COMPARATIVE ANALYSIS OF LOCAL BODY AND NON-LOCAL BODY GOVERNMENT REGIMES IN PROVISION OF PUBLIC SERVICES IN TERMS OF HEALTH & EDUCATION: EVIDENCE FROM PAKISTAN

Yasir Jehan
Lecturer,
Department of Economics, Bacha Khan University, Charsadda,
KPK, Pakistan
Email: yasikhan09@gmail.com

Waqar Ali Ather Bukhari
Lecturer,
Department of Economics, Bacha Khan University, Charsadda,
KPK, Pakistan
Email: waqar.bukhari3@gmail.com

Muhammad Rovidad
Assistant Professor,
Department of Economics, Bacha Khan University, Charsadda,
KPK, Pakistan
Email: rovidadm89@gmail.com

ABSTRACT
It is important to find out the impacts of local body reforms on health and education sector to have a comparison between those eras when local government system have been implemented and not implementation of this system. The paramount concern of the study is to identify whether public services provision in terms of education and health are improved during the era of local body government than that of non-local body government regime in Punjab, Pakistan The main concern of this study is to identify the differences between two regimes of government local body government and non-local body government duration in provision of public services in terms of health and education. Data has been collected for three provinces (Punjab, Sindh, and KPK) at district and province level from provincial development statistics. Due to data limitations, Baluchistan province is excluded from analysis. Overall trend suggested that education sector has been assessed with more and increasing trend during the non-local government regime as compared to local body government in all three
provinces. Similarly, we have assessed that health sectors is also experiencing trend as education.

KEYWORDS
Public Service Provision, Local & Non-Local body government, Health, Education

INTRODUCTION
Decentralization is commonly practiced in democratic countries and its beneficial impacts have been witnessed on economic growth and development, health, and education attainment at national level [Shah (2004); Mehmood and Sadiq (2010); Levaggi and Smith (2003); Aslam and Yilmaz (2011); Ahmed and Lodhi (2013)]. But, in spite of these advantageous effects provincial governments are failed to reflect local preferences adequately and they do not deliver the basic services at regional and sub-regional level. Primarily, only fiscal decentralization strengthens the centralized administrative units (i.e. provinces) without devolution of political power. However, local communities and people living in far flung areas are found complaining against the violation of rights and deprivations in terms of basic provisions of health and education. The local body government system, therefore, can possibly be helpful to provide public services at smaller administrative units (i.e. districts, tehsil, and union council level), and especially those areas which have been overlooked (Blair, 2000).

The main function of local government system is to transfer political and administrative powers from higher tiers to lower tiers to bridge up the gap between concerned authorities and common citizens or a man in the street. The devolution of powers at local levels is perceived to be a system which can better understand the local preferences and needs of the people. If this handover of political power is properly implemented, then it can be impetus for increasing the sense of participation among people in political affairs. Furthermore this provides a way to march on the path of achieving social and economic development at local levels which resultantly enhances the harmony amongst communities at national and sub-national levels. In short, evidences obtained from those countries where advancements regarding devolution of the power have been exercised are indicative of the beneficial impacts on public service deliveries in terms of building education and health infrastructure at community level [Cochrane (1983); Blair (2000); Galang (2001)].

Pakistan, soon after her independence, has been inherited political and government institutions from colonial regime. To the date, four noteworthy decentralization reforms have taken place. These reforms are introduced in 1959 by General Ayub Khan, 1979 by General Zia-ul-Haq, in 2001 by General Pervez Musharraf, and in 2013 by democratic government. The prominent features of these reforms are to deliver public services such as building local health, education, and road infrastructures...
through devolution of powers from centralized authorities to local civilian elective representatives of smaller administrative units. Unfortunately, limited powers were given at local levels especially in first two reform era, but, in Musharraf regime structure of local government system was rebuilt with some positive changes and much power were transited to the communities. Although local bureaucracy and poor accountability system leaves some loopholes in delivery of public services yet some developments and up-gradation of infrastructure in health and education sectors, and rural development as well have been experienced in Pakistan. Decentralization reforms introduced by Musharraf rendered power to locally elected authority at the district, tehsil, and union council level. The elected authority at district level was termed as district Nazim, who had been rewarded authority over bureaucracy in administrative as well as in financial matters.

LITERATURE REVIEW
After the Musharraf regime, democratic governments did not pay considerable heed over transformation of powers. Again power has been retained by controlled authorities, but promised has been made to recirculate local body government. In this regard some steps were taken such as 18th amendment and Local Body Government Ordinance (LGO) in 2013. This ordinance is much differed than that of LGO in 2001 by Musharraf, and elected authority does not hold as fiscal and financial autonomy as given by Musharraf. On the order of apex court, democratic governments have been compelled to make hold local body elections. Due to increasing demand by civil society and order of the Supreme Court, in 2016 local body government elections are held on the basis of party system first time in the history of Pakistan.

Heaps of existing literature is available on identifying the beneficial impacts of fiscal decentralization on economic growth and public services delivery in Pakistan [Breuss and Eller (2004); Akai and Sakata (2002); Martinez-Vazquez and McNab (2003); Malik et al (2006); Iqbal and Nawaz (2010)]. Moreover education and health sectors are having immense importance and provision of health and education has been prime agenda of any government in developing countries. Local government system has been considered to deliver at local level and smaller units. But, impacts of local body government on health and education sector are needed to investigate that whether aforementioned sectors are improved or not in Pakistan.

It is important to find out to impacts of local body reforms on health and education sector to have a comparison between those eras when local government system have been implemented and not implementation of this system. The evidences are needed to collect from Punjab which is the biggest and developed province of Pakistan. The province comprises 36 districts and three major regions which are central Punjab, south Punjab, and Pothohar region of the Punjab. Especially South Punjab is considered the
most backward and poor region. The evidences observed from Punjab would provide us a glimpse of effects of the implementation of local body system and it also would be helpful to highlight the comparison of both regimes. The study raises basic research question as follows. Does local body government regime experience any improvement in education and health sectors than that of non-local body government regime? The paramount concern of the study is to identify whether public services provision in terms of education and health are improved during the era of local body government than that of non-local body government regime in Punjab, Pakistan. The specific objectives are defined as follows. To analyze the comparison of local body government regimes and non-local body government regimes in terms of provision of education and health facilities.

The study makes endeavor to weave up only some important studies. The most of literature is available on decentralization especially in the context of Pakistan [Breuss and Eller (2004); Akai and Sakata (2002); Martinez-Vazquez and McNab (2003); Malik et al (2006); Iqbal and Nawaz (2010)]. Very rare attention is given to find out the impacts of local body government regimes on expansion of health and education sectors at smaller administrative units. Vander Naald (2007) analyze the impacts of fiscal decentralization on education outcomes. The student's tests scores and dropout rate are used to measure the education outcomes. The results conclude that financial decentralization have positive impacts on secondary education (using 6 years unbalanced data of 49 states) and unclear insignificant impacts on primary education (using 2 years imbalance Penal Data). On the other hand, [Ezcurra and Pascual (2008), Lessman (2009) and Qian and Weingast (1997)] find that decentralization exerts a positive impact on the reduction of regional inequality Faguet and Sanchez (2008) evaluate the process of fiscal decentralization on educational outcomes to make a comparison between Colombia and Bolivia. The study reveal that in Colombia, the students’ enrollment gets increased from shifting of powers to local governments. Similarly, In Bolivia, the public sector investment surges on basic local needs especially on education. Smith et al., (2012) examines the hypothesis that can the empowerment of sub-national governments with more powers of revenue collection promote economic development? Six Latin American cities from Mexico and Argentina (three from each) use both qualitative and quantitative analyses to investigate the hypothesis. It reveals that cities with more revenue generating powers are in better position to design more productive development programs that not only enhance the supply of job opportunities but also improve the overall living standard of the society. Zhou et al, (2012) using education outcomes as an indicator of local government’s responsiveness to local resident needs, studied the impacts of fiscal decentralization on fiscal behavior of local governments, the outcomes of both tests suggest inverse relationship between counties powers endowment and the expenditures made on public education. The study concludes that fiscal decentralization does not
necessarily make sub-national governments to spend more on basic local benefits (education, health, etc). Wolf (2007) examines the hypothesis that can fiscal decentralization disturb the government budget size and consequently could reduce funds allocated to social spending (Education, health, infrastructure, etc). The results obtained from Fixed Effect Model points out a negative relationship between fiscal decentralization and government size. Except education and health that are less sensitive to the fiscal decentralization, the others social spending are strongly affected. Diaz-Serrano and Meix-Llop (2012) try to quantify the influence of political and fiscal decentralization on the student’s performance. The findings of the research indicate that fiscal decentralization affects the students’ performance positively (not all with same pace), while the outcomes in political decentralization case are a bit different and complicated. Political decentralization makes students’ performance better regionally but as a whole at national level, their performance gets fall.

**Methods and materials**

We choose three years (2002-2008) from era of local body governments during Musharraf regime and three years (2009-2015) from next regime of centralized democratic regimes. Services delivery in terms of health and education are taken for analysis. There are several indicators for health and education but we select those indicators whom data is easily and in considerable number of years available. Punjab Development Statistics (PDS) provides us district level and provincial level information. Therefore, district level data for indicators of education and health are taken from PDS’s of respective years.

**Selection of Indicators by Districts of the Punjab**

Indicators for education are the number of teachers for primary, middle, and higher schools separately, second indicator for education is number of primary schools, middle schools, and secondary schools. Similarly for health sectors, number of hospitals, and number of beds in respective district are selected. Further these indicators are divided by the population of the respective districts of the Punjab to obtain the indicators in per capita form.

**Index of the Public Service Delivery**

The study would use equally weighted average to construct the index of public service delivery index where each indicator would be normalized at 1 to make it unit free. The generated index would lies between 0 and 1. It is important to mention that value of 1 for index would suggest the completely public service is delivered which is extreme case and similarly other extreme is value of 0 which would suggest that nothing is delivered. Hence, the value of the index will range between both extremes. If value approaches to 1, then this will indicate higher public service is delivered and vice versa.
Selection of Time for Local Body Government and Non-Local Body Regimes

This study divides data into two regimes: 1) local government regime, and 2) non-local government regime. First regime is under LGO (2001) by Musharraf which was the best and well-structured as compared to previous ordinances, and second reason of selecting this regime is availability of data. We selected 2002-2008 due to availability of data at district level. During 2008, democratic government assumes office and they suspended local body reform ordinance given by Musharraf. Second regime stands for non-local government regime which comprises 2009-2015.

A dummy variable is generated for regimes where a binary variable takes value 1 if the regime is of local body government during 2002-2008, otherwise zero if regime is non-local body government (2009-2015). There are several limitations are involved with this study. Some notable limitations are mentioned as follows.

a) Availability of data has been the real issue
b) These indicators can be measured in many good measurements such as ratios, percentage and some other measurement devices, but, believe us data collecting, and writing it from pdf files to excel files was worth having efforts. Due to limited time and scope of the study we restrict ourselves up to this work.
c) We are looking at only trend; therefore, these findings may be overstated or understated.
d) A comprehensive study is needed to delve into the effects of local body government duration through Moza dataset for available for the period of 2005, 2007, and some latest time data set which may give more clearly.

RESEARCH OBJECTIVE
1. To analyze the comparison of local body government regimes & non-local body regimes in terms of provisions of education and health

RESEARCH METHODOLOGY
The study would mainly focus on the basis of the descriptive analysis and would also try to estimate fixed effect model where population growth and regional dummies will be used as controlled variables.

Econometric Model
The study would find out the impacts of the dummy variable of the regimes of local and non-local government on public service delivery in terms of health and education. The model is specified as follows.

\[ Y_{it} = \beta_0 + \beta_1 (\text{Regime DV}) + \beta_2 (\text{population growth})_{it} + \beta_3 (\text{Pothohar Region}) + \beta_4 (\text{central Punjab}) + \text{Error term} \]

In above equation Y is index of public service delivery which dependent variable, is regressed on dummy variable of regimes, population growth of the districts, and
regional dummies will be introduced where south Punjab is kept as reference category. This equation would be estimated by using fixed effect model.

**RESEARCH FINDINGS AND DISCUSSION**

This section discusses the results obtained from data trends, and then comments and justification will be weaved up. We commence interpreting trends for data of Punjab which is given below.

*Data Trend of Indicators for Education Sector in Punjab Province*

There are two types of indicators for education and health sectors are taken where number of schools (Primary, Middle, and Secondary), and number of teaching staff (Primary, Middle, and Secondary) are indicators of education sectors. We are presenting these trends via graphics, and tables as follows.

![Figure 1: Number of Primary Schools](image1)

![Figure 2: Number of Primary Schools](image2)
These graphics entail three trend of education indicator, number of schools in South Punjab (light blue), Pothohar region (dark red), and Central Punjab (light red). These regions are formed on the basis of district level data. These numbers give us increasing trend during the non-local body regime as compared to local body regime.

Similar sort of the trend we have seen for number of teaching staff at primary school, middle school, and secondary schools in these regions of Punjab which are evident from following figures 4, 5 and 6.
Figure 5: Number of Middle School Teachers

Figure 6: Number of High School Teachers

**Data Trend of Indicators for Health Sector in Punjab Province**

Now, we see the trend of indicators for health sector which are number of hospitals, and number of beds in the regions. From where, we may see through the trend of health indicators during local body regimes, and non-local body government regimes. These are given in following figures 7 and 8.
Above graphics are suggestive that overall trend again favors non-local government body regimes where in terms of number, and difference between these numbers is higher than that of local body government. If we closely look at these graphics, it is evident that in term of size of indicators of education and health Central Punjab is yielding higher numbers but gap between these are higher in South Punjab which demonstrates that during local body government and non-local body regimes South Punjab is experiencing higher development in terms of health and education indicators. But, overall non-local body regime is again excel even in South Punjab.

_Presentation of both Health and Education Sector by Rate of Change on the Base 2003_ 
After depiction of trend via graphics for regions of Punjab, we made endeavor to assess the trend from province level in formation contrary to above where regions were
formed on the basis of district level data. Now we found rate of change on the basis of 2003 data. Actually this might be the alternative way to observe trend. This is given in following tables.

Table 1
Provincial Level Indicators of Education: Punjab Province

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Schools</th>
<th>Percentage Change (w.r.t 2003)</th>
<th>Middle Schools</th>
<th>Percentage Change (w.r.t 2003)</th>
<th>High Schools</th>
<th>Percentage Change (w.r.t 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>44253</td>
<td>--</td>
<td>6875</td>
<td>--</td>
<td>4464</td>
<td>--</td>
</tr>
<tr>
<td>LG-2004</td>
<td>44185</td>
<td>-0.15</td>
<td>6801</td>
<td>-1.08</td>
<td>4466</td>
<td>0.049</td>
</tr>
<tr>
<td>LG-2005</td>
<td>44176</td>
<td>-0.17</td>
<td>7196</td>
<td>4.67</td>
<td>4482</td>
<td>0.40</td>
</tr>
<tr>
<td>LG-2006</td>
<td>44313</td>
<td>0.14</td>
<td>7371</td>
<td>7.21</td>
<td>5598</td>
<td>25.40</td>
</tr>
<tr>
<td>LG-2007</td>
<td>44687</td>
<td>0.98</td>
<td>7400</td>
<td>7.67</td>
<td>4541</td>
<td>1.72</td>
</tr>
<tr>
<td>LG-2008</td>
<td>44617</td>
<td>0.82</td>
<td>7457</td>
<td>8.47</td>
<td>4669</td>
<td>4.59</td>
</tr>
<tr>
<td>2009</td>
<td>44970</td>
<td>1.62</td>
<td>7504</td>
<td>9.15</td>
<td>4717</td>
<td>5.67</td>
</tr>
<tr>
<td>2010</td>
<td>43408</td>
<td>-1.91</td>
<td>7543</td>
<td>9.72</td>
<td>4839</td>
<td>8.40</td>
</tr>
<tr>
<td>2011</td>
<td>42048</td>
<td>-4.98</td>
<td>7661</td>
<td>11.43</td>
<td>4942</td>
<td>10.71</td>
</tr>
<tr>
<td>2012</td>
<td>42048</td>
<td>-4.98</td>
<td>7756</td>
<td>12.81</td>
<td>5589</td>
<td>25.20</td>
</tr>
</tbody>
</table>

Above table 1 is exhibiting that rate change during non-local government is increasing and higher as compared to local body regime except for primary schools where rate of change is increasing and higher during local body regimes. This might reveal that local body government system is providing at primary schooling duration. Similar trend is observed for, teaching staffs at primary schools which is given in table 4 and 5.

Table 2
Provincial Level Indicators of Health: Province Punjab

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Hospitals</th>
<th>Percentage Change (w.r.t 2003)</th>
<th>No. of Beds</th>
<th>Percentage Change (w.r.t 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>298</td>
<td>--</td>
<td>33724</td>
<td>--</td>
</tr>
<tr>
<td>LG-2004</td>
<td>306</td>
<td>2.68</td>
<td>33334</td>
<td>-1.16</td>
</tr>
<tr>
<td>LG-2005</td>
<td>308</td>
<td>3.35</td>
<td>34612</td>
<td>2.63</td>
</tr>
<tr>
<td>LG-2006</td>
<td>308</td>
<td>3.36</td>
<td>34612</td>
<td>2.63</td>
</tr>
<tr>
<td>LG-2007</td>
<td>325</td>
<td>9.06</td>
<td>36851</td>
<td>9.27</td>
</tr>
</tbody>
</table>
Above table 2 is entailing information of health indicators where number hospitals and number of beds and coloured values which are rate of change on the basis of 2003. The overall trend is indicative of higher and increasing trend during the period of non-local body government as compared period of local body government regime.

**Possible Reasons and Concluding Remarks**
The reasons of lower trend during local government regime can be manifold, but some reasons are highlighted as follows.

- Poor Accountability system during LG regime
- Centralized provincial government has been kept focus on improvements in infrastructure of schools, and providing them fund to upgrade. Similarly, for health sector, much stress has been given on providing improved infrastructure as compared to previous regimes.
- We collected data from development statistics for district and provincial level. Impacts of local body may be understated by this data set. Moza data set which comprises data of tehsile, and union council level may give us broader and better spectrum of the performance of local body government, but, unfortunately, due to time and limited scope of the study it was impossible for us to do it.
- Still local government system is nascent in Pakistan, it may provide us fruitful outcome as it gets flourished.

Overall we can conclude that duration of local body government system is not indicating improvement in education and health sectors as it is showing in non-local government regime in Punjab Province.

**Comparison of Health and Education Sector in Province Sindh**
Now, we come to Province Sindh, same indicators of education and health is taken for Sindh. Table which contains rate of change on the basis of 2003 is discussed here mainly whereas rests of tables for division levels are kept in appendix.

Actually we collected district level data for Sindh, and converted it for division level. Actually more or less trend is same as it would be table we are presenting below. Therefore, those tables are kept in appendix.


<table>
<thead>
<tr>
<th>Years</th>
<th>Primary Teachers</th>
<th>Middle Teachers</th>
<th>Secondary Teachers</th>
<th>No. of Basic Health units</th>
<th>No. of Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG-2004</td>
<td>-6.13</td>
<td>-15.60</td>
<td>-11.41</td>
<td>2.68</td>
<td>-1.16</td>
</tr>
<tr>
<td>LG-2005</td>
<td>-4.42</td>
<td>-11.45</td>
<td>-12.09</td>
<td>3.35</td>
<td>2.63</td>
</tr>
<tr>
<td>LG-2006</td>
<td>-3.34</td>
<td>-9.48</td>
<td>-11.70</td>
<td>3.36</td>
<td>2.63</td>
</tr>
<tr>
<td>LG-2007</td>
<td>-2.24</td>
<td>-8.11</td>
<td>-10.67</td>
<td>9.06</td>
<td>9.27</td>
</tr>
<tr>
<td>2008</td>
<td>-8.85</td>
<td>-4.60</td>
<td>-5.73</td>
<td>9.40</td>
<td>11.65</td>
</tr>
<tr>
<td>2009</td>
<td>-12.73</td>
<td>-4.19</td>
<td>-4.54</td>
<td>9.40</td>
<td>11.91</td>
</tr>
<tr>
<td>2010</td>
<td>-12.59</td>
<td>2.32</td>
<td>3.45</td>
<td>10.07</td>
<td>14.80</td>
</tr>
<tr>
<td>2011</td>
<td>-14.21</td>
<td>3.65</td>
<td>4.489</td>
<td>10.40</td>
<td>15.80</td>
</tr>
</tbody>
</table>

Above table is demonstrative of rate of change on the basis of actual data of education indicators number of teachers at primary, middle, and secondary schools, and moreover it encompasses the rate of change for number of basic health centers, and number of beds in Sindh province.

The rate of change is suggestive that again overall trend is increasing and higher for the period of non-local government as we have observed for Punjab. All tables which are kept in indices are also showing similar sort of the trend for seven division of Sindh province. Those seven divisions of Sindh are Karachi, Hyderabad, Larkana, Mirpurkhas, Nawabshah, Bhambore, and Sakhar. An overall trend supports previous findings.

**Health Indicators for KPK Province**

There are some data limitations regarding KPK, and Balouchistan. But, after some effort we were able to find out data of health indicators for KPK over the time. This might give us some glimpse of comparison for local government system and non-local government system even in KPK. Following comprises the information of number beds, number of basic health units, number of dispensaries, and number hospitals in KPK. This table is also showing similar sort of the trend as we have assessed in the case of Punjab, and Sindh province.
Table 4

<table>
<thead>
<tr>
<th>Years</th>
<th>Hospitals (*)</th>
<th>Dispensaries (*)</th>
<th>R.H.Cs</th>
<th>T.B Clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>141</td>
<td>12633</td>
<td>363</td>
<td>101</td>
</tr>
<tr>
<td>2005</td>
<td>161</td>
<td>13228</td>
<td>368</td>
<td>101</td>
</tr>
<tr>
<td>2006</td>
<td>161</td>
<td>13214</td>
<td>370</td>
<td>101</td>
</tr>
<tr>
<td>2007</td>
<td>162</td>
<td>13612</td>
<td>370</td>
<td>101</td>
</tr>
<tr>
<td>2008</td>
<td>163</td>
<td>13803</td>
<td>411</td>
<td>87</td>
</tr>
<tr>
<td>2009</td>
<td>163</td>
<td>13814</td>
<td>411</td>
<td>87</td>
</tr>
<tr>
<td>2010</td>
<td>172</td>
<td>15340</td>
<td>421</td>
<td>91</td>
</tr>
<tr>
<td>2011</td>
<td>177</td>
<td>16020</td>
<td>425</td>
<td>91</td>
</tr>
<tr>
<td>2012</td>
<td>183</td>
<td>16867</td>
<td>442</td>
<td>96</td>
</tr>
<tr>
<td>2013</td>
<td>183</td>
<td>16867</td>
<td>434</td>
<td>79</td>
</tr>
</tbody>
</table>

Note: The data set will be consider as the first January form the respective year
(*) include Private Institutions
Source: Director General Health Service, Khyber Pukhtoon Khwa, Peshawar

Above table is also suggesting that duration of non-local government system regime is experiencing higher number of health care units as compared to local body government regime. It is important to notice we have found more or less similar trend as it has been experienced in Sindh and Punjab.

RECOMMENDATIONS

The main concern of this study is to identify the differences between two regimes of government local body government and non-local body government duration in provision of public services in terms of health and education. Data has been collected for three provinces (Punjab, Sindh, and KPK) at district and province level from provincial development statistics. Due to data limitations, Baluchistan province is excluded from analysis.

Overall trend suggested that education sector (number of schools, number of teachers) has been assessed with more and increasing trend during the non-local government regime as compared to local body government in all three provinces. Similarly, we have assessed that health sectors is also experiencing trend as education.

REFERENCES

Akai, N., & Sakata, M. (2002). Fiscal decentralization contributes to economic growth:


Mehmood, R., & Sadiq, S. (2010). The relationship between government expenditure and