

GEO-POLITICAL ZONING AND WORKERS' EARNINGS IN NIGERIA

Beatrice Ayodeji Fabunmi

*Kenneth Dike Library
University of Ibadan
Ibadan, Nigeria*

Abstract

The study sought to investigate disparities in earnings across the geo-political zone. Data were collected using the 2005 Labour Market Survey of the National Manpower Board covering 19,888 Nigerian workers: 2,297 in the North-East; 2,967 in the North-West; 3,714 in the North-Central; 3,448 in the South-East; 3,088 in the South-South; and 4,374 in the South-West. Sectors of employment were grouped into private and public across the six national geo-political zones. The research question raised was answered using descriptive statistics, while the null hypothesis formulated was tested using One-way Analysis of Variance (ANOVA) and Scheffe Post hoc analyses were used to test for differences among the different geo-political zones. The sole hypothesis was tested at the 0.05 level of significance. The results indicated that there is a big difference between private sector and public sector mean in all the geo-political zones. This implies that public sector pays higher than private sector in all the six geo-political zones. Also the hypothesis tested showed a significant difference in workers' earnings across the geo-political zones ($R=0.03$, $F_{(5, 19,882)}=4.693$, $p < 0.05$). These accounted for 3.4% of the variance in workers' earnings. The study established that workers' earnings differed across the six geo-political zones in Nigeria; and also provided evidence of disparity in earnings. This important finding gives the anecdotal evidence and general perception of such disparities. It also gave us insight into the differences in earnings on account of geo-political zones which are being referred to as the native abilities of workers, thus providing evidence of variation in earnings in the six geo-political zones in Nigeria. Hence, the advocacy for policy and programmes for closing the disparity gaps.

Introduction

Earnings inequality has been of interest to scholars all over the world. The rise in earnings inequality and the subsequent increase in the returns to schooling experienced during the 1980s and 1990s in many countries led to a renewed interest in estimates of returns to educational investment. Private returns refer to the additional income earned as a result of attaining a particular level of education. Private returns are used to explain people's behaviour in seeking different educational levels and types and as distributive measures of the use of public resources. According to Brauer 1995, the sharp increase in earnings, inequality over the last decade and half has received considerable attention in the literature. The increase in inequality has been observed through different groups using variables such as educational attainment, gender, occupation and location. Even though, these aspects of earnings distributions are of interest, this article is laying emphasis on the differentials across the geo-political zones.

There is a strong consensus among economists that formal education is an important determinant of individual earnings as well as economic growth (Schultz, 1961, Becker, 1964, Joint Economic Committee, United States Congress, 2000 and Card, 2001). Many consider human capital to be the engine for growth of an economy, while others who do not necessarily share this view accept that human capital plays a significant role in the economic growth of a nation. Individuals acquire skills and knowledge to increase their value in labour markets. Many people invest in education because of the expected returns in terms of higher earnings, while governments invest in education because of the need to accelerate economic growth and development. This is only possible when human resources are educated, gainfully employed and adequately rewarded. However, this is not always the case in the labour market. There are variations in earnings, the reward for education differs substantially by the type of region an individual is working with.

According to Psacharopoulos (1994), private returns to investments in education is an important factor in determining educational attainment, participation and ultimately income. This can equally be used to explain people's behaviour in striving for different educational levels. Social returns can be used to set order in future investments in education. Blaug (1972) opines that

education and earnings are positively linked. The universality of this positive association between education and earnings is one of the most striking findings of modern social science.

Geo-political zones are the geographical zones to which the country was divided for political considerations. Nigeria is divided into the following geo-political zones: North-East, North-West, North-Central, South-East, South-West and South-South. The geo-political zones have been the basis for sharing social values in Nigeria. According to Oyelere (2007), the thirty six states in Nigeria are classed into six geo-political regions. These regions are not entirely carved out based on geographical location; however, states with similar cultures, ethnic groups and common history, were classed in the same region, thus making the regions in Nigeria to have different backgrounds and unique features.

According to Onphanhdala and Suruga (2006), there is regional disparity in private returns to education. They categorized their data into the Vientiane Capital, northern, central and southern regions and discovered that there are earning differentials in the regions. It was discovered that a worker in the northern, central and southern regions earn about 28%, 16%, and 21% lower than his/her counterpart in the Vientiane capital, indicating that employment outside Vientiane capital would yield lower earnings. Oyelere (2007) is of the view that differences in geo-political regions of Nigeria are not debatable, but her major concern was that there is no clear consensus on the dimension of these disparities. Also, Hemmings, (1991) compared earnings between regions of Great Britain and examined earnings differences for female and part-time employees as well as male employees found out that equations for the earnings of males display greater regional heterogeneity than those for females.

The partial cause of earnings differentials may also be sector of employment. Mann and Kapoor (1988) have explored that, on the average, public sector workers are paid much higher wages than the private and joint sector workers. Rees and Shah (1995) have reasoned that the private wage determination is subject to profit constraint, whereas the public sector wage determination is subject to an ultimate political constraint. Thus, wages in the public sector are higher than in the private sector. Pritchett (1999) highlighted the situation in which governments are taking resources away from non-governmental activity in the form of taxes so as to pay

additional workers whose marginal product in the public sector is very low but are paid much higher wages than workers in the private sector.

According to Onphanhdala and Suruga (2006), government salaries appear to be well below the market level and salary increases are largely given as administrative rewards rather than as adjustments to market conditions. It was also discovered that salaries in state-owned enterprises and the private sector are substantially above those in the government, and that these salaries increased substantially faster than those in the public sector. The salary scale in the government is quite flat, with the salary of top officials about twice that of the low paid individuals. A top government official might earn only one tenth of the salary paid for a similar position in a private enterprise. This means that there are earnings differentials in public and private sectors.

According to London Economics (2005), human capital accumulation confers benefits to individuals, enterprises and societies which may be in form of higher earnings increase in productivity and economic growth. Many people invest in education because of the expected returns in terms of higher earnings, while governments invest in education because of the need to accelerate economic growth and development and this is only possible when human resources are educated, gainfully employed and adequately rewarded.

Unfortunately, employees are not always rewarded according to their level of education. People who may not possess the required skills and ability to perform at some jobs are employed due to geo-political zone, favouritism, god-fatherism, corruption, ethnicity, quota system, religion, race, native ability, family background, gender, etc. While some of the factors responsible for this are measurable, some are not. Education must yield a higher return in order to be pursued from an economic point of view. If investment in education is not a worthwhile venture, there is likely to be shortage of talents and skills needed for development and this can decisively retard economic progress in the society. Thus the need to have anecdotal evidence and perception of variations in earnings along the political zones in Nigeria. It is against this background that the study investigated differentials in earnings across the six geo-political zones (native abilities) among Nigerian workers. This type of study is necessary in order to justify the

disparities in workers' earnings across the six geo-political zones and also to solve the problem of dearth of literature on private returns to investment in education among Nigerian workers on account of geo-political zone.

Statement of the Problem

A very important benefit of formal education is increased earnings in the person's future. Earnings seem to increase with level of education. Several studies in different countries have confirmed that highly educated individuals earn high wages, experience less unemployment, and work in more prestigious occupations than their less educated counterparts. Despite the overwhelming evidence of a positive correlation between education and labour market status, it is not always so in the labour market. Employees ought to be rewarded based on their educational attainment, but, it was observed that employees in Nigeria seem not to be rewarded based on their level of education, thus making it difficult to believe that education still determines earnings. There is, therefore, the need to analyse differentials in earnings across the six geo-political zones. It is important to verify the existence of disparities in benefits from education across region.

Research Question

1. What are the average monthly earnings by sector of employment and geo-political zones in Nigeria?

Hypothesis

HO₁: There is no significant difference in workers' earnings on account of geo-political zone in Nigeria.

Methodology

This study is based on the 2005 National Manpower Board Labour Market Survey which used both descriptive survey and non-experimental research designs. The survey made it possible to establish the sex, age, educational background, experience and earnings among workers in Nigeria. The non-experimental research design was used to determine the direction and magnitude of relationships among age, experience, gender, occupation, level of education and years of schooling on private returns; and in the process of testing research hypotheses.

The population of this study comprises 36,458 workers in the 2005 National Manpower Board Labour Market Survey. The survey used all the working class subjects enumerated in all the 36 states including the Federal Capital Territory, Abuja, by the defunct National Manpower Board survey in 2005. This represents the most recent and comprehensive data on labour market characteristics. The survey covered all the 36 States and the Federal Capital Territory, Abuja, as well as the 774 Local Government Areas in the country. Table 1 shows how the study arrived at a total of 36,458 comprising the population of the study.

Purposive sampling technique was used to select 19, 888 workers from the population of 36,458 workers who participated in the study. The total sample size from this study is 19,888 workers, made up of 14, 375 workers in the private sector while, 2,822 workers are in the public sector. The purposive sampling technique was used to select 7,032 workers with no formal educational qualification, the 4,910 workers with primary school certificate, 4,873 workers with secondary school certificate and 3,073 workers with university first degrees; thus making a total of 19,888. Both descriptive and inferential statistics were used for analysing data. The mean and deviation were used to provide answer to the research question; while the one way analysis of variance and Scheffe post-hoc test were used to test the sole hypothesis, using the 0.05 level of significance.

Table 3.1: Study Population by Age-group and Sex

Age Group	Sex of Respondent					
	Male		Female		Both Sexes	
	No	%	No	%	No	%
0 - 4 Years	2993	10.04	3022	10.97	6015	10.48
5 - 14 Years	7877	26.41	7022	25.49	14899	25.97
<i>Below15 Years</i>	<i>10870</i>	<i>36.45</i>	<i>10044</i>	<i>36.46</i>	<i>20914</i>	<i>36.45</i>
15 - 24 Years	6369	21.35	6175	22.42	12544	21.86
25 - 34 Years	4660	15.62	4768	17.31	9428	16.43
35 - 44 Years	2968	9.95	2958	10.74	5926	10.33
45 - 54 Years	2661	8.92	2216	8.04	4877	8.50

55 - 64 Years	1274	4.27	827	3.00	2101	3.66
65 - 70 Years	597	2.00	336	1.22	933	1.63
15 - 70 Years	18529	62.13	17280	62.73	35809	62.42
Above70 Years	426	1.43	223	0.81	649	1.13
Total	29825	100.00	27547	100.00	57372	100.00
% of Grand-Total		51.99		48.01		100.00

Source: Kadejo (2005)

Results and Discussion

Research Question1: What are the average monthly earnings by sector of employment and geo-political zones in Nigeria?

Table 2: Mean Monthly Earnings by Geo-Political Zones for Private and Public Sectors

Sector of Employment	Geo-Political Zone						Group Total
	North East	North West	North Central	South East	South South	South West	
	Mean (N)	Mean (N)	Mean (N)	Mean (N)	Mean (N)	Mean (N)	Mean (N)
Private	10,915	14,116	16,642	14,123	12,204	14,780	14,043
Public	29,061	17,392	18,707	26,194	20,921	21,832	21,452
Group Total	13,585	14,722	16,985	15,406	13,889	15,902	15,222

Table 2 contains the averages of income of workers in the six geo-political zones in Nigeria by sector of employment. Sector of employment was classified into private and public sectors, while the geo-political zones are classified into six namely: North East, North West, North Central, South East, South- South and South West. The private sector workers in North East had a mean of N10,915; North

West had N14,116; North Central had N16,642; South East had N14,123; South-South had N12,204 and South West had N14,780. The private sector had a group total mean of N14,043. Workers in the public sector working in the North East had a mean of N29,061; North West had N17,392; North Central had N18,707; South East had N26,194; South-South had N20,921 and South West had N21,832. The public sector had a group total mean of N21,452.

These results give us insight into the differences in income based on the geo-political zones which are being referred to as the native abilities of workers. There are slight differences in income of workers on account of geo-political zones. However, there is a big difference between private sector and public sector mean in all the geo-political zones. This implies that public sector pays higher than the private sector in all the six geo-political zones. The innate potential of an individual signified by the geo-political zones variable appears to explain some differences in earnings in Nigeria. The administrative and commercial centers of the country appear to contribute to the differences observed. The highest earning was found to be in the North Central, which also include Abuja, the Federal Capital Territory, with an average of N16,985, followed by South West, which includes Lagos, with an average of N15,902. It is well established that the cost of living is highest in Abuja, while Lagos harbors more than two-third of economic activities in the country. North West and North East have the least earnings of N14,722 and N13,585, respectively.

The finding of this study corroborates the findings of Mann and Kapoor (1988), Rees and Shah (1995) and Pritchett (1999) who assert that public sector workers are paid much higher wages than the private sector workers. Even though, the finding of Okuwa (2004) and Onphanhdala and Suruga (2006), who discovered that private sector workers are paid higher than the public sector workers disagree with some of the earlier studies. The most important fact emerging from the finding is that disparity occur in earnings as a result of the sector of employment. The implication of this is that private return to investment in education is being determined by sector of employment.

The reason might be the nature of the data used in the study which covered only Lagos state, Okuwa (2004). Lagos state is highly industrialized. It is a state with high concentration of large scale industries, the salary structure of which cannot be compared with

the private sectors in other parts of the country and it is even a state where we have public sector workers receiving the highest pay compared to other public sector workers in the country due to the peculiarity of the state.

Another reason for the disagreement with earlier findings is that this present study covered the whole country including urban and rural areas. Also, public sector workers earn more than private sector workers in this study because of the salary increments enjoyed by the public sectors in the country in the last few years. This has made the public sector to be more competitive and attractive because of the salary package and remuneration offered. When the earlier study was conducted, the public sector's salary structure was low. The present salary structure of the public sector is higher than most of the private sectors' salary structure. This made the returns to education for public sector workers to be higher than that of the private sector workers in this study.

Hypothesis 1: There is no significant difference in workers' earnings on account of geo-political zone in Nigeria.

Table 3: Descriptive Statistics of Differences in Earnings across the Six Geo-Political Zones

Code	Geo-Political Zone	No. of Cases	Mean(N)	Standard Deviation
1	North-East	2,297	11,783.28	36,570.382
2	North-West	2,967	14,685.24	28,186.874
3	North- Central	3,714	14,358.04	42,680.323
4	South-East	3,448	14,917.39	23,496.902
5	South-South	3,088	12,853.40	13,176.937
6	South-West	4,374	13,722.99	22,593.577
Total		19,888	13,833.16	29,135.883

The result of test for differences in private returns to education across the six geo-political zones is presented in Table 3. The table shows the mean and standard deviation of earnings across the six geo-political zones. There are six geo-political zones in Nigeria namely: North-East, North-West, North- Central, South-East, South-South and South-West. The 2,297 respondents in North-East had a mean of N11,783.28, while 2,967 in North-West had N14,685.24. North-Central with 3,714 respondents had N14,358.04,

while 3,448 respondents in the South-East had N14,917.39. South-South respondents of 3,088 had a mean of N12,853.40, while South-West with 4,374 had N13,722.99, thus having a total of 19, 888 respondents and group total mean of N13,833.16. These enable the study to assess the differences in earnings across the six geo-political zones in Nigeria.

Table 4: Results of Analysis of Variance on Workers' Earnings on Account of Geo-Political Zone

R = 0.003
R square = 0.000
Eta = 0.034
Eta square = 0.001

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)	19899989618	5	3979997924	4.693	0.000
	Linearity	175899469.5	1	175899469.5	0.207	0.649
	Deviation from Linearity	19724090149	4	4931022537	5.814	0.000
Within Group		1.68622E+13	19882	848112232.9		
Total		1.68821E+13	19887			

The result of one-way analysis of variance in Table 4 has confirmed that there is significant difference in the earnings of workers on account of the geo-political zones in Nigeria. This shows that the significant level for variations in earnings is less than 0.05 level of significant. This indicates that the six geo-political zones differed. Therefore, the null hypothesis is rejected.

In this study, no linear relationship existed between the six geo-political zones and private returns to university. Table 4 shows that the measures of association (R) indicating the relationship between the six geo-political zones and earnings is 0.003 i.e. 0.3% of the variation in earnings. Estimated R square equals 0.000, while eta equals 0.034 and eta square is 0.001. These indicate that differences between the states account for 3.4% of the variation in workers' earnings.

Since null hypothesis is rejected, it means there is earning difference among the zones. This therefore called for multiple

comparative tests (Scheffe Post-hoc analysis) to show the magnitude of effects across the geo-political zones. This further revealed the extent of differences as shown in Table 5.

Table 5: Results of Scheffe Post-hoc Test Showing Homogeneous Subsets across the Six Geo-Political Zones

Geo-Political Zone	N	Subset for alpha = .05	
		1	2
North-East	2297	11783.28	
South-South	3088	12853.40	12853.40
South-West	4374	13722.99	13722.99
North-Central	3714		14358.04
North-West	2967		14685.24
South-East	3448		14917.39
Sig.		.216	.156

Table 5 shows the direction of significant differences across the six geo-political zones among the 19,888 workers observed. Out of this total observation, 2,297 are from the North-East; 3,088 are from the South-South, 4,374 are from the South-West, North-Central has 3,714, North-West has 2,967, while 3448 represents South-East. It grouped the geo-political zones into two homogeneous subsets. The three geo-political zones that fall into group 1 do not have significant difference in earnings. It means that their salary structures are almost the same. North-East, South-South, and South-West fall into the same homogenous group, while South-South, South-West, North-Central, North-West, and South-East belong to the second homogenous group. It is observable that private return in the North-East is significantly lower in comparison with South-East and that of the neighbouring zones—North Central and North West.

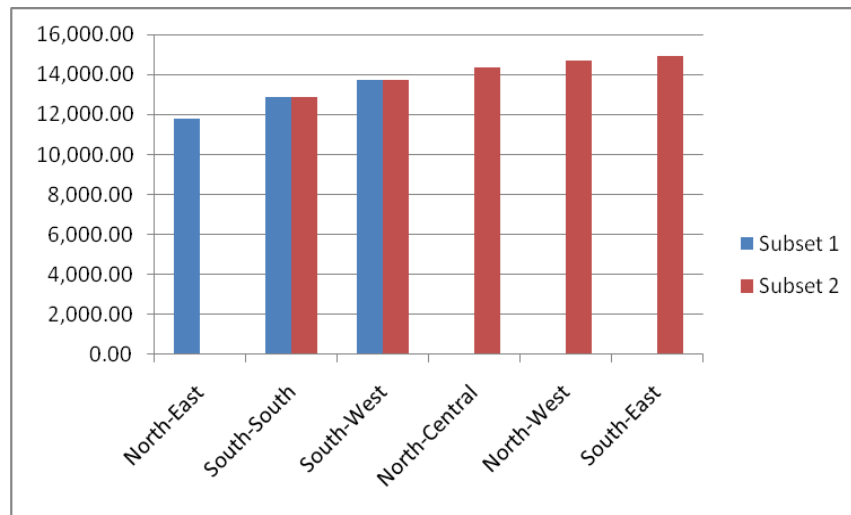


Figure 1: Bar-Chart of Private Earnings Differences across the Six Geo-Political Zones

Figure 1 illustrates the homogeneity of geo-political zones. The six geo-political zones have been classified into two homogeneous subsets. The private returns to subset "2" is higher than those of sub-set "1".

Table 6: Results of Scheffe Post-hoc Test of Significant Differences in Earnings across the Six Geo-Political Zones

Mean(N)	Geo-Political Zone	NorthEast	NorthWest	North Central	South East	South South	SouthWest
11,783.28	North-East		*	*	*		
14,685.24	North-West	*					
14,358.04	North-Central	*					
14,917.39	South-East	*					
12,853.40	South-South		*	*	*		
13,722.99	South-West		*	*	*		

*Significant difference at $P < 0.05$ alpha level

The asterisked columns and rows in Table 6 show the direction of significant differences across the six geo-political zones. The result of Scheffe Post hoc test of significant differences among the different zones showed significant differences between North-East and North-West, North-Central and South-East; North-West and North-East, South-South and South-West; North-Central and North-East, South-South and South-West; South-East and North-East, South-South and South-West.

The above findings imply that earnings differ across the six geo-political zones in Nigeria. The reason might be that some geo-political zones are having strong economic base while some zones' economies are weak. This goes a long way in determining the earnings of the workers in the zones. This finding corroborates the finding of Onphanhdala and Suruga (2006) that discovered that there are significant differences in the returns to schooling among regions in Lao People's Democratic Republic (Lao PDR). Earnings disparities were observed in the northern, central and southern regions as well as the Vientiane Capital, where a worker in the northern, central and southern regions would earn lower than his/her counterpart in the capital.

However, this is contrary to the finding of Oyelere (2007) who investigated geo-political region disparities in labour market outcomes using survey data from Nigeria between 1996-1999 and found out that there are no significant regional differences in labour market outcomes in Nigeria implying that income benefits from education are enjoyed at a similar rate in all the zones.

Conclusion and Recommendations

There is earning differential on account of sector of employment. The results indicated that there is a big difference between private sector and public sector mean in all the geo-political zones. This implies that public sector pays higher than private sector in all the six geo-political zones. Workers' earnings differed across the six geo-political zones in Nigeria. The study provides evidence of disparity in earnings important finding, given the anecdotal evidence and general perception of such disparities. The results of the study gave us insight into the differences in earnings on account of geo-political zones which are being referred to as the native abilities of workers; and also provided evidence of variation in earnings in the six geo-political zones in Nigeria.

Based on the findings and implications of this study, the following recommendations are made: (i) the salary for both public and private sectors should be harmonized; (ii) Government should encourage more private investors in the economy by providing an enabling environment and good policies for private investors to invest in the country with a view to improving private sector earnings through increase in salary and attractive remuneration, which will in turn induce workers in this sector to be more productive. This will increase the productivity and efficiency of the sector; (iii) both public and private sector employers of labour should ensure that workers' remunerations are commensurate with their level of education in order to make education a worthwhile investment since education facilitates the acquisition of new skills and knowledge that increase productivity; this increase in productivity frees up resources to create new technologies, new businesses, and new wealth which will eventually result in increased economic growth; and (iv) policy makers formulate policies and craft incentives that will promote investment in education.

References

- Becker, G. S. 1964. *Human Capital*. New York: National Bureau of Economic Research.
- Blaug, M. 1972. Educational policy and the economics of education: some practical lessons for educational planners in developing countries In *Education and Development Reconsidered*. pp. 22-32.
- Brauer, D.A. (1995) Using Regional Variation to Explain Widening Earnings Differentials by Educational Attainment. Federal Reserve Bank of New York, Research Paper Number 9521. Retrieved February 14, 2013, from: http://www.newyorkfed.org/research/staff_reports/research_papers/9521.pdf
- Card, D. 2001. Estimating the return to schooling: progress on some persistent econometric problems. *Econometrica*, Vol. 69 (5): 1127-1160. Retrieved April 19, 2008, from <http://www.jstor.org/stable/2692217>
- Hemmings, P.J. (1991). Regional Earnings Differences in Great Britain: Evidence from the New Earnings Survey. *Regional Studies*. Volume 25, Issue 2. Pp. 123-133 <http://www.tandfonline.com/doi/abs/10.1080/003434091>

- [12331346347#preview](#) Joint Economic Committee United States Congress. 2000. Investment in education: private and public returns Retrieved October 6, 2008, from <http://www.house.gov/jec/educ.pdf>.
- Kadejo, A.A. 2005. The Nigerian Labour Market Study, 2005. National Manpower Board, Abuja.
- London Economics. 2005. The returns to various types of investment in education and training. European Commission Projects in Economics of Education. Retrieved March 15, 2011, from http://ec.europa.eu/education/policies/2010/studies/invest05_en.pdf
- Mann, P. and Kapoor, B. 1988. Earnings differentials between public, private and joint sector in Punjab (India). *The Journal of Development Studies*.25.1: 97-111.
- Okuwa, O.B. 2004. Private returns to higher education in Nigeria. African Economic Research Consortium Research Paper 139.
- Onphanhdala, P. and Suruga, T. 2006. Education and earnings in Lao PDR: regional and gender differences. Graduate School of International Cooperation Studies, Kobe University (GSICS) Working Paper Series No. 4.
- Oyelere, R.U. 2007. Disparities in labor market outcomes across Geo-political Regions in Nigeria: Fact or Fantasy? IZA Discussion Paper No. 3082. Retrieved March 15, 2011, from <http://ftp.iza.org/dp3082.pdf>.
- Pritchett, L. 1999. Where has all the education gone? *World Bank Research Paper* 21.
- Psacharopoulos, G. 1994. Returns to Investment in Education: a Global Update. *World Development* 22: 1325-1343.
- Rees, H. And Shah A. 1995. Public-private sector wage differential in the UK. *The Manchester School of Economics and Social Studies*. 64.1: 52-68.
- Schultz, T.W. 1961. Education and economic growth in social forces influencing American education. N.B. Henry, Chicago. National Society for the Study of Education. University of Chicago Press.

