

## **Internal Migration Patterns in Pakistan— The Case for Fiscal Decentralisation**

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### **I. INTRODUCTION**

The cornerstone of fiscal federalism is to empower provinces through fiscal decentralisation, thereby reducing the friction between them. This is achieved if the distribution of resources between provinces is judicial and equitable, reducing the biases and divides amongst the provinces and leading to a stronger federation. In Pakistan, the National Finance Commission (NFC) awards are constituted to decide the share of the provinces in the federal revenues and to redistribute this share to the provinces. Over the years, there has been a gradual increase in federal shares. The federal government has also stretched itself into several matters that fall under the provincial purview (for instance roads, irrigation, culture and tourism and rural development) [Shah (1997)].

With the aimed devolution of power from the centre to the local government, it is imperative that these provincial governments have adequate finances to effectively carry out the subjects that fall under their domain. Moreover, there has been no serious shift in resource distribution amongst the provinces themselves, in spite of the disparities in economic and social development as well as varying political and security situations. This has, in turn, contributed in aggravating the differences between provinces over time, bringing into question the success of the NFC awards in fostering integration.

How does one measure integration then becomes a pertinent question. One indication of this can be the existing migration patterns within the country. What the patterns are and how they have evolved will reflect the degree of integration in the country. This is because migration patterns will reflect the perceptions of the masses regarding the possible destinations (from a choice of destinations both within and outside of their province of birth) and can hint at the success or failure, of the attempts at breaking provincial boundaries. Hence, increase in migration across provinces can indicate increased integration.

Historically, the distribution amongst provinces has solely been on the basis of population. The recent 7th NFC awards (2009) is a breakthrough for fiscal decentralisation in the country as the provincial shares have expanded to 56 percent from the 37 percent they received under the last award and for the first time population is not the sole criterion for resource sharing between the provinces. Also, the 18th amendment

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has brought many federal subjects into the provincial domain. For this reason it also becomes relevant to study the incentives that migrants in the country respond to when selecting the destination district. Exploring what these incentives have been historically can give us clues about the danger, or otherwise, of the phenomenon of Tiebout (1956) process unfolding in Pakistan.

We proceed by looking at existing literature in Section 2, detailing the data and methodology employed in Sections 3 and 4 respectively. The analysis is divided into two parts; Section 5 reports the empirical findings and the next section aims to study the recent migration flows and attempts to tie it with the relative development of districts in Pakistan. Section 7 concludes the paper.

## II. LITERATURE REVIEW

Pakistan, as a federation, has had most of its revenues being collected by the centre and then redistributed vertically between the federal and provincial governments and horizontally between the provincial and local governments. There has been a clear trend towards fiscal and political decentralisation in a number of countries over the last few decades. A study done by Arghazi and Henderson (2002) shows that most developed countries and Latin American countries decentralised substantially in the 1980s and 1990s. On the other hand, countries in North Africa and Middle East were the most centralised. Interestingly, they found that the degree of population centralisation in the largest city of the country tends to be correlated with higher centralisation.

The idea that the degree of inter and intra provincial migration can be seen as an indicator of the success of decentralisation is not a new one. Much of the literature on horizontal competition migration stems from the seminal article by Tiebout (1956). Tiebout compared political jurisdictions to market places offering differing services. A migrant, as a rational utility maximising agent, weighs the benefit of these services against the cost when deciding on a destination district. As a result, the mobility of migrants and their 'voting with their feet' serve as a disciplinary force enforcing efficiency of local governments. Further, Oates (1972) believes that in customising local and provincial government public services to local needs, greater variation in tastes should lead to greater decentralisation for utility maximisation.

Traditional macro human capital theory, on the other hand, seeks to study aggregate moves and answer questions pertaining to socio-economic development and labour market concerns about the impact of migration on receiving and exporting regions in terms of jobs.<sup>2</sup> Within this perspective, the notion that rural-urban migration is effected by the differential in expected earnings between origin and destination put forward by Todaro (1969) and Harris-Todaro (1970), dominated theoretical research until recently. Alternative theories claim rural-urban migration flows consist, instead, of distinct streams with distinct objectives and that in fact, it is entirely plausible that it is economic growth and inequality that causes migration, and not vice versa.<sup>3</sup> Macro economic variables of interest include health and education, marriage,

<sup>2</sup>See Afser (2003), Banerjee and Kanbur (1981), Clark (1982), Dang, Goldstein and McNally (1997), Gazdar (2003), Oda (2007), Isserman, *et al.* (1985), McCormick and Wahba (2003), Mitchel and Pain (2003), Pingle (2007), Sato (2004), Stillwell and Congdon (1991), Vandsemb (2010).

<sup>3</sup>See in particular Bhattacharya (1998, 2000, 2002), Zhang and Song (2003), Deshingar (2006), Quisumbing and McNiven (2005).

infrastructure, informational and migrant networks at destination; and poverty, population density and landlessness at place of origin.<sup>4</sup>

The phenomenon of internal migration has not been comprehensively researched in Pakistan, primarily as a result of lack of data. The Population Census was last conducted in 1998, after a gap of 17 years. Oddly, it did not include information on the place of birth and so the direction of migration flows could only be measured with substantial errors. Therefore, Arif (2005) combines the information in the Census with the 2001 Pakistan Socio-Economic Survey and is able to show that roughly 40 percent of the migrants are rural to urban migrants and majority of the males (60 percent) cite economic reasons for migrating, whereas for females it is usually family issues like marriage. Khan and Shenaz (2000) do the same using the 1996-7 Labour Force Survey (LFS) and a micro-level, human capital model to study the decision to migrate. They find that migration is mostly in the urban-urban direction, followed by rural-urban.

More recently Memon (2005) compares the LFS, Census and Pakistan Household Integrated Survey for a district level study. Punjab was the main source of migration, with Sindh being the only province with a net inflow. Earlier Khatak (2004) uses the 1998 census to explore migration in KP. The majority of migrants in KP moved from other areas within the province were young and migrated for non-economic reasons (with family or spouse). Only 8.4 percent migrated for business purposes.<sup>5</sup> Contrast this with the case of India where internal migration stands at 30 percent as of 2001 [Lusome and Bhagat (2006)]; both industrialised states like Maharashtra and Gujrat and backward states like Orissa and Madhya Pradesh show high rates of migration [Mitra (2008)]. Apart from the above mentioned studies using the 1998 census and later surveys, a number of studies document internal migration during the 1970s and 1980s.<sup>6</sup>

### III. DATA

The relevant data for the empirical part of the study is obtained from two different data sets: namely the Labour Force Survey (LFS) of Pakistan and the Population Census of 1998.

LFS has been conducted in Pakistan since 1963 every year by the Federal Bureau of Statistics. Detailed information on labour force characteristics is collected in the survey from a representative sample of households to produce gender disaggregated national and provincial level estimates with urban/rural breakdown. The total sample size is evenly distributed into four sub samples, each to be enumerated in a given quarter<sup>7</sup>. For the purpose of our study, we use a pooled cross sectional data by merging LFS data for the years 2005-06, 2006-07 and 2007-08. This data is then used to estimate the in and out-migration rates for all districts of Pakistan.

<sup>4</sup>See for example Frey, *et al.* (1996), Haas (2010), Kanbur and Venables (2005), Mitra and Murayama (2008), Vandsemb (2010), Zhu and Luo (2010), Mehta (1991).

<sup>5</sup>In another study of migration patterns based on the 1998 census, Chaudhry (2004) was able to ascertain that Balochistan has a net outflow of migrants. In the case of Punjab, Naeem (2004) found that the number of people moving from Punjab exceeded the number of people moving to Punjab. Finally, using the 1998 census, Rukanuddin and Chaudhry (2004) observed that two-thirds of the internal migrants moved within Sindh.

<sup>6</sup>See Shah (1986), Irfan, Demery and Arif (1983), Barkley (1991), Farooq, Mateen and Cheema (2005).

<sup>7</sup>Labour force survey report foreword.

The nature of the study necessitates the use of district level macroeconomic variables to serve as proxies for the pull factors in the destination district for migrants. Such district wise information is only available in the Population Census. The 1998 Census was the last Population Census conducted in Pakistan. Given that it takes some time for news of changes in the facilities or employment levels in a particular district to spread, it is reasonable to expect a recognition lag between the actual situation as presented by these macroeconomic variables and what people perceive the situation to be. This helps to control the simultaneity bias that could result if the dependant and independent variables were of the same time period. In addition, some variables have also been employed from the Pakistan Social and Living Standards Measurement Survey (PSLM) 2004-05. These variables based on perceptions rather than the actual availability of social sector facilities within the destination districts; and so it was appropriate to use recent figures.

#### IV. METHODOLOGY

The sample employed in the study has been limited to the number of people who have migrated to urban areas in the last ten years for both economic and noneconomic reasons, irrespective of their previous district of residence. We only look at people who migrated within the last ten years since it is these individuals/families that have the potential to explain the motivation behind both the decision to move and where to move. It is not possible to trace the motivations for those who migrated over ten years ago as significant changes in their individual characteristics as well as the characteristics of their destination district would have arisen. There are two possible explanations for internal migration—it could be the pull of an urban centre indicating economic dynamism or migrants can be pushed out from a less developed district due to poor standards of living and economic opportunities. There are two broad approaches in literature to explain these push and pull factors; the macro and the micro approach. The macro approach either looks at the in or the out migration rates for a region and correspondingly uses the pull or the push factors of the region as explanatory variables. This approach looks at macro level variables such as provision of social amenities in a region, employment opportunities, level of development etc. The micro approach on the other hand explains the decision of an individual to migrate or not to migrate through individual level characteristics such as the level of education, years of experience, marital status etc. Quite obviously the macro level analysis is relevant for the objectives of this paper.

##### (i) Empirical

In order to study the factors that affect the in migration rates for districts of Pakistan, the dependent variable is constructed as the number of people migrating into a district as a proportion of the total district population.<sup>8</sup> This brings the total number of urban districts under consideration to 28. The independent variables aim to capture the

<sup>8</sup>It should be noted, that the total population here is the number of people from the district in the LFS sample.

pull factors of the district. As this study makes the receiving district the point of analysis, the independent variables are restricted to just the pull factors. Within these factors, the analysis is divided between the economic factors (unemployment and possibly degree of urbanisation) and non-economic factors such as education, utility provision and population characteristics.

Ideally, human capital models such as the one proposed by Todaro (1969) suggest that variables such as wage differentials between the origin and destination district or GDP at the district level ought to be considered as economic pull factors. However, neither the Population Census, nor the LFS provide this information at the district level. The only relevant economic variable that can be used for our analysis is the district unemployment rate. We expect districts with low unemployment rate to be attractive to migrants since it indicates better job opportunities and a larger economic base.

It is also expected that the level of urbanisation of a district will impact the number of migrants. Higher levels of urbanisation signal higher levels of development and therefore better economic opportunities for the migrants. For the purpose of the study this is approximated by the percentage of population of a district residing in urban areas.

The provision of public utilities like gas, electricity and piped water ought to be an essential consideration in the decision to migrate. Districts that are relatively deficient in these, otherwise very necessary provisions, should have low in-migration rates. The census enumerates the percentage of households in each district that have these facilities. There is high likelihood that the level of provision of these services will be highly correlated with each other and therefore for the empirical part of the study it might be appropriate to use only one of these.<sup>9</sup>

Next, we put in a control for the population density of a district in our analysis. It is not clear, a priori, what the relationship would be. On the one hand, areas with high density would discourage migrants to come to that area due to issues caused by overcrowding, and on the other hand areas with higher population density might also be perceived as having greater ability to absorb the influx of new migrants.

Factors pertaining to social sector services are controlled for by adding the education satisfaction variable, from PSLM 2004-05, that measures the percentage of people in a district who are satisfied by the educational facilities available in the districts. This serves to approximate what the perception of the migrants is regarding the social sector development of a district. If this is an important consideration for migrants, then a higher ratio is expected to attract a greater volume of migrants to the district. The district wise HDI is also employed to account for the actual level of social sector development in a district.

Finally, differences in characteristics of provinces not owing to the above explanatory variables are captured by employing dummies for Balochistan, KP and Sindh, with Punjab, the most prosperous province of the country, serving as the base case.

This allows us to specify the following model to determine the important characteristics of destination districts which result in varying levels of in migration as:

% of migrants in the districts

<sup>9</sup>The correlation between the availability of water and that of gas is 0.82, correlation between electricity and gas is 0.66.

$$\begin{aligned}
&= \alpha_1 + \beta_1 \text{Unemployment rate} + \beta_2 \text{urbanisation} + \beta_3 \text{Population density} \\
&+ \beta_4 \text{Education Satisfaction} + \beta_5 \text{Utility availability} + \beta_6 \text{HDI} \\
&+ \beta_7 \text{Balochistan} + \beta_8 \text{Sindh} + \beta_9 \text{KP}
\end{aligned}$$

The above model is estimated separately using OLS for rural-urban (RU) and urban-urban (UU) migrants.

## (ii) Flows

We adopt a step by step approach for analysing the migration flows in Pakistan and building the case for fiscal decentralisation in light of them. The first step is to look at the province-wise migration to an urban area (either from a rural or an urban area). Next, we analyse the proportion of inter and intra provincial migration in Pakistan. High intra provincial figures would imply that people prefer to migrate in areas within their native province and are reluctant to move to other provinces. This in turn could be a signal of rigid provincial boundaries and lack of integration. Finally, we look at how this trend has evolved over time. It is especially important to see if there has been any improvement over time in this pattern which in turn would indicate some integration in the country and lessening of animosities between the provinces. We compare the inter with the intra provincial migration in the country from LFS 1994-5<sup>10</sup> and 2005-06.

## V. EMPIRICAL RESULTS

The results (see Table 1) reveal that unemployment rate in the destination district has the largest impact as a choice variable for both RU and UU migrants. The level of employment in a district reveals the possible economic opportunities that are available. Therefore, a lower unemployment rate in a district would send a positive signal to the migrant. The coefficient turns out to be significant and negative; implying that on average a one percentage point difference in the unemployment rate of a district is likely to lead to a 0.16 percentage point difference in in-migration rate of rural migrants into that district and 0.24 percentage point difference for migrants coming from another urban area. This establishes the importance of the relative economic opportunities available in districts as an important explanation for the choice of an individual/family to migrate to a specific district.

In addition, the degree of urbanisation turns out to be a significant factor in attracting both types of migrants. This in turn can contribute to the even greater growth as compared to lesser urbanised districts as people converge towards these districts. Our result is consistent with the findings of Barkley (1991) who found the level of urbanisation to impact migration rates positively. His findings however suggest a much greater impact which may be attributable to a different in the time period under consideration. Urbanisation may have been a stronger pulling factor in the 1970s than today owing to the relatively lower development of rural areas then.

<sup>10</sup>LFS 1994-95 was the first time that the migration module was added to the LFS and is hence the oldest point of comparison we can use

Table 1  
Results for OLS Estimation

	(1) % of Urban Migrants in the District	(2) % of Rural Migrants in the District
Unemployment Rate	-0.24 (0.050)*	-0.16 (0.081)*
Education Satisfaction	-0.02 (0.494)	-0.03 (0.156)
Urbanisation	0.0006 (0.003)**	0.0003 (0.063)*
Population Density	-	1.63e-06 (0.072)*
HDI	-0.06 (0.284)	-
Electricity Provision <sup>+</sup>	-0.032 (0.233)	-
Balochistan	-0.03 (0.011)**	-0.017 (0.019)**
Sindh	-0.02 (0.006)**	-0.014 (0.05)*
KP	0.01 (0.087)*	0.006 (0.96)
Constant	0.09 (0.048)**	0.037 (0.026)**
Sample Size	28	28
Adjusted R-Squared	0.42	0.49

p-values in parentheses, \*Significant at 10 percent, \*\* Significant at 5 percent.

+ Electricity provision was included for RU migration as well but due to inconsistent results was dropped out of estimation. A rural inhabitant would be assured of a better state of public utilities in all urban districts and therefore the variable does not have explanatory power in explaining the choice of urban district to migrate to.

Interestingly, rural migrants seem to be attracted more towards districts with higher levels of population densities.<sup>11</sup> While a more densely populated district would have a lower capacity to absorb more people, it might also have stronger network linkages for migrants which outweigh the overcrowding consideration. Past literature has emphasised the crucial role played by kinship and ethnic groups, extended families and informal social networks.<sup>12</sup>

Results reveal that districts in both Sindh and Balochistan have, on average, lower rural and urban migrants coming in as compared to Punjab. For the case of Balochistan, this is highly expected given the low level of development of the districts (Quetta itself has an HDI of 0.5397 which is lower than HDI of the lowest ranked district in Punjab),<sup>13</sup> thereby making them less attractive than districts in the rest of the country. The case of

<sup>11</sup>This variable does not appear in the final specification for UU migrants.

<sup>12</sup>See Haas (2010) and Gazdar (2003).

<sup>13</sup>Jamal and Khan (2006).

Sindh presents a conundrum given the presence of the largest urban centre of the country (Karachi) in the province. A possible explanation is the absence of large dynamic urban centres apart from the provincial capital in the province as compared to Punjab. Also, an overriding majority of rural migrants of Sindh move within the province but the numbers are small possibly due to the internal dynamics of rural Sindh. There are no significant differences between Punjab and KP as far as rural migrants are concerned, which is surprising as districts within KP are much less developed both economically and in terms of social sector facilities. However, urban migrants into districts of KP are greater in number than those migrating to Punjab. It could be just that the migration rate is high owing to the smaller populations of these districts, rather than a strictly greater absolute number of migrants.

Controlling for social sector development differences in the districts showed insignificant contribution of these factors in a migrant's decision. For rural migrants a possible explanation is that most migration out of rural areas in the country is motivated by economic considerations rather than a desire to seek improved access to these facilities. Another explanation is that the relative differences in the social sector development are not important to a rural inhabitant who would be improving upon his/her existing situation no matter which district s/he chooses to move to.

Clearly, migrants going towards urban districts of the country are motivated by the greater access to economic opportunities available rather than the degree of access to education and health facilities. For a deeper understanding of this, we would require a disaggregated analysis based on the income levels of migrants. The majority of low income migrants would give a greater consideration to improving their economic status rather than give weight to the availability of these facilities. On the other hand, higher income groups who give weight to these consideration would in most likelihood be unaffected by public sector provision of these facilities. Their primary concern would be the relative differences in quality of these provisions by the private sectors. Therefore, for both groups of migrants we find little or no evidence for the differences across districts in quality or quantity of these services serving as a motivating factor for migration.

From the above analysis of RU and UU migrants, it can be inferred that a migrant in Pakistan is rational and bases his choice on the economic opportunities available to him/her in the destination district. Migrants are mainly driven by the level of development and in turn the better employment opportunities in the district they are moving to. Punjab being the only province with a number of dynamic urban centres receives a greater number of migrants than the other provinces, once again reflecting that the migrants base their decision on the opportunities available.

## **VI. FLOWS**

The net internal migration stands at 2.6 percent of the sampled population with equal contribution from RU and UU flows. Of these people, about 23 percent move across the province. A common trend observed in both flows is the pull of the major cities of Pakistan (provincial and federal capitals). More than half of all migrants going to urban centres move to these cities highlighting the importance of these centres thereby raising concerns of overcrowding.



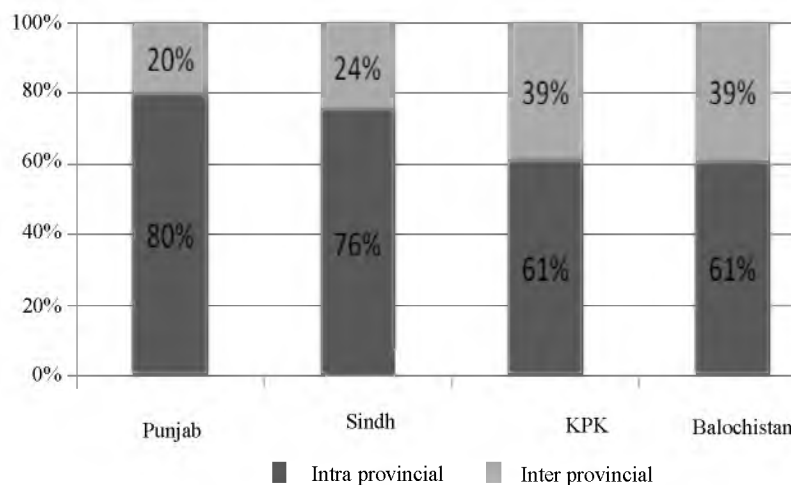
Taking a look at the proportion of people who have migrated out of each province (Table 2), the highest figure of Sindh can be attributed to the presence of the largest metropolitan centre in the county where half the migrants are going and the relatively poorer rural area than Punjab. For the case of UU migrants, in KP, the low level of development of the urban centres as compared to Peshawar seem to be pushing people out since half of them are migrating to the city. On the other hand, the high figure for Punjab might be attributable to the presence of a spectrum of middle level urban centres in the province.

Table 2

<i>Province Wise Migration</i>			
Province	Rural-Urban	Urban-Urban	Total
Punjab	1.35%	1.43%	2.79%
Sindh	1.86%	0.54%	2.40%
Khyber Pakhtunkhwa	1.11%	2.39%	3.50%
Balochistan	0.50%	0.49%	0.94%

### (i) Rural-Urban Flows

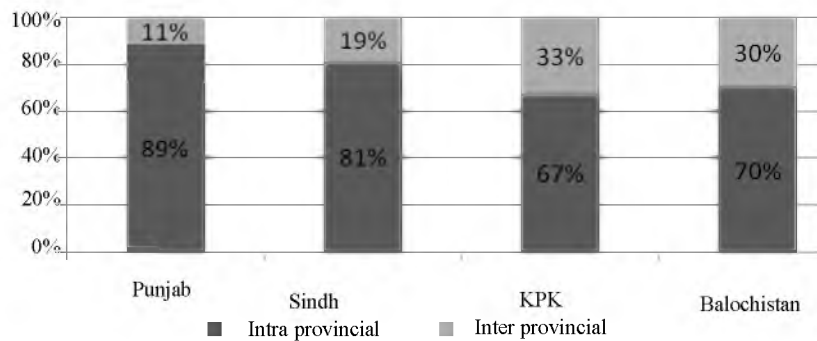
Figure 1 presents the proportion of people from each province (normalised to 100) who moved across and within the same province. Of all RU migrants out of Punjab and Sindh, an overriding majority (more than 75 percent) move within the province pointing to the relatively lower mobility of rural migrants. While this percentage is lower for KP and Balochistan, still, more than half remain within the province. This is surprising given the dramatic differences in level of development between the two western and the two eastern provinces and their close proximity to each other. Thus, it is not just physical distance that is important but rather the distances between people that seem to be playing a part in their decision on where to move.



**Fig. 1. Rural Urban: Percentage of People Moving Within and Across Provinces**

### (ii) Urban-Urban Flows

The considerations and the pull factors for UU migrants vary considerably from that of RU migrants. Traditional human capital theories suggest that the educated in the urban areas have a greater likelihood of securing employment elsewhere and therefore their expected increase from migration is high. This in turn results in their greater mobility as documented by past studies specifically in terms of distance becoming less important. The differences in the standard of living do not remain as obvious and the characteristics of the migrants are also different. However, the case of Pakistan presents a contradiction where more UU migrants seem to choose to stay within their province as compared to the RU migrants (see Figure 2). The numbers have gone up to close to 70 percent for even the less developed provinces of Balochistan and KP and have further increased for the other two more prosperous provinces.



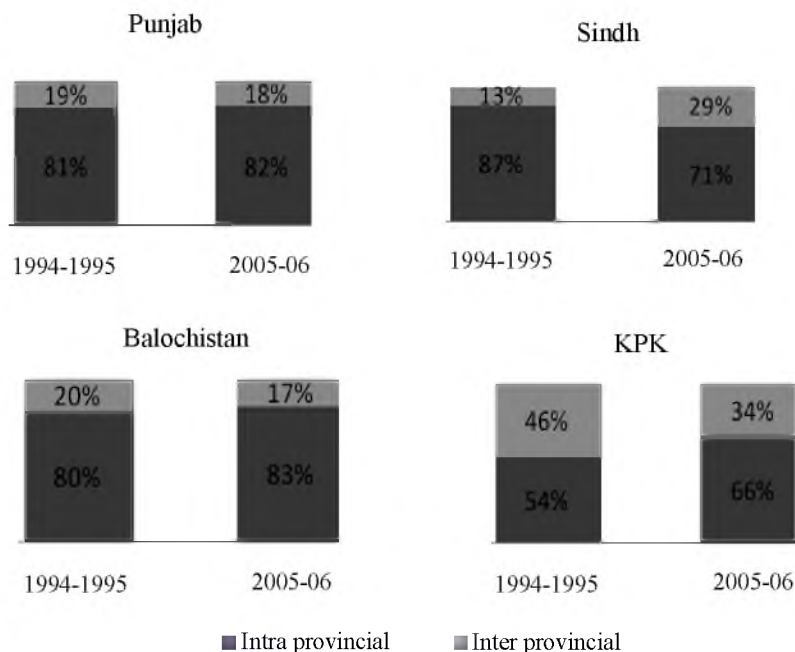
**Fig. 2. Urban Urban: Percentage of People Moving Within and Across Provinces**

The distance that each type of migrant is moving will give us further insights into the actual situation and how it relates with what the pattern is theorised to be. At a very basic level, looking at people migrating out of districts that border two provinces, 70 percent of the migrants in 13<sup>14</sup> out of 26 of these districts are ignoring the closer urban centres across the provincial boundary and instead travelling a greater distance to one within the province.

Furthermore, movement to provinces is largely uni-polar (for e.g. 62 percent of all urban migrants to Sindh move to Karachi district, as is the case of Peshawar from within the KP province). This points to the need of enhancing the economic opportunities and absorption abilities of other districts so that the polarisation pattern that exists can be reversed.

The findings above establish the rigidity of provincial boundaries in Pakistan for both types of migrants. A high proportion of the people are choosing a destination within their province of origin. Figure 3 shows the province wise aggregate (both UU and RU) inter and intra provincial migration from LFS 94-95 and LFS 05-06. The results show that barring Sindh, intra provincial migration figures have not improved for any other province in the last 2 decades. Hence, overall there has been no discernable improvement in degree of integration in the country as reflected by the proportion of inter provincial migration.

<sup>14</sup> For 8 out of these 13 districts, the figure stands at 80 percent



**Fig. 3. Province-wise Historical Pattern of Inter and Intra Provincial Migration**

## VII. CONCLUSION

The migrants in the country are found to be rational agents, responding more to economic incentives than the degree of social sector development of the destination districts. Further, provincial boundaries appear to be rigid; highlighting the failure of policy in increasing integration in the country over time. Therefore, the move towards decentralisation through the 7th NFC awards is an important step, but only if it is followed consistently as a policy in the future.

What also becomes equally important is how federal funds are distributed within the provinces with the migration patterns suggesting heavy concentration towards the provincial capitals. With Punjab being the largest recipient of the federal funds and the metropolitan cities receiving a disproportionately high share within the provincial funds, we expect the influx of migrants and their resulting problems to be exacerbated. There is a need to enhance the economic opportunities and absorption abilities of other districts to prevent further polarisation, and perhaps, reverse it. A deeper understanding of district wise movement can give us further insight on how these processes are working.

In conclusion, after 60 years as a federation we appear to have been unable to reduce the resentment amongst the provinces and foster integration. Though this was not one of the objectives of this paper, one of the avenues that other studies can explore are the implications of said lack of integration and what policy makers need to do to address this issue when setting provincial budgets.

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