from September 2004 to August 2005, and wave-2 from September 2011 to August 2012, both under the supervision of the National Council of Applied Economic Research, New Delhi.

The two waves of data provide an important advantage for the IHDS in assessing the importance of social capital. While correlations between social capital and household success have been widely recorded, it is always possible that the social capital is more of a consequence than a cause of the success (Mouw 2006). With the IHDS we can use measures of social capital from the first wave and investigate which households had higher chances of subsequent success with access to credit or higher education. Holding constant the wide range of other household indicators available in the IHDS, this design reduces the scope for endogeneity to explain the benefits of social capital.

Methods

We present descriptive statistics and some preliminary results for logistic regression models using the IHDS-II loan outcome variable with IHDS-I controls and predictors. At present, educational outcomes are not available from IHDS-II. Additionally, the IHDS-II data are still quite provisional so the preliminary results reported here will undoubtedly need to be updated as more and cleaner data become available.

The preliminary analysis uses IHDS-II information on whether a household received a formal loan in the previous 5 years as the main dependent variable. Households were also asked whether they had taken a loan from other, non-formal sources (e.g., moneylenders, employers, family). Eventual analyses with these other, quite widespread, loan sources should offer an informative contrast with analyses of access to formal credit.

Educational outcomes for all members of the IHDS-I household are available from the IHDS-II questionnaire. We will use these data to assess whether the 13-18 year olds in the IHDS-I household ever attended or completed a college education by the time of the IHDS-II interview (at which time they would be approximately 20-25). We will look most closely at the relationships with transitions from completing higher secondary education to college enrolment since we expect that that transition is an especially critical juncture in the Indian educational system when social capital may be especially important.

Our first key independent variable measures the diversity of contacts that a household had in government, health care institutions, and the education system as measured in 2005. If a household has contacts in any of these three sectors, they receive a point, for a maximum score of 3 and a minimum of 0 points. We expect that social capital is a generalized social resource so that linkages with any of these formal institutions smoothens access to all other formal institutions. But we will also test whether specific types of contacts are especially important for access to either formal credit or higher education.

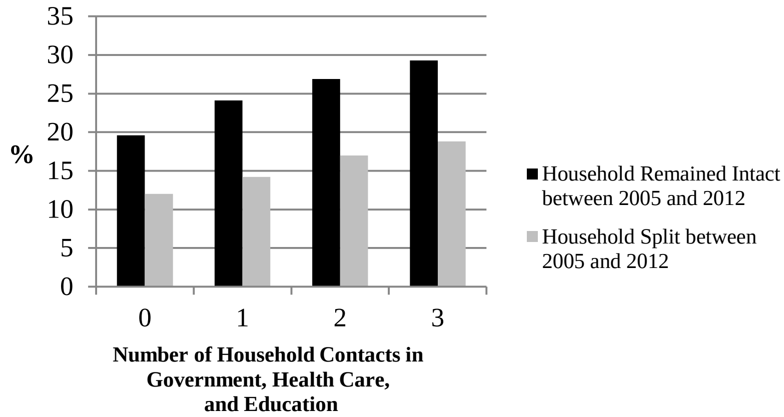
The other key independent variable measuring social capital is a categorical value for whether the household was a member of a development group, defined as a business association, non-governmental organization, self-help group, savings group, or agricultural co-operative. A second, contrasting, measure records whether the household was a member of a caste, religious, or festival organization, an indicator we interpret as a measure of bonding social capital that should be less likely to ease access to modern institutions such as bank credit or higher education (Vikram, Vanneman, and Desai 2012).

We control (using 2005 variables unless otherwise stated) for states, caste, religion, rural/urban residence, age of the household head in 2012, female headed household, highest education in household, number of individuals in the household, main source of income, and total household assets, and receipt of a formal loan in five years prior to 2004-2005. For the education analysis, we will control also for whether any household member between 20 and 25 has ever enrolled in higher education.

Preliminary Descriptive Statistics and Multivariate Results

Among the 38,874 households in our IHDS-II sample, only 22% had obtained a formal loan in the previous five years, while 42% had obtained an informal loan. As expected, formal loans are still not as prevalent as informal credit, which helps document the weak availability of formal credit to Indian households. As seen in Figure 1, conditional upon having received a formal loan, it appears that households with a greater diversity of contacts in government, health care institutions, and education systems are more likely to receive a formal loan. Similarly, households that remained intact have higher chances of receiving a formal loan than those that split (although our current measures of household division are quite crude).

Figure 1:Percentage of Households that Received a Formal Loan in 2012 Based on Social Networks in 2005 and Household Composition



But the logistic regression (Table 1 below) tells a slightly different story. After controlling for various characteristics, such as religion, caste, or location that undoubtedly impact households' livelihoods, we see that having any organization memberships increases the odds of obtaining formal credit but that, beyond one, the number of institutional contacts seems relatively unimportant. Having one household membership increases the odds of receiving a formal loan as much as having three memberships. Similarly, having two social network contacts instead of one or three in the government, health care, and education—all potential sources of linking social capital—significantly increases odds of a household receiving a formal loan.

Table 2: Logistic Regression Predicting the Odds of Household Attaining Formal Loan in Past 5 Years

	1	2	3	4
2012 Household Split	0.406***			0.407***
2005 Household Social Network Contacts in Government, Health Care, and Education? (None)				
1 of these institutions		1.060†		1.052
2 of these institutions		1.106*		1.094*
3 of these institutions		1.084†		1.059
2005 Number of Development Group Memberships (None)				
1			1.224***	1.221***
2			1.114*	1.103†
3+			1.229**	1.230**
Observations	38753	38753	38753	38753

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Reference groups in parentheses. Estimates for state, caste, religion, rural/urban/slum, age of the household head in 2012, female headed household, highest education in household, number of individuals in the household, main source of income, and total household assets, and receipt of a formal loan in five years prior to 2004-2005are not presented. Unless otherwise noted, these estimates are for 2004-2005 variables.

What these Findings Imply, and the Next Steps

While our analyses are still in their formative stages, we are intrigued by the possibility that having institutional connections or any group membership increases the odds of households acquiring a formal loan. Network contacts with formal institutions and association memberships are, in fact, only weakly and positively correlated (Pearson's R=0.09). This may signal two different types of social capital that households access. Institutional contacts likely signify sources of linking social capital that allow households to develop contacts in the local social hierarchy and possibly receive benefits like formal loans. Having a household member who is a member of a development group likely provides access to lateral ties—bonding and bridging social capital—which are posited as valuable sources of insurance. Nonetheless, further investigation is warranted to discover *which* types of network contacts or group memberships increase the chances of acquiring a formal loan.

Although we do not have data on educational attainment at this point, we are eager to discover whether social capital increases the chances of a 20-25 year old being sent to college in the same way it seems to increase a household's chances of accessing formal credit. For many Indian households, both of the would be a significant achievement and a chance for upward mobility. The prospects of uncovering the links between social capital, loans, and college education could provide greater insight into the mechanisms behind upward mobility for Indian households.

References

Adler, Paul S., and Seok-Woo Kwon. 2002. "Social capital: Prospects for a new concept." *Academy of management review* 27 (1): 17-40.

Basu, Priya, and Pradeep Srivastava. 2005. "Exploring possibilities: microfinance and rural credit access for the poor in India." *Economic and Political Weekly* 40 (17): 1747-1756.

Coleman, James S. 1988. "Social capital in the creation of human capital." *American Journal of Sociology*: S95-S120.

Desai, Sonalde B, Amaresh Dubey, Brij Lal Joshi, Mitali Sen, Abusaleh Shariff, and Reeve Vanneman. 2010. *Human Development in India: Challenges for a Society in Transition*. New Delhi: Oxford University Press.

Jha, Saumitra, Vijayendra Rao, and Michael Woolcock. 2007. "Governance in the gullies: democratic responsivenes/s and leadership in Delhi's slums." *World Development* 35 (2): 230-246.

Krishna, Anirudh. 2012. *Active social capital: Tracing the roots of development and democracy*. New York: Columbia University Press.

Mohan, Rakesh. 2006. "Agricultural credit in India: Status, issues and future agenda."*Economic and Political Weekly* 41 (11): 1013-1023.

Mouw, Ted. 2006. "Estimating the causal effect of social capital: A review of recent research." *Annual Review of Sociology*: 79-102.

Szreter, Simon, and Michael Woolcock. 2004. "Health by association? Social capital, social theory, and the political economy of public health." *International Journal of Epidemiology* 33 (4): 650-667.

Vikram, Kriti, Reeve Vannemana, and Sonalde Desai. 2012. "Linkages between Maternal Education and Childhood Immunization in India." *Social Science & Medicine* 75(2): 331 ‐ 339.