

Gender Analysis of Sandwich Admissions: A Case Study of South-South Nigeria

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Abstract

Even though university institutions produce high level manpower for the various sectors of the economy Nigeria had none until 1948. In its desire to increase the spread of university education, Ashby Commission recommended a dual mode delivery especially to accommodate the workers quest for upgrade of their qualification. Sandwich is the part-time programme designed for teachers and education workers. The study sought to analyse the gender demand for placement and actual supply of admission places in the sandwich programmes in South-South Nigeria. Eleven universities constituted the study universe made up of states and federal universities; some conventional, others specialized. Six of them were sampled for analysis. The study adopted the descriptive survey and covered eleven academic sessions. It was established that the demand for sandwich admission increased at an annual growth rate of 8.6%. Sampled universities placed an annual average of 26,787 candidates, made up of cumulative 56.7% females and 43.3% males. The increase in female demand for placement buttresses the desire to balance gender drive for national development. Suggestions were made for improvement.

Keywords: university education, sandwich, gender, demand, supply, placement.

Introduction

University education provides various sectors of the economy with relevant manpower requirements for national development. Not until 1948 when the University College Ibadan was established, Nigerians, craving for university admission placement had to travel abroad (Fafunwa, 2004). Ashby Commission of 1959 was mandated to plan the future of post secondary education in Nigeria. The Commission's report, submitted in 1960, subscribed to wider spread of university education provision in the country on full-time and part-time bases. It recommended among others that 'a university should be established in Lagos with day and night degree courses' (Fafunwa, 2004:166). With time other universities in the country also embraced the part-time degree courses as an outlet of dual mode programme delivery.

Part-time teacher education programmes often called sandwich programmes were designed for upgrading the qualification of teachers and other education workers. They operate during the school holiday periods. In spite of the relevance of the sandwich programmes in teaching manpower production, it is not clear whether both male and female teachers embrace it as a mode of improving their education. There is no human society that can be well developed when a gender is neglected. Exploration of the potentials of both genders promotes equity, societal cohesion and development. In this study, attempts would be made to examine the gender demand and supply of sandwich programmes in Nigeria.

Review of Related Literature

Classical economists had promoted the idea of stock of physical resources such as land, machineries, plants and minerals as the wealth of a nation. Adam Smith, Alfred Marshall and some other contemporaries however, felt that training could improve human productive capacity. From the second half of the 20th century therefore, scholars began to pay more attention to boosting human productive capacity through training. Schultz (1961) and Becker (1962) were foremost in the Human capital formation theory. Economists viewed 'capital' as the factor of production used to create goods and services that are not themselves significantly consumed in the production process (Kwon, 2009). Humans take charge of all economic activities such as production, investment and transactions. The proponents theorized that as people invest in new plants and technology in order to increase productivity and better returns, they should also invest in the education of the workforce in order to boost their production, investment and transaction capacity. Such investment, they believe, would later yield pecuniary and non-pecuniary benefits.

Humans are active agents unlike physical resources that are passive. Until humans discover, extract and process physical resources into utilitarian purposes, their values may not be known. Schultz (1961) postulated that differentials in the earnings of people of the same age, race and city are functions of their different levels of education and health status. Investment for better education and health over time enhances workforce productive



capacity. Thus, investment in education, training and information is worthwhile because it enhances people chances to increase industrial productivity, make better choices and earn improved income.

Enrolment in the sandwich programmes is investment since it raises teachers' productive and earning capacities. Sandwich students invest time, money and energy so that at the end they could be better and current teachers. They could also earn better income and possibly improve their social and economic rating in the society. On the macro level, the society benefits by having more intelligent cum productive teachers. Durosaro (1998) did a comparative study of the internal rate of returns to the full time and the sandwich programmes in Nigerian universities. He found higher rate of return to the sandwich than the full-time programmes. He suggested that 'there is need to encourage states to aid teachers to take advantages of the sandwich programmes in universities around them'. Apart from gaining new skills, degree qualifications boost their potentials to be promoted up the organizational hierarchy. The Human Capital Theory also provides justification for teacher trainers to float the sandwich programmes because it enhances the stock of teachers knowledge which is the basis for enhanced productivity in national economy. Almendarez (2011) argued that the outstanding economic and technological growth in Japan, India, China, Taiwan, Singapore and other Asian economics, buttress the positive outlook of investment in Human Capital Formation. Without natural resources (they import energy) and strong discrimination against their exports by the West, they have made great economic and technological impact on the global economy through their service sector handled by well trained, hardworking and ambitious population.

World Bank (2003) advocated for national investment in Human Capital development in order to be relevant in the new global economy. Technological evolution has promoted knowledge-based economy and globalization. It is therefore imperative for individuals, organizations and governments to continuously invest in human capital development in order to obtain new ways to maintain competitive advantage in the global economy. On the other hand, globalization and digitalization have raised the requirements for modern economy beyond the norms of the last century. Global system for mobile communication, internet facilities and other technologies are increasingly disseminating knowledge which implies that teachers are no longer custodians of knowledge. There is need for teachers to constantly update their skills. Many teachers in South-South Nigeria already possess the Nigerian Certificate of Education which is the minimum required teaching qualification in the country. They too could return to school. Gender activists, planners and administrators have encouraged equity and access in educational provision including a second chance opportunity for those who missed out earlier on education.

Omoike (2009) found in the full time programmes that 'Admission into higher education has continued to be tilted in favour of males as the females have always had comparatively less opportunities for admission into universities in South-South geopolitical zone in particular and Nigeria in general'. Arubayi and Ikioya (2009) focused on spatial variation in enrolment even among the so-called educationally advantaged states where both male and female rural children are denied educational opportunities because of parental low socio-economic status even though they may be intellectually capable. Ajaji, Goma, and Johnson, (1996) focused on African universities and found that only about 25% of enrollee were women. Nwajiuba (2011), studied the effect of culture and gender on the imbalance in higher education in Nigeria. The study sampled seven state and federal universities in Southern Nigeria. She found that generally both as students and staff, the female gender is underrepresented in higher education. Imogie and Eraikhuemen (2008) researched into the sex differentiation in enrolment in the University of Benin. They found increase in female enrolment though there is still a gap between male and female admissions. They found more females in Arts and Education while males were mostly found in engineering, medicine and social sciences in the full-time programmes.

Prior to the 1990s there was a 20:80 female to male placements in Nigerian universities (Nwagwu 1998). Adeyemi and Akpotu (2004) established a 30% females and 70% males university enrolment in the 1990s. Ajibade (1999) presented the structure of workers in the federal civil service in Nigeria and found 87.5% males and 12.5% females. Imakpokpomwan (2015) however focused on the part-time programmes in the University of Benin. Even though he found that more males (52.1%) accessed the programmes while the females secured 47.9% placement, this is closer to the population dynamics in the zone which found 50.8% male and 49.2% female in Nigeria (NPC, 2009). The Journal for black in higher education (2006) in the USA found that black women earned about two-third of all African-American bachelor's degree awards. Jacobs (1996) found the female to be well represented in the part-time degree programmes in the US. In 1991 for instance, 63.7% of the part-time admissions went to the females. In their survey of part-time degree programmes in the UK, Callender, Jamieson and Mason (2010) concluded that 'part-time degree students are likely to be female' as the 2007/08 admission constituted 61% female.



Adeyemi and Akpotu (2004) found in the 1990s the highest proportion of female enrolment (42.13%) in the Faculty of Education followed by the Faculty of Arts (36.2%) while the lowest percentages were obtained in the Faculties of Engineering, Technology and Environmental Design in Nigeria. UNESCO-CEPES (2003) found increase in the demand for higher education in most countries in Europe in both full and part-time programmes. Imakpokpomwan (2014) found increase in demand for and placement into the part-time programmes in the South-South universities in the zone. More females accessed the part-time undergraduate programmes during the period probably because the period coincided with the abolition of the satellite campuses which may have encouraged very many young people to demand for it.

Statement of Problems

There seems to be very many NCE holders teaching in the Universal Basic Education (UBE) programmes. School curriculum keeps changing as qualification for teaching is also dynamic. In recent past, the Teacher Grade II certificate was the minimum teaching requirement which has been replaced by the NCE. In order not to be caught unaware some teachers would want to acquire the Bachelor of Education degree (B.Ed) so that if it becomes the minimum teaching qualification, as it is now envisaged, they could remain relevant. In the absence of study leave with or without pay in most states in South-South Nigeria, how would an NCE teacher acquire higher teaching qualification? Not many persons would want to resign from their present job in order to pursue a full time degree programme upon which they are not certain about obtaining employment after graduation. The unanswered question is; will the search for additional educational qualification lead to increase in demand for the sandwich programmes in the universities? Would the universities accommodate the demand with a corresponding placement in the sandwich programmes? What would be the gender dimension to the demand for and actual placement in the sandwich programmes in South-South Nigerian universities?

Research Questions

- (1) What is the pattern of demand for admission places by gender and university in the sandwich programmes in South-South Nigeria?
- (2) What is the proportional representation of the genders in the demand for admission places in the sandwich programmes in South-South Nigeria?
- (3) What is the pattern of supply of admission places by gender and university in the sandwich programmes in South-South Nigeria?

Method of the Study

This study is a descriptive survey. This design was appropriate because the researcher collected data that were already in existence in sampled universities. The population of the study consisted of eleven public universities in South-South Nigeria. Eight of them run the sandwich programmes. Of the eight universities, four were federal and four were state universities. All the four federal universities were conventional and were all purposively sampled for geographical coverage. Of the four state universities, two were conventional and two specialized. One each was sampled from conventional and specialized universities. They were the main sources of data used for the study because they collected applications and placed applicants into their respective academic sandwich programmes. The universities used for the study were; University of Benin, University of Calabar, University of Port-Harcourt, University of Uyo, Delta State University and Cross River University of Technology. The study covered eleven academic sessions (2000/01 to 2010/11). All the disciplines that collected applications and placed applicants in the part-time undergraduate programmes were purposively sampled for analysis. The Sandwich Application and Admission Checklist (SAAC) was designed to gather data on the demand and placement in the sandwich programmes in South-South public universities for the period. Section A elicited background information on the sandwich programmes. Section B contained demographic variable (sex) of applicants and quantity of candidates placements in sampled universities in the sandwich programmes during the period.

Presentation of Result

The result for the study is presented in tables and figure.

Research Question (1): What is the pattern of demand for admission places by gender and university in the sandwich programmes in South-South Nigeria?



Table 1: Sandwich Application Checklist

Session	UNIBEN		UNICAL		UNIPORT		UNIUYO		DELSU		CRUTH		Total		G.T.	AGT	CAAP
	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
2000/01	NA	NA	360	304	232	600	Na	Na	Na	NA	NA	NA	592	904	1496	-	4.7
2001/02	3	37	300	329	458	863	Na	Na	818	682	NA	NA	1579	1911	3490	1994	11
2002/03	39	147	Na	Na	Na	Na	Na	Na	994	756	NA	NA	1033	903	1936	1554	6.1
2003/04	25	102	186	351	226	262	11	38	1170	830	NA	NA	1618	1583	3201	1265	10.1
2004/05	19	54	144	261	197	317	37	63	659	541	NA	NA	1056	1236	2292	-909	7.2
2005/06	20	114	146	265	412	546	34	34	303	597	NA	NA	915	1556	2471	179	7.8
2006/07	42	158	75	101	267	421	19	25	612	388	NA	NA	1015	1093	2108	-363	6.7
2007/08	48	221	189	248	401	499	13	26	1315	1239	105	92	2071	2325	4396	2288	13.9
2008/09	88	218	286	549	441	506	12	19	542	878	110	99	1479	2269	3748	-648	11.8
2009/10	96	263	215	373	362	581	13	18	685	787	123	108	1494	2130	3624	-124	11.5
2010/11	121	355	184	277	338	691	22	29	309	394	103	91	1077	1837	2914	-710	9.2
TOTAL	501	1669	2085	3058	3334	5286	161	252	7407	7092	441	390	13929	17747	31676	4526	100
Ann Av	46	152	190	278	303	481	15	23	673	645	40	36	1266	1613	2879	452.6	
Gen Av	23.1	76.9	40.5	59.5	36.7	61.3	39	61	51.1	48.9	53.1	46.9	46.9	53.1			
Uni T.	2170		51	43	8620		413		14499		831		31,676				
Uni %	6.9		16	5.2	27	27.2		1.3		45.8		2.6				AGR 8.6%	

SOURCES: Office of the Director:

- (a) Sandwich Programmes, DELSU
- (b) B.Ed Part-Time Office, UNIBEN.
- (c) Continuing Education, UNIUYO
- (d) Educational Services, CRUTH
- (e) Department of Post NCE, UNIPORT.
- (f) Academic Planning Unit, UNICAL

LEGEND/KEY

UNIBEN: University of Benin
UNICAL: University of Calabar
UNIUYO: University of Uyo
DELSU: Delta State University

CRUTH: Cross River University of Technology

Uni T: University Total
Uni %: university percentage
GT: Grand Total. Av: Average
AGT: Application Growth Trend
AGR: Application Growth Rate
NA: Figure Not Available

M: Male F: Female

GEN. AV. GENDER AVERAGE

A total of 31,676 candidates demanded for placements in the sandwich programmes in sampled universities during the period covered by the study. This is made up of 13,929 males and 17,747 females. In 2000/01 session, 1,496 candidates demanded for placement. This rose to 3,624 in the 2009/10 session. On an annual aggregate, 2,879 applicants demanded for placements in the sandwich programmes leading to 1,858 annual growth trends. Thus, the increase in demand for admission in the sandwich programmes in sampled universities recorded 8.6% growth rate. The corresponding annual application percentage presents the annual shares of the demand percentage-wise. It shows that during the period covered by the study, 4.7% candidates applied in the 2000/01 session while 11.8% of the applicants demanded for placement in the 2008/09 session. Of course, the peak demand during the period was the 2007/08 session when 13.9% candidates applied. Figure 1 is a graphic representation of applications for placement in the sandwich programmes during the period covered by the study.



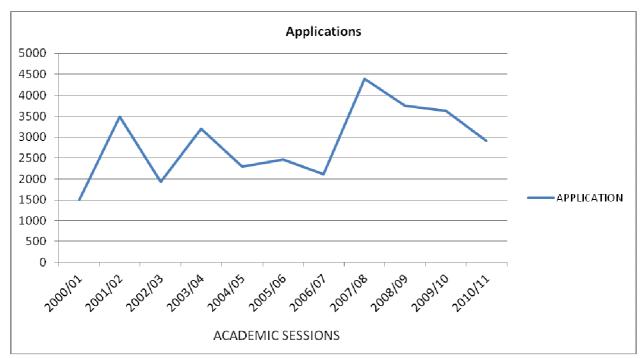


Figure 1: Annual demand for placement in the Sandwich programmes

Figure 1 presents the nature of the application from session to session during the period covered by the study. The base year recorded 1,496 applications which increased to 3,201 in the 2003/04 academic session but declined to 2,108 in the 2006/07 academic session but increased again to 3,624 in 2009/10 session. The cascading nature of the line demonstrates the rise and fall of applications from session to session. However, on the aggregate, there was increase in the demand for sandwich programmes in South-South Nigeria during the period.

Research Question 2: What is the proportional representation of the genders in the demand for admission in the sandwich programmes in South-South Nigeria?

Table 2: Gender proportional demand for admission between 2000/01 and 2010/11

	UNIBEN		UNICAL		UNIPORT		UNIUYO		DELSU		CRUTH		TOTAL	Grand	
															Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Sub Total	501	1669	2085	3058	3334	5286	161	252	7407	7092	441	390	13979	17747	31676
GENDER%	23.1	76.9	40.5	59.5	36.7	61.3	39	61	51.1	48.9	53.1	46.9	44	56	100
Grand Total	2170		5143		8620		413		14499		831		31676		

Source: computed from Table 1

At the University of Benin, 501 males demanded for admission while 1,669 representing 76.9% females applied for admission into the sandwich programmes. The females also had higher applications in the Universities of Calabar (59.5%), Uyo (61%) and Port Harcourt (61.3%). The pattern of applications tilted in favour of males in two universities as they gathered 51.1% in Delta State University and 53.1% in Cross River University of Technology during the period covered by the study. On the aggregate, more females (56%) applied for placement whereas 13,979 males representing 44% applied for the sandwich programmes in South-South Nigeria during the same period.

Research Question (3): What is the pattern of supply of admission places by gender and faculty in the sandwich programmes in South-South Nigeria?

Table 2: Sandwich Admission Placement Checklist

SESSION	SION UNIBEN		UNICAL		UNIPORT		UNIUYO		DELSU		CRUTH		TOTAL		G.T.	PGT	CAPP
	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
2000/01	NA	NA	358	304	229	598	Na	Na	Na	NA	NA	NA	587	902	1489	-	5.05
2001/02	3	36	300	327	452	860	Na	Na	493	548	NA	NA	1248	1771	3019	1530	10.25
2002/03	37	145	Na	Na	Na	Na	Na	Na	784	642	NA	NA	821	787	1608	-1411	5.46
2003/04	22	98	186	351	207	245	8	36	1076	736	NA	NA	1499	1466	2965	1357	10.06
2004/05	15	48	144	260	194	313	33	62	659	541	NA	NA	1045	1224	2269	-696	7.70
2005/06	17	108	146	204	402	537	28	26	279	498	NA	NA	872	1373	2245	-24	7.62
2006/07	41	153	75	101	263	418	15	23	512	288	NA	NA	906	983	1889	-356	6.41
2007/08	46	219	189	247	397	495	13	24	1063	989	103	92	1811	2066	3877	1988	13.16
2008/09	83	213	285	549	433	504	11	16	509	845	107	97	1428	2224	3652	-225	12.39
2009/10	90	258	214	373	360	572	12	18	685	787	117	105	1478	2113	3591	-61	12.19
2010/11	113	346	182	277	332	683	21	28	307	389	97	86	1052	1809	2861	-730	9.71
TOTAL	467	1624	2079	3053	3269	5225	141	233	6367	6263	424	380	12747	16718	29465	1372	100
Ann. Ave.															26787	125	
Gender	22.3	77.7	40.5	59.5	38.5	61.5	37.7	62.3	50.4	49.6	52.7	47.3	43.3	56.7			
Ave.																	
Uni T.	2,091		,091 5,132		8,494		374		12,630		804		29,465				
Uni %	7.1		7.1 17.4		28.7	28.7 1.3		42.8		2.7				PGR 8.4			

SOURCES: Office of the Director:

- (a)
- (b) Sandwich Programme, DELSU
- (c) B.Ed Part-Time Office, UNIBEN.
- (d) Continuing Education, UNIUYO
- (e) Educational Services, CRUTH
- (f) Department of Post NCE, UNIPORT
- (g) Academic Planning Unit, UNICAL

LEGEND/KEY:

UNIBEN: University of Benin UNICAL: University of Calabar UNIUYO: University of Uyo DELSU: Delta State University

CRUTH: Cross River University of Technology

Uni.T: University Total Uni %: University Percentage

GT: Grand Total

PGT: Placement Growth Trend PGR: Placement Growth Rate Ann. Ave: Annual Average Gender. Ave: Gender Average NA: Figures Not Available

M: Male F: Female

Table 2 presents the supply of admission places in the sandwich programmes in the zone. A total number of 29,465 candidates were placed. Of these the Delta State University placed 42.8% of the candidates. The Cross River University of Technology placed 424 males and 380 females in their sandwich programmes. On the whole, 16,718 females secured placements while the males had 12,717 places. Percentage-wise, 56.7% female were supplied spaces while males obtained 43.3% in the sandwich programmes in South-South Nigeria during the period.

Discussion

The study found increase in demand for admission in the sandwich programmes in South-South Nigeria during the period covered by the study. From the base figure of 1,496 in 2000/01 session it rose to 4,396 in the 2007/08 session. This finding is supported by Branson, et al (2010), AUCC (2011) who found increase in demand for undergraduate part-time programmes in South Africa and Canada respectively. Ali (1995), Imakpokpomwan (2014) and Imakpokpomwan (2015) found also increase in supply of admission places in the part-time programmes. Durosaro (1995) also supports the increase in demand for sandwich programmes. This study is however in contrast with HEFCE (2013) which found a decline in part-time undergraduate programmes in the



United Kingdom. Some suggested that the decline in part-time programmes in the United Kingdom may be because UK universities float off-shore universities especially in Asia which has attracted patronage thus reducing the outflow of international students from that axis to the United Kingdom. Globally, researchers have found increase in demand for university education. Sustained campaign for the actualization of Education for All and the Millennium Development Goals in the country may have imparted in school completion at the lower levels of education hence the need for more teachers. With 8.6% admissions demand growth rate and 8.4% supply growth rate during the period, the sandwich programmes has so much potentials to provide in-service training for education workforce. The males have occupied higher spaces in the gender proportional demand for placement in the full-time undergraduate programmes in Nigeria. This study found more females demanding for placement and also corresponding being supplied admission places in the sandwich programmes. This is probably because females are increasingly taking to education and the teaching profession. Teachers in basic education are mostly females and from this rank, some apply for higher studies through the sandwich outlet. This implies that the females' educational profile is rising to the benefit of national development because the more educated females in a nation the more the chances that their children will attend schools and attain higher school achievement. This finding is in consonance with Jacobs (1996) and Callender et al (2010) who found more females in the United States and UK part-time programmes respectively. This however contrasted Adeyemi and Akpotu (2004), Omoike (2009) and Nwajiuba (2011) who found less female in full-time undergraduate programmes in Nigeria universities. Imakpokpomwan (2015) found more males in the University of Benin parttime programmes whereas more females were placed in the part-time programmes in the sampled universities in the South-South zone (Imakpokpomwan 2014).

In four of the six universities sampled, the female had higher demand and placements. However, more males demanded for admission places and were supplied in Cross River University of Technology sandwich programmes. Their courses are mostly technological, technical and vocational education based. This is likely because most females do not offer science courses at the secondary school level hence they are not qualified for engineering and technology based courses in higher education. This possibly could be while less female demanded for admissions in the university of technology. On the overall aggregate, the study found more females demands and placements in the sandwich programmes in South-South Nigeria. This is likely because more female teachers are found in primary and secondary schools in the South-South states. The implication of more female seeking for admission is that the education of the girl child will be boosted because such female teachers could be role models to younger girls in their places of work thereby encouraging basic education enrolment and completion especially in rural areas. There will also be generational benefit as their children too would enroll in schools. The social benefits may be unquantifiable as some may rise to administrative positions, set up their businesses or assume leading role in the political arena as legislators or executive members of government since their education has given them a voice to defend their rights.

Conclusion

The study has established increase in the demand for admission and actual placement in the sandwich undergraduate programmes in South-South Nigeria. The females were well represented in demanding for and admission placements in the sandwich programmes. It is concluded that the sandwich programmes are veritable instrument for expanding access generally but more specifically female university education in the zone and therefore individual and institutional mechanisms should be strengthened to sustain it. It is however, suggested that the females should be encouraged to take science courses at the secondary level of education so that they can venture into the field of science and technology based courses in degree programmes.

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