

ASPECTS OF INTERGENERATIONAL MOBILITY IN INDIA

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The present thesis is comprised of three essays on the different aspects of intergenerational mobility in India. Increased opportunity leads to higher mobility. One of the main goals of economic development is to increase opportunities for individuals in the employment sector (Sen, 1999). Access, social inclusion, and equality of opportunity are three factors that policy-makers consider to judge the effectiveness of public policies that may influence an individual's life chances and lead to a 'fair' society. Equality of opportunity is said to exist when an individual's life outcomes depend only on his effort and talent rather than on attributes which are beyond his control such as ethnicity and family background. One way to measure equality of opportunity is by examining the degree of intergenerational mobility across two generations. A high degree of intergenerational mobility implies that the socio-economic status of parents has less influence on the child's life chances and therefore, it can be said that the child's achievement as an adult is due to its effort and ability rather than inherited traits and socio-economic status of the parents. Increased opportunity leads to higher mobility. This relationship between equality of opportunity and intergenerational mobility motivated us to study various aspects of intergenerational mobility in Indian context.

In the *first chapter*, we have *primarily* examined whether a shift in employment choice between the private sector and public sector jobs is observed over time across two generations in India. Existing literature has studied intergenerational occupational mobility by classifying the occupations according to the skill level of the job, namely, white collar job, skilled/semi-skilled jobs, unskilled jobs and farmers. No study has examined intergenerational mobility between public and private sector jobs in India. I find this topic interesting because India witnessed major changes such as opening up of the economy to foreign direct investment, and private participation in key sectors

such as banking, retail, communication and hotel since the systematic adoption of the economic reform policies in 1991. Data provided by the Directorate General of Employment and Training on public sector and organised private sector employment shows us that compared to the rate of growth in organised private sector employment, rate of growth in public sector employment has declined over time. One possible reason which can explain this shift in employment structure is the adoption of economic reform policies in 1991 which increased availability of jobs in private sectors. Other possible reasons that might explain this shift in employment structure are the difference in public sector & private sector jobs concerning the wages paid to the employees, the difference in the procedure of hiring, advancement opportunities, level of job security, implementation of public policies, geographical location and skill requirement. Hence, the primary goal in the first chapter is to examine whether we see a shift over time in the employment structure across two generations. *Secondly*, we also identify the skill level of the son's job sector when they are employed in private sector whereas their fathers are public sector employees; *Additionally*, the socio-economic factors are identified that positively effects the overall mobility of the son and the skill level of the son's job sector.

Inequality of opportunity is predominant in India in the form of caste-based discrimination. Three of the major socio-economic categories based on an individual's caste affiliation are General Castes (including Brahmins and upper-caste Hindus), Scheduled Castes and Scheduled Tribes, and Other Backward Classes. Among them, *Scheduled castes and Scheduled tribes*, former untouchables, are at the bottom of the caste hierarchy. They are economically backward classes and remained so since the beginning of the formation of the caste system. Past literature suggests that if equality of opportunity across caste groups is desired then targeted public policy is needed to

give an opportunity to all those individuals who belong to the backward classes. The affirmative action program is adopted by the Indian constitution since the 1950s to reduce caste-based discrimination. It was expected that this increase in opportunity will also increase the degree of intergenerational mobility observed among the socially backward classes. In other words, if the reservation policy is effective, then it is more likely that the children belonging to the socially backward classes will be employed in a different sector than that of their fathers who enjoyed the benefit of reservation in public sector jobs. This motivated us to write the second chapter where our objective is to examine how far the choice between the public sector and private sector jobs has changed across two generations for the social groups who have enjoyed the benefits of job reservation policies since the 1950s. *Additionally*, we identify the socio-economic factors that influence the son's sectoral choice of employment whose fathers are public sector employees.

In the Indian context, migration plays an important role in shaping up the social, economic and political life of the people. Education is one of the principal avenues through which socio-economic advantages or disadvantages are passed on to the children from their parents. Schooling of an immigrant child is important in determining their capacity to succeed in the labour market and to some extent, it also reduces the inequality of opportunity. This motivated us to examine whether sons who migrated with their parents exhibit educational mobility compared to the non-migrant sons. In our *third chapter*, we examine how far the degree of intergenerational educational mobility between parents and son's education differ among the migrants from that of the non-migrants. Better-educated parents are more aware of the long-term benefits of education and therefore invest more in the education of their children. Also, parents with more education tend to have higher earnings which makes them

financially more able to invest in their children's education compared to the parents with low education and income. Higher intergenerational educational mobility indicates a weak association between parent's education and child's educational attainment, i.e., education of parents will have less impact on the child's educational attainment. Our study is different from the rest of the literature as we are first to examine the intergenerational educational mobility among migrant and non-migrant sons in the context of India. There are three groups of sons in the dataset based on their migration history: *Non-migrant sons, First-generation sons and Second-generation sons.*

The entire thesis is based on the data from the India Human Development Survey-II, 2011-12, a nationally representative, a multi-topic survey conducted by the University of Maryland and the National Council of Applied Economic Research (NCAER) in 2011-12. This dataset is more accurate when used for studying intergenerational mobility as a direct intergenerational link can be established between parent and child by exploiting the *Relationship code* and *Id of father* and *Id of mother* information for each child.

In *Chapter 3* we have used the following methodology: *firstly*, a simple measure of mobility, M , (proportion of the individuals in the off-diagonal cells to the total observed frequency) is used to determine which cohort shows higher mobility. Now, this difference in mobility can be a result of the difference in the occupational distribution (e.g., more jobs are available in the private sector *between 1992-2007* as compared to the cohort *before-1991*, therefore more sons are employed in the private sector), termed as 'prevalence' or due to lowering of impediments to mobility, which increases the elasticity of labour supply (e.g., education and training, degree of openness of the economy, et cetera), termed as 'interaction'. Thus, by adjusting the marginal frequencies of one contingency table to match that of another and then

calculating mobility using the same formula, we derive M' , the adjusted measure of mobility. However, none of the measures tell us about the underlying association between father and son's sector of employment. To calculate that, we use the Altham Statistic. We also use logistic regression analysis to identify the factors that determine the overall mobility of the sons. Next, multinomial logit regression analysis is used to check to what extent mobility and other factors affect the skill level of the sons' sector of employment, whose fathers are working in the public sector. In *Chapter 4* we followed the same methodology of calculating the Altham Statistics and the two mobility measures to identify which social group exhibits higher association between the father's and son's sector of employment. *Secondly*, we use logistic regression analysis to identify the factors that increase or decrease the probability of sons being employed in a different sector than that of their fathers. *Thirdly*, we also use multinomial logit regression analysis to examine which factors change the probability of sons being employed in the private sector or business sector rather than the public sector when the father is a public sector employee. In *Chapter 5*, we have used regression analysis to study the intergenerational educational mobility among migrants and non-migrants in India. Additionally, we use quantile regression to check whether the educational coefficient is constant at all levels of the son's education distribution or it varies at different quantiles.

The thesis is organized in the following way. Chapter 2 provides a review of the relevant literature. Chapter 3 study the mobility of employment between the public sector and the private sector over different time points and examines the factors that affect such mobility. Chapter 4 addresses the issue how far the choice between the public sector and private sector jobs has changed across two generations for the social groups who have enjoyed the benefits of the job reservation policy since the 1950s

and the factors that have affected such choice. Chapter 5 examines intergenerational educational mobility among migrants as compared to the non-migrants. Chapter 6 concludes.

In *Chapter 3*, we found that there is no significant difference in the degree of association between fathers' and sons' sector of employment in India among sons who entered the job market before 1991, between 1992 and 2007 and between 2008 and 2012. Over time, there is a decline in business sector employment. Secondly, the factors that increase or decrease the chances of the sons to work in different sectors from that of their fathers are identified. The odds of working in a different sector than that of the fathers is higher among sons whose fathers are employed in the public sector rather than in the private sector or business sector. Education of the son is another factor that increases the odds of working in a different sector. Sons with education in technical fields are more likely to be employed in a different sector than sons with education in non-technical fields. Furthermore, a lower level of education leads to immobility across sectors of employment among the sons. Thirdly, we check the level of skill achieved by a son when he moves away from his father's sector of employment. Sons who moved towards the private sector when fathers are employed in the public sector are more likely to be employed in skilled and semi-skilled jobs rather than unskilled jobs. However, this movement cannot explain whether sons will be white collar occupation or skilled and semi-skilled occupation. Although it is found that over time there is no significant difference in sectoral mobility between fathers and sons, it is evident that sons who entered the job market in the post-reform period are more likely to be employed in white collar jobs rather than skilled or unskilled sector, irrespective of the public sector or private sector. Increase in the years of schooling of sons increases the level of skill acquisition by the son and therefore

increases his chances of working in white collar jobs or skilled and semi-skilled jobs rather than unskilled jobs. Sons of fathers employed in unskilled jobs are more likely to remain in unskilled jobs. This shows that the lower the ability of the father to fund his son's career, the lower is his chance to move to a skilled/white-collar job rather than remain stuck with an unskilled job. Thus, the skill level of the fathers' sector of employment plays an important role in determining sons' skill level of the sector of employment. Furthermore, the implementation of reservation policy to widen the opportunities available to the scheduled castes and scheduled tribes is ineffective in placing the sons in skilled and semi-skilled occupations. Instead, sons belonging to the reserved category are more likely to work in unskilled jobs. The results suggest there is scope for some policy interventions. Education increases the chances of the sons to be employed in white collar jobs. Additionally, technical education widens the opportunity for the son to find employment in a different sector rather than remain in the father's sector of employment. Therefore, proper intervention in the education sector and the introduction of vocational or technical education is likely to play an important role in both increasing mobility and skill acquisition. Secondly, more affirmative actions are required to improve the skill acquisition among the reserved category; reservation in its present form itself doesn't seem to be sufficient.

In *Chapter 4*, we found that there is no significant difference in the association between father and son's sectoral choice of employment between General category and Scheduled castes. However, significant difference is observed between the sons belonging to the General category and Scheduled tribes. Also, scheduled tribe sons exhibit higher mobility than the sons belonging to the general category. However, the logistic regression analysis shows that after controlling for socioeconomic variables like education of parent, age of son and education of son, overall mobility is higher

among the Scheduled Caste sons as compared to the sons of General category. Noteworthy were the sons of those fathers who are employed in the public sector. They are more likely to work in the private sector or business sector rather than the public sector like their fathers. Using the multinomial logit regression results, we can also infer that sons who belong to the scheduled tribes' category are significantly more likely to remain in public sector employment than the sons of the General category or Scheduled castes. Hence, it can be concluded that the higher mobility observed in Scheduled Tribes using Altham Statistic measure was due to those sons who moved into public sector employment while fathers are employed in the non-public sectors. Increase in the years of schooling of sons increases the overall probability of finding employment in a different sector than that of their fathers. Education also increases the chances of sons of public sector employee to find employment in the organised private sector rather than public sector like their fathers. On the other hand, an increase in the education of son decreases the likelihood of finding employment in the small business sector rather than the public sector. Hence, we can conclude that the implementation of reservation policy to widen the opportunities available to the scheduled castes and scheduled tribes is effective only in case of the Scheduled castes as they are more likely to be employed in a different sector than that of their fathers. To observe a similar trend among the sons who belong to the scheduled tribe category, we might need the reservation policies to be effective for more than two generations. In other words, the results suggest that although reservation policy has shown some positive results in favour of the Scheduled castes, protection of the Scheduled tribes is required to improve their chances in the labour market. Additionally, education of an individual should be emphasised at all level of the social strata to increase the opportunity to find employment in an alternate sector rather than the public sector.

Therefore, proper intervention in the education sector is likely to play an important role. However, our chapter has limitations.

Using linear regression model in *Chapter 5*, we find that parents' education has a greater impact on non-migrant sons' education rather than on migrant sons' education. We also find that there is a stronger association between the son's education with that of paternal education rather than maternal education. This implies that a unit increase in the mother's education will increase the years of schooling of a son more than a unit increase in father's education. With the inclusion of the socio-economic factors as control variables, overall educational mobility coefficient reduces for all groups of sons. Furthermore, on average, education of parents has a lesser impact on the education of migrant sons rather than non-migrant sons. Caste and number of siblings have played a vital role in determining the educational attainment of non-migrant sons. Moreover, if sons belong to the Other Backward Classes, then the years of schooling of son reduces by more than 50 units across all three groups. If individual has less than or equal to two siblings then years of schooling of son increases for all three groups, moreover, the migrant son's education increases by more units compared to the non-migrant sons. We employ quantile regression to examine intergenerational educational mobility at different quantiles of son's educational distribution. We observe that the association between parent and child education is not uniform at all levels of the son's educational distribution. At 10th quantile of the son's educational distribution, there is strong association between parents' education and son's educational attainment as compared to the 90th quantile of the educational distribution. In other words, sons at the upper end of the educational distribution are more mobile than sons at the lower end of the educational distribution. Therefore, we can infer from the study that if parents are less-educated, sons are more likely to be less-educated but this is

not true if the sons can break away the family endowment constraint and move up the education ladder. Policies that increase the opportunities for sons to acquire higher education should be emphasised. Although our results found the second-generation migrant sons to be more mobile than other two groups, we need to study the third generation to identify which generation can break through the pattern of intergenerational stickiness in education.

To summarise, the findings of this thesis have several policy implications. Education is one of the principal avenues through which socio-economic advantage or disadvantage is passed from parents to their children. One way to achieve equality of opportunity for the future generation is to try and reduce inequality in educational attainment in the present generation. With higher education for the present generation, it is expected that awareness about the importance of education to improve life condition will grow; leading to higher skill development and economic efficiency. In this context, public policy that provides free and compulsory formal education for every individual irrespective of his socio-economic background might help to achieve higher intergenerational mobility and economic efficiency. Additionally, technical education increases the skill level of an individual and therefore, widens his opportunity to find employment in a different sector rather than remain in the fathers' sector of employment. Public policies that motivate individual to acquire technical and vocational education should be introduced. Reservation policy can be deemed to be effective as we observed higher intergenerational mobility among the scheduled caste category compared to the general category.

However, there are a few limitations to our thesis. We did not examine the extent to which the mobility observed between public and private sector jobs is due to the shrinkage in the public sector during the post-reform period. Also, due to the lack of reliable data on married women, we examined only the parent-son pair in our thesis. The limitations of our thesis present scope for future work. More surveys should be conducted that provides researchers with a pool of data to under intergenerational mobility at a deeper level.