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Is multi-party coalition government better for the protection of socially backward classes in India?

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Abstract: The paper investigates whether multi-party coalition government is better for the protection of socially backward classes, i.e. Scheduled Castes, in India. We have looked at the impact of types of government on the reduction of the gap between Scheduled Castes and Upper Castes in terms of various socio-economic indicators. Our analysis suggests that single-party majoritarian government is better at reducing the gap in terms of poverty and school drop-out rates, improves the employment scenario, and reduces the distressed migration. Nevertheless, neither single-party majoritarian government nor coalition government is able to reduce the gap in relation to institutional delivery, inequality, and land holding.

Keywords: single-party majoritarian government, multi-party coalition government, inequality, Scheduled Castes, social protection, panel data, India
JEL classification: C01, C23

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1 Introduction

The relationship between states and citizens are bound by social contract and politically through constitutions. The modern state is responsible for the legitimate use of power to organize society for the protection of life, liberty, and property. Given the fact that India has a unique social division, the (endogamous) caste system, founding fathers of India felt there was a need to protect the rights of the socially backward classes such as the historically untouchable *Dalits* (Scheduled Castes (SCs)) and *Adivasi* (Scheduled Tribes (STs)) and to improve their socio-economic status so that they became on a par with other social groups. But recent data suggest that the incidence of poverty in India is25.7per cent and 13.7per cent in rural and urban areas, respectively, whereas the incidence of poverty of Scheduled Cates is 31.5per cent and 21.7per cent, respectively (GOI 2013; Panagariya 2013). Similarly, under-5 mortality incidence for upper castes (UCs), popularly known as General Castes, is 59.2 per cent and 88.1 per cent for SCs which is almost double (National Family Health Survey (2005-06). Why is there such a huge gap between SCs and UCs in different socio-economic indicators even after 69 years of independence? Is it because socially backward classes are still neglected in India? What role have the government and political system in India played to correct these anomalies in society? In this context it is worth questioning whether government protects the interests of socially backward classes such as SCs in the desired manner. If it protects them, then which form of government—single-party majoritarian government or multi-party coalition government—protects the interest of the SCs better?

In India, different states have experienced different forms of government at different points in time. The performance of various social groups across states in terms of socio-economic indicators has also changed over time. Therefore, in this paper we investigate an empirical question: is there any causal link between forms of government and performance of various social groups in terms of socio-economic indicators? Specifically, we consider whether multi-party coalition government, which might bring different perspectives into political decision making, is able to better protect socially backward classes, i.e. Scheduled Castes, in India. In order to figure out the causal link between the two, we measure the impact of types of government on the reduction of the gap between Scheduled Castes and Upper Castes in terms of various socio-economic indicators such as poverty, inequality, land ownership, school drop-out rates, labour force participation rates, and migration, etc., as political parties often choose these indicators to showcase their performance in the public domain.

Our analysis suggests that single-party majoritarian government is better at reducing the gap in terms of poverty and school drop-out rates, improves the employment scenario, and reduces distressed migration. Nevertheless, single-party majoritarian government and coalition government are both unable to reduce the gap in relation to institutional delivery, inequality, and land holding.

The remainder of this paper is structured as follows. Section 2 reviews the literature and sets out the objectives of the study. Section 3 describes the methodological issues, sources and treatment of data. Section 4 presents and discusses the results. In section 5, we enumerate our conclusion.

2 Review of literature

'Caste is class at primitive level of production, a religious method of forming social consciousness in such a manner that the primary producer is deprived of his surplus with the minimum coercion' (Kosambi 1954: 14). The caste system ensures one's subjugation within the

socially sanctioned and legitimatized pyramid structure. Any deviation is punished through socio-economic cultural exclusion (Drèze and Sen 2013; Gupta 2005; Harriss-White 2005). The distinction between master–slave relationships and caste subjugations is loosely that in the caste system one's lower position is a virtue; suffering in this life is acceptable because one will get a better life in the next life, whereas in this life reward comes later in life (Guru 2009). Such a system is a major barrier to social progress in India and is based on notoriously counter-productive division of labour (Drèze and Sen 2013) or graded division of workers (Ambedkar1936).

The effects of the caste system were described by Rammanohar Lohia, a committed opponent of the caste system: 'Caste restricts opportunity. Restricted opportunity constricts ability. Constricted ability further restricts opportunity. Where caste prevails, opportunity and ability are restricted to ever-narrowing circles of the people' (quoted in Agrawal 2008: 212). It is occasionally claimed that caste discrimination has softened to a great extent. Even though much progress has been made, this trend has not been uniform (Drèze and Sen 2013). Anti-caste movement has made significant changes in some areas if we recall that Indian society used to force the lower caste population not to wear shoes or to cover their breasts[1] (in Kerala), always made them reside on the fringe of the village, and prevented them from entering the houses of high caste[2] or sitting in the classroom along with high caste students (Drèze and Sen 2013). Numerous studies have explored the caste system and the human development achievements of the disadvantaged caste, constitutionally recognized as Scheduled Caste (SCs) and Scheduled Tribes (STs), but they have ignored the implication of forms of government on such underprivileged groups. In the next section, we will explore the issues the existing literature have considered when analysing the performance of different forms of government.

A number of studies have been conducted to understand how single-party majoritarian government functions compared with coalition government (Echeverri-Gent 1998; Lalvani 2005; Lijphart1999/2012; Powell Jr 1981; Lowell 1896; Shah 2013). Lowell's (1896) axiom has been one of the driving forces behind these enquiries. Lowell (1896: 70, 73–74), one of the first modern political scientists, wrote that the legislature must contain 'two parties, and two parties only... in order that the parliamentary form of government should permanently produce good results'. The supreme 'axiom in politics' is that coalition cabinets are short-lived and weak compared with one party cabinets; 'Now the larger the number of discordant groups that forms the majority the harder the task of pleasing them all, and the more feeble and unstable the position of the cabinet'(Lowell 1896: 73). Tests of this hypothesis have so far produced mixed results.

Shah (2013) critically looks at the impact of the forms of government (single-party or coalition cabinet) at the sub-national level in the context of Indian provinces/states. He uses four lenses, namely, economic growth, social sector expenditure, the number of Hindu–Muslim riots, and the number of crimes committed against SCs and STs. By employing multivariate panel regressions on data representing fifteen Indian states over a 30-year time period (1981–2010), Shah(2013) drew a similar conclusion to Lijphart (1999) that single-party majoritarian governments do not outperform multi-party consensus governments on measures of economic growth and control of violence.

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[1] The breast tax is not discussed by Drèze and Sen 2013.

[2] For more on the caste system and Indian villages, please see Srinivas (1963). The means for achieving social mobility within the caste and class system in India are not uniform (Lerche 2010; Srinivas 1963).

The former rejects Lowell's (1896)axiom by saying:

> …multi-party coalition cabinets are ill-suited for effectual policy-making does not hold true in the context of Indian provinces. More importantly, this empirical investigation helps us satisfy the aforementioned adage that representative government must not only represent, it must also govern (Shah2013: 29).

In a study of 36 democracies, which are diverse in nature, Lijphart (1999: 48–61) states that they

> …confirm Lowell's hypothesis linking party systems to types of cabinets and his 'axiom' that single-party majority cabinets are more durable and dominant than coalition cabinets. The majoritarians' preference for two party systems is therefore clearly and logically linked to their preference for powerful and dominant one-party cabinets...a strong link between party systems and electoral systems, which further explains the majoritarians' strong preference for plurality, instead of PR, because of its bias in favour of larger parties and its contribution to the establishment and maintenance of two-party systems. However, whether this syndrome of majoritarian features actually translates into more capable and effective policy making than its consensual counterpart is another matter entirely. Lowell simply assumes concentrated strength means effective decision making…this assumption is largely incorrect. (Lijphart 1999/2012:62)

With regard to Indian democracy from the 1970s onwards, (Lijphart 1999/2012:51) states that there '...is little doubt that democracy has been operating far from perfectly in any of the four countries in recent years'. In a similar sprit, Powell (1981) also examines the performance of democracies while taking voter turnout and government stability as indicators. Powell finds that voter participation in elections is better in the representational systems and majoritarian democracies have a better record on government stability where executive durability is an indicator. Executive strength does not necessarily produce effective policy-making (Lijphart 1999/2012).

Echeverri-Gent (1998)[3] wanted to know if coalition governments at the state level have positive effects on state-level spending whereas Haggard and Kaufman (1995) found a negative impact on spending. The latter concluded that centralized executive authority is instrumental in initiating reforms but when it comes to consolidation the role of political parties is paramount. Echeverri-Gent (1998) takes Haggard and Kaufman's (1995) analysis further by identifying the conditions under which fragmentation and polarization facilitate adjustment. The study of liberalization under the leadership of Prime Minister Narashima Rao indicated that when the ruling party occupies the union level, fragmentation and polarization can impede the coordination of parties against economic reforms.

At a different level, Dutta (1996) studies government instability and coalition negotiation stress on the economy. The fiscal scenarios of the governments are also looked at.Khemani (2002) investigates whether sub-national governments are more likely to have higher deficits as proposed by models of the common-pool game. Confirming almost the same, Roubini and Sachs (1989) conclude that multi-party coalition governments run larger budget deficits and find difficulty in agreeing to cut expenses on any issues. However, researchers also recognize incentives in slim majority governments which make extra efforts to do good work

[3] Can be accessed at http://people.virginia.edu/~jee8p/apsa98.htm; accessed on 12 April 2016.

(Lalvani2005). In contrast with majoritarian governments, multiparty-led governments perform better in controlling inflation (Lijphart1999/2012).

Some serious studies have been carried out to understand the performance of the various forms of government of India. However, these studies have grossly ignored how these policies have influenced socio-economic conditions of the socially backward sections of society. A political-economy study thus gives us theoretical grounds for looking at the influence of forms of government on achievement on socio-economic indicators of different social groups or castes in India.

Against this backdrop, the objective of this research is to evaluate the impact of the form of government (single-party versus multi-party coalition cabinet) on one of the socially backward classes, i.e. Schedule Caste, at the sub-national level in the context of Indian provinces, by studying state performance through the reduction in the gaps in poverty, school drop-out rates, institutional delivery, labour force participation, inequality, land ownership, and migration between the SC and UC populations.

3 Methodology and data

To measure the effect of different forms of government on various socio-economic indicators, we have made use of panel data and time series cross section (TSCS) and regression models. Our unit of analysis is Indian states. The data for various socio-economic indicators have been calculated and used as the dependent variable in the regressions. Corresponding to each indicator, we have obtained data for two time periods. The number of states varies based on the availability of the required dependent variables. In the regression of institutional delivery, poverty, inequality, land, labour force participation, school drop-out rate, and migration we have considered 19, 16, 16, 22, 22, and 20 states respectively.

Steps

First, since the unit of analysis is state and each state varies in terms of its nature and characteristics, we have started with the specification of our regression model as fixed effect panel data model.

$$Y_{it} = \alpha_i + \sum_k \beta_k X_{it} + \mu_i + e_{it,} \quad (1)$$

Where$i$ = states which varies between 16 and 22 in different regressions

$t = 1,2$

Y_{it} = the gap in institutional delivery, poverty, inequality, land, labour force participation, school drop-out rate, and migration rate between SCs and UCs.

X_{it} = type of government (dummy), proportion of SC population, literacy rate of SC population, participation in main industry work, net per capita state gross domestic product (NSDP).

Type of Government = 1 if uniform government

= 0 if coalition government.

Second, we have estimated the random effect model.

Third, we have conducted the Hausman specification test. Where this test indicates the presence of fixed effects within the 5 per cent significance level, we have relied on the fixed effect model. Otherwise, we have relied on pooled ordinary least square (OLS) method after correcting for the problem of heteroskedasticity and serial and contemporaneous autocorrelation as these are prevalent problems encountered in panel data models.

There are various ways in which these two problems can be corrected. One of the most widely used methods is generalized least square (GLS). GLS is infeasible when the time dimension of panel is smaller than the cross-section dimension. Parks (1967) has proposed an improvement over GLS, which tackles the problems of heteroskedasticity, serial and contemporaneous correlation. He proposes the feasible generalized least square (FGLS) method. It has been observed that the FGLS estimator performs well in large samples but it has poor finite sample properties. It is also argued that when the time dimension of the panel data is smaller than its cross-section dimension, it is better to avoid FGLS. Another method proposed by Beck and Katz (1995) emphasizes relying on pooled OLS estimates with panel corrected standard errors. But this method also suffers from poor small sample properties when the cross-sectional dimension is larger than the time dimension. Driscoll and Kraay (1998), by using Newey-West type standard errors, have proved that the covariance matrix estimator is consistent and independent of cross-sectional variation.

Therefore, in the final step, in the absence of fixed effects, we have used the pooled OLS method based on that proposed by Driscoll and Kraay (1998). The advantage of this method is that it corrects for three frequently encountered problems of panel data which are heteroskedasticity, contemporaneous correlation, and serial autocorrelation. Moreover, the Driscoll and Kraay (1998) method is also applicable for fixed effect models.

$$Y_{it} = \alpha + \sum_k \beta_k X_{it} + e_{it} \qquad (2)$$

3.1 Data sources

To measure the impact of forms of government on the reduction of the gap between socially backward classes and higher classes, we have considered socio-economic indicators such as institutional delivery, poverty, inequality, drop-out ratio, employment opportunities, the pattern of land holding, and migration, etc.

We have used different control variables such as the proportion of SCs, state per capita income, country-level poverty, inequality, landlessness, overall rural–urban migration as appropriate for different regressions so that we can control the heterogeneity across different states.

Data for institutional delivery, by social group, have been collected from the National Family Health Surveys (NFHS-2 and NFHS-3) which were conducted in the years 1998–99 and 2005–06. Data on poverty, by social group, have been calculated using two rounds (50th and 68th round data on Level and Pattern of Consumer Expenditure) of the National Sample Survey (NSS) unit level data. To calculate poverty incidence across social groups in different states, we have used the poverty line provided by Tendulkar methodology. Figures for inequality, by social group, have been calculated using two rounds (50th round and 68th round data on Level and Pattern of Consumer Expenditure) of National Sample Survey unit level data using the Gini co-efficient for the respective groups.

Figures for ownership of land, by social group, have been calculated using two rounds (48th round and 52nd round data on Land and Livestock) of National Sample Survey unit level data. Information on school drop-out rate, by social group, has been calculated using two rounds

(50th round and 64th round data on Education Expenditure in India) of National Sample Survey unit level data. Figures for labour force participation rate, by social group, have been calculated using two rounds (50th round and 68th round data on Employment Unemployment situation in India) of National Sample Survey unit level data. Figures for migration rate, by social group, have been calculated using two rounds (55th round and 64th round) data on Migration Survey of National Sample Survey unit level data.

The most important explanatory variable that has been considered here to explain the gap is form of government, i.e. whether the government is a single-party majoritarian government or coalition government. We have used a dummy variable to indicate whether the government is single-party majoritarian government or coalition government. Data on forms of government have been collected from the Election Commission of India and various newspapers.

Other explanatory variables which may also have an influence on the reduction of the gap in socio-economic indicators are per capita income, which has been represented by per capita Net State Domestic Product (NSDP) of respective states at 1999–2000 constant prices, overall literacy rate, proportion of the SC population, and participation of SC population in the main industry across different states. However, participation in the main industry and per capita NSDP may be correlated so we have used per capita NSDP as a proxy for income instead of participation in the main industry. Information regarding per capita NSDP has been collected from the Reserve Bank of India (RBI) Hand Book of Statistics for various years. Data on the proportion of the SC population, overall literacy and participation in the main industry have been collected from Census India (various years). We have taken 2001 population figures to represent the population from1998–99 in respective states and 2005-06 figures have been represented by 2011 census figures due to lack of data on these indicators in respective years.

4 Results and discussion

Corresponding to each socio-economic indicator we have estimated four different models—fixed effect, random effect, the panel corrected standard error (PCSE) proposed by Beck and Katz (1995), and the Driscoll and Kraay (1998) pooled OLS with standard errors corrected for heteroskedasticity, serial, and contemporaneous correlation.

4.1 Impact of form of government on poverty

Poverty incidence is a unique indicator of the performance of a society. Most of the political parties use it to demonstrate their performance. Poverty indicates economic capability and its association with other social indicators. Table A1 (Appendix) provides the poverty rate across states in India. Table 1 presents the results on the poverty gap between SCs and UCs. In this case, the Hausman Test statistic indicates the presence of fixed effect at the 10 per cent level of significance. Therefore, we rely on Driscoll and Kraay's (1998) model for inference. The co-efficient of government type represented by a dummy variable is negative and significant which indicates that single-party majoritarian government helps in reducing the gap in poverty between SCs and UCs as compared with multi-party coalition government. Apart from the single form of government, it has been found that literacy is an important variable which helps to reduce the gap in poverty between SCs and UCs. It is possible that literacy increases the employability of SC households in the labour market and increases income, thereby reducing the poverty gap between the two groups. This can be confirmed from the sign of the co-efficient of participation in main industry occupation which is negative though insignificant.

Table 1: Dependent variable: gap in poverty (head count ratio) between SCs and UCs

Explanatory Variables	Fixed Effect (n=32)	Random Effect (n=32)	Beck & Katz (n=32)	Driscoll & Kray (n=32)
Government	-3.54 (5.48)	-4.71 (3.94)	-3.84* (0.61)	-3.84* (0.02)
Proportion of SC population	0.47 (1.80)	-0.05 (0.37)	-0.13 (0.13)	-0.13* (0.001)
Literacy rate	-37.6 (27.9)	-32.2 (22.07)	-41.2* (12.08)	-41.2* (2.88)
Main Industry SC population	-157.1* (52.07)	-46.2 (28.3)	-22.05 (21.3)	-22.05 (17.1)
Per capita NSDP	-4.26 (7.54)	0.94 (5.64)	5.32 (5.41)	5.32* (1.04)
Constant	122.9 (82.1)	42.7 (43.9)	-3.35 (50.5)	-3.35 (50.5)
R^2	0.61	0.16	0.21	0.21
Hausman Test		11.01***		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level

Source: Authors' estimates.

Per capita NSDP which is a proxy of income is found to have a positive and significant impact. This may be due to the fact that even though per capita income of the state increased income was not distributed properly and, therefore, raised inequality. Over a period of time, both per capita NSDP and the number of SC households have increased. Since the increased income was not distributed evenly amongst those families, this aggravated the problem of inequality. Therefore, one can say that single-party majoritarian government and an increased literacy rate help in reducing the poverty gap between SC households and UC households.

4.2 Impact of forms of government on school drop-outs

Participation in the system of formal education is another indicator which is often highlighted by political parties to demonstrate social progress. Literacy is used as a performance indicator and it is true that literacy rates in all social groups have increased significantly and the gap between various social groups has declined. We have considered drop-out rates from school as quite often it is argued that drop-out rates of SCs are much higher than those of UCs because the majority of SC households are poor and they might not be able to remain in the education system for long. Therefore, various incentives are provided such as mid-day meals, pre-matriculation and post-matriculation scholarships, etc. But the implementation of these schemes depends on the governance of the state. Therefore, by considering the school drop-out rate, we wanted to see which form of government is effective in reducing the gap of school drop-out rates between SCs and UCs. Table 2 provides the results of a regression on the gap of school drop-out rates between SCs and UCs. Based on the Hausman specification test result, which is insignificant, we rely on Driscoll and Kraay's (1998) pooled OLS model. The co-efficient of dummy variable which represents the types of government is negative which indicates that single-party majoritarian government effectively reduces the gap in drop-out rates between SCs and UCs as compared with multi-party coalition governments. Table A2 (Appendix) shows that there has been a significant increase in school drop-out rates across all social groups in most of the states. However, in some states, the increase in school drop-out rates of SCs is less than that of UCs.

We see that the co-efficient of the proportion of SCs is negative and significant indicating that as a proportion of the SC population increases the drop-out rate gap between SCs and UCs decreases. As the SC population increases the number of children attending school also increases and if some of them continue with schooling then this might have a demonstration effect on other parents and hence reduce the school drop-out rates of SC communities.

Table 2: Dependent variable: gap in drop-out rates between SCs and UCs

Explanatory Variables	Fixed Effect (n=44)	Random Effect (n=44)	Beck & Katz (n=44)	Driscoll & Kray (n=44)
Government	-3.31	-2.24	-2.45*	-2.45*
	(2.57)	(1.90)	(0.91)	(0.20)
Proportion of SC population	-0.52	-0.15	-0.12***	-0.12***
	(1.92)	(0.14)	(0.06)	(0.06)
Literacy rate	-12.87	8.19	13.47*	13.47*
	(17.39)	(9.53)	(4.27)	(0.31)
Main Industry SC population	-35.37	-0.65	-4.86	-4.86
	(97.85)	(20.92)	(10.50)	(3.67)
Per capita NSDP	-0.64	-0.98	-0.89*	-0.89*
	(1.41)	(0.80)	(0.36)	(0.33)
Constant	33.66	8.49	5.47**	5.47*
	(32.97)	(11.08)	(2.76)	(1.91)
R^2	0.15	0.19	0.20	0.20
Hausman Test		3.96		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level.

Source: Authors' estimates.

The literacy rate shows a positive impact indicating that an increase in literacy rates among SC households increases the drop-out gap between SCs and UCs. The co-efficient is significant. The increase in participation in the main industry and increase in per capita income reduces the gap in drop-outs between the two groups. The reason for this is that as the participation in main industry occupation increases this leads to better socio-economic conditions and peer pressure which might prevent school drop-out amongst SC communities. Therefore, it can be said that single-party majoritarian government is more effective than multi-party coalition government in reducing the gap in drop-outs between the groups.

4.3 Impact of form of government on institutional delivery

To observe the impact of form of government on health, we have chosen one indicator of health, i.e. institutional delivery. Institutional delivery amongst socially backward communities is observed to be low as compared with the UC community (see Table A3 in the Appendix). It is sometimes argued that healthcare services are inaccessible to backward classes who are considered as untouchables. Therefore, political parties and the government can play a huge role in the elimination of this type of social discrimination. Table 3 reports the results for the gap in institutional delivery between SCs and UCs. It can be observed that the Hausman Test statistic is 1.85, which is insignificant and, therefore, we are unable to reject the null hypothesis of no correlation between state-specific effects and explanatory variables. The implication is that there is no fixed effect. It can also be observed that the co-efficients of the random effect model are highly similar in sign and magnitude. Hence, our inference will be based on Driscoll and Kraay's (1998) model.

The co-efficient of the government dummy variable is negative which indicates that single-party majoritarian government helps in reducing the gap in institutional delivery between SCs and UCs as compared with multi-party coalition government, but the co-efficient is statistically insignificant in all cases.

Table 3: Dependent variable: gap in institutional delivery between SCs and UCs

Explanatory Variables	Fixed Effect (n=38)	Random Effect (n=38)	Beck & Katz (n=38)	Driscoll & Kray (n=38)
Government	-7.32 (6.21)	-4.35 (4.51)	-1.10 (5.31)	-1.10 (0.64)
Proportion of SC population	-1.18 (3.77)	0.43 (0.46)	0.45* (0.04)	0.45* (0.03)
Literacy rate	-23.5 (19.5)	-12.1 (11.3)	-12.7 (10.2)	-12.7* (4.75)
Main Industry SC population	45.6 (38.3)	12.3 (10.9)	12.8 (8.94)	12.8* (4.07)
Per capita NSDP	-2.79 (2.70)	-1.10 (1.74)	-0.86 (1.54)	-0.86* (0.12)
Constant	-228.8 (277.9)	26.3 (37.9)	22.2 (40.2)	22.2*** (12.1)
R^2	0.14	0.14	0.16	0.16
Hausman Test		1.85		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level.

Source: Authors' estimates.

The co-efficient of the proportion of SCs turns out to be positive and significant indicating that as the proportion of the SC population increases, the gap of institutional delivery between the SC and UC population also increases. This may be due to a shortage of appropriate health infrastructure to accommodate the SC as well as the UC population. The literacy rate of SCs, another explanatory variable, is expected to be positively related to institutional delivery and thereby reduces the gap between the two. The co-efficient of the literacy rate is negative and significant. Participation in main industry occupation is supposed to be positively related to institutional delivery and thereby reduces the gap between the SCs and UCs. It can be seen that the co-efficient of this explanatory variable is positive and significant. This might be due to the fact that participation in the main industry occupation by SCs is much less than that of UCs and therefore the increased institutional delivery for UCs must have been more than for SCs. Incorporation of per capita NSDP, which is a proxy of income, is found to have the expected sign which is negative and significant.

It can be said that neither the single-party majoritarian government nor coalition government is more effective in reducing the gap in service delivery between the SC and UC populations. The increase in the literacy rate and per capita income is expected to reduce the gap of institutional delivery between the SC and UC population. The policy implication is that a reduction in the gap of institutional delivery between SCs and UCs is possible through increased literacy of the SC population and by providing the means to earn a higher income. Therefore, both uniform government and multi-party coalition government should aim at monitoring these indicators to improve access to and utilization of health care services.

4.4 Impact of form of government on labour force participation

Labour force participation is a measure of the total working age population employed or actively seeking employment. Political parties have been using this indicator widely to project their achievements while holding office. Here, we test whether form of government has created differential employment scenarios for different social groups. Table 4 presents the results for the labour force participation rate between SCs and UCs. The Hausman Test statistic suggests that there is no fixed effect. Hence, the inference is based on Driscoll and Kraay (1998). The co-efficient of dummy variable representing the type of government is positive, which indicates that single-party majoritarian government increases the gap in labour force participation between SCs and UCs as compared with that of the multi-party coalition government, but the co-efficient is statistically significant. Looking at Table A4 (Appendix) it can be observed that in the year 1993–94 the labour force participation rate was higher in the majority of the states for SCs and a similar situation prevailed in 2011–12. The reason for higher participation in the labour market for SC communities is a higher level of poverty in comparison to that of UCs even though the jobs are menial in nature. Since employment is the most important indicator of a state's performance, if it can be managed properly then winning the votes of the lower strata of society, which is mostly comprised of SC households, will become easier and therefore, the chances of forming a single party in the next election increases. States like Uttar Pradesh, Rajasthan, Assam, Haryana, and Andhra Pradesh, where single-party government has been formed, are better able to create job opportunities for SCs in comparison to other states where multi-party coalition government is in operation.

Table 4: Dependent variable: gap in labour force participation between SCs and UCs

Explanatory Variables	Fixed Effect (n=44)	Random Effect (n=44)	Beck & Katz (n=44)	Driscoll & Kray (n=44)
Government	0.10 (25.4)	11.15 (17.4)	23.53 (24.72)	23.53* (4.02)
Proportion of SC population	0.20 (8.41)	0.96 (1.33)	0.98 (0.76)	0.98* (0.26)
Literacy rate	-104.7 (165.8)	-118.4 (86.7)	-79.4 (123.6)	-79.4 (61.09)
Main Industry SC population	-97.3 (312.4)	-18.3 (143.06)	59.9 (107.7)	59.9 (78.4)
Percapita NSDP	23.3 (44.7)	37.59 (23.7)	36.83 (25.9)	36.83** (15.0)
Constant	-108.6 (404.1)	-289.3 (200.8)	-334.2* (141.7)	-334.2* (95.4)
R^2	0.02	0.14	0.18	0.18
Hausman Test		0.91		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level.

Source: Authors' estimates.

We see that the co-efficient proportion of SCs is positive and significant indicating that as a proportion of the SC population increases, the gap in labour force participation between SCs and UCs increases. It has already been discussed that the labour force participation rate amongst SC communities is higher than UC communities due to poverty. Therefore, when the population increases due to the compelling pressure of poverty, they need to participate in the labour market even though jobs are menial.

The impact of literacy on the gap in labour force participation is negative and insignificant. The negative sign might have severe implications for the culture of Indian society. The decline in the gap is mostly due to the decline in the labour force participation rate of SCs. Over a period of time the literacy rate of SCs has improved significantly vis à vis UCs. Upper Caste and mostly literate UC people hesitate to take up jobs which are labour intensive. For example, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) tries to secure the livelihood of rural people by providing 100 days of work in a year. Since most of the jobs are menial in nature and labour intensive, the UC population may hesitate to participate as they are harmful to their status in society. Moreover, the classification of castes is sometimes justified by occupational category and most of the SC communities were supposed to carry out menial jobs. When the educational status of SC communities increases, they find these menial jobs unworthy and harmful to their status as they are educated. The majority of jobs in rural areas are labour intensive so they might find it against their status and that leads to a reduction in labour force participation which may be due to unavailability of white collar jobs.

Main industry occupation and NSDP also confirm the same, as they both increase the gap in labour force participation. It is to be noted that only the NSDP co-efficient is significant. If the participation of SCs in main industry occupation increases faster than that of the UC population then the gap between the two will increase. Participation in the main industry occupation might increase due to a reservation in the public sector organizations in India. When per capita income increases, UCs might find blue collar jobs very menial in nature and hence the withdrawal rate from the labour market might be faster than that of the SC population which might increase the gap in labour force participation between the two groups.

Therefore, it can be said that uniform government provides more, though menial, employment opportunities for the SC population than multi-party coalition government, as it is crucial for it to win the votes of the lower caste population in the next election to come to power with a majority. However, creating menial jobs and motivating them to participate in the labour force might be difficult in future as the literacy and educational achievement is also rising day by day. Therefore, political parties should think about providing better employment opportunities to backward classes if they want to win their votes in the future.

4.5 Impact of form of government on inequality

Table 5 presents the results for the gap in inequality (Table A5 in the Appendix provides the estimation of Gini co-efficients) between SCs and UCs. Based on the results of the Hausman Test, it is understood that there is no fixed effect. The co-efficient of the dummy variable representing government type is positive but insignificant which indicates that there is no superiority of either form of government in terms of reducing the gap in inequality between the two groups. We see that the co-efficient of the proportion of SCs turns out to be positive and significant. It implies that as the proportion of SC households increases, the gap in inequality between the two groups also increases. This might be due to the fact that inequality within the SC community decreases due to the community's equitable resource-sharing pattern.

Table 5: Dependent variable: gap in inequality between SCs and UCs

Explanatory Variables	Fixed Effect (n=32)	Random Effect (n=32)	Beck & Katz (n=32)	Driscoll & Kray (n=32)
Government	0.02	0.01	0.006	0.006
	(0.03)	(0.02)	(0.01)	(0.01)
Proportion of SC population	-0.001	0.001	0.001**	0.001*
	(0.01)	(0.001)	(0.0005)	(0.0003)
Literacy rate	0.29	0.23***	0.19**	0.19*
	(0.23)	(0.12)	(0.09)	(0.01)
Main Industry SC population	-0.18	0.01	0.05	0.05
	(0.44)	(0.16)	(0.06)	(0.03)
Per capita NSDP	-0.03	-0.01	-0.01	-0.01*
	(0.06)	(0.03)	(0.01)	(0.003)
Constant	0.34	0.09	0.07	0.07**
	(0.70)	(0.27)	(0.10)	(0.02)
R^2	0.48	0.18	0.19	0.19
Hausman Test		2.63		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level.

Source: Authors' estimates.

The literacy rate of SCs is positively related to inequality. This might be due to the fact that increased literacy amongst the SC community has helped people in the lower strata to earn a better standard of living, which reduces inequality in this community and thereby increases the gap between the two. This is once again confirmed as the sign of participation in the main industry occupation has been in the same direction. On the other hand, per capita NSDP which is a proxy of income is found to have a negative impact on the gap of inequality and is significant. This is indicative of the fact that distribution of wealth might not be in favour of SCs when compared with UCs. Therefore, it can be said that both forms of government are equally ineffective in reducing the gap in inequality between the two groups.

4.6 Impact of forms of government on land ownership

There is a strong indication of a traditional nexus between caste and land ownership (Singh 2014). Some minority voices, such as Roy (2013) claim that SCs and STs have benefited to some extent. Others (Appu 1996; Bardhan and Lewis 1970; Banerjee et. al. 2002)have suggested that land reforms have not had much effect on the distribution of land. Even though existing literature gives us some indication of caste-based disparities, none has looked at how forms of government have brought changes in the distribution of land ownership. Distribution of land ownership across states in India is provided in Table A6 (Appendix). Table 6 reports the results of the gap in land ownership between SCs and UCs. Considering the Hausman Test statistic for fixed effect, it is understandable that there is no fixed effect and hence we rely on Driscoll and Kraay (1998) for inference. The co-efficient of the type of government is positive and insignificant. It implies that neither single-party majoritarian government nor multi-party coalition government reduces the gap in land ownership between SCs and UCs.

We see that the co-efficient of the proportion of SCs happens to be positive and significant indicating that the gap in land ownership between SCs and UCs is increasing. In fact, there have been hardly any changes in the land ownership pattern across social groups in India. Irrespective of the forms of government, land ownership has always remained in the hands of UCs in India. So when the number of SC households increases this aggravates the problem of land ownership

and most household members become landless agricultural workers. The co-efficient of the literacy rate of SCs is negative and insignificant.

Table 6: Dependent variable: gap in land ownership between SCs and UCs

Explanatory Variables	Fixed Effect (n=44)	Random Effect (n=44)	Beck & Katz (n=44)	Driscoll & Kray (n=44)
Government	-0.15 (3.50)	0.71 (3.27)	5.19 (6.52)	5.19 (5.79)
Proportion of SC population	1.12 (1.17)	1.39* (0.56)	1.19* (0.10)	1.19* (0.07)
Literacy rate	45.66 (29.60)	32.9 (26.1)	-14.9 (22.9)	-14.9 (21.5)
Main Industry SC population	5.07 (50.37)	9.33 (42.5)	-2.20 (14.4)	-2.20 (3.32)
Per capita NSDP	-6.24 (11.56)	3.74 (9.48)	28.6* (2.70)	28.6* (0.14)
Constant	85.30 (110.79)	-10.4 (86.9)	-223.1* (28.68)	-223.1* (16.7)
R^2	0.26	0.21	0.29	0.29
Hausman Test		2.47		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level.

Source: Authors' estimates.

We observe that the effect of participation in the main industry occupation has been in the same direction as it is for literacy, i.e. this also affects the gap in land ownership between SCs and UCs in a negative though insignificant manner.

Per capita NSDP is found to have a positive impact on the gap in land ownership and is significant. The increase in literacy might help SC households to earn more and thereby accumulate savings which might help them to buy their land. Similarly, participation in the main industry forms provides better earning opportunities and thereby opportunities to buy land. Therefore, it can be observed that neither the single-party majoritarian government nor multi-party coalition government is effective in the eradication of the gap in land ownership between the two groups.

4.7 Impact of forms of government on migration

We consider rural–urban migration as an indicator of social development. The problem of the caste system is prevalent in rural parts of India and less so in urban areas. Sometimes caste acts as a barrier to livelihood opportunities as well as other forms of oppression like untouchability faced by SCs in a rural setting. To get rid of this oppression, SCs often try to move out of rural areas and want to settle in urban areas where their caste matters less for livelihood opportunities. Therefore, state governance to protect the rights of SCs might affect migration. In order to reduce the migration to urban areas, as Indian urban areas are already over-burdened, the government provides livelihood opportunities in rural areas. One obvious example is jobs provided through MGNREGA. It can be seen from Table A7 (Appendix) that the migration rate is higher amongst UCs as they are more capable of getting better employment opportunities in urban areas. Whereas the migration rate of SCs remained more or less the same between the

periods from 1999–2000 and 2007–08, the gap between the migration rates of UCs and SCs has increased.

Table 7 reports the result of the regression when the dependent variable is a gap in the migration rate between SCs and UCs. The co-efficient of dummy variable representing the form of government is positive which indicates that single-party majoritarian government might be better able to protect the social and livelihood rights of SCs in rural areas of states which prevent the distressed migration of SCs than multi-party coalition government.

We see that the co-efficient of the proportion of SCs and the literacy rate is positive and significant indicating that as a proportion of the SC population and literacy rate increases, the gap in migration rates between SCs and UCs also increases. It is to be noted that the co-efficient of participation in main industry occupation is positive and significant. It is perhaps when SCs get into main industry occupation that they have no incentive to migrate. Moreover, as income increases, SCs have no incentive to migrate and that increases the gap in migration between SCs and UCs population.

Table 7: Dependent variable: gap in migration rates between SCs and UCs

Explanatory Variables	Fixed Effect (n=40)	Random Effect (n=40)	Beck & Katz (n=40)	Driscoll & Kray (n=40)
Government	7.99 (9.20)	4.98 (8.75)	11.81*** (6.77)	11.81** (5.83)
Proportion of SC population	-10.3 (6.88)	0.006 (1.57)	0.72* (0.29)	0.72* (0.19)
Literacy rate	0.86 (1.45)	0.64 (1.01)	0.27 (0.31)	0.27*** (0.14)
Main industry SC population	-2.93 (2.47)	0.64 (1.73)	3.85* (0.59)	3.85* (0.34)
Per capita NSDP	1.85 (43.3)	-2.58 (29.5)	3.54*** (1.90)	3.54* (0.04)
Constant	217.4 (312.5)	9.70 (217.2)	-140.6* (42.5)	-140.6* (18.5)
R^2	0.28	0.10	0.23	0.23
Hausman Test		10.73***		

Note: *indicates significant at 1%, ** indicates significant at 5%, and *** indicates significant at 10% level.

Source: Authors' estimates.

It can, therefore, be said that single-party majoritarian government may be able to better protect the rights of SCs in rural areas and provide better livelihood opportunities which prevent them from migrating.

5 Conclusion

This paper investigates whether multi-party coalition government is better for the protection of the socially backward classes, i.e. SCs, in India. We have explored the impact of forms of government in reducing the gap between SCs and UCs in terms of various socio-economic indicators such as poverty, inequality, school drop-out rates, institutional delivery, migration, and land holding, etc. where forms of government have been represented in the form of a dummy variable. Other control variables such as the proportion of the SC population, literacy rate, main

industry workers, and state per capita income have been used to control the heterogeneity across different states. Our analysis suggests that single-party majoritarian government is better at reducing poverty, school drop-out rates, and migration and creating more employment opportunities for SCs. A single form of government and an increased literacy rate contribute to reducing the gap in poverty between the SC and UC households. The single-party majoritarian government is more effective at reducing the gap in drop-outs between the groups.

The evidence tempts us to accept Lowell's (1896) axiom that single-party majoritarian forms of government govern better than multi-party coalition government since coalitions are more consumed with inter-party compromise and thereby produce weak policy outcomes. Moreover, it has been understood by socially backward communities that the most effective instrument to achieve upward mobility in society is education. The demand from these communities to the government has been to provide incentives for education and the single-party majoritarian government has proved to be better at implementing the schemes put forward by the government. Participation in an educational institution, reducing poverty, and participation in the labour force are visible changes and form the agenda for political gains. Moreover, single-party majoritarian government can provide better governance than multi-party coalition government.

In the Indian context, it has been found that both single-party majoritarian government and multi-party coalition government have failed to reduce the gap between SCs and UCs in terms of indicators like institutional delivery, inequality, and land holding. Inequality and disparities in land holding are the structural bottlenecks of Indian society. Land ownership has always been in the hands of UC households in India.[4]Most of the political parties, with the exception of a few which were formed by Dalit or SCs, are still dominated by UCs (Drèze and Sen 2013) and they have no incentive to dilute existing land ownership which is the primary source of inequality in India. Therefore, it does not matter whether it is single-party majoritarian government or multi-party coalition government that changes the land holding structure of society. Even when a Dalit leader comes to power and is able to exercise control over land, he has little incentive to let it percolate to the bottom of his community. Thus it can be concluded that when political gain is greater than private benefit, single-party government proves to be a better performer.

[4] The land owning minority has tended to constitute a majority of the representatives since independence (for more on this, please see Kohli and Singh (2016). To explore the relationship between caste and land ownership, please see Singh (2014).

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Appendix

Table A1: Poverty rates across different states of India, by social group

	2011–12				1993–94			
	Rural				Rural			
States	ST	SC	OBC	Others	ST	SC	Others	All
Jammu & Kashmir	16.30	18.82	7.52	10.22	74.50	34.40	30.46	32.60
Himachal Pradesh	9.48	16.45	2.28	7.00	62.40	43.60	33.15	36.90
Punjab	0.00	14.67	3.63	1.13	35.90	35.10	10.88	20.40
Haryana	3.27	23.58	13.44	3.32	69.70	62.70	30.75	40.20
Rajasthan	41.44	18.61	8.46	3.77	64.10	55.30	30.95	40.90
Uttar Pradesh	27.01	41.11	30.72	12.47	49.60	68.80	45.33	51.00
Bihar	59.31	51.65	31.55	23.29	73.30	76.80	61.47	62.50
Assam	33.37	28.20	34.44	34.84	55.60	59.20	54.76	55.30
West Bengal	50.13	22.63	19.02	20.00	66.70	48.30	36.21	42.60
Orissa	63.52	41.39	24.16	14.20	82.20	62.80	54.86	63.20
Madhya Pradesh	55.11	41.34	24.66	19.63	70.20	59.70	33.87	49.10
Gujarat	36.48	22.25	18.91	6.12	53.20	56.60	37.43	43.30
Maharashtra	61.60	23.81	18.23	16.48	74.20	74.10	53.11	59.30
Andhra Pradesh	24.13	13.14	9.28	6.81	58.40	64.70	42.55	48.30
Karnataka	30.81	37.06	20.75	21.62	71.20	72.70	50.32	56.80
Kerala	40.96	17.76	7.68	6.99	40.90	54.40	31.58	34.00
Tamil Nadu	36.80	23.27	12.95	1.02	57.00	66.40	45.66	51.20

Source: Authors' estimates based on 50th and 68th round of Level and Pattern of Consumer Expenditure (NSSO).

Table A2: Drop-out rates across different states in India, by social group

	2007–08					1995–96			
State	ST	SC	OBC	Others	Total	ST	SC	Others	Total
Jammu & Kashmir	12.3	31.8	23.6	28.0	27.4	15.8	26.6	17.5	18.7
Himachal Pradesh	41.9	41.6	35.8	34.7	37.2	20.7	23.2	23.7	23.4
Punjab	100.0	42.1	43.1	40.0	41.3	42.3	28.7	30.3	29.8
Haryana	93.2	38.1	35.0	40.8	38.5	0.0	27.5	26.4	26.6
Rajasthan	21.9	28.3	28.7	31.0	28.2	8.6	12.9	18.7	15.9
Uttar Pradesh	17.6	26.6	25.3	29.3	26.4	11.3	16.4	17.8	17.4
Bihar	19.2	13.4	18.9	24.5	18.6	10.7	7.5	13.0	11.6
Sikkim	35.7	40.2	34.3	36.3	35.5	23.2	12.6	24.4	23.5
Arunachal Pradesh	18.8	27.5	21.2	22.1	19.9	11.1	16.2	13.8	11.5
Nagaland	46.4	56.6	64.5	62.0	46.9	19.7	16.0	30.3	20.7
Manipur	28.8	34.0	25.5	33.6	28.0	24.7	11.1	15.8	18.5
Mizoram	35.4	0.0	100.0	67.3	35.5	24.0	16.0	8.7	23.1
Tripura	35.7	43.0	44.2	38.5	39.7	15.0	28.8	25.5	24.5
Meghalaya	30.6	39.7	41.4	26.8	30.4	17.3	36.5	15.0	17.2
Assam	40.0	32.0	45.4	34.9	38.3	16.9	17.4	22.7	21.4
West Bengal	32.1	38.5	40.3	38.7	38.4	16.6	25.0	26.6	25.6
Orissa	31.2	37.3	43.3	44.1	39.4	16.6	26.1	27.7	24.6
Madhya Pradesh	32.1	32.4	34.5	34.3	33.6	13.2	16.6	22.6	19.4
Gujarat	35.3	42.1	42.5	48.1	43.0	26.7	33.6	33.7	32.6
Maharastra	36.7	41.7	42.5	42.8	41.9	23.4	27.9	28.1	27.6
Andhra Pradesh	31.2	38.7	38.9	42.8	39.3	18.5	26.4	27.1	26.5
Karnataka	34.1	40.8	39.8	41.9	40.3	21.4	23.3	27.0	26.0
Goa	37.7	45.8	54.8	46.3	47.3		52.4	41.3	41.5
Kerala	44.7	46.1	41.5	31.8	39.8	38.2	36.1	34.9	35.0
Tamil Nadu	50.8	45.8	44.0	37.8	44.2	27.6	37.8	39.6	39.0

Source: Authors' estimates based on of 64th and 50th rounds of NSSO survey on Education Expenditure in India.

Table A3: Institutional delivery in India, by social group

	2005–06				1998–99			
States	SC	ST	OBC	Others	SC	ST	OBC	Others
Kerala	99		99.7	99.6	92.3		92.5	94.3
Maharashtra	64.1	24.2	68.9	73.4	58.8	32.2	55.6	54.7
Orissa	30.2	11.7	40.6	60.4	14.3	7.7	26.6	39.5
Punjab	34		52.8	62.5	21.8		32.8	52.6
Rajasthan	19.6	24.7	30.7	44.1	14.2	15.8	18.9	27.9
Sikkim	66.5	42.4	47.8	46	32.6	22.3	26.8	43.9
Tamil Nadu	80		90.5	98.9	68.7		82.8	98.3
West Bengal	48.5	17.8	68.9	41.5	38.5	20.2	33.7	30.2
Karnataka	54.1	41.5	68.2	79.2	39.2	31	54.6	57.8
Andhra Pradesh	66.2	27.3	62.4	82.3	37.6	22.3	49.5	65.7
Assam	20.4	23.5	28.2	19.8	21.4	16.1	35.2	15.1
Bihar	11.2		19.1	29.9	8.1	5.3	13.7	29
Goa	80.7	87.1	90.6	94.4	83.1			91.6
Gujarat	54	21.3	48.7	68.2	42.3	28.8	48.1	56.2
Madhya Pradesh	25.3	8	27.5	52.7	16.1	7.3	21.9	38.4
Jammu & Kashmir	33.3	27.4	32.5	60.9	19.5	19.2	27.2	40.8
Himachal Pradesh	32.7		33.1	50.5	26.2		20.1	33.4
Uttar Pradesh	19.2	6.7	25.7	37.5	10.2	8.8	12.8	21
Haryana	28.6		33.2	40.7	9.7		20.4	29.8

Source: Authors' compilation from NFHS-2 and NFHS-3 reports.

Table A4: Labour force participation rate across states of India, by social group

	2011–12					1993–94			
States	ST	SC	OBC	Others	Total	ST	SC	Others	Total
Karnataka	446	431	428	429	430	488	477	451	458
West Bengal	465	411	391	400	405	465	379	353	368
Uttar Pradesh	284	363	339	312	339	377	395	340	352
Tripura	439	473	474	418	445	381	331	331	336
Tamil Nadu	539	468	451	385	454	476	536	474	488
Sikkim	546	500	523	450	525	381	332	404	400
Rajasthan	463	403	402	373	405	541	434	415	434
Punjab	402	395	398	408	401	389	351	361	358
Orissa	496	422	416	360	422	525	439	365	416
Nagaland	450	232	798	294	445	323	427	319	323
Mizoram	444	329	598	446	446	418	473	402	417
Meghalaya	437	393	502	446	438	542	500	486	530
Manipur	403	416	364	434	386	447	277	352	383
Maharashtra	500	434	432	429	437	507	455	443	450
Madhya Pradesh	420	390	390	346	388	519	443	402	438
Kerala	550	502	383	416	403	513	472	405	412
Jammu & Kashmir	411	418	377	403	403	400	367	390	384
Himachal Pradesh	583	524	494	531	526	572	474	489	488
Haryana	274	358	326	371	354	311	331	346	342
Gujarat	469	418	417	408	424	509	420	408	425
Goa	598	339	346	356	376	428	624	424	433
Bihar	280	311	282	255	283	431	389	318	341
Assam	390	349	403	327	358	340	363	360	357
Arunachal Pradesh	368	407	480	387	376	464	399	442	445
Andhra Pradesh	602	519	488	402	479	620	555	494	513

Source: Authors' estimates based on 50th and 68th rounds of NSSO Employment & Unemployment Survey.

Table A5: Inequality across different states of India, by social group

	2011–12				1993–94		
States	ST	SC	OBC	Others	ST	SC	Others
Jammu & Kashmir	0.09	0.16	0.07	0.13			
Himachal Pradesh	0.08	0.13	0.09	0.16	0.15	0.11	0.18
Punjab	0.09	0.09	0.1	0.14	0.16	0.12	0.11
Haryana	0.16	0.08	0.11	0.19	0.19	0.13	0.15
Rajasthan	0.11	0.09	0.08	0.14	0.17	0.11	0.11
Uttar Pradesh	0.17	0.09	0.11	0.26	0.16	0.11	0.15
Bihar	0.05	0.07	0.07	0.1	0.13	0.08	0.1
Assam	0.06	0.11	0.11	0.11	0.04	0.04	0.08
West Bengal	0.12	0.11	0.15	0.22	0.08	0.09	0.17
Orissa	0.08	0.09	0.09	0.17	0.09	0.1	0.13
Madhya Pradesh	0.11	0.09	0.12	0.26	0.12	0.13	0.17
Gujarat	0.09	0.11	0.11	0.15	0.08	0.1	0.13
Maharashtra	0.16	0.13	0.17	0.25	0.18	0.19	0.31
Andhra Pradesh	0.12	0.12	0.12	0.19	0.15	0.13	0.16
Karnataka	0.1	0.16	0.17	0.39	0.11	0.11	0.16
Goa	0.04	0.05	0.1	0.16			
Kerala	0.27	0.19	0.2	0.29	0.23	0.07	0.17
Tamil Nadu	0.31	0.15	0.18	0.2	0.19	0.19	0.24

Source: Authors' estimates based on 50th and 68th rounds of Level and Pattern of Consumer Expenditure (NSSO).

Table A6: Ownership of land across states in India, by social group

	ST		SC		OBC+Others			
States	2002-03	1992-93	2002-03	1992-93	2002-03	1992-93	1992	2002
Jammu & Kashmir	0.39	1.00	11.71	16.43	87.89	82.57	66.14	76.18
Himachal Pradesh	7.28	2.09	14.23	14.73	78.50	83.17	68.44	64.27
Punjab	0.03	0.01	1.22	4.99	98.75	95.01	90.02	97.53
Haryana	0.01	0.00	3.36	5.87	96.63	94.13	88.26	93.27
Rajasthan	8.40	9.36	10.07	12.14	81.53	78.50	66.36	71.45
Uttar Pradesh	0.45	1.35	13.46	11.74	86.09	86.91	75.17	72.63
Bihar	0.96	17.40	5.06	4.97	93.98	77.62	72.65	88.93
Sikkim	40.36	32.89	1.94	1.30	57.71	65.80	64.50	55.77
Arunachal Pradesh	96.50	91.09	0.22	0.00	3.28	8.91	8.91	3.06
Nagaland	100.00	99.78	0.00	0.00	0.00	0.22	0.22	0.00
Manipur	56.05	48.72	0.56	11.48	43.39	39.80	28.31	42.84
Mizoram	99.15	100.00	0.00	0.00	0.85	0.00	0.00	0.85
Tripura	37.59	28.47	14.06	22.46	48.35	49.06	26.60	34.30
Meghalaya	95.05	84.50	0.22	13.49	4.73	2.01	-11.48	4.51
Assam	14.03	15.77	6.92	7.38	79.05	76.85	69.46	72.13
West Bengal	6.83	7.99	24.45	23.78	68.72	68.23	44.44	44.27
Jharkhand	48.75		4.90		46.36		0.00	41.46
Orissa	30.98	36.14	10.52	10.14	58.50	53.72	43.58	47.98
Madhya Pradesh	13.85	23.80	10.17	12.96	75.97	63.24	50.28	65.80
Gujarat	12.29	10.24	3.80	5.31	83.91	84.46	79.15	80.12
Maharashtra	9.80	11.39	5.97	8.43	84.23	80.18	71.74	78.27
Andhra Pradesh	14.56	9.89	8.65	8.59	76.78	81.52	72.94	68.13
Karnataka	6.60	7.84	7.63	9.81	85.77	82.35	72.53	78.13
Goa	6.65	0.00	0.00	0.11	93.35	99.89	99.78	93.35
Kerala	1.16	0.93	3.87	2.87	94.97	96.19	93.32	91.10
Tamil Nadu	1.12	1.14	8.10	12.80	90.77	86.06	73.27	82.67

Source: Authors' estimates using NSSO unit level data on Land and Livestock Holdings (48th and 52nd rounds).

Table A7: Migration rate across different states in India, by social group

	2007–08				1999–00			
States	ST	SC	OBC	Others	ST	SC	OBC	Others
Nagaland	117	346	488	562	229	815	392	603
Mizoram	151	217	675	108	12	0	10	0
Meghalaya	30	202	52	67	7	0	14	40
Madhya Pradesh	261	267	284	323	207	259	265	277
Bihar	129	196	196	250	135	148	156	154
Arunachal Pradesh	9	5	29	26	14	27	0	8
Manipur	13	2	6	8	21	0	2	3
Tripura	77	127	144	134	68	99	93	102
West Bengal	272	300	322	286	217	273	238	258
Orissa	279	300	291	346	188	249	258	316
Jammu & Kashmir	273	263	97	171	328	264	56	190
Himachal Pradesh	408	339	356	418	352	326	426	389
Punjab	680	308	339	352	421	282	342	349
Haryana	475	298	332	344	601	310	333	354
Assam	96	166	130	144	41	71	132	84
Uttar Pradesh	298	254	258	302	305	268	272	308
Sikkim	309	324	327	478	189	197	212	311
Maharashtra	308	374	364	378	328	349	340	366
Andhra Pradesh	314	298	298	354	180	231	249	323
Kerala	252	288	330	376	254	294	304	388
Jharkhand	189	171	153	207				
Chandigarh	452	528	599	549	492	538	612	470
Rajasthan	289	309	292	342	270	307	309	316
Gujarat	287	291	313	364	297	298	319	335
Karnataka	191	250	311	303	225	245	261	303
Goa	218	267	218	339	86	277	433	335
Tamil Nadu	91	195	239	309	255	249	290	350
Pondicherry		284	263	416	526	221	364	429

Source: Authors' estimates based on 55th and 64th rounds of NSSO data on Migration.