

CSE Working Paper #56 Association between Caste and Class in India: Evolution of Caste-Class Dynamics during Economic Growth

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Association between Caste and Class in India: Evolution of Caste-Class Dynamics during Economic Growth

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ABSTRACT

Caste and class are two major markers of social and economic stratification in India. They play a crucial role in sustaining and strengthening the process of social exclusion. It has been often expected that the process of economic growth and modernization may weaken the congruence between caste and class structures and induce social and economic mobility, thereby bringing about a change in the socio-economic environment. In this paper, we focus on the celebrated period of high economic growth in India during the previous decade to study the evolution of caste-class dynamics, to analyze the pattern of association between caste and class positions, and to examine whether this association/congruence has weakened during this period. The analysis is based on four rounds of employment-unemployment surveys of the National Sample Survey Organization covering the period 1999-2012. We construct a matrix of caste and class positions of repeated cross-sections of individuals that shows whether different caste groups are over- or under-represented in different class positions and how these representations have changed over time. We then use a multinomial logistic regression framework to capture the role of caste in explaining the conditional probability of an individual to belong to a particular class position, after controlling for other critical explanatory variables. We further examine how the explanatory role of caste has changed over time. Additionally, we explore the role of education, a crucial channel for socioeconomic mobility, in explaining the class positions of individuals belonging to different caste groups over time. Finally, we examine the impact of high economic growth in determining the class position of an individual in general, as well as for different caste groups over time. The analysis shows that caste has continued to remain an important factor in explaining class locations of individuals during the period of high economic growth. Further, the caste-class associations have continued to persist across different categories of education over time. While there has been a partial weakening of certain associations during the period, particularly for the Other Backward Castes and in some parts of the rural sector, the overall picture is more of continuity than change, with further strengthening and reinforcement of caste-class congruence along several axes. This calls into question the

expectations about social mobility with economic growth as well as the nature of economic growth in India.

JEL Classification: J71, 015, R23

Keywords : caste and class dynamics, economic growth, social mobility, social exclusion, patterns of social development

1. Introduction

Among various dimensions of inequalities and exclusions based on economic positions and social identities of individuals, such as gender, religion, race and ethnicity, caste and class continue to be some of the most important components of stratification in India (Bhowmik, 1992; Deshpande, 2000; Thorat, 2013; Patankar, 2015). There is a vast literature that highlights the central role that caste and class play in fostering and sustaining the process of social exclusion of a major section of the population in the economic, political and cultural spheres (Deshpande, 2000; Thorat, 2013; Patankar, 2005; Newman and Thorat, 2010; Vakulabharanam, 2010; Nayak, 2012; Thorat, 2013; Patankar, 2015).²

However, the process of rapid economic growth in India over the last few decades has given rise to hope in many quarters that it may lead to dilution of the ossified structures of caste and the rigid hierarchies of class, and thereby create conditions for the betterment of the socio-economic status of the traditionally socially excluded population groups (as noted in Jodhka, 2008; Patnaik, 2011; Nayak, 2012; Deshpande, 2015, Jodhka, 2015; Munshi, 2019). The process of growth and modernisation is thus assumed to be able to transform the traditional social setup (Jodhka, 2008) - breakdown of the caste boundaries and an increased possibility of mobility between classes giving rise to a more fluid social structure. On one hand, some scholars have argued that there has been a sharp improvement in the outcomes such as education and occupational attainment, wages and consumption levels of the disadvantaged social groups, particularly for the Scheduled Castes (SC) and the Scheduled Tribes (ST) during the growth period (Panini, 1996; Hnatkovska et al, 2012 and 2013, Munshi, 2019). However, on the other hand, various scholars have argued that although there has been some improvement in the outcomes of the marginalised and excluded sections particularly for the SC, or the Dalits, and the ST, the overall growth process appears to be largely exclusionary (Kannan 2007; Jodhka, 2008; De Haan, 2011; Thorat and Dubey, 2013). It is further argued that growth has been uneven across sectors and across population groups, often accompanied by rising income inequality, keeping large sections of population outside its orbit (Jha, 2000; Desai et al. 2010; Sarkar and Mehta 2010; Vakulabharanam, 2010; Kannoujia, 2016). The SCs and STs still have low socio-economic indicators and there has been persistent inter-group

² Refer to Deshpande (2000 and 2011), Vaid (2018), Mosse (2019) and Munshi (2019) for broad literature review on caste and class issues across different spheres of the Indian economy.

inequality in terms of income and consumption, as well as in terms of access to education, healthcare, and better employment opportunities (Nambissan, 1996; Deshpande, 2000; Madheswaran and Attewall, 2007; Deshpande, 2008; Baru et al, 2010; Kang, 2015; Deshpande and Sharma, 2016). On the other hand, there are a number of studies that have discussed the existence of class based inequalities in India. Using an occupation based class schema, these studies suggest that significant inequality of opportunity across occupation classes persists in India (Kumar, Heath and Heath, 2002a and 2002b; Vakulabharanam, 2010; Motiram and Singh, 2012).

Although the economic literature has discussed about caste and class based inequalities and discrimination, and there have been implicit attempts to explore the interaction between caste and class dimensions, the question of how caste and class are associated with or co-determine each other has majorly not been explicitly or rigorously addressed in the literature. Such associations and interactions are likely to critically shape the social and economic life chances of individuals belonging to various caste and class locations. Hence, in the context of India, it is crucially important to interrogate the interaction of caste and class hierarchies during the high growth period, to study the outcome of this interaction, and to understand the patterns of social development that this generates. This study takes off from the existing debate on the evolution of caste and class dynamics over the high growth period in India, and meticulously investigates whether there has been a further entrenchment of the existing caste-class linkages or if there has been a dilution of this association.

The rest of the paper is structured as follows. The second section discusses the literature and problematizes the research question. It outlines a brief overview of the existing caste and class hierarchies and the nature of their association as posited in the literature, in order to motivate and identify the research question of this paper. The third section describes the data used in this work and discusses the definitional issues. The fourth section provides a brief empirical description of the caste and class disparities in contemporary India. The fifth section discusses the empirical strategy employed in the rest of the paper, while the sixth section provides the results of the empirical analysis. The final section summarizes and concludes the paper.

2. Observations from the literature and problematization

The caste system has plagued the Indian society for the past 3000 years and it continues to do so (Roy, 1979; Deshpande, 2000; Deshpande, 2011; Deshpande, 2014; Zajaczkowska, 2019). In the ancient Hindu society, the population was divided mainly into four caste categories (which were later extended to five categories), which were mutually exclusive and exhaustive, hereditary, endogamous, and were based on the occupation of the person. Thus, over time there has been a fixed association between castes and occupations as castes have been tied to specific occupations, where the 'upper' castes have access to better ranked occupations and have been privileged in terms of their economic position and social status, while the 'lower' castes have been placed at the bottom of the social hierarchy. The contemporary caste classification made by the government for the purpose of affirmative action divides the population into four categories, namely Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), and Others. The term 'scheduled castes' has been derived from the Ninth Schedule of the Indian Constitution, which defines a list of caste groups for each state in India that are entitled to benefit from the Affirmative Action clause charted out in the Indian constitution. Scheduled tribes (or Adivasis) are not separate castes, but they are included in the definition of depressed castes along with scheduled castes as they have historically been – and till date continue to be – marginalised sections of the society with poor socio-economic outcomes. They experience exclusion, isolation, physical and social segregation on the basis of their ethnic identity (Deshpande, 2000; Thorat and Mahamalik, 2007). Apart from the scheduled castes and scheduled tribes, the constitution of India also lists another section of the population who are "economically and socially backward" and are entitled to benefit from the affirmative action policies. These sections are referred to as the "Other Backward Classes". And finally, the category "Others" consist of everyone else, particularly the Forward Castes, i.e., 'others' can be seen as a proxy for upper castes.

The notion of class, on the other hand, has been extensively theorized in the literature across the world in terms of positions of individuals (group of individuals) in the economic processes of production and distribution, in terms of their occupations or incomes, wealth and assets or in terms of their status and power in the broader social sphere (Bendix and Lipset, 1953; Bendix, 1974; Wright, 1978; Barbalet, 1986; Marshall 1998; Chan and Goldthorpe, 2007;Wright, 2009). There exist different class categorizations based on the

theoretical lens used to interpret class. For instance, in terms of a Marxian framework, the major classes that can be identified are capitalists, workers, working professionals and managers, rentiers, merchants and traders, financiers, etc. In terms of an occupation-based categorization, the broad classes that are usually identified are salariat, business class, manual labour, skilled and semi-skilled labour and agriculturalists and so on.

The Indian economy has experienced rapid and sustained growth for most part of the previous three decades, which peaked over the past decade of the 2000's that is widely considered as the high growth decade (Kumar and Subramaniam, 2012; Thorat et al, 2017). It has often been expected that the process of rapid economic growth since liberalization may lead to dilution of rigid caste boundaries and class hierarchies, thereby resulting in an improvement in the socio-economic outcomes of the depressed and excluded sections of the society. The literature has discussed about the evolution of caste and class dynamics over the decades of high growth, where on one hand, some scholars have argued that economic liberalization and modernisation, along with rising education levels and political mobilisation of people along caste lines, would weaken the association between caste and traditional occupations (as noted in Panini, 1996; Srinivas, 2003; Vaid, 2012). A study by Hnatkovska et al (2012) reveals that the economy has witnessed some outstanding changes in the outcomes of the marginalised sections during the period 1983-2005, owing to large structural and macroeconomic changes. Some other studies have also shown that, there have been improvements, in varying degrees, in the conditions of the SCs and STs during the last couple of decades, particularly owing to affirmative action and job reservation policies of the state, along with caste based-networks helping to capitalize on the opportunities offered by a globalizing economy (Deshpande, 2006; Thorat, 2007; Deshpande, 2008, Prakash, 2009, Munshi, 2019). It has been noted that there has also been some improvement in the patterns of intergenerational mobility for SCs and STs (Hnatkovska et al, 2013; Azam, 2015; Asher, Novosad and Rafkin, 2021).

However, in contrast to this view, a huge body of literature suggests that even though there has been some dilution of caste and class based inequalities on certain axes, the overall growth process has been exclusionary and inequalizing. There has not been much improvement in the life chances of the depressed and marginalised communities over this period (Basile and Harriss-White, 2000; Jha, 2000; Vakulabharanam, 2010; Sarkar and Mehta; 2010; Vaid, 2012; Kannoujia, 2016). SCs and STs still have high rates of poverty,

low levels of literacy, relatively low access to capital assets, or being self-employed, and they still experience labour market discrimination (Deshpande, 2000; Thorat and Mahamalik, 2007; Madheswaran and Attewall, 2007; Ito, 2009; Thorat and Dubey, 2013; Thorat, 2013; Suryanarayana and Das, 2014; Deshpande and Sharma, 2016; Thorat et al, 2017). On the other hand there some studies that analyse the situation of class based inequalities in India. Most recent empirical studies have primarily used an occupationbased class-schema specifically designed for the Indian case. Broadly, in these studies the classes are divided into four categories as noted above namely: salariat (consisting of executives, managers, and professionals), business class (classified into business and petty business), manual labour (consisting of skilled/semi-skilled and unskilled labour) and agriculturalists (consisting of owner cultivators, tenant cultivators, and agricultural labourers). Though this class schema is not completely hierarchical in nature, one can place salariat and business class at the top of the ladder given their economic position and social power; whereas unskilled manual labourers and lower agriculturalists can be placed at the bottom. These studies suggest that there exists significant inequality of opportunity in India along occupation lines. There is considerable intergenerational persistence in occupations, especially in low skilled and low paying jobs (Nijhawan, 1969; Kumar, Heath and Heath, 2002a and 2002b; Vakulabharanam, 2010).³

Although the literature has discussed two contrasting views about the evolution of caste and class dynamics during the decades of high growth, none of the studies have explicitly addressed the question of how caste and class are associated to each other or how they codetermine each other, i.e., how caste identities shape economic life chances and social experiences for individuals placed in different class locations, as well as how class identities shape such experiences of individuals belonging to different caste groups.⁴ Most of the studies can be rather seen as implicit attempts to explore the caste and class interaction.

The empirical works in the literature have employed two different approaches to study the interaction between caste and class identities. First is the outcome based approach where a

³ For a detailed discussion on class classification refer to Kumar, Heath and Heath, 2002a.

⁴ There have been significant ethnographic studies in the sociology and political science literature that have produced a rich body of work on these issues.

socio-economic outcome such as education, income, consumption expenditure, health care infrastructure, access to labour market opportunities and ownership of assets and wealth, etc., are used to explore the impact of caste and occupational classes in influencing these outcomes separately, as well as, exploring the interaction of caste and occupational class and their combined impact on these outcomes. The objective of this approach is to understand how caste status and class location play an important role in determining socioeconomic outcomes for different identity groups. While there exists a correlation between caste identity, class position and average outcomes for a particular identity group as historically castes have been associated with specific occupations, there could be significant variations in the average outcomes within a particular caste or/ and class group because of other important variables determining socio-economic outcomes. As a result, the outcome based approach also explores the role of some of the other crucial variables in determining these outcomes along with caste and class identities. The empirical works have also focused on exploring mobility patterns in terms of outcomes over specific time periods, particularly in terms of occupational mobility and educational mobility. Given that there has been a fixed association between castes and particular occupations, many studies have explained how caste identity plays an important role in influencing occupational mobility over time.⁵ This particular aspect, in turn, describes the interplay or interaction of caste and class in determining social mobility patterns as an outcome of interest. However, this is but one way of understanding the notion of interaction between caste and class, i.e., to see given the caste status and class origin of an individual, if there has been any movement across generations over time to a different class location. There is an alternative approach to understand the issue of caste and class association. It involves identifying and analysing the degree of stickiness between an individual's caste identity and class location at specific points of time. In other words it addresses the following question- what is the

⁵ Many ethnographic studies in the sociology literature have explored the notion of mobility *within* the caste system, where they investigate the movement of specific *jatis* or sub-castes placed at the lower rungs of the caste hierarchy to better socio-economic over time. Further, some of these studies also analyse occupational mobility *within* the particular castes (Vaid, 2018). While the literature on inter-generational occupational and educational mobility majorly studies the pattern of social fluidity arising out of the processes of modernization and economic growth during the post-reform era in India, there has not been much work studying the class dimensions of mobility and their interactions with caste status of individuals even in terms of outcomes.

likelihood of individuals belonging to specific castes to be in particular classes, and, in an *intra*-generational setting, how this likelihood has changed over time. In this particular approach, the focus is more directly on understanding how caste identity, which is fixed for individuals at their birth, influences the class position of the individual, and whether this association/stickiness has changed over time. It is important to note that this change over time in the association or stickiness between caste position and class locations will give some idea of mobility as a natural consequence, but the motivation is to directly investigate the association between caste and class for individuals at the given time points.

Few important empirical works focusing on the outcome based approach are as follows. Kumar, Heath and Heath (2002a and 2002b) and Motiram and Singh (2012) study intergenerational occupational mobility for males till mid-2000s and find that caste continues to play a significant role in determining the patterns of social mobility in India. Occupational mobility has been lower for marginalized castes as compared to upper castes, and very few lower caste people are found in 'high status' jobs at the top of occupational hierarchy. Further, class origins play a crucial role in determining class destinations of people belonging to the same caste group. In a similar attempt, McMillan (2005) uses data from both 1971 and 1996 National Election Studies (NES) survey rounds to compare the patterns of social mobility for SCs and STs with respect to Other groups (which include OBCs and religious minority groups like Muslims). The study finds that although SCs have witnessed some degree of upward mobility with an increase in the proportion of professional jobs and skilled occupations (maybe due to affirmative action policies introduced by the State), they lag behind the non-scheduled population, and their relative disadvantage has worsened over this period.

Most of the recent empirical studies focusing on the early part of the decade of 2000s suggest similar findings implying that the marginalized caste groups, particularly STs and SCs, have lower chances and opportunities to experience upward mobility in terms of better occupation and education outcomes relative to the upper castes, and much higher probability of experiencing downward mobility across the ladder. Further, class origins are also crucial to explain class destinations of individuals across generations (Deshpande and Palshikar, 2008; Jhilam and Majumdar, 2010; Reddy, 2015; Iversen, Krishna and Sen,

2017; Chaudhary and Singh, 2018; Lawson and Spears, 2021; Kundu and Sen, 2021).⁶ However, majority of these works analyse inter-generational mobility patterns for specific cross-section of time points which end by early 2000s or even before that. The empirical works that do study inter-generational mobility dynamics for the peak growth period, however, focus on specific parts of the economy (in terms of sectors, regions, genders) rather than the entire economy, and employ datasets that are not nationally representative.

Using quinquennial Consumption Expenditure Surveys of the NSSO for the period between 1983 and 2004, Gang, Sen and Yun (2017) examine if the historical relationship between caste identity and occupational segregation has weakened over time as a result of social and political changes. Their analysis is restricted to rural male headed households. The study provides evidence of occupational convergence between SC households and non-scheduled households, whereas there is no similar trend observed for ST households. Even though this is an important study that precisely addresses the relationship between castes and occupational classes, their analysis is still confined to the rural sector and does not capture the changing nature of caste-class associations during the peak growth period. Our work provides an intervention in this regard as discussed below.

Vaid (2012, 2016 & 2018) are important works in the literature that directly talk about caste and class association at a national level. Using NES (2004) data, Vaid (2012) explores whether the correspondence between caste and class origins has changed over time as the modernization theory argues. Using birth cohort approach, this work also analyses the impact of the interaction of caste and class origins on a particular outcome

⁶ Some regional studies also suggest similar results. Jorapur (1971) conducted an occupational mobility study in Dharwar and found that the association between father and son's occupations was much higher for lower status classes such as unskilled manual workers and was lowest among professional class representing higher status. Using field surveys Ramu and Weibe (1973) studied mobility in the Kolar gold mines of Mysore and found that even though all classes witnessed educational mobility, differences persist as higher castes preserve their dominance in terms of access to education. Sovani and Pradhan (1955) in their work on occupational mobility in Pune suggest that the younger generation experienced a higher degree of mobility relative to the mobility that occurred between father and the grandfather. Few studies have also revealed that there is a tentative correspondence between castes and classes at the extreme points of the caste hierarchy, but the association has slightly weakened over time. These studies suggest that the influence or importance of caste has neither vanished nor has it diminished appreciably (Mehra, Sharma and Dak, 1984; Deshpande and Palshikar, 2008). Some regional studies (based in Assam, Bihar and Tamil Nadu) also highlight the role caste plays in influencing a person's location in the agrarian class structure (Bhadra, 1991; Chakravarti, 2001).

such as class destination.⁷ The study finds that there is a preliminary correspondence between castes and classes at the extreme ends of the caste hierarchy. Although SCs have difficulty in moving out of their traditional occupations, the upper castes are also not completely cushioned from downward mobility. Extending this analysis using NES 2014 data, Vaid (2018) also studies if there has been a weakening of the linkage between caste and class destination over time. The analysis suggests that overall, for both men and women the correspondence between caste and class destination seems to be weakening over time. However, at the same time, it is not a stable relationship as fluctuating trends have been witnessed over birth cohorts.

As mentioned above, Vaid's analysis of inter-generational occupational mobility is based on NES (2004) and NES (2014), which are large databases but may not be fully representative of the changes in the labour market at the national level. Rather, in order to understand the caste and class association between individuals working in the labour market over the growth period, a more appropriate dataset is the Employment Unemployment rounds of NSSO that is heavily employed in the literature for labour market studies. It is a nationally representative large dataset (much larger relative to the NES dataset) that can better capture the dynamics of the caste and class association for the peak growth period in an intra-generational setting which is the objective of this study.

Our work provides an intervention in this regard. Rather than focusing on caste/class origins and destinations across generations, we seek to examine the nature and evolution of association between caste and class during the peak period of high economic growth (i.e., the decade of 2000s) in India. Our work specifically addresses the following questions: Have the existing caste-class linkages and associations shown signs of, or tendencies towards, dilution during this period, or has there been an entrenchment of such linkages during this growth period? Or has there been a partial dilution of some aspects of this association on one hand, while some other caste-class linkages have been strengthened, resulting in a contradictory dynamics? In other words, this work tries to analyse to what extent the caste-class congruence has persisted during the growth period and whether the economy has witnessed any change in the patterns of social transition in this context.

⁷ To understand the caste and class association and examine if the relationship has changed over time, the study uses two techniques for the analysis i.e., first the adjusted residuals of the cross classified tables, and second the goodness of fit of a series of log linear models.

Our study explores for the individuals working in the labour market how the association between their caste groups and their occupational class positions has changed over the peak growth period. Through this analysis it investigates whether there has been a tendency towards dilution of rigid boundaries of caste and hierarchies of class and if the optimism of economic growth being the driver of change has borne out in a direct fashion. In this regard it also sheds some light on the nature of economic growth in India, particularly in terms of whether the process of growth and development has been socially inclusive to bring the expected transition. While it might be argued that one cannot expect much mobility within the short period of high economic growth during the 2000s, we find that there has been a significant change in the distribution of caste groups across classes in both rural and urban sectors (reported in section 4).⁸

As with the rest of the studies in the literature, given the lack of representative information and rich data we also follow the occupation-based class grouping.⁹ The other approaches towards class cannot be used given the lack of data. Given the kind of nationally representative data needed for this rigorous work covering the high growth period, our study uses Employment and Unemployment data for multiple time points covering this

⁸ The notion of matrix of caste distribution across class categories is introduced in the descriptives section and discussed in detail in the methodology section.

⁹ Most of the empirical works that have explored the question of caste and class in the literature have employed an occupation-based class schema to understand and define class. The primary reason for using this categorisation as opposed to other definitions is the fact that caste has been historically tied to specific occupations, and hence the literature has majorly explored how the linkage between caste and occupations has changed over time to determine intergenerational mobility patterns. Another important reason for using this categorisation is the lack of availability of nationally representative data which is congruent with other ideas of class, such as the Marxian understanding of class in terms of production, appropriation and distribution of surplus or the Weberian notion of understanding class in terms of status and power. There are notable exceptions that have used an alternative lens to interpret class. Vakulabharnam (2010) employs a Marxian framework to define class using data on occupations, and analyses the dynamics of inter and intra class inequalities and the distributional aspects of high growth period in India. Even though this study makes use of Marxian framework to understand class, however, it does not explain the analysis from a Marxian lens. Vaid (2012, 2016 and 2018) use an occupation-based class categorisation in her study, but the definition of class is theoretically motivated by Weberian idea of class. However, she does not link back the analysis to the Weberian conceptualization in terms of status and life chances.

period and focuses on the individuals who are engaged in the working part of labour force. ^{10,11}

The importance of education as a crucial driver of social-economic mobility is well established in literature. It is expected that with an increase in growth and economic development over time, the importance of ascribed attributes such as caste and class origins in influencing access to specific class destinations will be diluted, whereas the role of 'achievement' or 'merit', measured in terms of educational qualifications, in determining the occupational class location will be strengthened. This in turn would importantly contribute to the dilution of caste class association (Treiman, 1970; Vaid and Heath, 2010). In our work, we explore the role of education in influencing the class positions of individuals belonging to different caste groups over time during the peak growth period, which explains the interaction of caste and education and how this has evolved.¹² It also attempts to understand the importance of economic growth states than in the low growth states during the peak growth period.

3. Data and definitions

In order to analyse the association between caste and class during the growth decade, we use the disaggregated unit-level data from the surveys of employment and unemployment situation conducted by the National Sample Survey Organization (NSSO) for four

¹² Vaid (2016), in a similar attempt, explores the role of education in influencing social mobility opportunities. It examines whether the importance of inherited characteristics such as caste and class origins in influencing access to particular occupations has declined over time, whereas the importance of education has actually increased. To examine this, the study fits a series of logistic regression models by birth cohort (which is used as a proxy for time) with the dependent variable being access to professional class. However, it only analyses the probability of individuals becoming a part of the professional class given their other ascribed characteristics. In contrast, our work looks at the influence of caste in determining class locations of individuals for all classes, truncated for each of the different education categories.

¹⁰ This is discussed in detail in the Data and Definitions section.

¹¹ While we use the occupation based class schema in our study, we attempt to link the implications of the analyses with other broader conceptions of class in terms of the position of individuals in the process of production and distribution.

successive rounds covering the period 1999-2012, i.e., 55th round for 1999-2000, 61st round for 2004-05, 66th round for 2009-10, and 68th round for 2011-12.¹³ The 55th round covered 1,65,244 households and enumerated around 8,19,013 persons. The 61st round covered about 1,24,680 households and enumerated 6,02,833 persons. The survey for the 66th round was spread over about 1,00,957 households and covered about 4,59,784 persons. Finally, the 68th round covered 1,01,724 households and surveyed 4, 56,999 persons. We use this time period for analysis as this has been the peak period of rapid and sustained economic growth at an annual average of more than 6 percent. Also, in the available survey rounds prior to the 55th round, OBCs were not classified as a separate caste category and hence no information is available for them.

The dataset used for the study is not a panel dataset. It is an independently pooled crosssection data covering four time points. We convert the nominal values into real values using 2006 as the base year. The consumer price index (CPI) for the year 2006 for rural workers has been used for rural sector, and that for the industrial workers has been used for urban sector. To define caste, the generally accepted contemporary caste classification done by the Government of India has been used, where the population is divided into four broad groups: Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), and General or Forward Castes (Others).

Class, on the other hand, has been defined in various ways in different strands of literature. Most of the empirical literature defines class on the basis of occupational categories. Following the literature and the availability of data (as discussed in the previous section), we also employ an occupation-based class structure.¹⁴ In the urban sector, classes can be broadly divided into the following four categories: self-employed – who have access to productive assets, control the process of production, are involved in the actual labour, and

¹³ There have been some debates concerning the 66th employment unemployment round of NSSO. It has been speculated (though not officially accepted) that the 68th round survey conducted in 2011-12 within just two years of the 66th round was because 2009-10 happened to be a drought year, which might have influenced the survey results. However, the 66th round along with others, has been used in the literature widely for different empirical analyses. Hence, we incorporate the 66th round for our study as well.

¹⁴ As has been mentioned earlier, we attempt to link this analysis with the other broader understanding of class in terms of the position of individuals in the process of production and distribution.

also are the recipients/claimants of their final produce; workers – who perform the physical labour but do not have any claim over the final produce; professionals and managers – who perform supervisory role in production and labour processes; and those who are situated in non-class or non-economic positions – those who are not involved in any economic activity as well as are not actively available for work such as students, pensioners, rentiers, disabled, remittance recipients, beggars, those who only attended domestic duties, those who attended domestic duties and were engaged in free collection of goods, sewing, weaving etc. for household use.^{15,16}

The rural sector is first categorised into agriculture and non-agriculture at a broad level. The agriculture sector can be further split into two broad categories, namely the landed and the landless. Based on the amount of land owned, the landed category can be further subdivided into four classes- rich farmer (who own more than four acres of land), middle farmer (who own between two and four acres of land), small farmer (who own between one and two acres of land) and marginal farmer/tenant (who own less than 1 acre of land). These four groups together constitute the farming/peasant class. Those who are landless but still work in agriculture, as they primarily derive their livelihood from it, are the agricultural workers. The non-agricultural sector consists of non-agricultural workers in the rural sector; rural professionals who represent the upper echelons of the class positions and have better social status, e.g., managers in private enterprises, government officials, etc.; and the non-agriculture self-employed (NASE), which includes employers, own account enterprises, and family workers. The agricultural workers and the non-agricultural workers together comprise the rural labour force. A section of the rural population belongs to the non-class/non-economic category as well.¹⁷ Thus, the rural sector consists of five

¹⁵ Rentiers are usually seen as a powerful class of people as they are the ones who lease out property. Given the lack of defining variables in the dataset, we have not been able to include them as a separate class category. However, one cannot underemphasize their social and economic power in any way.

¹⁶ Not only the non-market class category is a huge proportion of the population, there is a gender dimension associated with it as well. It should be noted that the majority of women might be out of labour force (i.e., not actively engaged in wage work), but a large section of them are engaged in non-wage/unpaid work for family enterprises, who are included in our self-employed category.

¹⁷ There are intrinsic differences between people working in the manufacturing and services sector. Once this distinction is accounted for, the class of self-employed in the urban areas and the class of non-agriculture

class categories in total, namely, peasants, rural labour, rural professionals, non-agriculture self-employed, and those situated in non-market/non-economic positions.¹⁸

The National Industrial Classification (NIC) is used as the standard classification to categorize various economic activities according to industries. ¹⁹ Likewise, the National Classification of Occupations (NCO) is the standard classification used to classify various occupational categories.²⁰ To categorize the individual class positions for our work, we use details about household characteristics, usual principal activity particulars of individual members of households, occupational codes obtained from NCO classifications developed in 2004, and industrial classification codes obtained from NIC classifications developed in 2004.

self-employed in the rural areas can be further divided into six sub-classes namely own account worker in manufacturing and own account worker in services, employer in manufacturing and employer in services, and unpaid family worker in manufacturing and unpaid family worker in services. The workers in the urban sector can similarly be divided into two composite classes, namely: regular and casual workers in the manufacturing sector and regular and casual workers in the services sector. Thus, the detailed classification in the urban sector results in 10 class categories whereas in the rural sector it results in 14 class categories. However, for the purpose of this work, we use the composite class categorization which includes five class positions for the rural sector, and corresponding four class positions for the urban sector, as explained above.

¹⁸ A similar definition or categorization of class positions has been used by Vakulabharanam (2010) to analyse the dynamics of inequality and the distributional aspects of the high growth period in India.

¹⁹ The NIC 2004 classification broadly categorizes the industries as follows: agriculture, hunting and forestry, fishing, mining and quarrying, manufacturing, electricity, gas and water supply; construction, wholesale and retail trade, hotels and restaurants, transport, storage and communications, financial intermediation, real estate, renting and business activities, public administration and defence, education, health and social work, other community, personal and social service activities, activities of private household as employers and undifferentiated production activities of private households, and extraterritorial organizations and bodies.

²⁰ The NCO classification broadly classifies occupations into the following categories: legislators, senior officials and managers, professionals, technicians and associate professionals, clerks, service workers and shop and market sales workers, skilled agriculture and fishery workers, craft and related trades workers, plant and machine operators and assemblers and elementary occupations.

4. Descriptive Statistics

In 2011-12, the STs, SCs, OBCs and Others constitute around 8.45 percent, 18.57 percent, 43.58 percent and 29.41 percent of the total population, respectively. Over the entire period under study, the proportion of OBCs has increased by about 8 percentage points, while the proportion of Forward castes has decreased by about 7 percentage points. There have not been any marked changes in the proportion of SCs and STs over this period, as can be seen from Figure1 below.²¹



Figure 1: Social group composition at All-India level for the period 1999-2012 (figures in percentages)

Source: Based on author's calculation using NSSO employment- unemployment survey data

²¹ Figure1 highlights a curious trend. Over the entire period between 1999 and 2012, there has been a significant increase in the proportion of OBC population, which is matched by a parallel decline in the proportion of Forward castes. In the absence of a caste census, a possible explanation for this transition might be that this trend reflects the redrawing of some caste categories based on the demand for political reservations by groups or communities belonging to Others' category which were traditionally economically and socially backward.

Class	1999-2000	2004-05	2009-10	2011-12
Peasants	40.36	42.54	37.72	38.73
Rural labour	44.77	40.34	45.42	43.21
Rural professionals	2.78	2.77	2.86	3.47
Non-agriculture self-employ(12.09	14.35	14	14.59
	100	100	100	100

Table 4.1: Class composition in the rural sector (figures in percentages)

Source: Based on author's calculation using NSSO employment-unemployment survey data

Table 4.2: Class composition in the urban sector (figures in percentages)

1999-2000	2004-05	2009-10	2011-12
41.15	44.39	39.54	40.2
42.04	40	40.98	40.21
16.81	15.62	19.49	19.59
100	100	100	100
	1999-2000 41.15 42.04 16.81 100	1999-2000 2004-05 41.15 44.39 42.04 40 16.81 15.62 100 100	1999-20002004-052009-1041.1544.3939.5442.044040.9816.8115.6219.49100100100

Source: Based on author's calculation using NSSO employment-unemployment survey data

Tables 4.1 and 4.2 give the class composition in the rural and urban sectors respectively. In terms of class composition, it can be seen from Table 4.1 that in 2011-12, the peasants, rural labour, rural professionals and NASE constitute about 38.73 percent, 43.21 percent, 3.47 percent, and 14.59 percent of the rural population, respectively.²² Between 1999 and 2012, there has been a marginal decline in the proportion of peasants and rural labour with a parallel increase in the proportion of rural professionals and non-agriculture self-employed. The detailed classification of class categories suggests that the agricultural labour has witnessed a significant decline (by about 9.72 percentage points) in their proportion over the entire period, whereas the proportion of the non-agricultural labour has increased substantially by about 8.16 percentage points. The overall decline in the proportion out of agriculture (which could possibly be seen as a transition in the normal course of growth) over this period of high economic growth.

²² The class composition has been tabulated for people who are part of the work force. It excludes the noneconomic or non-market class category, i.e., those who are not involved in any direct remunerative economic activity as well as are not actively available for work.

As can be seen from Table 4.2, in the urban sector, the proportion of professionals and managers has increased by about 2.78 percentage points, whereas the self-employed class and the regular and casual workers have witnessed a marginal decline in their proportion over this period. In 2011-12, the self-employed, regular and casual workers, and professionals and managers constitute about 40.2 percent, 40.21 percent and 19.59 percent of the urban population.

Social Group	1999-2000	2004-05	2009-10	2011-12
ST	409.2	442.26	474.39	498.6
SC	434.4	474.84	515.46	571.97
OBC	470.4	531.18	571.72	628.4
Others	554.4	622.69	654.31	734.7

Table 4.3: Median MPCE for different social groups in the rural sector (figures in INR)

Source: Based on author's calculation using NSSO employment-unemployment survey data

Social Group	1999-2000	2004-05	2009-10	2011-12
ST	702.24	836.21	882.2	941.78
SC	675.84	698.5	777.08	884.91
OBC	741.84	775.71	881.11	1032.81
Others	992.64	1128.58	1239.29	1399.03

Table 4.4: Median MPCE for different social groups in the urban sector (figures in INR)

Source: Based on author's calculation using NSSO employment-unemployment survey data

Tables 4.3 and 4.4 give the median monthly per capita expenditure (MPCE) for different caste groups for both rural and urban sectors. As can be seen from Table 4.3, in the rural sector, the median MPCE has increased for all caste groups, with OBCs securing the highest gains over the entire period. However, the disparity between median MPCE's of STs and SCs relative to Others have widened over time, whereas that of OBCs relative to Others has narrowed slightly. Similarly, the disparity between median MPCE of STs and SCs relative to OBCs has increased during this period.

Table 4.4 also suggests an increase in the median MPCE for all caste groups in the urban sector with Others accounting for the highest gains. SCs, STs and OBCs have lower average MPCE as compared to Others in 1999-2000 (i.e., they start from a lower base

value), and this disparity has further widened over time. The consumption gap between median MPCE of STs and SCs with respect to OBCs has also increased sharply over this period. In both the rural and urban sectors, all class categories have also witnessed an increase in their median MPCE over this period of economic growth. Rural professionals and professionals and managers in the urban sector have the highest median MPCE at all time periods.

It is also found that in both rural and urban sectors, average weekly wages have increased for all caste groups over this entire period, with Forward castes securing the highest average wages in all four periods. Also, the difference between wages of STs, SCs and OBCs relative to Others has narrowed over this period. In terms of education, in both rural and urban sectors, the proportion of illiterates across all caste groups and classes has declined over the entire period. Likewise, there have been some improvements in terms of access to education for all caste groups and classes, as the proportions of population who are literate below primary level, attended school up to secondary level and attended school up to higher secondary or above have slightly increased. However, among the total population that is literate up to secondary level and up to higher secondary and above, the proportion of SCs and STs is the lowest in both rural and urban sectors. In 2011-12, OBCs constitute the largest share of rural population who have been able to achieve higher levels of education (i.e., those who belong to the category of higher secondary and above), whereas in the urban sector it is the Forward Castes. Rural professionals constitute the largest relative share of the population who belongs to the category of higher secondary and above, whereas it is lowest for rural labour. Likewise, in the urban sector, professionals and managers constitute the highest share whereas it is lowest for regular/casual workers. These trends highlight the fact that even though there have been some improvements in access to education for all caste groups during the period of economic growth, SCs and STs still have the lowest representation on the education axis, particularly in terms of higher education which is crucial to have access to better economic opportunities which then further induce social mobility.

An overview of the descriptive statistics suggests that as has been highlighted in the literature, in an absolute sense there has been an improvement in the outcomes for most castes and classes over this period, where OBCs and, sometimes, Forward classes have gained the most. However, in a relative sense, the condition of STs/SCs has worsened as

compared to Forward castes during this period of high economic growth. As the process of growth and modernization has been expected to dilute the rigid caste boundaries and class hierarchies, a crucial next step is to address if these absolute improvements in the outcomes of marginalized communities are being translated into access to better socio-economic opportunities and mobility. In order to understand if the growth process has been able to induce social mobility and alter the traditional socio-economic setup, we explore the patterns of associations between different castes and classes to study if there has been some transition over this period.

In order to identify and disentangle how the associations of castes and classes have changed at a broad level over this period of high economic growth, we construct a matrix which describes the class distribution of the population across all caste groups, as well as the caste composition of the population across all classes in both rural and urban sectors. The matrices show the transition in the composition of various caste groups across different class positions, and vice-versa, over time.

	1999-2000				2011-12			
Class/Caste	ST	SC	OBC	Others	ST	SC	OBC	Others
Peasants	29.88	12.01	23.58	23.36	27.56	10.56	19.1	19.5
Labour	33.46	37.69	22.32	13.89	24.6	30.13	18.95	13.27
Rural professionals	1.2	1.01	1.16	2.34	1.16	1.17	1.42	2.67
Non-agriculture self-employed	2.91	5.81	7.72	6.75	3.62	6.03	7.35	8.3
Non-market	32.55	43.49	45.23	53.67	43.06	52.11	53.18	56.25

Table 4.5: Class distribution across various caste groups in the rural sector (figures in percentages)

Notes: Each column adds up to 100 percent for both the years.

Source: Based on author's calculation using NSSO employment-unemployment survey data.

Table 4.6: Class distribution across various caste groups in the urban sector (figures in percentages)

	1999-2000					2011-12			
Class/Caste	ST	SC	OBC	Others	ST	SC	OBC	Others	
Self-employed	11.95	14.01	18.55	16.4	8.97	12.23	17.54	17.33	
Regular/Casual worker	21.07	24.58	19.01	13.45	24.05	23.61	17.25	12.71	
Professionals & managers	7.34	3.98	4.54	8.77	8.92	6	6.41	10.13	
Non-market	59.65	57.43	57.89	61.38	58.06	58.17	58.8	59.83	

Notes: Each column adds up to 100 percent for both the years.

Source: Based on author's calculation using NSSO employment-unemployment survey data.

Table 4.7: Caste distribution across various classes in the rural sector (figures in percentages)

	1999-2000					2011-12		
Class/Caste	ST	SC	OBC	Others	ST	SC	OBC	Others
Peasants	14.38	11.67	40.47	33.48	15.96	11.78	46.6	25.66
Labour	14.52	33.01	34.53	17.94	12.77	30.13	41.45	15.65
Rural								
professionals	8.37	14.28	28.82	48.54	7.51	14.52	38.71	39.27
Non-agriculture								
self-employed	4.67	18.83	44.23	32.27	5.56	17.85	47.59	29
Non-market	7.37	19.89	36.53	36.21	8.69	20.27	45.24	25.8

Notes: Each row adds up to 100 percent for both the years.

Source: Based on author's calculation using NSSO employment-unemployment survey data.

Table 4.8: Transition matrix- Caste distribution across various classes in the urban sector(figures in percentages)

	1999-2000					2011-12			
								Other	
Class/Caste	ST	SC	OBC	Others	ST	SC	OBC	S	
		11.4	34.3		1.7				
Self-employed	2.55	7	2	51.66	8	10.38	43.18	44.65	
			34.4		4.7				
Regular/Casual worker	4.41	19.7	3	41.47	7	20.05	42.46	32.72	
			20.5		3.6				
Professionals & managers	3.84	7.98	7	67.61	3	10.45	32.37	53.55	
		13.0	29.7						
Non-market	3.54	5	3	53.68	3.2	13.73	40.23	42.84	

Notes: Each row adds up to 100 percent for both the years.

Source: Based on author's calculation using NSSO employment-unemployment survey

data.

Table 4.5 describes the class distribution across various caste groups.²³ It suggests that in the rural sector, the peasant class has seen a decline in its proportion across all caste categories over this period of high growth, with the decline being more pronounced for OBCs and Others. The proportion of workers has declined across all caste groups as well.²⁴ The class of NASE has seen a reduction in its share of OBCs whereas there has been a marginal increase in the proportion for STs, SCs and Others. Also, there has been a marginal increment in the share of rural professionals for SCs, OBCs and Others. Table 4.6 suggests that in the urban sector, the proportion of self-employed class has declined for STs, SCs and OBCs, whereas it has marginally increased for Others over this period. It can be observed that the proportion of regular or casual workers has increased for STs whereas it has diminished for SCs, OBCs and Others. Also, all caste groups have witnessed an increase in the proportion of professionals and managers over time.

In terms of caste composition across class categories, it can been seen from Table 4.7 that in the rural sector, peasant class has been dominated by OBCs in both 1999-2000 and 2011-12, and its proportion has increased over time by about 6.13 percent, whereas the

²³ We have done a test of statistical significance for the distribution proportions for all the four matrices. The changes in proportions discussed above are all statistically significantly different from zero.

²⁴ Rural labour consists of two categories agricultural labour and non-agricultural labour. The proportion of agricultural labour has plummeted for all caste groups, but the decline has been sharper for STs and SCs amounting to approximately 11.44 percent and 13.25 percent respectively. On the other hand, there has been a simultaneous increase in the proportion of non- agricultural labour across all caste groups, with the increase being the highest for SCs. Likewise in the urban sector, the class of regular and casual workers is defined as a combination of regular salaried/ wage employees and casual wage labour in public works and other types of work. As has been mentioned earlier, the detailed classification results in 14 class categories in the rural sector and 10 class categories into two classes namely, rural labour and regular and casual workers. Hence, we use a five-way and a four-way classification for the rural and urban sector, respectively. However, it is important to note that each of these labour categories is heterogeneous enough, and are likely to have different implications. We analyze these categories in detail to capture these heterogeneities in a separate work.

proportion of Forward castes in the peasant class has declined by around 7.82 percent.²⁵ The proportion of STs, SCs and Others in the class of rural labour has declined over the entire period. The class of rural professionals is dominated by Forward castes but OBCs have been catching up since 2009-10 and are almost equal in proportion to that of Forward castes in 2011-12. The representation of STs and OBCs in the class of NASE has also increased over time, with the increase being around 3.36 percent for OBCs, whereas it has diminished for SCs and Others. In the urban sector as well, the proportion of OBCs in the self-employed class has been consecutively rising with a parallel decline for Forward castes, as can be seen from Table 4.8. In the class of regular and casual workers, STs and SCs have not witnessed a marked change in terms of their proportion. However, there is a sharp increase in the proportion of OBCs matched with a simultaneous decline in the proportion of Forward castes such that the OBCs have surpassed Others in 2011-12. Although the class of professionals and managers has been dominated by Forward castes over the entire period, there has been a substantial increase in the representation of OBCs in this class as well. Even though there has been a slight improvement in the representation of SCs in the class of professionals and managers, SCs and STs are the lowest in proportion in this class position.

A closer look at the matrices highlights certain patterns of association between different caste groups and classes. It can be seen that among the working population, the marginalized caste groups such as STs and SCs have the lowest representation in classes which have high median MPCEs and/or have access to higher education such as rural professionals, peasants and NASE in the rural sector, as well as, class of professionals and managers and self-employed in the urban sector. Moreover, they are heavily concentrated in the classes of rural and urban labour which are at the lowest rungs of consumption hierarchy. On the other hand, Forward castes have higher representation in classes such as rural professionals, NASE and peasants in the rural sector, and class of self-employed and professionals and managers in the urban sector (where OBCs have been catching up with

²⁵ Much of the relative changes observed between OBCs and Others across various descriptive statistics (particularly the increase in the proportion of OBCs relative to Others) could be due to the change in the overall proportion of OBCs and Others during this period, as noted earlier. This issue needs to be kept in mind while analysing these changes here.

them). Further, their relative population shares among the rural and urban labour are the lowest.²⁶

These trends suggest that while, overall, there have been some improvements and gains made by STs, SCs and OBCs, the trajectories of improvements are varied across the caste and class groups. The disparities between the marginalized caste groups and the Forward castes have not significantly narrowed down and the pre-existing associations between the castes and classes have continued to a significant extent. In section 6 later we discuss further empirical results based on regression framework to explore and engage with these tendencies in more detail.

²⁶ On further exploration, the detailed classification suggests that the proportion of agricultural labour has plummeted for all caste groups, however, the proportions of STs and SCs continue to be greater than that of forward castes in the class of agricultural labour. On the other hand, there has been a simultaneous increase in the proportion of non-agricultural labour across all caste groups, with the increase being the highest for SCs. Further, we observe that the proportion of regular salaried /wage employees in the non-agricultural labour class has gone down from 36.12 percent to 30.79 percent, marked by a reduction in the share of this category across caste groups barring the Forward castes, with continued dominance of OBCs and Forward castes in this class category. On the other hand, the proportion of casual labour in public works and other types of work has increased over this period where the proportions of STs and SCs continue to be the highest among this class category. The urban sector, however, exhibits a different trend. The proportion of regular salaried/wage employees have increased over this period from 61.5 percent to 66.41 percent, with the increase in the share of this class category being witnessed across caste groups. However, the proportion of STs and SCs continued to be the lowest among regular salaried/wage employees. There has also been a simultaneous decline in the proportion of casual labour which is reflected across all caste groups. However, in 2011-12 the proportion of SCs in casual labour is much higher than that of the forward castes. It can also be observed from the matrices that in the rural sector proportion of labour has continued to be higher than NASE across caste groups, and, STs and SCs continue to have lowest representation in NASE. In the urban sector, the proportion of regular and casual workers continues to be higher than self-employed for STs and SCs, whereas the proportion has remained equal in both categories for OBCs. On the other hand, the proportion of self-employed continues to remain higher than regular /casual workers for the Forward castes. This suggests that lack of adequate capital assets and resources, no access to formal credit markets, institutions and networks, and limited access to education forces the marginalized caste groups to depend on manual labour for their livelihood.

5. Empirical Strategy

Along with the matrices of caste and class positions of repeated cross-sections of individuals as discussed above, we develop a multinomial logit regression framework to examine the empirical association of caste and class in contemporary India, and to see how this congruence or relationship has changed over the past decade of high growth.

We use the above matrices of caste and class positions of repeated cross-sections to identify how different caste groups are placed across various class categories, to see if there is a change in the social mobility patterns and how the caste-class associations have changed over the period. The matrices enable us to understand the representation of a particular caste group relative to the Forward castes in a specific class position, in comparison to the representation of that caste group relative to the Forward caste in the total population. It identifies whether a particular caste group is over-represented, underrepresented or equally-represented in a specific class position relative to the Forward castes.

In order to identify whether a caste group is over-represented or under-represented in a particular class position, we first find the proportion of that particular caste group relative to the Forward castes in the total population at a given period of time. It gives us the relative proportion of STs, SCs and OBCs with respect to Others at different time points for the period under study. We then compute the proportion of a particular caste group relative to Others within a particular class position. This gives the relative proportions of STs, SCs and OBCs with respect to Others in all class positions in both rural and urban sectors. We then compare the two computed ratios. If the proportion of a particular caste group relative to Others in a particular class position is greater than, less than, or equal to the corresponding proportions of that caste group relative to Others in the total population at a given point of time, then that particular caste is said to be over-represented, underrepresented, or equally represented, respectively, in that class position. For instance, in 1999-2000, STs, SCs, OBCs and Others constituted 10.43 percent, 21.07 percent, 37.24 percent and 31.26 percent of rural population, respectively. The proportion of SCs relative to Others in the rural population is found to be 0.674, obtained by dividing their respective proportions (21.07 percent and 31.26 percent) in rural population. In a similar manner, the relative proportion of SCs (11.67 percent) with respect to Others (33.48 percent) in the peasant class is found to be 0.348. This ratio is less than the ratio computed earlier (0.674)

and hence SCs are found to be under-represented (relative to Others) in the class of peasants. Following the same procedure for each intersection of various possible combinations of caste groups and class categories, we can identify in which class categories STs, SCs and OBCs are over, under or equally represented in 1999-2000 and 2011-12.

Tables 2.5.1 and 2.5.2 highlight the representation of various caste groups across all class positions in both the rural and urban sectors for 1999-2000 and 2011-12. The grey coloured cells depict over-representation of STs, SCs and OBCs relative to Others in the respective class categories, whereas the white coloured cells depict the relative under-representation of these caste groups. We have done a test of statistical significance for the proportions constituting over representation and under representation as explained above, and we found these proportions to be statistically significantly under- or over-represented.²⁷ It can be seen from Tables 2.5.1 and 2.5.2 that, STs and SCs are under-represented in the class of rural professionals and non-agriculture self-employed in the rural sector, and in the class of self-employed and professionals and managers in the urban sector in both 1999-2000 and 2011-12, whereas, they, along with OBCs, continue to be over-represented in the class of rural labour and urban regular/casual workers over this period. We use this notion of over/under representation to interpret the results of our regression analysis in the following section.

²⁷ For this we test if the two proportions, i.e., proportion of a particular caste group relative to the Forward castes in the total population at a given period of time and proportion of the same caste group relative to Others within a specific class position, are statistically significantly different. However, in some cases the calculated proportions are greater than 1, and by default a proportions test cannot be done. In that case we reverse the original proportion and interpret the results appropriately to understand if the explained deviation is an under or over representation.

	1999-2000				2011-12			
Class/Caste	ST	SC	OBC		ST	SC	OBC	
Peasants	OR	UR	OR		OR	UR	UR	
Labour	OR	OR	OR		OR	OR	OR	
Rural professionals	UR	UR	UR		UR	UR	UR	
Non-agriculture self-employed	UR	UR	OR		UR	UR	UR	
Non-market	UR	UR	UR		UR	UR	UR	

Table 5.1: Matrix- Caste representation across various classes in the rural sector

Source: Based on authors' calculation using NSSO employment-unemployment survey data.

Table 5.2: Matrix- Caste representation across various classes in the urban sector

	1999-2000				2011-12			
						OB		
Class/Caste	ST	SC	OBC	ST	SC	С		
Self-employed	UR	UR	OR	UR	UR	UR		
Regular/Casual worker	OR	OR	OR	OR	OR	OR		
Professionals & managers	UR	UR	UR	UR	UR	UR		
Non-market	UR	UR	UR	UR	UR	UR		

Source: Based on authors' calculation using NSSO employment-unemployment survey data.

The above matrices provide an overview of the transitions of various caste groups across different class positions over the entire period. However, while they enable us to see if there is a change in social mobility patterns at the broad level, they do not control for some of the crucial factors that affect the positioning of an individual in a particular class category. In order to take that into account, we employ a multinomial logit regression framework to capture the role of caste in explaining the conditional probability of an individual belonging to a particular class position, and to analyze the changes in these probabilities over time, after controlling for some critical explanatory variables. The regression analysis is split into four parts. First, the marginal effects for each of the explanatory variables are computed, which explain how each of the control variables determines the relative probability for an individual to belong to a particular class category. This gives the baseline specification of the regression for the pooled crosssection data for the entire period, without taking into account any interactions of the variables with time. Second, in order to capture the differential impact of caste at different

time points over the entire period (1999-2012), we compute the marginal effects at representative values, i.e., at four different time points. Third, in order to understand the interaction of caste and education over time in determining the class position of an individual, we compute the marginal effects of caste groups for different education categories at the representative time points. The marginal effects at representative time points capture different trends that help us to identify possible movements or transitions of various caste groups across different class positions over the high growth period. Finally, we compute the marginal effects of state variable at representative time points for both rural and urban sectors to capture the differential impact of state in determining the relative probability of belonging to different class positions. Further, to understand the significance of state variable in determining the conditional probability of belonging to different class positions across caste groups, we compute the marginal effects of state variable for different caste groups over representative time points for both rural and urban sectors. The regression analysis, along with the matrix of caste composition across class categories, seek to explain to what extent the existing caste-class congruence has persisted over this high growth period, and whether the existing association has become more strengthened or if there has been a relative weakening over time. The regression model and results are discussed in the following section in detail.

6. Regression Model and Results

In order to track the evolution of the association between caste and class over time, we employ a multinomial logit regression framework, given that both caste and class are categorical variables. The multinomial logit estimation seeks to explain the relative probability of an individual ending up in a particular class position given his caste and other set of attributes, which are controlled for in the regression model. We estimate the following regression model:

 $Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 \mathbf{Z}_i + U_i$

where X_1 and X_2 are the explanatory variables and the vector Z represents the set of controls which have been used in the estimation of the model. In the above model, Y_i represents the class position of the ith individual, X_{1i} represents the caste to which the ith individual belongs by birth, and X_{2i} represents the level of education attained by the ith individual in the sample.²⁸ We control for a host of other factors that can influence an individual's chances of ending up in a particular class position. These include gender, time period of study, and the state in which an individual resides.²⁹ Although, all the above mentioned controls may also play important roles in influencing the probability of an individual belonging to a particular class, we specifically focus on education as a variable of interest. This is because, in the literature, education is argued to be one of the most crucial channels through which transitions or social mobility of individuals are expected to shape up (Heath and Payne, 2000; Ciotti, 2006; Breen and Luijkx, 2007; Froerer, 2011). Some studies have pointed out that, to some extent, there have been improvements in the conditions or life chances of SCs and STs during the last couple of decades, particularly owing to the reservation policies in higher educational institutions (as well as in public sector jobs) (Deshpande, 2006 and 2008; Thorat, 2007). Among the above mentioned set of controls, gender is also argued to be one of the important variables that influences the occupation of an individual. In the literature it has been argued that the participation of females in economic activities is largely shaped by various demographic and socio-cultural parameters across different regions whereas males have greater flexibility and access to better job opportunities with higher income levels and recognition (Mukhopadhyay and Tendulkar, 2010; Andre, Dasgupta et al, 2017; Das and Desai, 2003; Paul, 2016; Sorsa, 2015). The state to which the individual belongs is also an important determinant of economic and social opportunities for them that enable them to improve the quality of their lives. For instance, it would be argued that individuals belonging to states that have had high rates of growth over a given period of time are likely to have access to better socio-

²⁸ In order to explore the nature of caste-class association, we use caste as one of the important explanatory variables determining the class position of an individual in the regression model. However, we cannot use class as an explanatory variable to determine caste because an individual is born within a given caste, which in turn, assigns a caste identity to it. However, the class location of an individual does influence and shapes the socio-economic outcomes and experiences of individuals belonging to different caste groups in different ways. Hence, the two social identities of caste and class may be argued to mutually constitute each other, though such mutual constitution is not captured in the standard econometric framework.

²⁹ The hierarchy in terms of income/consumption quintiles to which the individuals belong will also have an impact on their occupational class. On the other hand, given the hierarchy in terms of occupations on the basis of incomes of the individuals, one can say that occupation itself will be an indicator of the income levels (and hence, the consumption expenditure) of individuals. To take into account this issue, we do not add consumption expenditure as an explanatory variable as it will result in the simultaneous equation problem.

economic opportunities and experience higher social mobility as compared to low growth states.

The time dummies capture four time points covering the most recent decade of high economic growth, which has been expected to lead to dilution of rigid caste boundaries and class hierarchies, thereby resulting in a more fluid social setup (as discussed earlier in section 2). The above mentioned regression specification has been worked out for both rural and urban sectors as these locations have different sets of classifications in terms of occupational class categories.

Caste is a dummy variable that consists of four categories namely ST, SC, OBC and Others, where Others serve as the base category in the analysis. For the regression analysis, we use the five way categorisation of occupational classes for rural sector and a four way categorisation for the urban sector. The rural sector consists of peasants, rural labour, rural professionals, non-agriculture self-employed, and non-market or non-economic classes, while the urban sector consists of self-employed, regular or casual workers, professionals and managers, and the non-market or non-economic classes. Education is a dummy variable which consists of four categories: not literate, literate below primary, from primary up till secondary, and higher secondary and above. Non-literates serve as the reference or base category in the analysis. Gender is a dummy variable consisting of two categories- males and females, where males serve as the reference category. Time period is a categorical variable consisting of four time points, namely 1999-2000 (serves as the base category), 2004-05, 2009-10 and 2011-12. State is also a dummy variable, which captures whether an individual resides in a state with low growth rate (serves as the base category) or high growth rate.³⁰

³⁰ In order to classify states into high and low growth categories, we first calculate the average growth rate of per capita net state domestic product (NSDP) for all states for the period between 1999 and 2012. We then also calculate the average growth rate of all India per capita net national product (NNP) for the time period between 1999 and 2012. All those states whose average per capita NSDP growth rate for the given time period is greater than the average all India per capita NSDP growth rate are classified as high growth states. On the other hand, those states whose average per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate for the given time period is lower than the average all India per capita NSDP growth rate are classified as low growth states.

The regression analysis and results are discussed in the following sub-sections. In the first sub-section we report the results of the baseline specification for both rural and urban sectors. The baseline estimates explain the marginal effects for each of the explanatory variables without taking into account any interactions of the explanatory variables with time. The baseline estimates confirm the broad results. In the second sub-section we introduce the interaction component and estimate the differential impact of caste across different time points explained by the marginal effects at representative time values for both rural and urban sectors. In the third sub-section, we estimate the differential impact of caste in determining the occupational class of an individual over time for different education categories, which in essence represents the interaction of caste identity and education in influencing the class location of an individual and how that has evolved over the peak growth period. Finally, in the fourth sub-section we compute the marginal effects of state variable at representative time points to capture the differential impact of state in determining the relative probability of belonging to different class positions. Further, to understand the significance of belonging to a high growth or low growth state in determining the access to different occupational classes across caste groups, we compute the marginal effects of state variable for different caste groups over representative time points. The third and the fourth section explain our intervention as they explore the role of education in influencing the class positions of individuals belonging to different caste groups over time, and how this interaction of caste and education has evolved during the peak growth period. It also explores the importance of economic growth, whether the association between caste and class has been diluted more in the high growth states than in the low growth states during the peak growth period. The marginal effects computed at representative time points together with the matrices that explain the notion of representation of different caste groups in different occupational classes (as discussed in the previous section) capture different trends that help us to understand possible transitions of various caste groups across different class positions, and unpacks the evolution of the casteclass linkages over the high growth period in a new way that has not been seen in the literature earlier.

6.1 Marginal effects for baseline specification

The marginal effects of regression coefficients for each of the explanatory variables are computed and interpreted. The marginal effects explain how changes in each of these explanatory variables influence the conditional probability of an individual of belonging to a particular occupational class position. This regression serves as the baseline specification for the pooled cross-section data for the entire period, which does not take into account interactions of any explanatory variables with time. Tables 6.1 and 6.2 give the marginal effects of all the controls for each class category for the baseline specification for the rural sector and urban sector respectively.

				Non-	
			Rural	agriculture	Non
	Peasants	Labour	Professionals	self-employed	market
	0.4314*	0.1320***	0.0013	-0.0454***	-0.1310***
ST	(0.0259)	(0.0236)	(0.0013)	(0.0090)	(0.0182)
	-0 1201***	0 169/1***	-0.0018*	-0.0158***	-0.0317***
SC	(0.0257)	(0.0251)	(0.0009)	(0.0057)	(0.0113)
	0.0127	0.0451**	0.0021***	0.0000	0.0202**
OBC	-0.0127	(0.0451^{**})	-0.0031	(0.0009)	-0.0302^{**}
OBC	(0.0203)	(0.0200)	(0.0007)	(0.0071)	(0.0150)
Literate below	-0.0527***	-0.0464***	0.0015***	0.0114***	0.0863***
primary	(0.0155)	(0.0082)	(0.0002)	(0.0037)	(0.0170)
Primary un to	-0 0739***	-0 1325***	0 009***	0.0061	0 1913***
secondary	(0.0186)	(0.0154)	(0.001)	(0.0040)	(0.0162)
Uichen gegenden:	0.0018***	0.2120***	0 1220***	0.0160***	0 1659***
& above	(0.0284)	(0.0228)	(0.0086)	$(0.0100^{-1.1})$	(0.0301)
	(0.0201)	(0.0220)	(0.0000)	(0.0013)	(0.0501)
	0.0181***	-0.0092*	-0.0031***	0.0123***	-0.0181***
2004-05	(0.0058)	(0.0048)	(0.0007)	(0.0021)	(0.0051)
	-0.0194**	0.0082	-0.0075***	0.0036	0.0151**
2009-10	(0.0093)	(0.0074)	(0.001)	(0.0023)	(0.0077)
				······	(/
	-0.0235**	-0.0112	-0.0067***	0.0028	0.0387***
2011-12	(0.0104)	(0.0119)	(0.0009)	(0.0022)	(0.0106)
	-0.1853**	-0.2168***	-0.0076***	-0.0817***	0.4915***
Female	(0.0226)	(0.0170)	(0.0009)	(0.0081)	(0.0369)
	0.0007		0.0000	0.0010	0.0670
	-0.0325	0.0966**	0.0023	-0.0012	-0.0652
High growth state	(0.0257)	(0.0391)	(0.0021)	(0.0086)	(0.0481)

<i>Table 6.1:</i>	Marginal	effects fo	r the	rural	sector
	0	././ ./			

Notes: Sample size of the individuals for this analysis is 965,143. On applying sampling weights, the estimated population size is 2101098698. Figures in parentheses represent clustered standard errors. The asterisks***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

		Regular/Casual	Professionals &	
	Self-employed	workers	managers	Non market
	0 0750***	0 0742***	0.01/1**	0.0125
ST	-0.0739	(0.0742)	$(0.0141)^{\circ}$	-0.0123
51	(0.007)	(0.0103)	(0.0039)	(0.0103)
	-0.0518***	0.0823***	-0.0034	-0.0271***
SC	(0.0066)	(0.0085)	(0.0028)	(0.0055)
	0.0042	0.0005***	0.0107***	0.0000**
	0.0043	0.0295***	-0.010/***	-0.0230**
OBC	(0.0044)	(0.009)	(0.0027)	(0.0101)
	-0.0135*	-0.0292***	0.0024***	0.0403***
I iterate below nrimary	(0.0073)	(0.0083)	(0,0002)	(0.0127)
Enerate below primary	(0.0073)	(0.0003)	(0.000))	(0.0127)
Primary up to	-0.0600***	-0.0816***	0.0195***	0.1221***
secondary	(0.0082)	(0.0079)	(0.0013)	(0.0096)
Highen geogradeny, 9-	0 0667***	0 1600***	0 20/9***	0.0207**
Higher secondary &	-0.000/	-0.1088****	0.2048	0.030/**
above	(0.0117)	(0.0115)	(0.0109)	(0.0131)
	0.0195***	0.0015	-0.0118***	-0.0092**
2004-05	(0.0044)	(0.0034)	(0.0020)	(0.0037)
	(****)	(,	(,	(
	-0.002	0.008***	-0.0079***	0.0019
2009-10	(0.0041)	(0.0026)	(0.0027)	(0.0047)
	0.0027	0.0070	0.0005***	0.0012
2011 12	(0.0027)	(0.0070)	-0.0083***	-0.0015
2011-12	(0.0036)	(0.0046)	(0.0023)	(0.0045)
	-0.2328***	-0.2637***	-0.0541***	0.5506***
Female	(0.0156)	(0.0079)	(0.0022)	(0.0108)
	-0.0184***	0.0384***	0.0087	-0.0288*
High growth state	(0.0058)	(0.0119)	(0.0063)	(0.0149)

Table 6.2: Marginal effects for the urban sector

Notes: Sample size of the individuals for this analysis is 571,493. On applying sampling weights, the estimated population size is 794780939. Figures in parentheses represent clustered standard errors. The asterisks ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

We find that for specific caste and class combinations, the signs of association are in line with what scholars have majorly argued in the literature. Caste turns out to be a significant determinant in explaining the likelihood of belonging to a particular class category. For instance, in the rural sector SCs are 12.01 percentage points less likely to be in the peasant class (who controls the production process) relative to Others.³¹ Likewise STs, SCs and

³¹ On the other hand, the marginal effect of OBCs belonging to peasant class is negative and insignificant. A major proportion of OBC population belongs to farming communities and has been the major beneficiaries of land reforms that happened from time to time (Nadkarni, 2005). A possible explanation for the marginal effect of OBCs being insignificant could be that the proportion of peasants in the two groups, i.e., OBCs and Forward castes might not be significantly different. This can also be seen from table 4.5, where the proportion of Peasants is similar for both the castes across the two time periods.
OBCs are 13.20 percentage points, 16.94 percentage points and 4.51 percentage points respectively more likely to be working as rural labour relative to the Forward castes. Also, STs and SCs are 4.54 percentage points and 1.58 percentage points, respectively, less likely to be self-employed in rural areas as compared to Forward castes. One of the possible reasons why this picture might emerge as can also be seen from the descriptives is that there is lack of adequate capital assets and productive resources, as well as no access to credit markets, which in turn, forces the marginalized caste groups, particularly STs and SCs to be dependent on manual labour to reproduce their survival.

In the urban sector, similarly, it is observed that STs and SCs are 7.59 percentage points and 5.18 percentage points less likely to be self-employed, respectively, relative to the Forward castes, whereas they are 7.42 percentage points and 8.23 percentage points, respectively, more probable of working as regular and casual workers as compared to the Forward castes. The OBCs on the other hand are 2.95 percentage points more likely to be regular and casual workers than Others, whereas they are 1.07 percentage points less likely to be placed as professionals and mangers relative to Others. As in the rural sector, these results suggest that the situation is quite similar for STs and SCs in the urban sector as they are increasingly less likely to be able to own resources and control the production process. The results for OBCs suggest that even though they are more likely to be regular and casual workers and less likely to be professionals and managers relative to the Forward castes, they are closer to the Forward castes, and they are better placed in the economy relative to STs and SCs.

However, there are a couple of curious cases that we get from the regression results. It can be seen that STs are 43.14 percentage points relatively more likely to belong to the peasant class, and they are 1.4 percentage points more likely to be professionals and managers relative to the Forward castes in the urban sector. While one cannot conclusively argue a possible reason for this trend for STs, we find that for the ST population, the proportions of urban professionals and managers are very small. So it is possible that a small increase in their numbers due to reservation policies might result in significant estimates.³² However, this is not a likely result as many other studies in the literature have shown that STs have not done so well, have been stuck at the bottom of the occupational hierarchy and do not experience a high degree of upward mobility (Thorat and Mahamalik, 2006; Madheswaran and Attewall, 2007; Deshpande, 2011, Motiram and Singh, 2012)

In both the rural and urban sectors, the education variable shows the expected signs. The marginal effects suggest that as the level of education of an individual increases, they are less likely to belong to the peasant class or to be working as rural labour, and are more likely to be rural professionals relative to the non-literates. For instance, an individual who belongs to the category of higher secondary and above is 9.18 percentage points and 21.20 percentage points less likely to belong to peasant class or to be working as rural labour relative to non-literates, respectively, while they are 12.20 percentage points more likely to belong to the class of rural professionals relative to non-literates. The marginal effects for time period show that relative to the period 1999-2000, an individual, overall, is 2.35 percentage points less likely to belong to peasant class and 0.67 percentage points less likely to be rural professionals in 2011-12, possibly because of the access to more economic opportunities created by high growth. In the urban sector, it can be seen that females are 23.28 percentage points, 26.37 percentage points, and 5.41 percentage points less likely to be self-employed, or working as regular or casual workers, or to be professionals and managers, respectively, compared to males. Various theories have proposed multiple factors for low female work participation. Some of the identified factors are increased educational attainment, higher and stable family incomes as a consequence of increased share of regular wage or salary earners, social status of the family, women being the primary care givers and engaged in household chores (Das and Desai, 2003; Mukhopadhyay and Tendulkar, 2006; Paul, 2014; Sorsa, 2015; Andre, Dasgupta et al, 2017). This is particularly important in the context of India, as there has been a steep fall in the female labour force participation rate in the Indian economy over the past couple of decades. Over the period of our analysis, it declined from 37 percent in 2005 to 27 percent in 2012 (The World Bank, 2018).

³² In a similar setting, Vaid (2018) also finds an interesting pattern for STs in terms of occupational class association. The study finds that there is well enough representation of STs in high professions and low professional classes in rural and urban India, respectively.

The results also suggest that an individual belonging to a high growth state is 1.84 percentage points less likely to be self-employed and 3.84 percentage points more likely to be working as regular or casual worker as compared to an individual in a low growth state. This may be driven by the employment generated in the construction, manufacturing and service sectors infused by high economic growth, which results in increased economic opportunities available to the population in a high growth state or to the people migrating to high growth states from low growth states in search of employment opportunities. These results reveal the influence of crucial economic variables in determining the access to different class positions during the growth period.

6.2 Marginal effects of caste over time

In a multinomial logit regression framework as has been used for the analysis, it is difficult to capture the marginal effects of an interaction term. The earlier results are relevant for comparison as baseline estimates as they explain the marginal effects for the pooled crosssection data, and do not capture there development over time. However, it is important to understand the differential impact of an explanatory variable over time, as its influence in determining the conditional probability of the dependent variable could be changing with respect to time.

In this sub-section we investigate the differential impact of caste in determining the conditional probability of belonging to different occupational classes to understand the evolution of caste-class association. This is our intervention as this approach of evaluating differential effect of caste over time for the peak growth period has not been addressed in any of the works in the literature. To do so, we use the approach of computing marginal effects at representative values. In this approach, one can choose a domain of values for one or more independent variables, and then use the marginal effects to explain the differential impact of that independent variable over the entire domain of values.

In an attempt to understand the impact of caste over time in determining the occupational class position of an individual, the marginal effects of caste over four different time points, i.e., 1999-2000, 2004-05, 2009-10 and 2011-12 are computed. They show how the likelihood of belonging to a particular class category for different caste groups has changed for the representative time points over the entire growth period under study. The matrix

representing the distribution of caste groups across various classes, as discussed in the previous section, helps us to interpret the trends derived from the marginal effects at representative time values. Although the matrix offers a very crucial starting point for analysing the condition or status of the caste-class association for our period of analysis and helps us to identify if there is a change in social mobility patterns at a broad level, it does not take into account some of the crucial factors (for instance the control variables that we have considered earlier) that influence the positioning of an individual in a particular class category. It also does not show how the relative importance of these factors might have changed over the period. However, the notion of representation as has been discussed in the previous section helps us to understand and evaluate the trends of caste-class associations derived from the marginal effects at representative time values. Table 6.3 and 6.4 give the marginal effects of caste at representative time points for both rural and urban sectors.

[Insert Table 6.3 here]

			Rural	Non-agriculture	
	Peasants	Labour	Professionals	self-employed	Non market
	0.0420	0 1313***	0.0015	-0 0/28***	-0 1320***
ST (1999-2000)	(0.0+20)	(0.0245)	(0.0015)	(0.0923)	(0.0179)
51 (1999 2000)	(0.0277)	(0.0213)	(0.0010)	(0.0005)	(0.0177)
	0.0479*	0.1272***	0.0014	-0.0501***	-0.1264***
ST (2004-05)	(0.0286)	(0.0236)	(0.0014)	(0.0094)	(0.0176)
	0.0206	0 1294***	0.0011	0.0452***	0 1220***
ST (2000-10)	(0.0390)	(0.0245)	(0.0011)	-0.0432^{++++}	-0.1339^{+++}
51 (2009-10)	(0.0248)	(0.0243)	(0.0011)	(0.0091)	(0.0187)
	0.0434*	0.1309***	0.0014	-0.0437***	-0.1321***
ST (2011-12)	(0.0230)	(0.0223)	(0.0012)	(0.0091)	(0.0188)
	0 1042***	0 1700***	0.0024*	0.0147***	0 0200***
SC (1000 2000)	-0.1243	(0.0268)	-0.0024°	-0.014/	-0.0308^{***}
SC (1999-2000)	(0.0238)	(0.0208)	(0.0015)	(0.0033)	(0.0112)
	-0.1312***	0.1714***	-0.0017	-0.0156**	-0.0229**
SC (2004-05)	(0.0278)	(0.0264)	(0.0008)	(0.0062)	(0.0107)
	0 1155***	0 172(***	0.0017**	0.01/0***	0 0 2 0 4 * * *
SC (2000-10)	-0.1155^{****}	(0.0254)	-0.001/***	-0.0109^{****}	-0.0384^{****}
SC (2009-10)	(0.0231)	(0.0234)	(0.0008)	(0.0038)	(0.0120)
	-0.1105***	0.1619***	-0.0017*	-0.0156***	-0.0340***
SC (2011-12)	(0.0245)	(0.0225)	(0.0009)	(0.0055)	(0.0119)
	0.0120	0.0450**	0.0040***	0.0000	0.000(**
ODC (1000 2000)	-0.0130	0.0458**	-0.0040^{***}	(0.0008)	-0.0296**
OBC (1999-2000)	(0.0273)	(0.0218)	(0.0008)	(0.0007)	(0.0132)
	-0.0135	0.0440**	-0.0034***	0.0012	-0.0282**
OBC (2004-05)	(0.0289)	(0.0209)	(0.0008)	(0.0081)	(0.0149)
	0.0129	0.0460**	0.0027***	0.0005	0.0210**
OBC (2000-10)	-0.0128	0.0469**	$-0.002/22^{+}$	0.0005	-0.0319^{m}
UBC (2009-10)	(0.0230)	(0.0214)	(0.000)	(0.0008)	(0.0152)
	-0.0112	0.0437**	-0.0028***	0.0010	-0.0307**
OBC (2011-12)	(0.0246)	(0.0192)	(0.0006)	(0.0068)	(0.0149)

Table 6.3: Marginal effects of caste at representative time points for the rural sector

Notes: Sample size of the individuals for this analysis is 965,143. On applying sampling weights, the estimated population size is 2101098698. Figures in parentheses represent clustered standard errors. The asterisks ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

		Regular/Casual	Professionals &	
	Self-employed	worker	managers	Non market
	-0 0739***	0 0719***	0.0151**	-0.0132
ST (1999-2000)	(0.0067)	(0.0010)	(0.0063)	(0.0103)
	(010007)	(0.0010)	(0.0000)	(010100)
	-0.0810***	0.0755***	0.0144**	-0.0088
ST (2004-05)	(0.0071)	(0.0103)	(0.0057)	(0.0103)
	-0.0736***	0 0743***	0.0137**	-0.0144
ST (2009-10)	(0.0750)	(0.0103)	(0.013)	(0.0144)
51 (2007-10)	(0.0071)	(0.0103)	(0.0000)	(0.0101)
	-0.0753***	0.0747***	0.0139**	-0.0132
ST (2011-12)	(0.0071)	(0.0106)	(0.0059)	(0.0104)
	0.0501***	0 000/***	0.0034	0.0267***
SC (1000 2000)	-0.0301	(0.0804)	-0.0034	(0.0207)
SC (1999-2000)	(0.0001)	(0.0082)	(0.0030)	(0.0031)
	-0.0551***	0.0826***	-0.0028	-0.0246***
SC (2004-05)	(0.0075)	(0.0086)	(0.0027)	(0.0054)
	0.0505***	0 0020***	0.0026	0 0 2 8 8 * *
SC (2000-10)	-0.0303^{+++}	(0.0828^{+++})	-0.0050	-0.0288^{+++}
SC (2009-10)	(0.0004)	(0.0087)	(0.0029)	(0.0038)
	-0.0516***	0.0829***	-0.0034	-0.0279***
SC (2011-12)	(0.0066)	(0.0086)	(0.0028)	(0.0058)
	0.0047	0.000***	0.0115***	0.0000**
ODC (1000 2000)	0.0047	0.0290	-0.0115****	-0.0222^{**}
OBC (1999-2000)	(0.0043)	(0.0088)	(0.0028)	(0.0101)
	0.0045	0.0288***	-0.0103***	-0.0230**
OBC (2004-05)	(0.0046)	(0.0088)	(0.0025)	(0.0099)
	0.0040	0.02004444	0.0105/b/b/	0.0000
ODC (2000 10)	0.0040	0.0300***	-0.010/***	-0.0233**
OBC (2009-10)	(0.0043)	(0.0092)	(0.0028)	(0.0104)
	0.0041	0.0298***	-0.0107***	-0.0233**
OBC (2011-12)	(0.0043)	(0,0090)	(0.0026)	(0.0102)

Table 6.4: Marginal effects of caste at representative time points for the urban sector

Notes: Sample size of the individuals for this analysis is 571,493. On applying sampling weights, the estimated population size is 794780939. Figures in parentheses represent clustered standard errors. The asterisks ***, ** and * represent significance at 1percent, 5percent and 10percent respectively.

For instance, the matrix depicted by table 5.1 suggests that STs were over-represented in the class of rural labour in the period 1999-2000 and continue to be over-represented in 2011-12 as well. This explains the initial condition or the status of the caste–class association between STs and rural labour. The marginal effects explain that in 1999-2000, STs were 13.13 percentage points more likely to work as rural labour relative to the Forward castes, while, in 2011-12, they were 13.09 percentage points more likely. This suggests that although STs were over-represented in the class of rural labour over this entire period, their over-representation has weakened slightly as there has been a miniscule reduction in the relative likelihood of being in the class of rural labour over time. This

implies that there has been a weakening of the existing linkage or association between this caste and class combination. Likewise, STs and SCs have been under-represented in the class of rural professionals as well as non-agriculture self-employed over the entire period. In 1999-2000, STs and SCs were 4.28 percentage points and 1.47 percentage points less likely, respectively, of belonging to the non-agriculture self-employed class relative to the Forward castes. Their under-representation is found to have further increased over time, since in 2011-12, they were 4.37 percentage points and 1.56 percentage points less likely, respectively. This highlights the strengthening of the existing caste-class linkages over the entire period. The results also indicate that there are cases where the existing associations have been partially diluted, suggesting possible movements across categories. For instance, in the rural sector, the under-representation of OBCs in the class of rural professionals has decreased over time (even though they continue to be under-represented in this class category), suggesting a weakening of the existing association.

In the urban sector, in 1999-2000, STs and SCs were under-represented in the class of selfemployed and they were over-represented in the class of regular and casual workers in both time periods. In 1999-2000, STs were 7.39 percentage points and SCs were 5.01 percentage points less likely to be self-employed relative to the Forward castes. Their under-representation further shot up over the entire period, as in 2011-12, STs were 7.53 percentage points less likely and SCs were 5.16 percentage points less likely to be selfemployed relative to Others. Similarly, the results also suggest that their respective overrepresentation in the class of regular or casual workers have further spiked over this high growth period. For OBCs, the association in terms of under-representation in the class of professionals and managers has weakened over this period (though they continue to be under-represented in this class in 2011-12 as well), suggesting breaking down of rigid barriers and some possibility of fluidity in the social structure, which can be primarily attributed to policy of reservations as a part of affirmative action programs developed by the government.

The marginal effects at the representative values can be plotted in terms of graphs in order to provide a visual representation of the trends. The graphs display the differential impacts of caste in determining the probability of belonging to various occupational class positions at representative time points. Given that there are a total of nine cases, we highlight specific cases here and rest are mentioned in the appendix. The panel in figure 6.1 displays the graphs for some of the cases-for peasants, labour, and non-agriculture self-employed in the rural sector, and self-employed, regular and casual workers, and professionals and managers in the urban sector. For instance, in the graph depicting the marginal effects for labour in the rural sector, the horizontal axis represents the time period between 1999-2012, whereas, the vertical axis represents the relative conditional probability of an individual of a particular caste working as rural labour. The blue line, red line and green line represent the marginal effects for STs, SCs, and OBCs, respectively, for each of the time period. The graph shows that the conditional probability of SCs working as labour relative to Others has slightly reduced from 17.22 percent in 1999-2000 to 16.19 in 2011-12. All the other graphs can be interpreted in a similar fashion.

[Insert figure 6.1 here]



Figure 6.1: Graphical representation of marginal effects for rural and urban sectors

Tables 6.5 and 6.6 summarize the trends of transitions for all possible caste and class combinations in both the rural and urban sectors. There are equal numbers of cases suggesting weakening and strengthening of caste-class linkages in the rural sector, whereas there are higher numbers of cases suggesting the strengthening of existing linkages in the urban sector. The results show that though there have been partial dilutions of some of the existing caste-class linkages, overall as a combined result, the caste-class associations have become more entrenched over the period of high economic growth.

	ST	SC	OBC
Peasants	Strengthening	Weakening	Insignificant
Labour	Weakening	Weakening	Weakening
Rural professionals	Insignificant	Weakening	Weakening
Non-agriculture self-employed	Strengthening	Strengthening	Insignificant
Non-market	Strengthening	Strengthening	Strengthening

Table 6.5: Matrix showing trends of caste-class associations over the period in the rural sector

Table 6.6: Matrix showing trends of caste-class associations over the period in the urban sector

	ST	SC	OBC
Self-employed	Strengthening	Strengthening	Insignificant
Regular/Casual worker	Strengthening	Strengthening	Strengthening
Professionals & managers	Strengthening	Insignificant	Weakening
Non-market	Insignificant	Strengthening	Strengthening

6.3 Marginal effects of caste over time for different education categories

Further, we try to understand the interaction of caste and education over time in determining the class position of an individual, since, as noted earlier, education is one of the crucial channels through which mobility is expected. In order to understand the influence of caste groups belonging to different education categories in determining an individual's class position, the population is first truncated in terms of the following education categories- i) non-literates, ii) literates below primary, iii) primary up to secondary, and iv) higher secondary and above. The marginal effects are computed for the caste variable over four representative time points as discussed above. Since there are five class categories in the rural sector and four class categories in the urban sector, the truncation of population into four education categories results in a total of thirty six

combinations for which the marginal effects are computed. A matrix is constructed to give the caste composition for each of the class positions for various education categories in both the rural and urban sector for both 1999-2000 and 2011-12. Using the notion of representation as has been discussed earlier, we interpret the trends derived from the marginal effects. We particularly look at the following cases. In the rural sector we look at peasants and labour who are non-literates, literates below primary, and primary up to secondary educated; rural professionals who are higher secondary and above educated; and NASE that are literates below primary, primary up to secondary, and higher secondary and above educated. In the urban sector we look at regular/casual workers who are non-literates, literates below primary, and primary up to secondary educated; selfemployed who are literate below primary, primary up to secondary, and higher secondary and above educated; and finally, professionals and managers who are higher secondary and above educated. Tables 6.7 and 6.8 give the caste composition across various class positions for different education categories for both 1999-2000 and 2011-12. The grey coloured cells depict over-representation, whereas the white coloured cells depict the under-representation of STs, SCs and OBCs relative to Others in respective class categories (similar to the earlier computation explained in tables 5.1 and 5.2). Tables A3 and A4 in the appendix section give the marginal effects of caste at representative time points for different education categories for both rural and urban sectors.

	1999-2000					201	11-12	
Class	ST	SC	OBC	Others	ST	SC	OBC	Others
Peasants (non-literates)	19.54	14.27	42.87	23.32	20.51	14.77	48.08	16.63
Peasants (literate below primary)	13.86	10.7	38.75	36.7	19.28	15.03	44.67	21.02
Peasants (primary up to secondary)	8.84	9.01	38.49	43.66	12.93	9.28	46.43	31.35
Labour (non-literates)	17.51	36.03	33.11	13.34	16.73	32.43	39.53	11.31
Labour (literate below primary)	12.68	30.49	36.07	20.76	13.42	29.55	41.39	15.64
Labour (primary up to secondary)	9.16	27.88	37.26	25.71	9.57	29.15	42.93	18.35
Rural professionals (higher secondary & above)	7.36	13.61	27.2	51.84	7.41	12.41	38.48	41.7
NASE (literate below primary)	4.06	18.32	45.27	32.36	5.85	18.66	48.99	26.5
NASE (primary up to secondary)	3.02	14.92	44.49	37.57	5.23	16.42	49.21	29.13
NASE (higher secondary & above)	1.47	10.02	34.11	54.41	3.83	10.03	41.46	44.67

Table 6.7: Matrix showing caste composition across various classes in the rural sector (figures in percentage)

Notes: Each row adds up to 100 for respective years

Source: Based on author's calculation using NSSO employment-unemployment survey data

	1999-2000					201	1-12	
Class	ST	SC	OBC	Others	ST	SC	OBC	Others
Regular/casual worker (non-literates)	6.99	30.42	34.95	27.64	6.71	25.75	41.62	25.92
Regular/casual worker (literate below primary)	5.09	21.48	36.98	36.45	4.53	18.82	48.7	27.95
Regular/casual worker (primary up to secondary)	3.53	17.25	35.54	43.69	4.18	20.51	42.71	32.6
Self-employed (literate below primary)	3.39	14.46	40.71	41.43	1.09	15.78	52.74	30.38
Self-employed (primary up to secondary)	2.16	9.85	36.62	51.37	2.08	11.65	44.93	41.33
Self-employed (higher secondary &								
above)	1.94	3.99	18.05	76.02	1.28	4.93	32.53	61.27
Professionals & managers (higher sec & above)	3.49	6.55	18.18	71.78	3.54	9.53	31.76	55.17

Table 6.8: Matrix showing caste composition across various classes in the urban sector (figures in percentage)

Notes: Each row adds up to 100 for respective years

Source: Based on author's calculation using NSSO employment-unemployment survey data

The matrices depicted in tables 6.7 and 6.8 reveal certain trends. The tables show that even at higher education levels STs, SCs, and OBCs continue to be mostly under and over-represented in better-off and worse-off occupation classes, respectively, over this peak period of growth between 1999-2000 and 2011-12. For instance, in the rural sector, SCs are under-represented in the class of peasants who are literates below primary, whereas, STs, SCs and OBCs continue to be under-represented in the class of peasants who are literates of peasants who are primary up to secondary educated. Moreover, STs, SCs and OBCs are over-represented and under-represented in the class of labour and NASE, respectively, irrespective of their education levels. Likewise, in the urban sector, STs, SCs and OBCs continue to be over-represented in the class of regular and casual workers, irrespective of the level of education. Further, they continue to be under-represented in the class of self-employed and professionals and managers who are higher secondary and above educated.³³

To explore the changes in the caste-class associations for different education categories, we combine the notion of representation with the trends derived from the marginal effects. For instance, in 1999-2000 STs and SCs who belong to the education category of primary up to secondary were over-represented in the class of rural labour. The marginal effects

³³ In 1999-2000, OBCs are under-represented in the class of labour who is primary up to secondary educated, whereas, they are over-represented in the class of NASE who are literates below primary. However, towards the end of the peak growth period in 2011-12, OBCs become over and under-represented in the former and latter occupational classes, respectively.

suggest that in 1999-2000, STs were 8.81 percentage points and SCs were 15.73 percentage points more likely to work as rural labour relative to Forward castes. However, their over-representation further intensified for STs, while it diminished marginally for SCs. They were 9.36 percentage points and 15.66 percentage points relatively more likely to work as rural labour as compared to Others at the end of the period. The already existing pronounced difference for STs further intensified over the period, whereas, for SCs the difference is still high to begin with and even with a miniscule reduction in the relative conditional probability they continue to be over-represented in 2011-12. It shows that over time, the existing association for STs has become more strengthened, while for SCs there is a slight weakening in the existing association. Similar trends in terms of strengthening of existing caste-class linkages have been observed for STs who belong to the class of rural professionals that are higher secondary and above educated, as well as STs and SCs belonging to the class position of NASE who are primary up to secondary and higher secondary and above educated. Likewise, in the urban sector, STs and SCs are underrepresented in the self-employed class who are primary up to secondary educated. In 1999-2000, STs were 6.57 percentage points and SCs were 4.59 percentage points less likely to be self-employed relative to Others. By 2011-12, their under-representation further increased-they were 7.08 percentage points and 5.01 percentage points respectively less likely of being self-employed as compared to Others. The results suggest that the existing association for STs and SCs has further strengthened over this peak growth period.

A strengthening of the existing caste-class linkage across education categories suggests a tendency of continued stickiness between an individual's caste identity and class location, whereas weakening suggests a tendency of dilution of the existing caste-class linkages which is likely to result in improved fluidity in the social structure. The analysis shows that in the rural sector, the existing association between STs and SCs who are literates below primary and the class of labour has strengthened over this period. There is further entrenchment of the existing linkage between STs who are primary up to secondary educated and labour, while on the other hand, there is a tendency towards weakening of the association between SCs who are primary up to secondary educated and labour. The marginal effects also suggest a strengthening of the under-representation of STs and SCs in the class of NASE, for primary up to secondary and higher secondary and above education categories. On the other hand, the existing association between SCs and the class of peasants has slightly weakened across education categories, whereas it has marginally

diminished between STs and peasants who are literates below primary. Further, for both STs and SCs, there is a tendency towards weakening of the existing linkage with the class of labour who are non-literates and the class of self-employed who are literates below primary. Similar trends can be seen for the urban sector as well. The continued over and under-representation of STs and SCs in the class of regular and casual workers across all education categories, and the class of self-employed who are primary up to secondary and higher secondary and above educated, respectively, has further strengthened during this peak period of growth. The analysis also reveals a striking trend for OBCs. In the rural and urban sectors caste turns out to be insignificant in determining the relative likelihood of OBCs belonging to various class positions. The marginal effects reveal that the existing over-representation of OBCs in the class of regular and casual workers who are primary up to secondary educated has weakened over time. On the other hand, their existing linkages with the class of self-employed who are literates below primary and primary up to secondary educated have become entrenched. One can also observe that in the rural sector caste turns out to be insignificant in explaining the likelihood of SCs and OBCs who are higher secondary and above educated to belong to the class of rural professionals. In the urban sector while caste is insignificant in explaining the likelihood of SCs belonging to the class of professionals and managers, the under-representation of OBCs in the class of professionals and managers has weakened over time. This can possibly be attributed to the reservation policies introduced by the government in educational institutions and government jobs.

The results show that though there have been partial dilutions of some of the existing caste-class linkages, overall as a combined result, the caste-class associations have become more entrenched over the period of high economic growth. The analysis demonstrates that the overall situation appears to be dismal with entrenchment of existing caste-class linkages, suggesting that even at higher levels of education there is persisting stickiness between the caste identity and class location of an individual. The importance of caste has not diminished in explaining an individual's class position in majority of cases even when they have access to higher education.

Figure 6.2 provides a graphical representation of marginal effects at representative time points for a couple of cases in both the rural and urban sectors. As there are a total of thirty six cases, we highlight specific cases here. Given the significance of agriculture in the rural

sector, we display the graphs of marginal effects for the class of peasants and labour who are literates below primary and NASE who are primary up to secondary educated in the rural sector. For the urban sector, the panel includes the graphs of self-employed and regular and casual workers who are primary up to secondary educated, and professionals and managers who are higher secondary and above educated. All the graphs can be interpreted in a similar manner as done in the previous sub-section.

[Insert Figure 6.2 here]



Figure 6.2: Graphical representation of marginal effects for rural and urban sectors

Class	ST	SC	OBC
Peasants (non-literates)	Strengthening	Weakening	Insignificant
Peasants (literate below primary)	Weakening	Weakening	Insignificant
Peasants (primary up to secondary)	Insignificant	Weakening	Insignificant
Labour (non-literates)	Weakening	Weakening	Insignificant
Labour (literate below primary)	Strengthening	Strengthening	Insignificant
Labour (primary up to secondary)	Strengthening	Weakening	Strengthening
Rural professionals (higher secondary & above)	Strengthening	Insignificant	Insignificant
NASE (literate below primary)	Weakening	Strengthening	Insignificant
NASE (primary up to secondary)	Strengthening	Strengthening	Insignificant
NASE (higher secondary & above)	Strengthening	Strengthening	Insignificant

Table 6.9: Matrix showing trends of caste-class association over the period in the rural sector

Table 6.10: Matrix showing trends of caste-class association over the period in the urban sector

Class	ST	SC	OBC
Regular/casual worker (non-literates)	Strengthening	Strengthening	Insignificant
Regular/casual worker (literates below primary)	Strengthening	Strengthening	Insignificant
Regular/casual worker (primary up to secondary)	Strengthening	Strengthening	Weakening
Self-employed (literate below primary)	Weakening	Weakening	Strengthening
Self-employed (primary up to secondary)	Strengthening	Strengthening	Weakening
Self-employed (higher secondary & above)	Strengthening	Strengthening	Strengthening
Professionals & managers (higher sec & above)	Strengthening	Insignificant	Weakening

Tables 6.9 and 6.10 summarize the trends of transition and shows how the caste-class associations have evolved over this high growth period in both rural and urban sectors.

6.4 Marginal effects of state over time

As a final segment of the analysis, we try to understand the importance of high economic growth during the period 1999-2012, in determining an individual's class position, since as has been discussed earlier, growth has been expected to dilute the rigid caste and class hierarchies. The state variable is a dummy variable with two categories namely, high growth state and low growth state (where low growth state is the base category) All those states whose average per capita NSDP growth rate for the given time period is greater (lower) than the average all India per capita NNP growth rate are classified as high (low) growth states. It is a channel through which the impact of growth in influencing the class location of an individual can be captured, as it describes whether an individual resides in a state with low growth rate or high growth rate. In order to understand the impact of high

economic growth in determining the class position of an individual, the marginal effect of the state variable over four different time points, i.e., 1999-2000, 2004-05, 2009-10 and 2011-12 are computed for both rural and urban sectors. They show how the likelihood of belonging to a particular class category for high growth state relative to low growth state has changed for the representative time points over the entire growth period under study. Additionally, we try to unpack the impact of growth in determining the class position of an individual belonging to different caste groups over time. To do so, the population is first truncated for different caste groups, i.e., for ST, SC, OBC and Forward castes. The marginal effects are computed for the state variable over four representative time values for both rural and urban sector as discussed above. The marginal effects of state variable over time (as mentioned in the appendix) suggests that the conditional probability of working as labour in the rural sector and as regular/casual workers in the urban sector is higher in a high growth state relative to that of a low growth state, whereas, the conditional probability of being a self-employed is relatively lower in a high growth relative to a low growth state, and it has marginally increased over this period. These results are in line with the baseline estimates. The marginal effect for state variable over time across caste groups suggest that for STs, SCs and OBCs, the conditional likelihood of working as labour is higher for high growth state relative to low growth state, and it has marginally diminished over the growth period. For SCs and OBCs, the conditional probability of belonging to the peasant class is relatively lower for a high growth state and it has reduced further in 2011-12. Moreover for SCs, the conditional probability of belonging to the class of NASE is relatively lower for a high growth state. Similar trends are observed for the urban sector, where the conditional likelihood of an individual being a self-employed and being a regular/casual worker are lower and higher, respectively, for a high growth state relative to a low growth state for STs, SCs and OBCs.

The recent decade of high economic growth witnessed a structural change in the economy which was marked by a shift away from the agriculture sector to alternative employment opportunities in the non-agriculture sectors such as construction, few sub-sectors within the manufacturing sector and mostly all sub-sectors within the services sector. There was also an increase in the proportion of regular salaried and wage employment. Huge public and private sector investments in the infrastructure sector, real estate and other development projects such as MGNREGA and others, created a huge spike in the demand for casual labour in construction jobs as it offered increased wages (Mehrotra et al., 2014; Chand and Srivastava, 2014).

Our results resonate with the employment trends during India's growth trajectory. As it has been observed in the literature, our analysis suggests that though there have been national level changes, the high growth states were relatively able to reap the benefits of growth faster than low growth states. Over this period economic growth created more wage employment opportunities in high growth states relative to low growth states in the nonagriculture sector, and a vast majority of these jobs were placed in the informal economy. Caste continues to reinforce deprivation and inequality even within high growth states. STs, SCs, and OBCs continue to be more likely to work as labour and regular/casual workers in high growth states relative to low growth states. SCs in the rural sector, and SCs and OBCs in the urban sector are relatively less likely to be self-employed in high growth states, which possibly implies that despite high economic growth they still don't have sufficient access to economic resources, credit, formal networks and infrastructure to engage in entrepreneurial activities and have to depend on manual labour for their survival. Table A5, A6, A7 and A8 in the appendix section give the marginal effects of state at representative time points, as well for different caste groups for both rural and urban sectors.

The trends of transition as mentioned in tables 6.5, 6.6, 6.9 and 6.10, i.e., the trends for caste over time and caste over time for different education categories show a tendency towards partial dilution of rigid caste boundaries and class hierarchies as some mobility can be witnessed for some caste groups across different class positions. The trends showing the transition in caste-class association over time suggest that overall for majority of the caste-class combinations, their existing linkages have been further strengthened or entrenched during the growth period. A further entrenchment of existing caste-class associations for any caste-class combination is itself an adverse outcome. Moreover, the results reveal that overall for STs and SCs (other than the caste-class linkage between SCs and peasants, labour and rural professionals), the under and over-representation in better-off and worse-off classes, respectively, has further been sustained over the growth period. Further, even though the marginal effects of caste over time suggest that there has been a weakening of the existing caste-class linkage between STs, SCs and rural labour, the marginal effects of caste over time for different education categories, show a different picture. The matrix showing the trends of transition suggests that the overall situation

appears to be grim with entrenchment of existing caste-class linkages, suggesting that even at higher levels of education, there is not considerable mobility across classes for STs and SCs. The importance of caste has not diminished in explaining an individual's class position in majority of cases even when they have access to higher education. Our results resonate with what scholars have argued in the literature, i.e., although there has been some dilution of rigid caste and class boundaries, however, there has not been substantial social mobility for the depressed castes. We briefly summarise the overall results derived from our analysis for each of the caste groups in terms of the transition of caste-class associations over time in general and across different education categories, as well as in terms of their location in high growth states vis-à-vis low growth states.

STs: In the rural sector the existing caste-class associations between STs and the class of peasants and NASE have been further entrenched over this peak growth period, while there has been a tendency towards dilution with respect to the class of labour. In the urban sector, the existing caste-class linkages with respect to the classes of self-employed, regular and casual workers and professionals and managers have been further strengthened over this period. Further, the results reveal that the existing caste-class associations at higher levels of education, i.e., with respect to rural labour and regular and casual workers who are literates below primary and primary up to secondary educated, rural professionals and professionals and managers who are higher secondary and above educated, and NASE and self-employed who are primary up to secondary and higher secondary and above educated have continued to persist over the peak period of growth. Moreover, STs are more likely to work as rural labour in high growth states relative to low growth states over this high growth period.

SCs: On one hand, we find a tendency towards dilution of the existing caste-class associations with respect to the classes of peasants, labour and rural professionals. However, on the other hand, the trends reveal a strong entrenchment of the existing caste-class congruence with respect to the classes of NASE, self-employed and regular and casual workers. In the rural sector, we also see a tendency towards dilution of the existing caste-class linkages with respect to the peasant class across education categories, and with respect to labour that are primary up to secondary educated. However, there is a further strengthening of the existing linkages with respect to labour who are literates below primary, as well as NASE who are literates below primary and primary up to secondary

educated. In the urban sector, there is a further strengthening of the existing caste-class associations across higher levels of education, i.e., for regular and casual workers and the class of self-employed who are primary up to secondary and higher secondary and above educated. We also find that SCs are more likely to be working as rural labour and less likely to belong to the class of peasants and NASE in high growth states relative to low growth states during this peak growth period. In the urban sector, they are more likely to be working as regular and casual workers and less likely to be self-employed in high growth states.

OBCs: The trends explaining the transition of caste-class associations over time show that over this peak growth period there has been a tendency towards dilution of the existing linkages with respect to the classes of labour, rural professionals and professionals and managers, whereas there has been further strengthening of the linkage with the class of regular and casual workers. Further, in terms of the transition of caste-class linkages over time across different education categories suggest that in the rural sector the existing linkage with the class of labour who are primary up to secondary educated has further strengthened over this peak growth period. In the urban sector, the existing association with the class of self-employed who are literates below primary, and higher secondary and above educated has further strengthened over this peak growth period, while the existing linkages with the class of regular and casual workers and self-employed who are primary up to secondary educated, and professionals and managers who are higher secondary and above educated exhibit a tendency towards dilution. Further our analysis also reveals that in both rural and urban sectors, OBCs are less likely to belong to the class of peasants and self-employed, and more likely to be working as rural labour and regular and casual workers in high growth states relative to low growth states over this high growth period.

7. Conclusion

Caste and class are two major markers of social and economic stratification in India. It had been expected that high economic growth and structural changes will dilute the importance of caste in determining class positions, and hence their socio-economic outcomes and thus will lead to a more fluid social structure. Although there have been some improvements in the economic outcomes of the depressed and excluded sections of the society during the growth period, it has been argued that the Indian economy has failed to witness a process of inclusive growth, and that growth have been uneven across sectors and across various population groups. The marginalised sections, specifically Scheduled Castes (SC) and Scheduled Tribes (ST), continue to have low-socio economic indicators and there has been persistent inter-group inequality. Moreover, substantial class inequalities still persist in India. Using an occupational class framework, this work therefore aims to analyse the nature of interaction of caste and class hierarchies during the high growth period to understand the outcomes of this interplay.

Using the disaggregated unit-level data from the surveys of employment and unemployment by the National Sample Survey Organization (NSSO) from four successive rounds covering the period 1999-2012, the analysis shows that the overall picture is complex and muddled as different kinds of changes have happened over this period Though there have been improvements for the STs and SCs in terms of some socioeconomic indicators such as average MPCE, wages and access to education, the disparities have still not narrowed down completely. The matrix of caste composition across class categories, and multinomial logit regression framework has been used to deconstruct and understand the trend of caste-class association or linkages. The results suggest that caste continues to be an important factor in determining how individuals are placed in various class positions. Although there have been some improvements over the entire period as some strong associations have been diluted, which has narrowed the gap between STs, SCs and OBCs with respect to the Forward castes, the overall picture is more of continuity of the existing linkages than change. The marginal effects of caste over representative time points suggest that overall for STs and SCs, the existing under-representation or overrepresentation in respective class positions have further intensified over the period in both rural and urban sectors, suggesting an entrenchment of existing associations. A further entrenchment of existing caste-class associations for any caste-class combination is itself an unfavourable outcome as it suggests that there exist rigid barriers that limit mobility. Moreover, the results reveal that for STs and SCs in most cases, the under and overrepresentation in better-off and worse-off classes, respectively, has further been sustained over the growth period. OBCs have witnessed a contrasting trend, where caste has been insignificant in explaining their association with some class locations. The marginal effects of caste for individuals belonging to different education categories suggest similar patterns of change. The analysis shows that the overall situation appears to be grim with entrenchment of existing caste-class linkages along several axes, suggesting that even at higher levels of education, the stickiness between the caste identity and class location of an individual has persisted over this peak growth period. The importance of caste has not diminished in explaining an individual's class position in majority of the cases even with access to higher education levels. We find that overall there is a very strong convergence between the caste identity and class positon of an individual in general, and across different education categories, and this has further been sustained over the peak period of growth. This also suggests that the economy has not witnessed substantial social mobility for the marginalised communities as had been the expectation of the modernization theory. This calls into question the expectations about social mobility with economic growth as well as the nature of economic growth in India.

8. APPENDIX

Appendix will include some caste and class descriptive statistics for contemporary India.

Social group	1999-2000	2004-05	2009-10	2011-12
ST	10.43	10.04	10.66	10.64
SC	21.07	20.9	21.59	20.46
OBC	37.24	42.65	42.36	44.77
Others	31.26	26.41	25.39	24.13
	100	100	100	100

A1. Social group composition in the rural sector for the period 1999-2012 (figures in percentage)

Source: Based on author's calculation using NSSO employment- unemployment survey data

A2. Social group composition in the urban sector for the period 1999-2012 (figures in percentage)

Social group	1999-2000	2004-05	2009-10	2011-12	
ST	3.73	3.04	2.81	3.33	
SC	13.89	14.65	14.31	14.14	
OBC	31.01	35.36	38.96	40.78	
Others	51.37	46.95	43.93	41.74	
	100	100	100	100	

Source: Based on author's calculation using NSSO employment-unemployment

		Р	easants			Ι	abour	
	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above
ST (1999-2000)	0.0836**	0.0663**	0.0078	-0.0198	0.1743***	0.1330***	0.0881***	0.0635***
	(0.0379)	(0.0326)	(0.0256)	(0.0223)	(0.0290)	(0.0325)	(0.0210)	(0.0145)
ST (2004-05)	0.0933**	0.0717**	0.0103	-0.0137	0.1648***	0.1297***	0.0890***	0.0632***
	(0.0398)	(0.0336)	(0.0265)	(0.0233)	(0.0274)	(0.0325)	(0.0209)	(0.0139)
ST (2009-10)	0.0812**	0.0549*	0.0051	-0.0182	0.1755***	0.1471***	0.0989***	0.0768***
	(0.0319)	(0.0289)	(0.0245)	(0.0218)	(0.0283)	(0.0338)	(0.0219)	(0.0172)
ST (2011-12)	0.0903***	0.0630**	0.0069	-0.0180	0.1622***	0.1369***	0.0936***	0.0792***
	(0.0304)	(0.0288)	(0.0224)	(0.0202)	(0.0246)	(0.0318)	(0.0197)	(0.0157)
SC (1999-2000)	-0.1029*** (0.0356)	- 0.1105*** (0.0299)	-0.1401*** (0.0222)	-0.1059*** (0.0131)	0.1952*** (0.0338)	0.1763*** (0.0405)	0.1573*** (0.0222)	0.1023*** (0.0098)
SC (2004-05)	-0.1094*** (0.0389)	- 0.1170*** (0.0320)	-0.1472*** (0.0233)	-0.1065*** (0.0136)	0.1929*** (0.0335)	0.1777*** (0.0416)	0.1602*** (0.0216)	0.1004*** (0.0113)
SC (2009-10)	-0.0905*** (0.0321)	- 0.1060*** (0.0310)	-0.1341*** (0.0220)	-0.1047*** (0.0137)	0.1848*** (0.0312)	0.1865*** (0.0417)	0.1682*** (0.0216)	0.1164*** (0.1152)
SC (2011-12)	-0.0885*** (0.0325)	- 0.1088*** (0.0306)	-0.1243*** (0.0210)	-0.0963*** (0.0117)	0.1723*** (0.0281)	0.1788*** (0.0376)	0.1566*** (0.0192)	0.1178*** (0.0122)
OBC (1999-	0.0225	-0.0150	-0.0328	-0.0081	0.0453	0.0496	0.0450***	0.0271***
2000)	(0.0412)	(0.0295)	(0.0204)	(0.0159)	(0.0286)	(0.0320)	(0.0169)	(0.0082)
OBC (2004-05)	0.0247	-0.0161	-0.0349	-0.0073	0.0424	0.0485	0.0446***	0.0258***
	(0.0440)	(0.0313)	(0.0217)	(0.0164)	(0.0273)	(0.0316)	(0.0164)	(0.0085)
OBC (2009-10)	0.0213	-0.0163	-0.0334*	-0.0103	0.0447*	0.0543	0.0488***	0.0312***
	(0.0370)	(0.0284)	(0.0200)	(0.0150)	(0.0266)	(0.0341)	(0.0177)	(0.0105)
OBC (2011-12)	0.0231	-0.0152	-0.0305	-0.0098	0.0405*	0.0509*	0.0457***	325***
	(0.0365)	(0.0286)	(0.0188)	(0.0139)	(0.0236)	(0.0310)	(0.0159)	.0106)

A3 (a): Marginal effects of caste for different education categories at representative time points for the rural sector.

Notes: Sample size of the individuals for this analysis is 965,143. On applying sampling weights, the estimated population size is 2101098698. Figures in parentheses represent the clustered standard errors. The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

						Non-agr	iculture self-	
	Rural	l professiona	ls			en	ployed	
		Literate	Primary up	Higher		Literate		Higher
		below	to	secondary		below	Primary up	secondary
	Illiterate	primary	secondary	and above	Illiterate	primary	to secondary	and above
					-	-		
	-0.0004***	-0.0011	-0.0029	0.0390**	0.0314***	0.0543***	-0.0441***	-0.0587***
ST (1999-2000)	(0.0002)	(0.0009)	(0.0019)	(0.0161)	(0.0105)	(0.0098)	(0.0086)	(0.0105)
					-	-		
	-0.0003**	-0.0008	-0.0020	0.0414***	0.0360***	0.0608***	-0.0525***	-0.0757***
ST (2004-05)	(0.0001)	(0.0007)	(0.0014)	(0.0153)	(0.0118)	(0.0099)	(0.0094)	(0.0144)
					-	-		
	-0.0005*	-0.0005	-0.0015	0.0285**	0.0302***	0.0542***	-0.0507***	-0.0638***
ST (2009-10)	(0.0003)	(0.0004)	(0.0010)	(0.0123)	(0.0103)	(0.0083)	(0.0098)	(0.0130)
					-	-		
	-0.0003**	-0.0010	-0.0016	0.0285**	0.0304***	0.0538***	-0.0480***	-0.0631***
ST (2011-12)	(0.0002)	(0.0008)	(0.0011)	(0.0122)	(0.0116)	(0.0098)	(0.0090)	(0.0115)
						-		
	-0.0003**	0.0001	-0.0047***	-0.0051	-0.0070	0.0178***	-0.0161***	-0.0331***
SC (1999-2000)	(0.0001)	(0.0013)	(0.0016)	(0.0090)	(0.0079)	(0.0068)	(0.0058)	(0.0083)
	-0.0002	0.0002	-0.0033***	-0.0007	-0.0065	-0.0186**	-0.0181***	-0.0409***
SC (2004-05)	(0.0002)	(0.0010)	(0.0012)	(0.0088)	(0.0093)	(0.0080)	(0.0066)	(0.0119)
						-		
	-0.0004	-0.00001	-0.0026***	-0.0071	-0.0071	0.0207***	-0.0212***	-0.0386***
SC (2009-10)	(0.0003)	(0.0005)	(0.0007)	(0.0065)	(0.0079)	(0.0067)	(0.0066)	(0.0102)
						-		
	-0.0003	0.0001	-0.0029***	-0.0098	-0.0056	0.0185***	-0.0200***	-0.0396***
SC (2011-12)	(0.0002)	(0.0012)	(0.0010)	(0.0067)	(0.0085)	(0.0067)	(0.0059)	(0.0095)
OBC (1999-	-0.0002	-0.0016**	-0.0061***	-0.0197**	0.0019	0.0033	0.0037	-0.0093
2000)	(0.0002)	(0.0008)	(0.0011)	(0.0085)	(0.0090)	(0.0097)	(0.0062)	(0.0072)
	-0.0002	-0.0013*	-0.0044***	-0.0175**	0.0022	0.0037	0.0044	-0.0117
OBC (2004-05)	(0.0002)	(0.0006)	(0.0008)	(0.0082)	(0.0107)	(0.0110)	(0.0075)	(0.0094)
	-0.0003	-0.0007*	-0.0030***	-0.0153**	0.0022	0.0020	0.0028	-0.0115
OBC (2009-10)	(0.0002)	(0.0004)	(0.0005)	(0.0062)	(0.0086)	(0.0091)	(0.0068)	(0.0080)
				-				
	-0.0002	-0.0016**	-0.0034***	0.0164***	0.0027	0.0029	0.0030	-0.0116
OBC (2011-12)	(0.0002)	(0.0007)	(0.0007)	(0.0062)	(0.0090)	(0.0096)	(0.0065)	(0.0079)

A3 (b): Marginal effects of caste for different education categories at representative time points for the rural sector.

Notes: Sample size of the individuals for this analysis is 965,143. On applying sampling weights, the estimated population size is 2101098698. Figures in parentheses represent the clustered standard errors. The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

	Non-market					
	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above		
ST (1000 2000)	-0.2261***	-0.1440***	-0.0489***	-0.0240*		
51 (1999-2000)	(0.0231)	(0.0231)	(0.0142)	(0.0138)		
	-0 2217***	-0 1397***	-0.0448***	-0.0151		
ST (2004-05)	(0.0256)	(0.0244)	(0.0140)	(0.0137)		
		, , , , , , , , , , , , , , , , , , ,				
	-0.2260***	-0.1474***	-0.0518***	-0.0232		
ST (2009-10)	(0.0239)	(0.0261)	(0.0146)	(0.0147)		
	-0.2218***	-0.1452***	-0.0509***	-0.0266*		
ST (2011-12)	(0.0231)	(0.0265)	(0.0153)	(0.0145)		
	0.0050***	0.0401**	0.0027	0.0410***		
SC (1000-2000)	-0.0850***	-0.0481**	0.0037	(0.0419^{***})		
SC (1999-2000)	(0.0177)	(0.0220)	(0.0085)	(0.0124)		
	-0.0768***	-0.0422**	0.0085	0 0477***		
SC (2004-05)	(0.0172)	(0.0210)	(0.0082)	(0.0115)		
		, , , , , , , , , , , , , , , , , , ,	. ,			
	-0.0868***	-0.0598***	-0.0104	0.0340***		
SC (2009-10)	(0.0178)	(0.0214)	(0.0090)	(0.0129)		
	-0.0779***	-0.0516**	-0.0095	0.0279**		
SC (2011-12)	(0.0167)	(0.0215)	(0.0105)	(0.0122)		
	0.0.0074444	0.00.00	0.0000	0.0100		
ODC (1000 2000)	-0.0695***	-0.0362	-0.0099	0.0100		
OBC (1999-2000)	(0.0237)	(0.0243)	(0.0114)	(0.0103)		
	-0.0692***	-0.0348	-0.0097	0.0107		
OBC (2004-05)	(0.0260)	(0.0238)	(0.0110)	(0.0102)		
			<u>```</u> /	× · · /		
	-0.0680***	-0.0393	-0.0152	0.0060		
OBC (2009-10)	(0.0253)	(0.0249)	(0.0117)	(0.0110)		
	-0.0661***	-0.0371	-0.0149	0.0053		
OBC (2011-12)	(0.0251)	(0.0242)	(0.0117)	(0.0112)		

A3 (c): Marginal effects of caste for different education categories at representative time points for the rural sector.

Notes: Sample size of the individuals for this analysis is 965,143. On applying sampling weights, the estimated population size is 2101098698. Figures in parentheses represent the clustered standard errors. The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

	Self-employed				Regular and casual workers			
Caste/Class	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above
ST (1999-2000)	-0.0386***	-0.0692***	-0.0657***	-0.0978***	0.1373***	0.1063***	0.0553***	0.0396***
	(0.0148)	(0.0119)	(0.0070)	(0.0075)	(0.0150)	(0.0172)	(0.0119)	(0.0111)
	-0.0385***	-0.0758***	-0.0742***	-0.1083***	0.1345***	0.1102***	0.0593***	0.0452***
ST (2004-05)	(0.0146)	(0.0128)	(0.0076)	(0.0098)	(0.0150)	(0.0170)	(0.0124)	(0.0120)
ST (2009-10)	-0.0347***	-0.0687***	-0.0693***	-0.0970***	0.1377***	0.1090***	0.0584***	0.0415***
	(0.0127)	(0.0138)	(0.0078)	(0.0087)	(0.0138)	(0.0172)	(0.0127)	(0.0117)
ST (2011-12)	-0.0356***	-0.0740***	-0.0708***	-0.1003***	0.1437***	0.1112***	0.0579***	0.0418***
	(0.0129)	(0.0121)	(0.0079)	(0.0083)	(0.0153)	(0.0170)	(0.0126)	(0.0116)
SC (1999-2000)	-0.0094	-0.0370***	-0.0459***	-0.0870***	0.0810***	0.0744***	0.0942***	0.0536***
	(0.0074)	(0.0071)	(0.0068)	(0.0079)	(0.0143)	(0.0124)	(0.0104)	(0.0073)
SC (2004-05)	-0.0087	-0.0406***	-0.0525***	-0.0967***	0.0789***	0.0764***	0.0958***	0.0594***
	(0.0072)	(0.0080)	(0.0082)	(0.0093)	(0.0128)	(0.0128)	(0.0112)	(0.0073)
SC (2009-10)	-0.0094	-0.0374***	-0.0493***	-0.0866***	0.0826***	0.0768***	0.0965***	0.0559***
	(0.0064)	(0.0071)	(0.0077)	(0.0087)	(0.0133)	(0.0128)	(0.0110)	(0.0077)
SC (2011-12)	-0.0104*	-0.0404***	-0.0501***	-0.0894***	0.0866***	0.0777***	0.0950***	0.0561***
	(0.0063)	(0.0075)	(0.0081)	(0.0082)	(0.0128)	(0.0130)	(0.0108)	(0.0073)
OBC (1999-	0.0450***	0.0309***	0.0122**	-0.0312***	0.0040	0.0211	0.0366***	0.0336***
2000)	(0.0078)	(0.0084)	(0.0051)	(0.0070)	(0.0150)	(0.0192)	(0.0082)	(0.0063)
OBC (2004-05)	0.0461***	0.0325***	0.0121**	-0.0351***	0.0034	0.0199	0.0347***	0.0362***
	(0.0087)	(0.0086)	(0.0057)	(0.0079)	(0.0138)	(0.0189)	(0.0082)	(0.0061)
OBC (2009-10)	0.0396***	0.0292***	0.0113**	-0.0315***	0.0062	0.0222	0.0362***	0.0351***
	(0.0070)	(0.0073)	(0.0053)	(0.0073)	(0.0152)	(0.0204)	(0.0086)	(0.0066)
OBC (2011-12)	0.0390***	0.0304***	0.0117**	-0.0323***	0.0070	0.0209	0.0350***	0.0350***
	(0.0069)	(0.0084)	(0.0055)	(0.0074)	(0.0161)	(0.0199)	(0.0083)	(0.0061)

A4 (a): Marginal	effects of	caste for	different	education	categories	at repr	resentative	time	points f	or
the urban sector.										

Notes: Sample size of the individuals for this analysis is 571493. On applying sampling weights, the estimated population size is 794780939. Figures in parentheses represent the clustered standard errors.

The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

	Professionals and managers				Non-market			
Caste/Class	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above	Illiterate	Literate below primary	Primary up to secondary	Higher secondary and above
ST (1999-2000)	0.0007 (0.0014)	-0.0045** (0.0023)	0.0026 (0.0039)	0.0473** (0.0203)	- 0.0995*** (0.0158)	-0.0326 (0.0261)	0.0078 (0.0108)	0.0109 (0.0180)
ST (2004-05)	0.0006 (0.0011)	-0.0053* (0.0029)	0.0021 (0.0026)	0.0475** (0.0195)	- 0.0966*** (0.0149)	-0.0292 (0.0265)	0.0128 (0.0108)	0.0156 (0.0180)
ST (2009-10)	0.0007 (0.0015)	-0.0041 (0.0028)	0.0019 (0.0028)	0.0450** (0.0204)	- 0.1037*** (0.0146)	-0.0362 (0.0280)	0.0090 (0.0106)	0.0105 (0.0176)
ST (2011-12)	0.0008 (0.0019)	-0.0035* (0.0018)	0.0018 (0.0025)	0.0467** (0.0205)	- 0.1088*** (0.0146)	-0.0337 (0.0253)	0.0112 (0.0109)	0.0118 (0.0177)
SC (1999-2000)	0.0008 (0.0011)	-0.0039*** (0.0014)	-0.0081*** (0.0014)	-0.0024 (0.0102)	- 0.0724*** (0.0152)	-0.0335*** (0.0110)	-0.0402*** (0.0095)	0.0358*** (0.0064)
SC (2004-05)	0.0006 (0.0008)	-0.0046*** (0.0017)	-0.0052*** (0.0010)	-0.0003 (0.0095)	- 0.0708*** (0.0144)	-0.0313*** (0.0112)	-0.0380*** (0.0100)	0.0377*** (0.0067)
SC (2009-10)	0.0008 (0.0012)	-0.0035* (0.0019)	-0.0058*** (0.0009)	-0.0036 (0.0106)	- 0.0741*** (0.0146)	-0.0359*** (0.0124)	-0.0414*** (0.0104)	0.0343*** (0.0063)
SC (2011-12)	0.0009 (0.0016)	-0.0030*** (0.0012)	-0.0050*** (0.0009)	-0.0023 (0.0098)	- 0.0771*** (0.0147)	-0.0343*** (0.0112)	-0.0399*** (0.0105)	0.0356*** (0.0067)
OBC (1999- 2000)	-0.0008 (0.0006)	-0.0031* (0.0016)	-0.0124*** (0.0019)	-0.0215*** (0.0083)	- 0.0483*** (0.0164)	-0.0489** (0.0211)	-0.0364*** (0.0110)	0.0191** (0.0097)
OBC (2004-05)	-0.0006 (0.0005)	-0.0037** (0.0018)	-0.0082*** (0.0012)	-0.0197** (0.0079)	- 0.0489*** (0.0173)	-0.0488** (0.0211)	-0.0386*** (0.0109)	0.0186** (0.0093)
OBC (2009-10)	-0.0009 (0.0006)	-0.0028 (0.0018)	-0.0087*** (0.0014)	-0.0216*** (0.0082)	- 0.0450*** (0.0166)	-0.0487** (0.0211)	-0.0388*** (0.0113)	0.0180* (0.0100)
OBC (2011-12)	-0.0010** (0.0005)	-0.0024** (0.0010)	-0.0077*** (0.0012)	-0.0212*** (0.0081)	- 0.0450*** (0.0169)	-0.0490** (0.0212)	-0.0391*** (0.0111)	0.0185* (0.0095)

A4 (b): Marginal effects of caste for different education categories at representative time points for the urban sector.

Notes: Sample size of the individuals for this analysis is 571,493. On applying sampling weights, the estimated population size is 794780939. Figures in parentheses represent the clustered standard errors. The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

				Non- agriculture	
	Peasants	Labour	Rural Professionals	self- employed	Non market
	-0.0340	0.0975**	0.0029	-0.0014	-0.0651
High growth state (1999-2000)	(0.0267)	(0.0390)	(0.0027)	(0.0081)	(0.0483)
	-0.0353	0.0952**	0.0026	-0.0011	-0.0613
High growth state (2004-05)	(0.0281)	(0.0375)	(0.0023)	(0.0097)	(0.0473)
	-0.0318	0.0996**	0.0019	-0.0017	-0.0679
High growth state (2009-10)	(0.0245)	(0.0407)	(0.0017)	(0.0084)	(0.0486)
	-0.0291	0.0941**	0.0021	-0.0009	-0.0663
High growth state (2011-12)	(0.0241)	(0.0391)	(0.0019)	(0.0084)	(0.0483)

A5: Marginal effects of state at representative time points for the rural sector.

Notes: Sample size of the individuals for this analysis is 965143. On applying sampling weights, the estimated population size is 2101098698. Figures in parentheses represent the clustered standard errors. The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

A6. Marginal effects of state at representative time points for the rural sector.

	Self- employed	Regular/Casual worker	Professionals & managers	Non market
High growth states (1999-2000)	-0.0179***	0.0374***	0.0095	-0.0290*
	(0.0058)	(0.0117)	(0.0068)	(0.0152)
High growth states (2004-05)	-0.0193*** (0.0061)	0.0382*** (0.0117)	0.0085 (0.0061)	-0.0274* (0.0144)
High growth states (2009-10)	-0.0180***	0.0388***	0.0086	-0.0295*
	(0.0056)	(0.0120)	(0.0064)	(0.0152)
High growth states (2011-12)	-0.0183***	0.0388***	0.0086	-0.0290*
	(0.0057)	(0.0120)	(0.0062)	(0.0150)

Notes: Sample size of the individuals for this analysis is 571493. On applying sampling weights, the estimated population size is 794780939. Figures in parentheses represent the clustered standard errors. The ***, ** and * represent significance at 1 percent, 5 percent and 10 percent respectively.

	Peasants	Labour	Rural Professionals	Non- agriculture Self-employed	Non- market
High growth state ST (1999-2000)	-0.0359	0.0886**	-0.0014	-0.0023	-0.0490*
	(0.0304)	(0.0423)	(0.0022)	(0.0069)	(0.0284)
High growth state ST (2004-05)	-0.0379	0.0877**	-0.0012	-0.0024	-0.0462*
	(0.0326)	(0.0423)	(0.0019)	(0.0076)	(0.0272)
High growth state ST (2009-10)	-0.0331	0.0883**	-0.0008	-0.0022	-0.0522*
	(0.0288)	(0.0415)	(0.0014)	(0.0066)	(0.0284)
High growth state ST (2011-12)	-0.0299	0.0814**	-0.0007	-0.0020	-0.0486*
	(0.0293)	(0.0397)	(0.00013)	(0.0079)	(0.0287)
High growth state SC (1999-2000)	-0.0512**	0.1492***	0.0022	-0.0179**	-0.0822*
	(0.0209)	(0.0503)	(0.0020)	(0.0074)	(0.0499)
High growth state SC (2004-05)	-0.0569**	0.1492***	0.0020	-0.0192**	-0.0751
	(0.0226)	(0.0494)	(0.0017)	(0.0077)	(0.0498)
High growth state SC (2009-10)	-0.0461***	0.1475***	0.0014	-0.0189**	-0.0839
	(0.0179)	(0.0517)	(0.0012)	(0.0076)	(0.0514)
High growth state SC (2011-12)	-0.0459***	0.1422***	0.0016	-0.0172**	-0.0808
	(0.0177)	(0.0506)	(0.0013)	(0.0070)	(0.0507)
High growth state OBC (1999-2000)	-0.0822***	0.1125**	0.0043	0.0146*	-0.0491
	(0.0244)	(0.0448)	(0.0032)	(0.0088)	(0.0605)
High growth state OBC (2004-05)	-0.0854***	0.1085**	0.0038	0.0177*	-0.0446
	(0.0256)	(0.0428)	(0.0027)	(0.0103)	(0.0598)
High growth state OBC (2009-10)	-0.0761***	0.1158**	0.0028	0.0134	-0.0558
	(0.0214)	(0.0490)	(0.0021)	(0.0087)	(0.0612)
High growth state OBC (2011-12)	-0.0710***	0.1084**	0.0030	0.0135	-0.0539
	(0.0211)	(0.0471)	(0.0023)	(0.0086)	(0.0609)
High growth state Others (1999-2000)	-0.0822***	0.0329	0.0028	-0.0131	-0.0180**
	(0.0244)	(0.0303)	(0.0037)	(0.0129)	(0.0414)
High growth state Others (2004-05)	-0.0854***	0.0324	0.0024	-0.0171	-0.0791*
	(0.0256)	(0.0295)	(0.0033)	(0.0160)	(0.0408)
High growth state Others (2009-10)	-0.0761***	0.0369	0.0019	-0.0144	-0.08*
	(0.0214)	(0.0309)	(0.0024)	(0.0139)	(0.0419)
High growth state Others (2011-12)	-0.0710***	0.0373	0.0024	-0.0147	-0.0783*
	(0.0211)	(0.0306)	(0.0027)	(0.0147)	(0.0416)

A7: Marginal effects of state for different caste groups at representative time points for the rural sector.

	Solf amplayed	Regular/Casual	Professionals and	Non-monket
	Sen-employed	workers	managers	Inoii-iiiarket
High growth state ST (1999.	0.0078	0.0150	0.0010	-0.0239
2000)	(0.0144)	(0.0203)	(0.0105)	(0.0200)
High growth state ST (2004-05)	0.0077	0.0161	0.0007	-0.0245
	(0.0140)	(0.0217)	(0.0000)	(0.0201)
	0.0068	0.0174	0.0006	-0.0248
High growth state ST (2009-10)	(0.0137)	(0.0228)	(0.0078)	(0.0205)
	0.0057	0.0185	0.0006	0.0248
High growth state ST (2011-12)	(0.0121)	(0.0233)	(0.0089)	(0.0211)
High growth state SC (1999-	-0.0392***	0.0474***	0.0100***	-0.0182
2000)	(0.00079)	(0.0143)	(0.0037)	(0.0113)
	-0.0415***	0.0504***	0.0080***	-0.0168
High growth state SC (2004-05)	(0.0083)	(0.0151)	(0.0028)	(0.0109)
High growth state SC (2009-10)	-0.0387***	0.0506***	0.0086**	-0.0204*
	(0.0001)	(0.0134)	(0.0035)	(0.0114)
	-0.0385***	0.0492***	0.0090***	-0.0197*
High growth state SC (2011-12)	(0.0075)	(0.0152)	(0.0033)	(0.0117)
High growth state OPC (1000	0.0172*	0.0490***	0.0104	0.0420*
2000)	(0.0092)	(0.0182)	(0.0082)	(0.0228)
	· · ·	. ,		× /
High growth state OBC (2004-	-0.0186*	0.0492***	0.0093	-0.0399*
05)	(0.0099)	(0.0179)	(0.00/3)	(0.0215)
High growth state OBC (2009-	-0.0167*	0.0501***	0.0092	-0.0426*
10)	(0.0092)	(0.0187)	(0.0072)	(0.0226)
	0.01714	0.0407555	0.0004	0.01101
High growth state OBC (2011- 12)	-0.0171*	0.0495*** (0.0186)	0.0094 (0.0072)	-0.0418*
12)	(0.0091)	(0.0100)	(0.0072)	(0.0221)
High growth state Others (1999-	-0.0128**	0.0265***	0.0091	-0.0229
2000)	(0.0060)	(0.0102)	(0.0081)	(0.0154)
High growth state Others (2004	0.0128**	0.0268***	0.0083	0.0214
05)	(0.0063)	(0.0098)	(0.0074)	(0.0148)
	·		• •	
High growth state Others (2009-	-0.0130**	0.0269***	0.0087	-0.0226
10)	(0.0059)	(0.0100)	(0.0078)	(0.0154)
High growth state Others (2011-	-0.0135**	0.0275***	0.0084	-0.0224
12)	(0.0059)	(0.0099)	(0.0076)	(0.0151)

A8: Marginal effects of state for different caste groups at representative time points for the urban sector.



A9: Graphical representation of marginal effects for rural and urban sectors

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