

Breaking Barriers and Enhancing Visibility Among Nigerian Women in STEM Fields

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@ CENTRE FOR GENDER & SOCIAL POLICY STUDIES, OAU
 2024 International Biennial Conference
 15th May, 2024

ABOUT NIGERIA

- Giant of Africa: Nigeria's population is estimated 229,466,404 million people
 in May, 2023
- Multinational and multicultural state with over 250 ethnic groups (3 major group)
- Women constituted 49.4 %, and Men 50.6 %
- The population growth rate is estimated at 2.4 %
- The sex ratio was 100.1 men to 100 women.



WHAT IS STEM?

Science

Math STEMTechnology

Engineering

These fields are the bedrock of innovation, driving advancements that shape our future. *A TESTAMENT TO HUMAN CURIOSITY AND INGENUITY* Obstacles faced by Women and Girls in undertaking STEM Courses:

Limited access to education and funding

□ Lack of recognition and opportunities for advancement.

Pervasive belief that women were inherently unsuited for scientific work

Discouraging future generations from pursuing careers in STEM, by

having the perception that they are difficult subjects.

SDG 4 AND 5

• Gender equality in education, especially in the areas of science, technology, engineering, and mathematics (STEM), and communities.



is a major concern for many national and international

organizations

- The UNESCO agenda on quality education and gender equality to promote Sustainable Development Goals 4 and 5, which is to ensure allencompassing, unbiased, transformative, and lasting education opportunities for all, irrespective of gender.
- However, gender inequality in STEM still exists and remains a major challenge for many countries, especially in developing countries like Nigeria

STEM ENROLMENT

 Fewer girls are picking STEM subjects at school due to it being seen as a male-dominated subject, and many think that STEM courses are difficult.

In Nigeria's university, there are only 25% of graduates in
 STEM subjects who are women and 52% are males.



Gender Disparity in STEM

- Most problems in nation building can be solved by applying STEM....
- Women and girls remain underrepresented in STEM fields: untapped potential, unrealized dreams....



- According to data from the United Nations Educational, Scientific and Cultural Organization (UNESCO), less than 30% of researchers worldwide are women, and only around 35% of all students enrolled in STEM-related higher education are female.
- This underrepresentation is not just a statistic; it's a reflection of the myriad challenges that deter women and girls from pursuing and persisting in these fields

Gender Disparity in STEM

Culturally, in many societies in Nigeria, girls are regarded as inferior to boys. How do we remove this discrimination?

EDUCATION (Girls do not have different brains from the boys)

- When girls are educated, there is a multiplier effect; improvement in literacy, family income, family health, employments and occupational aspirations.
- In 2019, female enrolment into 'Engineering and Technology' and Sciences was far below that of males, 12.06% of females and 87.4% of males enrolled for 'Engineering and Technology', 27.6% of females and 72.4% of males enrolled for 'Sciences' (NUC, 2019).
- The percentage of female professors in Nigeria Universities in 2017 and 2019 was low at 15.43% as against 84.57% of males, and 15.17% as against 84.83% males respectively (NUC, 2019).

🔳 % M 🖬 % F 87.94 74.89 72.40 68.97 64.98 62.73 60.38 59.09 59.81 58.05 56.22 5 47.17 52.83 **50.84** 49.16 46.41 43.78 41.95 40.91 40.19 39.62 37.27 35.02 31.03 27.60 25.11 12.06 BASIC MEDICAL AND HEALTH SCIENCES ENGINEERING AND TECHNOLOGY ADMINISTRATION AND BANAGEMENT VETERIHARY MEDICINE WEOICINE WE EOUCATION COMPUTING 44

Figure 2: Full-time Postgraduate enrolment by Discipline and Sex in Universities in Nigeria

Source: National Population Commission, 2019

Table 1: Percentage Distribution of NYSC Members by Major Discipline (2018-2020)

MAJOR DISCIPLINE	2018		2019		2020	
	% M	% F	% M	% F	% M	% F
ADMINISTRATION	47.41	52.59	45.99	54.01	45.19	54.81
AGRICULTURE	50.81	49.19	50.11	49.89	52.61	47.39
ARTS	36.47	63.53	36.08	63.92	35.35	64.65
EDUCATION	45.54	54.46	44.47	55.53	45.40	54.60
ENGR/TECHNOLOGY	73.58	26.42	70.58	29.42	71.55	28.45
ENVIR.SCIENCE	68.76	31.24	67.01	32.99	67.48	32.52
LAW	43.03	56.97	43.47	56.53	45.59	54.41
MEDICINE	60.11	39.89	57.56	42.44	53.44	46.56
PHARMACY	43.12	56.88	45.07	54.93	44.04	55.96
SCIENCE	47.41	52.59	46.87	53.13	47.42	52.58
SOCIAL SCIENCE	51.01	48.99	49.06	50.94	52.15	47.85
VETERINARY MEDICINE	66.14	33.86	65.80	34.20	63.74	36.26

Source: National University Commission, 2021

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A Case Study Scenario: Honorable Speaker of Niger State House of Assembly Marrying off 100 Girls in His Constituency



Author: Akinwale Kasali

May 14, 2024 🛛 🔜 0

Significance of Fostering Gender Diversity in STEM fields:

• Catalyst for groundbreaking discoveries

and innovations that benefit society at large.

- Influences broader landscape of research,
- Improved economy

Equity

• Collective ability to solving global challenges.



Recommendations: Pushing STEM fields Towards Justice
Educating the masses on the importance of diversity in science,
technology, engineering & mathematics (diversity brings more backgrounds, experiences, and angles to considering a problem)

- Promoting gender diversity
- Organizing inclusion training
- □ Advocating for equity
- Gender should no longer be a barrier to participation in STEM
- Women embracing resilience and tenancy
- Government policy to

□ Successful female scientists mentoring the younger ones



cience emony Rwanda

For Women in Science L'ORÉAL-UNESCO | For Women in Science 2020 - 2021 Sub-Saharan Africa Press Conference

INTERNATIONAL WOMEN'S DAY

O InspireInclusion

November 24 | Kigali - Rwanda

For Women in Science

INTE FONDATION



Photo speaks: The presenter receiving the prestigious L'OREAL UNESCO Award in 2021. Also showing where she was campaign and promoting STEM education among Secondary School females in Oyo and Osun States **Recommendations: Pushing STEM fields Towards Justice**

Thomas Adewumi University for the Conference

Sponsorship/Participation

My mentors who inspired the greatness and ingenuity in me; Profs.
 (Mrs.) Olubukola Oluranti Babalola, Adesola Ajayi, Oluwatoyin
 Odeku and many others.

