AN ASSESSMENT OF TERTIARY EDUCATION TRUST FUND SCHOLARSHIP AWARD TO ACADEMIC STAFF FOR POST-GRADUATE STUDIES ON THE ACADEMIC PERFORMANCE OF HIGHER EDUCATIONAL INSTITUTIONS IN SOUTH-EASTERN NIGERIA (2000-2016)

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Abstract
The objective of the study is to assess the extent to which Defund provision of scholarship to academic staff for post-Graduate studies improves the academic performance of higher educational institutions in South-Eastern Nigeria. The total population of the study is seventeen thousand, one hundred and eight respondents drawn from selected public owned higher educational institutions in South-Eastern Nigeria. Structured questionnaire aroused to collect primary data from a sample of 391 while 340 copies returned were reanalyzed. The study is anchored on the Systems Theory propounded by Easton (1963) while descriptive survey research design was used. The result of the correlation test indicates that there is a positive relationship between scholarship award to academic staff for post-Graduate studies and improved academic performances of workers in public owned higher educational institutions in South-Eastern Nigeria. The study concluded that Tertiary Education Trust fund has made significant improvement the quality and development of academic staff of the institutions studied since they can boast of motivates and energetic workers. The study recommended that Non-Governmental Organizations (NGOs) should support governments in scholarship award to academic staff of public owned higher educational institutions in South-Eastern Nigeria while violation of the Defund Act by government Agencies should be discouraged through institutionalization of affective regulatory framework.

Keywords:

Introduction
After Nigeria became a republic in 1963 and the departure of the colonial masters, the establishment of more public owned higher educational institutions and award of scholarship
to Nigerians became imperative in order to train and develop skilled manpower that will manage these higher educational institutions and Nigerian economy. This government effort yielded positive result thereby producing qualified men and women with technical know-how and managerial competence capable to manage higher educational institutions effectively and efficiently (Zeal, 2009).

The civil war in Nigeria which ended in 1970 was a serious setback to economic and educational development of the country. Infrastructural facilities were destroyed and many trained men and women killed especially in the South-Eastern Nigeria. Urdu and Kneed (2004) observed that the South-East states were characterized of theater of hostility, vicious war, injustices and obnoxious post-war policies of marginalization of past administration in Nigeria which devastated and stifled economic growth and education in the region. In order to restore the lost glory in higher educational institutions, the Federal government of Nigeria under the Federal Ministry of Education introduced scholarship award to Nigerian citizens for graduate and under-graduate programmers. The scholarship award strategy according to Elodea (2011) benefited few individuals, hence did not make significant impact in public owned higher educational institutions due to politicization, godfathers and lack of established Agency charged with the responsibility. These contributed to inadequate qualified manpower to manage these institutions while the infrastructural facilities were in a monumental sorry state due to poor funding, Non-involvement of Non-Governmental Organizations (NGOs) in scholarship award to academic staff and lack of well-defined institutional framework for higher educational institutions development (Zeal, 2017).

Zeal (2017) observed that no government in Nigeria since independence has made any serious efforts to allocate minimum of 26% as approved standard budgetary allocation to education. Also, Mbeki (2006) in Oscar (2012) admitted that inadequate funding is a major challenge facing effective and efficient management of tertiary institutions in Nigeria. The Education Trust Fund (ETF) established in 1993 as a special intervention in higher educational institutions enlarged its scope to cover all levels of education, hence failed to make visible impact in supporting higher educational institutions.

This led to the establishment of Tertiary Education Trust Fund (Defund) through enactment of the Defund Act, 2011 as a transformative intervention Agency for rehabilitation restoration and consolidation of higher educational institutions in Nigeria (Nasir, 2013). The mandate of Defund under the Defund Act, 2011 includes training and development of Academic Staff which basically involves scholarship award to Academic staff for post-graduate studies (Master’s and Doctorate Degrees) both at home and abroad.

Despite abuse and violation of the Defund Act, 2011 by tertiary education regulatory Agencies and other government officials through First class graduate scholarship grant, over inflation of contracts, settlement of personnel cost, establishment of new higher educational institutions rather than supporting existing ones, allocation to National Commission for Colleges of
Education (NCCE) and non-release of approved funds among others, this study will assess the Impact of Tertiary Education Trust Fund Scholarship Award to Academic Staff for Post-Graduate Studies on Academic Performance of Public Owned Higher Educational Institutions in South-Eastern Nigeria (2000 - 2016).

The general objective of the study is to determine the impact of Tertiary Education Trust fund Scholarship to Academic Staff for Post-Graduate Studies on Academic Performance of Workers in Public Owned Higher Educational Institutions in South-Eastern Nigeria. However, the specific objective is:

To assess the extent to which Defund provision of Scholarship Award to Academic Staff for Post-Graduate studies improves the academic performances of public owned higher educational institutions in South-Eastern Nigeria.

To assist the investigation, a research question was raised:

To what extent does Defund provision of scholarship award to Academic Staff for Post-Graduate studies improve the academic performances of public-owned higher educational institutions in South-Eastern Nigeria?

The researchers formulated a hypothesis:

$H_{01}$. Defund Scholarship Award to Academic Staff for Post-Graduate studies has no statistically significant impact on the academic performances of public owned higher educational institutions in South-Eastern Nigeria.

Theoretically, it will contribute to knowledge and add to existing literature on Defund Empirically, the study will expose to policy makers and managers of higher educational institutions the impact of Defund scholarship award to academic staff on the academic performances of higher educational institutions in South-Eastern Nigeria. The selected publics owned higher educational institutions in South-Eastern Nigeria to be studied Arabia State University, Nnamdi Azikiwe University, University of Nigeria, Ebony State University and Federal Polytechnic Naked. The researchers were confronted with some problems such as inaccessibility of information required from employees of the institutions studied, uncooperative attitudes of the respondents and statistical problems. Nevertheless, the researchers made efforts to overcome these constraints through provision of time and resources, repeated calls and visits.

**HISTORY OF TERTIARY EDUCATION TRUSTFUND (TETFUND)**

During the Federal Military Administration of President Ibrahim Babagida in 1990, public owned educational institutions in Nigeria according to Nassir (2013) were in a sorry state due to poor funding, monumental decay of infrastructure, poor quality of teachers, lack of conducive environment and well-equipped libraries for teaching and learning. The quest to improve the standard of education in Nigeria, rehabilitate the decaying infrastructure, restore the lost glory and confidence in the education system and build capacity of teachers and lecturers led to the constitution of the Gray Longer Commission in 1990 by the Federal Government in order to review the Post-independence Nigeria’s higher education. The Commission recommended increased funding of higher education through two percent education tax on the assessable profit.
of all registered companies in Nigeria. This led to signing of Agreement between the Federal Government and ASUU in 1992 and promulgation of Education Tax Act No. 7 of 1993 as an intervention Fund to all Federal, State and Local governments owned institutions (www.tetfund.gov.ng). The Educational Tax Fund Act of 1993 went through several amendments and later repealed and replaced by the Tertiary Education Trust Fund (Defund) Act, 2011 due to duplication of Functions and over-burden of the Agency with responsibilities among others. Tertiary Education Trust Fund (Defund) under the Defund Act, 2011 is charged with the responsibility of managing, disbursing and monitoring the education tax to public owned higher educational institutions in Nigeria. It is an education intervention agency of the federal government. The mandate of the Teton under the Defund Act, 2011, section 7 (1) (a) to (e) is to improve staff productivity and standards of higher educational institutions through provision of basic infrastructural facilities to encourage excellent environment for teaching and learning, instructional material and equipment, quality research and publication, Academic Staff training and development and any other need which in the opinion of the Board of Trustees is critical and essential for the improvement of quality and maintenance of standards in the higher educational institutions. The Academic Staff training and development strategy adopted under the Defund Act, 2011 involves scholarship award to Academic staff for Post-Graduate studies in Nigeria or abroad such as Masters and PhD Degrees; Research grants to academic staff and sponsorship of teaching and non-teaching staff in public owned higher educational institutions for conferences at the ratio of 70:30. In fact, the sponsorship is basically on human capacity development towards increasing staff skills and knowledge to ensure better international ranking and competitiveness. (Zeal, 2017).

Roles of Defund and Allocation Strategy
The roles of Tertiary Education Trust fund (Defund) towards improving the standards of public owned higher educational institutions are enormous. This is anchored on the goals of Nigeria’s education system which include to develop world class higher educational institutions with basic infrastructural facilities, competent academic staff, instructional material and equipment; empowering institutions to produce skilled and highly rated manpower with managerial and technical know-how for Nigeria’s economic industrialization. Therefore, the role of Defund as an intervention strategy in the transformation of Nigeria’s higher educational institutions cannot be over-emphasized through provision of adequate funding, mobilization of resources and effective financial management. The Defund Act, 2011 requires the Federal Inland Revenue Service (FIRS) to collect two percent educational tax on the assessable profit of all registered companies. The Agency receives the education tax collected by the Federal Inland Revenue Service, oversees to the effective management of the funds, disburses the money to the beneficiary public owned higher educational institutions as well as monitors the benefiting institutions on the usage of the money to ensure effective and efficient utilization of scarce resources. The Board of Trustees has 11 member appointed from the six geographical zones with representative of the Federal Ministry of Finance, Ministry of Education and Federal Inland Revenue Service as members. According to theTETFund Act, (2011), the Board of Trustees is
empowered to administer, manage as well as disburse funds generated based on the following terms:

(a) Release funds to public owned higher educational institutions in Nigeria;
(b) Special allocation to public owned higher educational institutions on equal basis in six (6) geopolitical zones;
(c) Regular intervention on equal basis to all 36 States of the Federation including Abuja;
(d) Allocate funds to public owned higher educational institutions such as Universities, Polytechnics and Colleges of Education at the ratio of 2:1:1 (50%, 25%, and 25%).

TETFUND SCHOLARSHIP AWARD TO ACADEMIC STAFF

Table 1: Summary of Defund Scholarship Award to Academic Staffing Abita State University (2004 – 2010)

<table>
<thead>
<tr>
<th>Years</th>
<th>Amount Released</th>
<th>Beneficiaries/Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,750,000.00</td>
<td>Sponsoring of 46 academic staff for Post-Graduate programmers in institutions in Nigeria.</td>
</tr>
<tr>
<td>2008</td>
<td>50,000,000</td>
<td>NOT YET RECONCILED</td>
</tr>
<tr>
<td>2009</td>
<td>50,000,000</td>
<td>NOT YET RECONCILED</td>
</tr>
<tr>
<td>2010</td>
<td>60,000,000</td>
<td>NOT YET RECONCILED</td>
</tr>
</tbody>
</table>

Source: Defund 2012, ABSU Defund Document 2013

Table 2: Summary of Defund Scholarship Award to Academic Staff in Ebony State University (2000-2010)

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount Released</th>
<th>Beneficiaries/ Course Undertaken</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,750,000</td>
<td>NOT YET RECONCILED</td>
</tr>
<tr>
<td>2008</td>
<td>50,000,000</td>
<td>Mr. Albert E. Okorocha/Ph.D. (Biomedical Sciences/Cellular &amp; Molecular Physiology)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ikenna Eguwu/M.Sc. (Software Engr.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Celestine Afiukwa Ph.D. Research-Based Training in Genetic Diversity of cowpea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr Friday Nweke/Ph.D. Research-Based Training in AFLP Analysis of Sesamine &amp; Fatty Acids Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr Igwe Ofor/M.Sc. (Computer Science &amp; IT) Chibueze Anyigor/M.Sc. (Computer Network Technology)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr Igiri N Elom/Ph.D (Applied Science)</td>
</tr>
<tr>
<td>2009</td>
<td>50,000,000</td>
<td>NOT YET RECONCILED</td>
</tr>
</tbody>
</table>
Table 3: Summary of Defund scholarship Award to Academic Staff in Federal Polytechnic Naked (2000-2010)

<table>
<thead>
<tr>
<th>Year of Intervention</th>
<th>Amount Released</th>
<th>Beneficiaries/Course undertaken</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,250,000</td>
<td>Organizing training for 42 no. staff programmes as Autocad, Matlab, Microsoft office suite, Internet, Accounting packages. Electronic workbench, corel suites etc</td>
</tr>
</tbody>
</table>
| 2008                 | 25,400,00        | ChukwumaChigbu M.I, Ph.D Architecture  
|                      |                  | Ali Bilar, Ph.D Analytical Chemistry  
|                      |                  | Kaku-Nwaiwu Joy C., Ph.D English  
| 2010                 | 30,000,000       | NOT YET RECONCILED |

Source: Defund 2012, Federal Polytechnic Naked Defund Document 2013

Table 4: Summary of Defund Scholarship Award to Academic Staff in Nandi Azikiwe University (2000-2010)

<table>
<thead>
<tr>
<th>Year of Intervention</th>
<th>Amount Released</th>
<th>Beneficiaries Course/ undertaken</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,750,000</td>
<td>Procurement of bindery materials sponsoring of 18 Nos. nominated academic staff for higher degrees as per your submitted list</td>
</tr>
</tbody>
</table>
| 2008                 | 50,000,000       | Abuchi, C.S. Ph.D (Med Physics) University of London  
|                      |                  | Chukwuanukwu, Rebecca (M.Sc. Immunology) University of Nottingham UK  
|                      |                  | Akunna, G. I. Ph.D (3-months Research in Dance Movement Therapy Goldsmiths) University of London  
|                      |                  | Ukibe, Nkiruka Rose, Ph.D (Chemical Pathology) NAU, Awka  
|                      |                  | Omuku Patrick Ph.D (Pure & Industrial Chemistry) NAU, Awka |
**Table 5: Summary Defund Scholarship Award to Academic Staff in University of Nigeria (2004 – 2010)**

<table>
<thead>
<tr>
<th>Year of Intervention</th>
<th>Amount Released</th>
<th>Beneficiaries/Course undertaken</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,750,000</td>
<td>* Sponsoring of 7 nos. Nominated Academic staff for higher degrees as per your submittedlist</td>
</tr>
</tbody>
</table>
| 2008                 | 50,000,000     | ❖ Training of 7No. staff (Overseas) comprising of:  
  - Chigor Vincent N., Ph.D Microbiology  
  - Odimegwu Damian Chukwu, Ph.D Pharmacy  
  - Asegbeloyin Jonnie Niyi, Ph.D Inorganic (Research)  
  - Igbokwe C.O Ph.D (Research)  
  - Nnamchi Chukwudi, Ph.D (Research)  
  - Awache Mabel Nkiruka, Ph.D (Research)  
  - Nwuche Charles Ogugua, Ph.D (Research)  
  Training of no. academic staff (locally) comprising of:  
  - Asuzu C.U., Ph.D (Botany)  
  - NnajiChidozie Charles, Ph.D (Civil Engineering)  
  - Academic staff approached for local training under ETF 2008 AST&D  
  - NnamchiChukwudi, Ph.D (Research) |

Source: Defund 2012, NAU Defund Document 2013
Effects of Defund scholarship Award to Academic Staff for Post-Graduate studies on the Academic performance of Higher Educational Institutions in South-Eastern Nigeria

Scholarship award to Academic Staff for Post-Graduate studies has impacted positively on the academic performance of public owned higher educational institutions in South-Eastern Nigeria. This is because many teaching staff are beneficiaries through sponsorship for Masters and PhD programmers in Nigeria and abroad. These institutions in South Eastern Nigeria can boast of motivated and energetic workforce that supports the accomplishment of the objectives of public owned higher educational institutions in Nigeria. Other impact of scholarship award to academic staff include increase in staff productivity, managerial and technical efficiency, improvement in quality of programmers, academic stability, increase in teacher quality, positive attitude to work, decrease in examination malpractice, prevention of skill obsolescence, staff motivation, job satisfaction and improvement in the standard of education among others.


The objectives of the study are to examine the extent to which Defund intervention on development improves the skill of workers in government owned tertiary institutions, to determine the extent to which Defund sponsorship of staff to conferences and seminars improved human development. The study adopted the descriptive survey research design. The total population of the study was 17,108 respondents; drawn from government owned tertiary institutions in South East States of Nigeria. Primary data were collected using structured questionnaire that were administered to a sample of 391 drawn from the population of the study. 340 copies were returned and used for the analysis. Three hypotheses were formulated and tested. The results of the correlation tests indicated that Defund intervention on training and development has great impact on improved skills and development of the staff of tertiary institutions and Defund sponsorship of academic staff to conferences and workshops has significant impact on research and academic growth in tertiary institutions in South Eastern Nigeria. The study concluded that despite the fact that Defund has immensely improved on government owned tertiary institutions in terms of training the staff since its inception, there is still need for improvement in the area of human resources development. It therefore recommended that equal fund allocation formulary should be implemented to enhance staff training and conference attendance. It was also recommended that bureaucratic bottleneck should be eliminated to encourage easy access to fund by tertiary institutions. Urdu and Kneed (2014) carried out a study on “Defund Interventions and Sustainable Development in Nigerian Universities: Evidence from Ebony State University, Abakaliki”. The objective of the research was to determine impact of Defund interventions in Nigeria Universities and its implications for
sustainable development with emphasis on Ebony State University, Abakaliki. The study adopted Content Analytical approach. Documentary papers were used for sourcing of data while scholars’ contributions in the area were reviewed. It was found out that Defund intervention in government owned tertiary institutions in Nigeria especially Ebony State University has positively affected the development of infrastructure and human resources with its attendant positive implication for National development. It therefore recommended that the assessment of Defund usually characterized of red-tapes should be eliminated while honest and competent contractors should be utilized.

Kayoed, Rajang and Anzio (2013) studied Human resources development and educational standards in Nigeria with the objective to ascertain the impact of poor standard of education on the development of human resources. The study adopted descriptive approach using primary data. The study revealed that the Federal government policy on education and Constitution of the Federal Republic of Nigeria guarantees quality of education for all citizens. Also, the findings it showed that Nigeria’s economic dependence and primitive accumulation of wealth experience in a result of poor investment on human resource development while the implication is that quality and functional education supported with commensurate budgetary allocations is required to reverse the trend while corruption and indiscipline should be tackled headlong in the educational sector.

Another study was carried out by Elodea (2011) on “The Challenges of Human Resources Development in Nigerian Public Tertiary Institutions: Gun State Experience”. The general objective was to identify human resources development in Nigerian Public Tertiary Institutions: Gun State Experience. The objective of the study was to identify human capital development challenges in public tertiary institutions in Gun State. The study used descriptive statistics (frequencies. mean and percentages) while secondary data was used. The findings revealed that skills and techniques can be acquired through training and development which was hampered by policy inconsistency, lack of political will and commitment, corruption, ceaseless strikes and especially poor funding. The study recommended that policy consistency, recruitment of qualified staff, transparent and honest leaders and adequate funding should be promoted through legal and institutional framework.

THEORETICAL FRAME WORK
The study is anchored on the Systems theory propounded by David Easton (1963). For this theory, higher educational institutions are made up of interrelated and interdependent parts such as departments and units including Academic and Non-Academic Staff with different education and trainings. It assumes that an organization must receive inputs in the form of demands from the people and converts them into an output which takes the form of goods and services. Therefore the theory is relevant to this study since, a public- owned higher educational institution is an open system which must receive inputs and interacts with the external environment for survival. Also, for any higher educational institution to achieve its vision and mission, Academic
and Non-Academic Staff of each departments and units must cooperate and work together as well as be trained and retrained to ensure quality outputs of the institution.

METHOD
The study adopted descriptive survey design. The total population of the study is 17,108 personnel derived from the studied institutions. This was distributed as follows:

Table 6: Summary of Staff Population

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name Of Institution</th>
<th>Number Of Teaching Staffpopulation</th>
<th>Number Of Non-Teaching Staff Population</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Federal Polytechnic Nnkede, Imo State</td>
<td>710</td>
<td>2,654</td>
<td>3,365</td>
</tr>
<tr>
<td>2</td>
<td>University of Nigeria Nsukka Enugu State</td>
<td>1,776</td>
<td>6,301</td>
<td>8,077</td>
</tr>
<tr>
<td>3</td>
<td>Nnamdi Azikiwe University Awka</td>
<td>582</td>
<td>1,082</td>
<td>1,663</td>
</tr>
<tr>
<td>4</td>
<td>Ebonyi State University Abakaliki</td>
<td>876</td>
<td>1,998</td>
<td>2,872</td>
</tr>
<tr>
<td>5</td>
<td>Abia State University Uturu</td>
<td>412</td>
<td>171</td>
<td>1,129</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>4,356</strong></td>
<td><strong>12,752</strong></td>
<td><strong>17,108</strong></td>
</tr>
</tbody>
</table>

Source: Establishment and personnel units of the Institutions, December 2015.

To determine the sample size, Taro Yamane formula (1964) was used. Thus

\[
n = \frac{N}{1 + N(e)^2}
\]

Where
- \(n\) = Sample size
- \(N\) = population of the study
- \(I\) = Constant
- \(e\) = significant level (0.05)

Therefore;

Total population of the study = 17,108

Thus

\[
n = \frac{17,108}{1 + 17,108(0.05)^2}
\]

\[
= \frac{17,108}{1 + 42.77(0.05)^2}
\]

\[
= \frac{17,108}{48.77} = 391
\]
The sample size of the study is 391. A stratified sampling technique was applied to determine the sample size for each institution. The Bowler’s proportional representative allocation formula was used:

\[ Nh = \frac{n \times Nh}{N} \]

Where:
- \( nh \) = Number of Units allocated to each stratum
- \( n \) = overall sample size
- \( Nh \) = population of each stratum
- \( N \) = Total population

1. Federal Polytechnic Nekede Imo
   \[ \frac{391 \times 3365}{17,108} = 77 \]
2. University of Nigeria Nsukka
   \[ \frac{391 \times 8077}{17,108} = 185 \]
3. Nnamdi Azikiwe University
   \[ \frac{391 \times 1663}{17,108} = 37 \]
4. Ebonyi State University
   \[ \frac{391 \times 2874}{17,108} = 66 \]
5. Abia State University
   \[ \frac{391 \times 1,129}{17,108} = 26 \]

**Table 7: Allocation of questionnaire**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Institution</th>
<th>Questionnaire Allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Federal Polytechnic Nekede Imo</td>
<td>77 copies</td>
</tr>
<tr>
<td>2</td>
<td>Nnamdi Azikiwe University Awka</td>
<td>37 copies</td>
</tr>
<tr>
<td>3</td>
<td>Ebonyi State University Abakaliki</td>
<td>66 copies</td>
</tr>
<tr>
<td>4</td>
<td>University of Nigeria Nsukka Enugu State</td>
<td>185 copies</td>
</tr>
<tr>
<td>5</td>
<td>Abia State University Uturu</td>
<td>26 copies</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>391 copies</strong></td>
</tr>
</tbody>
</table>

Source: Zeal’s Field survey 2016.

Primary and secondary source of data was used. The primary source of data used was a survey carried by the researchers in the five public owned higher educational institutions in South Eastern Nigeria using a 5 point liker scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD).

Data collection instrument was a structured questionnaire constructed one liker 5-point rating scale. To ensure content and construct validity, the questionnaire was subjected to evaluation for which necessary corrections were made before distribution.

The reliability of the instrument was determined by conducting a split-half reliability test using Spearman Brown prophecy formula to the two halves of the instrument to obtain 0.65 reliability co-efficient as an indication of high internal consistency.

Tables, percentages and frequencies
were used for statistical analysis of questionnaire while t-statistics and Pearson Product Moment Correlation were adopted for hypothesis testing at 0.05 level.

DATA PRESENTATION AND ANALYSIS
Data extracted in this research is arranged as presented in tabular form below for analysis.

Table 8: Summary of Scholarship Award to Teaching Staff of Higher Educational Institutions from 2010-2014

<table>
<thead>
<tr>
<th>S/N</th>
<th>Type of Institution</th>
<th>Foreign PhD</th>
<th>Foreign Masters</th>
<th>Foreign Bench Work</th>
<th>Local Ph.D.</th>
<th>Local Masters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Universities</td>
<td>1,126</td>
<td>555</td>
<td>203</td>
<td>852</td>
<td>534</td>
<td>3,270</td>
</tr>
<tr>
<td>2</td>
<td>Polytechnics</td>
<td>326</td>
<td>569</td>
<td>16</td>
<td>1,247</td>
<td>1,415</td>
<td>3,050</td>
</tr>
<tr>
<td>3</td>
<td>Colleges of Education</td>
<td>181</td>
<td>251</td>
<td>10</td>
<td>1,465</td>
<td>2,135</td>
<td>4,043</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,633</td>
<td>1,375</td>
<td>229</td>
<td>3,564</td>
<td>4,084</td>
<td>10,363</td>
</tr>
</tbody>
</table>

Source: Tat Fund 2015

Table 8. Reveals that a total of 10,363 Academic Staff in higher educational institutions benefited from Defund intervention between 2010 and 2014.
Out of this figure, a total of 1,633 representing 16% of the teaching staff went for PhD programmed outside Nigeria, 1,375 representing 13.3% went for Masters Degree programmed outside the country, 3,564 representing 29% did their PhD programmers in Nigeria while 4,084 representing 39% were involved in Masters Degree programmed in Nigeria.

Out of these numbers, 3,270 representing 32% of the beneficiaries came from the universities, 3,050 representing 29% from the polytechnics while 4,043 representing 39% are from the Colleges of Education.

Questionnaire Response Rate

Table 9: Questionnaire Response Rate

<table>
<thead>
<tr>
<th>QUESTIONNAIRE</th>
<th>NO</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire Administered</td>
<td>391</td>
<td>100</td>
</tr>
<tr>
<td>Questionnaire Collected</td>
<td>340</td>
<td>87</td>
</tr>
<tr>
<td>Questionnaire not Collected</td>
<td>51</td>
<td>13</td>
</tr>
<tr>
<td>Questionnaire used for analysis</td>
<td>340</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 9 shows that 391 printed questionnaires were distributed to the respondents, 340 were returned (response rate of 87%), 51 copies were not returned (non-response rate of 13%). The analysis was done using 340 (87%) questionnaire collected.

Table 10: Classification of Respondents by Grouping

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 22</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>23 – 27</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>28 – 32</td>
<td>40</td>
<td>12</td>
</tr>
<tr>
<td>33 – 37</td>
<td>71</td>
<td>21</td>
</tr>
<tr>
<td>38 – 43</td>
<td>64</td>
<td>19</td>
</tr>
<tr>
<td>43 and above</td>
<td>121</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>340</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Zeal Field survey, 2016

Figure 1: Classification of Respondents by Age Group
Source: Zeal Field Survey 2016.

Figure 1:

Shows that 20 (6%) of the respondents were between the ages of 18-22 years, 24 (7%) were between 23 and 27 years, 40(12%) of the respondents were between the ages of 28–32 years, 71(21%) of the respondents were between 33–37 years, 64(19%) were between the ages of 38–43 years while 121 (35%) of the respondents were 43 years and above.

Table 11: DISTRIBUTION OF RESPONSES FOR THE QUESTIONNAIRE

<table>
<thead>
<tr>
<th>S/N</th>
<th>Questionnaire Item</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is a link between Defund scholarship award and improved performance of academic staff of your institutions. Award of Scholarship to academic Staff for Post-Graduate studies has great impact on the academic performance of Staff in your institution. The Academic performance of public owned higher educational institutions is highly influenced by award of scholarship for Post-Graduate studies to academic staff of your institution.</td>
<td>180</td>
<td>30</td>
<td>6</td>
<td>30</td>
<td>94</td>
</tr>
<tr>
<td>2</td>
<td>Defund provision of scholarship award has improved the quality of teaching in your institution</td>
<td>165</td>
<td>80</td>
<td>12</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Graduate studies to academic staff of your institution.</td>
<td>150</td>
<td>165</td>
<td>-</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Defund provision of scholarship award has helped to promote academic stability in your institution</td>
<td>170</td>
<td>130</td>
<td>-</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>There is inadequate scholarship award to academic staff in your institution in spite of Defund intervention.</td>
<td>150</td>
<td>165</td>
<td>7</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>


Responses to ite1 reveals that 180(53%) of the respondents strongly agreed that there is link between Defund scholarship award and improved academic staff performance of the institutions,
30(9%) of respondents agreed, 6(1%) were undecided, 30(9%) disagreed while 94(28%) of the respondents strongly disagreed.

For item 2, 165 (42%) of the respondents strongly agreed that Award of scholarship to academic staff for Post-Graduate studies has great impact on the academic performance of their institutions, 80 (21%) agreed, 12 (3%) were undecided, 28 (7%) disagreed while 6(2%) strongly disagreed. For item 3, 150 (44%) strongly agreed that the academic performance of public owned higher educational institution is highly influenced by award of scholarship for Post-Graduate studies to academic staff of their institutions, 165 (49%) agreed, 7 (2%) Disagreed while 18 (5%) strongly Disagreed.

For item 4, 170(50%) of the respondents strongly agreed that Defund intervention on scholarship award has improved the quality of teaching ion their institutions, 130(38%) of the respondents agreed, 20(6%) disagreed and 20 (6%) strongly Disagreed. Item 5 shows that 150(44%) of the respondents strongly agreed that Defund intervention on scholarship award helped to promote academic stability in their institutions. 165(48%) of the respondents agreed, 7(2%) were undecided, 9(3%) disagreed while 9(3%) of the respondents strongly disagreed. Item 6 shows that 94(28%) of the respondents strongly agreed that there is inadequate scholarship award to academic staff in their institutions in spite of Defund intervention, 180(53%) agreed, 10(3%)0 were undecided, 36(11%) disagreed while 20(6%) strongly disagreed.

The summary of the responses to items 1 – 6 suggest that Defund scholarship to academic staff for Post-Graduate studies has improved performance of academic staff, promoted academic stability and quality of teaching in the institutions studied.

**Generation of Data for Testing of Hypothesis**

**Item 2:** Award of Scholarship to Staff for Post-Graduate studies has great impact on the academic performance of public owned higher educational institutions.

**Item 3:** The Academic Performances of Public owned higher educational Institutions is highly influenced by award of scholarships for Post-Graduate studies to staff of the institutions.

**Table 12: Summary of Responses to items 2 and 3 relating to the Hypothesis**

<table>
<thead>
<tr>
<th>No</th>
<th>Responses to Question 2 (X)</th>
<th>Responses to Question 3(y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 340</td>
<td>ΣX = 1,086</td>
<td>ΣY = 1,429</td>
</tr>
</tbody>
</table>

**Source:** Zeal Field Survey, 2016

Table 12 shows the summary of responses to item 2, award of scholarship (x) and 3, improved academic performance (y) relating to the hypothesis which was generated from the respondents of the study. Details of the responses to these items are presented. The sum of responses for items 2 and 3 are ΣX = 1086 and ΣY = 1429 respectively.
Decision Rule: Reject the null hypothesis (H₀) if the computed \( t_c \) is more than the critical (table) value at 5% level while degree of freedom equal to \( n-2 \). Otherwise, accept the alternate hypothesis (H₁).

Test of Hypothesis

H₀₁: Defund provision of Scholarship to Academic Staff for Post-Graduate Studies has no significant impact on the Academic Performances of Public Owned Higher Educational Institutions in South-Eastern Nigeria.

H₁₁: Defund provision of Scholarship to Academic Staff for Post-Graduate Studies has significant impact on the Academic Performances of Public Owned Higher Educational Institutions in South-Eastern Nigeria.

Table 13: Test of Hypothesis Summary of Data Derived from Table 12

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Y</th>
<th>XY</th>
<th>X²</th>
<th>Y²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.086</td>
<td>1.429</td>
<td>4.722</td>
<td>3.913</td>
<td>6.129</td>
</tr>
</tbody>
</table>

Source: Zeal Field Survey, 2016

Table 13 shows the summary of independent variable (x) and dependent variable (y) computation needed to test the hypothesis Details of the data used in these computations are presented. From table above, number of respondents = 340, \( \Sigma X = 1,086 \), \( \Sigma Y = 1429 \), \( \Sigma XY = 4722 \), \( \Sigma X^2 = 3913 \) and \( \Sigma Y^2 = 6129 \).

\[
r = \frac{n \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{(n \Sigma X^2 - (\Sigma X)^2)(n \Sigma Y^2 - (\Sigma Y)^2)}}
\]

\[
r = \frac{340 \times 4,722 - 1,086 \times 1,429}{\sqrt{[(340 \times 3913 - 117936)] [(340 \times 6,129 - 2042841)]}}
\]

\[
r = \frac{1,605480 - 1,551894}{1212484 \times 41019}
\]

\[
r = 53586
\]

\[\sqrt{4973471712}
\]

r = 58586

70522

r = 0.83

 coefficients of determination \( r^2 = (0.83)^2 = 0.6889 \)
Computation of tc value

\[
tc = \sqrt{\frac{r N - 2}{1 - r^2}}
\]

Substituting \( r \), \( r^2 \) and \( N \) with 0.83, 0.6889 and 340 values we have

\[
Tc = \sqrt{\frac{0.81 \times 340 - 2}{1 - 0.6889}}
\]

\[
tc = 0.81 \times \sqrt{\frac{338}{0.311}}
\]

\[
tc = 0.81 \times \sqrt{18.3847 / 0.557}
\]

\[
tc = 27.39
\]

For the hypothesis, \( r = 0.83 \), \( r^2 = 0.6889 \) and \( tc = 27.39 \)

**Decision Rule:**
Reject \( HO \) if at 0.05 level, computed t-value is greater than critical t-value.

![Figure 3: Normal Distribution Curve Showing Rejection and Acceptance Decision Region for the Hypothesis.](image-url)
Decision
Since t-value 27.39 calculated exceeds critical t-value 1.96, the study rejects the null hypothesis that Defund provision of scholarship award to academic staff for Post-Graduate studies has no significant impact on the Academic Performances of Public Owned Higher Educational Institutions in South-Eastern Nigeria and accepts the alternate hypothesis.

Interpretation:
Defund provision of scholarship to academic staff for Post-Graduate studies improve their academic performance.
From the above, the result of the hypothesis depicts a strong relationship between scholarship award to academic staff and improved academic performance in Public-Owned Higher Educational institutions in South-Eastern Nigeria. The correlation co-efficient (r) result is 0.83. This however indicates that there is positive relationship between scholarship award to academic staff for Post-Graduate studies and improved academic performances in public owned higher educational institutions in South Eastern Nigeria. The co-efficient determination ($r^2$) is 0.6889. This implies that the award of scholarship to academic staff of the institutions for Post-Graduate studies has significant impact on their academic performances. The test of significance of correlation co-efficient (tc) shows that the calculated critical value of tc 27.39 exceeded table value at 5% error margin. These results show that the study objectives which assess Tertiary Education Trust fund scholarship to Academic Staff for Post-Graduate studies improve their academic performances were achieved.
This finding is consistent with findings of Vanish (2013) which is absolutely relevant and supportive of the findings of the study because he studied the connection between employee training and improved productivity in Public Owned Institutions in India. His study showed strong positive correlation (r=0.13) between employee training and improved academic performances in Public Owned Institutions in India.

Conclusion And Recommendations
From the study, it is very clear that many academic staff of the institutions studied have benefited from Defund scholarship award for Masters and PhD programmers both at home and abroad. These public owned higher educational institutions in the South-Eastern Nigeria can boast of motivated and energetic work force that supports the accomplishment of their objectives.
Also, the scholarship award to academic staff has led to increased staff productivity, improvement in the quality of programmers and teachers, job satisfaction and academic stability among others.
Though Defund has made visible impact in supporting higher educational institutions, but the Establishment Act has been abused and violated by Agencies of government. A situation where contracts are over-inflated, funds allocated to National Universities Commission (NUC) to administer and support establishment of new universities rather than supporting existing ones is a clear violation of the subsisting operation procedure. These have contributed to inadequate funding of scholarship award to academic staff.
Therefore, the following recommendations are made:

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(a) There should be increased budgetary allocations to Defund for scholarship award to academic staff of public owned higher educational institutions.

(b) Non-Governmental Organizations (NGOs) should support governments in award of scholarship to academic staff in higher educational institutions for Post-Graduate studies.

(c) Government Agencies should be sanctioned for violation of Defund Act while intervention should be restricted to existing public owned higher educational institutions.

(d) Over-Inflation of contracts by government Agencies should be discouraged through institutionalization of effective regulatory framework.

(e) Scholarship award to first-class graduates with Defund money should be discouraged.

REFERENCES


Defund Document 2015.