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Dimensions and Determinants of Upward Mobility: A Study Based on Longitudinal Data from Delhi Slums

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Abstract

This study based on two primary surveys of the same households in two different years (2007/08 and 2012) assesses the extent of inter-temporal change in income of the individual workers and makes an attempt to identify the factors which explain upward mobility in alternate econometric framework, envisaging endogeneity problem. It also encompasses a host of indicators of wellbeing and constructs the transition matrix to capture the extent of change over time at the household level. The findings are indicative of a rise in the income of workers across a sizeable percentage of households though many of them remained below the poverty line notwithstanding this increase. In fact, there is a wide spread deterioration in the wellbeing index constructed at the household level. Among several determinants of income rise two important policy prescriptions can be elicited. Inadequate education reduces the probability of upward mobility while education above a threshold level raises it. Savings are crucial for upward mobility impinging on the importance of asset creation. Views that entail neighbourhood spill-over effects also received validation. Besides, investment in housing and basic amenities turns out to be crucial for improvement in wellbeing levels.

Objective

Keeping in view some of the determinants of mobility suggested in the literature this study tries and explain the income mobility and changes in overall wellbeing index overtime. In the context of the urban slums dominated by the low income households the upward mobility cannot be visualized unless one is able to take a long time horizon of at least a decade or so. Those who are already in relatively high income strata are less likely to undergo further increase within a short time frame. Similarly those with higher levels of education are likely to have been placed in jobs of desirable status and thus for them upward mobility actually can be expected to be sluggish within a few years. With increase in educational levels wage differentials increase with which increases the probability of formal sector employment. However, if such differentials already existed in the base year

further increase in the income of the educated ones is less probable to occur. Following some of these views we argue that the poorest would rather have a greater expectation and a stronger drive to experience greater mobility in a region that is characterized by strong forces of dynamism and growth. They have moved to such cities compromising on living conditions in their rural place of origin or in small towns to which they could have migrated, primarily with the motivation that agglomeration effects would result in better outcomes for a given level of initial endowment. While assessing the standard literature on upward mobility we need to be careful enough to allow for significant deviations that may possibly arise across countries pertaining to social, cultural and familial practices. Particularly in India the differences pertaining to gender, caste and inter-regional inequalities, manifested in terms of agglomeration effects, impinge on migration decision and expected income of the low income households.

We are not in a position to study the inter-generational mobility – we focus only on the mobility (or its absence) of individuals who have been working earlier and now with a time gap of around five years. Though five years constitute an extremely short period in the time scale to be used for this kind of a study, Delhi being a high growth centre and also the national capital we presume a five year period can be treated sufficiently large to decipher mobility, if any.

Findings

Some of the broad characteristics of the sample indicates that there is an increase in the average lowest monthly income, average highest monthly income, average income in the month preceding the survey and also the average monthly per capita consumption expenditure computed across clusters based on the individual data in real terms over 2007/08 through 2012. This increase in the average figures is evident for the set of same households surveyed in both the years and also for all sample households in both the years. Quite compatible with this pattern is the decline in the incidence of poverty though it is quite nominal.

Turning to occupational mobility we note that an overwhelmingly large proportion of workers are located in the same occupation category in both the years though in some of the occupations like semi-professional, sales and trade, services, manufacturing and transport the change in occupation is not negligible. Income mobility in terms of average figures across clusters/districts has mostly taken place within the broad range of a given occupational category. However, this does not mean that one is pursuing the same activity

over time. The change in the nature of job (e.g. from regular wage employment to self-employment) may have taken place or the within a given activity the status of occupation may have changed (e.g. construction labour to mason). Also each of the occupational categories constitutes a wide range of activities and hence, intra-occupational mobility may also have taken place.

The cross-tabulation of workers in terms of quintiles of present and past monthly income (taken as lowest, second lowest, middle, second highest and highest percentages) shows that inter-group mobility has taken place notwithstanding a large chunk remaining in the same category, relatively speaking. Also we note that this mobility is not restricted to upward direction only. A sizable number has moved in the downward direction in relative sense. In other words, though in absolute terms some of the individual workers received an increase in income their relative position seems to have deteriorated.

The econometric analysis shows that several of the variables/dummies included in the model are significant. Males show a higher probability of experiencing upward mobility compared to the females. Among the caste cum religion dummies the OBCs excluding Muslim seem to have a higher probability while the other categories have the same probability as that of the reference category (non-Muslim general castes). The education dummies suggest that those with higher secondary qualification were more likely to undergo a rise in income. Accessing a public sector job resulted in income increase due to pay hike in recent years. Households in clusters located in south Delhi are more probable to experience upward mobility. What is a bit surprising is that the income in the base year takes a negative coefficient which is significant. But this can be rationalized by arguing that those who already were in higher income slabs had realized their expected income whereas those with lower incomes had the scope and motivation to maximize it further. The negative sign of the past income is acceptable particularly if we keep in view the sign of the coefficient of saving included in the model which is positive and significant. It is evident that those who could generate savings could utilize it in improving their incomes possibly by making investment in the occupation they were engaged in or being able to undertake greater risk in their job. Given the positive impact of saving on income mobility the negative effect of the past income on the same does not appear implausible. Though poor health conditions measured in terms of whether the person fell ill did not turn out to be significant, the occurrence of any kind of crisis/exigency had a negative impact on mobility. The individual health effect seems to have been captured by the crisis at the household level.

The most startling result is in relation to the dummy which makes a distinction between the natives and migrants. The literature usually suggests that the natives are better-off compared with the migrants because they have better access to the job marker information. Also the natives do not seem to have the immediate problems related to housing and other amenities as their parents are likely to have worked out at least a quasi-stable solution. Moreover, they are expected to have been aware of the education and health facilities available for the low income households in the cities and may have utilized them on their need. Higher productivity and higher earnings are usually, therefore, some of the positive pay-offs that the natives may have vis-à-vis the migrants. However, the negative coefficient of the native dummy or the positive coefficient of the dummy representing born outside Delhi is indicative of a lower probability of mobility for the natives. Possibly there is a need to revisit the thinking prevailing in the migration literature. Migration decision is often taken rationally by the entire household: the most potential one is sent to the urban areas from the rural areas, who could earn in the urban labour market and send remittances regularly facilitating the household consumption, repayment of loans, investment in agricultural land and so on. This is in fact an effective strategy against exigency adopted by the households not having adequate sources of livelihood within the rural areas. Also the rural migrants are well informed about the urban job market and are able to pursue an effective job search process through their contact persons. Hence, it could be rather faulty to assume that the migrants are worse-off in the urban labour market. Our findings support this strand of argument.

We have tried to make a distinction among the migrants of different origin. Among the migrants those who were born in places other than Bihar and Uttar Pradesh performed better, indicating that not all of them hold the same potentiality to improve their earnings. Since the place of destination is the same for all the slum dwellers opportunities and hindrances are supposed to impact them equally. Hence, the differences in the outcome variable may be attributed to ethnic/cultural background that the migrants represent. Possibly the job search methods, the networking styles, the initiatives to undertake investment and the responses to facilities available, which have not been captured through our survey very rigorously, vary along the lines of cultural background.

In an alternative specification the past income has been replaced by the past monthly per capital consumption expenditure. Though the age of the worker was not found to influence mobility in the earlier specification, in this alternative specification it turns out

to be significant with a negative coefficient. Since in the low income households job search begins at relatively early the age factor could have taken a positive coefficient. However, the negative coefficient is suggestive of the lack of better job opportunities for the older workers. In contrast to the patterns shown in the standard labour demand model for the educated workers where age is a proxy for experience, enhancing the possibility of being better-off, in the informal sector the younger workers tend to be better employable than the older ones. Several strenuous activities pursued manually require younger workers who are physically strong rather than work experience which is believed to create greater mental capabilities. This could explain why the low income households prefer to join the labour market early instead of spending time on education, which is not only a loss in terms of present income but also reduces the probability of securing a better paying job.

In this alternative specification the coefficient of past monthly per capital consumption expenditure again turns out to be negative after controlling for saving. Some of the educational dummies, representing primary and middle level schooling show a positive and significant effect on mobility which possibly because of multicolinearity between education and past income did not turn out to be significant in the earlier specification except the dummy for higher secondary education. In terms of marginal effect in fact this variable showed the largest impact on mobility (0.38). Accessing public sector job is also seen to have an almost equally strong effect (0.37). These findings have strong policy implications.

Slums in South Delhi region perhaps can be taken as a role model while carrying out the slum development programmes in other parts of the city because the dummy representing workers from households in this region show a marginal effect of almost 0.14. Our qualitative observations also confirm this that some of the clusters in south Delhi are not only better-off in terms of housing structures and availability of basic amenities but also their awareness about education, health and job market. Geography seems to have a significant effect in the context of mobility. Similar types of households are able to perform better in certain regions compared to certain others. Across different types of urban settlements these patterns are very much prevalent: usually large cities are characterized by better indicators relative to their small counterparts. Now we are able to observe that even within a given city behavioural differences and outcome variables tend to vary considerably across space, which can provide greater insight to developing policy strategies.

In the probit framework the actual magnitudes of increase in income across individuals are treated at par, which a tobit estimate of the equation is able to overcome. The results are however, quite similar to our findings already stated. Those with higher secondary level of education show a higher probability of income mobility than others. The only difference with respect to the probit model is regarding the household size, which turns out to be positive and significant in the tobit estimate. Workers from large households possibly have a greater compulsion to raise income.

Also, to overcome the problem of endogeneity involved in estimating an income function for the workers, the per capita income function at the household level and the panel data model for the workers' income using the probability of working as an instrument, have been estimated. The results are by and large in conformity with the findings noted above. Usually the consumption poverty is taken to reflect on living standards. However, an enormous amount of literature has appeared in the past to indicate that sufficient overlaps do not exist between various aspects of wellbeing. Several households above the poverty line can still be poor in terms of housing or access to health and education. It may be therefore useful to construct an index which can encompass a large number of indicators. The following variables are combined through a factorial analysis to construct the wellbeing index: household size, proportion of household members employed, average per capita monthly income in constant (2001) prices, monthly per capital consumption expenditure, average education level of the household members aged 15 and above (in terms of years), proportion of household members not debilitated by sickness for more than seven days during previous 12 months, and the proportion of male members in the household.

The correlation between the monthly per capita consumption expenditure and the wellbeing index though appears to be reasonably high (0.84) in the base year, the terminal year gives only a moderate figure of 0.52. Turning to the wellbeing index, though the district specific average values are not significantly different from each other as seen from the coefficient of variation of the mean values, within some of the districts large variations exist across clusters. This means that within a given district some of the clusters are much better off compared to the others. In other words, the districts are large areal units and socio-economic variations exist even within a given district. Some of the slum clusters are possibly closer to the neighbourhood of the middle class households or some of the clusters because of their locational advantages are able to access better

services for its residents while others cannot. What is quite prominent from our analysis is that such better-off clusters and worse-off clusters are present across many districts. Besides, there is a decline in 2012 in the mean value of the wellbeing index across most of the districts and across-district-variations have declined too. However, within-district-variations continue to be high and have rather increased over time in at least five of the districts, indicating the rising distance between the good performers and the bad performers.

The transition matrix constructed on the basis of the wellbeing index size classes in the base and the terminal years shows a significant deterioration over time. Several households slid down in 2012. This comes as a great surprise because at the national level the country witnessed a significant decline in the incidence of poverty during 2004/05 to 2009/10. And Delhi being one of the high-growth regions in the country the beneficial effects of growth should have been sizeable.

Conforming to the low variations observed across districts the regression results again show statistical insignificance of the district dummies. Reconstructing the spatial dummies on the basis of region and not districts the south Delhi region dummy shows a positive effect on wellbeing levels. We may recall that the same dummy in the income mobility function had a positive effect as well.

The dummies representing social categories are again mostly insignificant suggesting equal vulnerability of households in the slum clusters. Though the political networks exist in the slums operating along the lines of caste/religion they do not seem to have resulted in differential outcomes disproving the thesis that those who have such networks are better off compared to those who do not have.

What is most striking and also pertinent from policy point of view is the positive association between the wellbeing index and the better quality housing or access to basic amenities. Based on the results for the year 2007-08 households living in semi-*pucca* and *pucca* houses show a higher wellbeing index and for the year 2012 households with own water supply and access to sanitation again turn out to be better off. Investment in housing and basic amenities can result in better outcomes.

Policies

Interventions in terms of educational support for the slum children can be an effective

way of enabling them to experience mobility in the long run. On the other hand, it is time to contemplate upon the possibility of introducing a national level employment guarantee programme in the urban areas which can be treated at par with the ongoing Mahatma Gandhi National Rural Employment Guarantee Act.

Males in the labour market are better-off compared to the females. This suggests for probable moves towards job creation, specifically for females.

Those who could generate savings could utilize it in improving their incomes possibly by making investment in the occupation they were engaged in or being able to undertake greater risk in their job which helped them realize income mobility. Hence, asset creation is endemic to upward mobility which needs to be pursued by the government for developing long terms strategies towards poverty reduction. Empowering the low income households to establish small businesses or production enterprises can be seen as an important policy directive.

Geography seems to have a significant effect in the context of mobility and wellbeing. Similar types of households perform differently across space. These findings can provide inputs to city planning and developing cost effective slum relocation policies.

The occurrence of any kind of crisis/exigency seems to have a negative impact on mobility, reinforcing the importance of health support measures for the low income households. That migrants show a higher probability of experiencing upward mobility compared to the natives confirms the positive gains associated with rural to urban migration, and thus creation of barriers that hinder the entry of the rural job seekers to the cities is unproductive.

The lack of better job opportunities for the older workers makes a case for strengthening the support system in favour of the elderly. The negative relationship between age and upward mobility explains why the low income households prefer to join the labour market early instead of spending time on education, which is not only a loss in terms of present income but also reduces the probability of securing a better paying job. If this perception has to change, quality education with provision for skill formation has to be introduced.

Besides, investment in housing and basic amenities can result in better outcomes in terms

of various indicators of wellbeing.