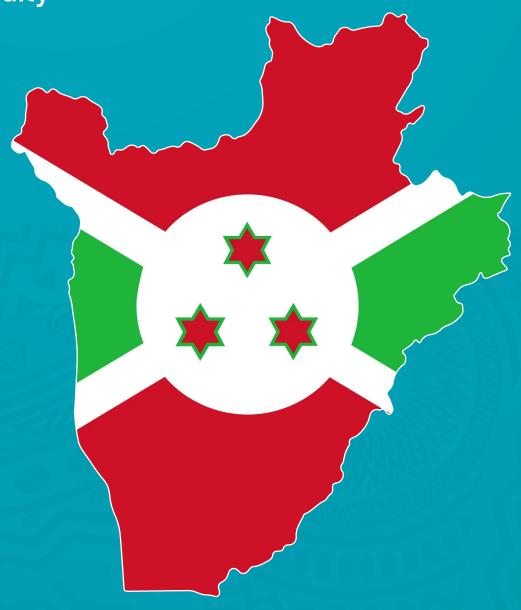


Policy Brief

Strengthening Burundi's Higher Education: Actionable Strategies for a Diverse and Effective Faculty



1. Introduction

This Policy Brief draws insights from the Demographics of African Faculty in the East African Community (DAF-EAC) study, conducted in Burundi and five other EAC partner states—specifically Kenya, Rwanda, South Sudan, Tanzania, and Uganda—between 2021 and 2023. This study by the Inter-University Council for East Africa (IUCEA), Education Sub Saharan Africa (ESSA), Association of African Universities (AAU), and the Population Reference Bureau (PRB), is the first to systematically document the status of higher education faculty across the EAC, following a prior examination of the DAF in Ghana. The DAF-EAC study provides a comprehensive analysis of the state of higher education faculty in the six EAC partner states and forecast demand through 2030.

The primary objectives of the study were to:

- 1) Conduct an extensive desk literature review and gather data on the higher education policy landscape and faculty status at both national and institutional levels.
- 2) Utilise the DAF model to forecast future faculty supply and demand based on gender, discipline, policy norms¹, and turnover rates.

The DAF-EAC report provides accurate and consolidated data on faculty in higher education. This data is crucial for making effective policy decisions, planning, and securing the investments required to enhance the quality of education in East Africa. The report's target audience encompasses education sector leaders in government entities, private sector organisations, civil society organisations and international development institutions.

2. Overview of Higher Education in Burundi

Burundi's higher education system (HES) has undergone significant transformation since its inception in the 1960s. The journey began with the establishment of the Institute of the Jesuit Fathers in Bujumbura in 1960, followed by the formation of the Official University of Bujumbura (UB) in 1964. The following decade witnessed the creation of the Ecole Normale Supérieure (ENS) for teacher training. The ENS was then transformed into the Institute of Education Sciences before merging with the UB in 1977 to form the current University of Burundi.

A significant shift occurred in the higher education landscape in 1995 with the introduction of private institutions. This sector liberalisation resulted in a contemporary HES dominated by private entities, accounting for 86% of all higher education institutions (HEIs) as of the 2017-2018 academic year (see Figure 1). This exponential growth is attributed to the adoption of the Bachelor-Master-Doctorate (BMD) system, which streamlined higher education into three distinct cycles – Baccalaureate (2 years), Master (2 years), and Doctorate (3 years) – offering a more structured and internationally recognised framework.

¹ Policy Norms are set specific targets or limitations related to numbers, such as student-teacher ratios, class sizes, or minimum qualifications for educators.

Academic Year

45

40

45

45

30

25

20

15

10

5

Academic Year

45

Academic Year

Academic Year

Academic Year

Academic Year

Figure 1: Number of Public and Private HEIs in Burundi

Source: Burundian Office for Educational Planning Statistics, Statistical Yearbook 2019-2020

The National Commission for Higher Education (CNES) is critical in ensuring quality by overseeing the accreditation process for all HEIs in Burundi. Beyond private entities and associations, five ministries – National Education and Scientific Research, National Defence, Interior and Public Security, Public Service, and Health – govern the education sector. The CNES collaborates with two other critical commissions for effective coordination and policy implementation: The National Commission for Science, Technology, and Innovation (CNESTI) and The National Commission for UNESCO (CNU).

During 2012-2020, the Burundi government adopted and implemented the Sectoral Plan for the Development of Education and Training (PSDEF)². The Burundian education sector is currently guided by the Sectoral Plan for Education (SEP) 2022-2030. This strategic plan serves as a roadmap for stakeholders, including the government, to promote access to quality education for all. The SEP envisions a more inclusive, equitable, and quality-oriented educational system, focusing on five key programme areas: improvement of access and equity, improvement of teaching quality, expansion and modernisation of higher education and scientific research, expansion and reform of technical and vocational education and training, and improvement of sectoral governance.

3. Methodology

The study adopted a mixed-methods approach that involved data collection at various national offices, including the Ministry of National Education and Scientific Research, the Burundian Office for Educational Planning and Statistics, CNES, UNESCO, and the University of Burundi. Additionally, desktop reviews were conducted to gather background information on higher university education practices in Burundi, encompassing policy norms, academic staff mobility trends, and student enrolment statistics. Key informant interviews were also conducted with individuals within these institutions, enriching the quantitative data with valuable qualitative insights. Furthermore, the study employed the Demographics of African Faculty (DAF) model to forecast future faculty supply and demand within the Ugandan university education system. The DAF model is an MS Excel-based quantitative model that projects faculty needed to meet policy norms using data on various indicators, including current period student enrolment, projected student enrolment, number of faculty in the current period, faculty exit rates and policy norms. Due to data challenges across universities and HEIs, the DAF analysis focussed on the University of Burundi, which had adequate data for DAF analysis.

4. Key Findings of the Assessment of Faculty Demographics in Burundian Higher Education

4.1 Policy norms

Burundi's policy framework for HEIs outlines specific requirements for student enrolment and faculty qualifications. However, some essential policy norms, such as student-teacher and faculty gender ratios, are currently absent³. Establishing these benchmarks could enhance monitoring, resource allocation, and overall efficiency within HEIs.

The Presidential Decree⁴ of 12 July 2021, established entry requirements for Burundian HEIs. These include holding a state diploma, achieving a minimum score on a standardised entrance exam, and meeting nationality requirements. International students can apply with equivalent qualifications. Additionally, the ministerial decision of 17 February 2022 defined five academic ranks in Burundian HEIs, each with associated qualifications ranging from assistant (bachelor's degree) to Ordinary Professor (PhD and publication requirements).

The policy norms for faculty qualifications recommend that faculty in the ranks of lecturer, senior lecturer, associate professor, and professor must have a PhD. At the same time, assistant lecturers should have a master's degree, while teaching assistants should have a bachelor's degree attained after four or five years of training.

4.2 Faculty distribution

Assistant lecturers dominate faculty in Burundian HEIs. During the 2019-2020 academic year, 4,294 faculty members were employed, with 37% holding PhD qualifications, 50% holding master's degrees, and the remaining 13% holding bachelor's degrees. Data on faculty demographics reveals a gender gap. While the number of faculty members has been on an upward trend, the specific figures paint a concerning picture. In the 2019-2020 academic year, out of the 4,294 faculty members, 12% were female, highlighting the significant underrepresentation of women in Burundian HEIs.

³ Given the lack of these goals specific to Burundi, the goals for Kenya as provided by the Commission for University Education (CUE) were adopted for the STR and faculty-gender ratio as benchmarks in the analysis.

 $^{^4 \}text{ https://planipolis.iiep.unesco.org/en/2012/plan-sectoriel-de-d}\% C3\% A9 veloppement-de-l}\% C3\% A9 ducation-et-de-la-formation-2012-2020-5515$

While national data on faculty distribution by discipline were unavailable during the DAF-EAC study, analysis of data from the most frequented HEIs in Burundi reveals some critical trends for policy consideration.

Concentration in Arts and Humanities: Out of a sample of 2,469 faculty members, 43.7% were concentrated in disciplines related to the arts and humanities category (which comprises the arts and humanities, social sciences, journalism and information, business administration, law, and service).

Limited Faculty in Key Areas: Fewer faculty members are employed in disciplines critical for national development, such as agriculture, forestry, fisheries, and veterinary (4.8%) and education (11%).

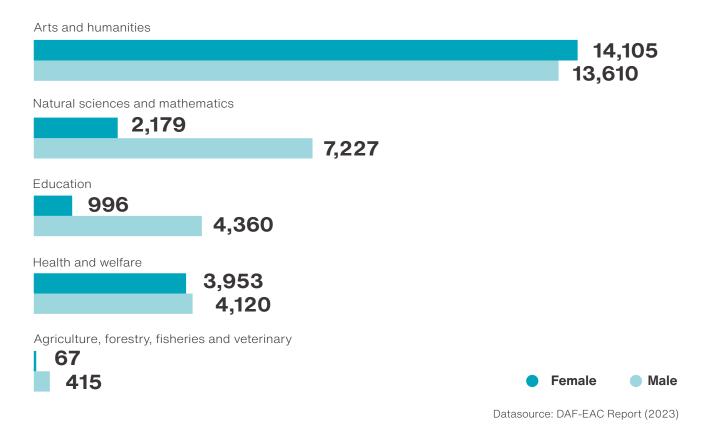
Dominance of Private HEIs and Part-Time Positions: The data also highlights a higher concentration of faculty in private HEIs (74.9%) than in public institutions (25.1%). Furthermore, most faculty members (73.8%) are engaged on a part-time basis. While this flexibility may offer advantages, it is essential to consider the potential impact on teaching quality and student support.

Acknowledging that faculty members might teach at multiple institutions, potentially leading to double counting during data collection, these trends nonetheless provide valuable policy insights.

4.3 Student enrolment

Burundi's HES has witnessed fluctuating student enrolment figures over the past decade. Following a steady rise from about 36,800 in 2011-2012 to about 51,200 in 2014-2015, enrolment dipped to nearly 37,300 in 2015-2016 due to post-election conflicts. Enrolment figures have rebounded with restored stability, reaching approximately 51,000 in 2019-2020. A key trend observed in student enrolment is the dominance of programmes in the arts and humanities category. This category attracted over half (54%) of all enrolled students in 2019-2020. This highlights a potential need to diversify student enrolment patterns to align with national development priorities. Furthermore, private HEIs significantly sway student enrolment across most disciplines, except agriculture, forestry, fisheries, and veterinary programmes and education. Additionally, gender disparity emerges in enrolment figures. While male students dominate most disciplines, females constitute a majority (51%) in programmes in the arts and humanities category (see Figure 2).

Figure 2: Student Enrolments by gender and discipline (2019-2020)



4.4 Student-Teacher-Ratios

The DAF-EAC study revealed that Burundi's HES has experienced a substantial increase in student enrolment without a corresponding expansion of physical and academic infrastructure. The DAF analysis indicated that student-teacher ratios (STRs) significantly exceed recommended policy norms across all disciplines except health and welfare at the University of Burundi (see Table 1). For instance, education programmes recorded an STR of 49:1, far exceeding the recommended 18:1 ratio. These high STRs translate into an increased workload for faculty, limiting opportunities for personalised student attention. Furthermore, large class sizes and overcrowding strain resource allocation, impacting the educational experience for students.

Table 1: Policy Norms versus Student-teacher ratio in the University of Burundi (2021)

Discipline	Student Enrolment	Number of Faculty	ActualSTR	PolicyNorm (CUE2014*)
Arts and humanities ^a	6,881	170	40:1	18:1
Education	2,961	60	49:1	18:1
Health and welfare	609	74	8:1	7:1
Natural sciences and mathematics ^b	2,288	149	15:1	10:1
Agriculture, forestry, fisheries and veterinary	1,251	65	19:1	10:1

- *Due to absence of STR policy norms in Burundi, policy norms were borrowed from the Kenyan Commission for University Education's University Standards and Guidelines (2014)
- ^a Arts and humanities comprise the arts and humanities, social sciences, journalism and information, business administration, law and services
- ^b Natural sciences and mathematics comprise natural sciences, mathematics and statistics, engineering, manufacturing, construction and ICTs

Data source: DAF-EAC Report (2023)

4.5 Reasons for student attrition and faculty turnover in universities

Attracting and retaining qualified faculty and students are crucial for a healthy HES. The DAF-EAC study identified several key factors influencing faculty and student dynamics in Burundi.

On the faculty side, employment opportunities, participation in national education initiatives, and professional development act as magnets, drawing qualified individuals to Burundian HEIs. However, once employed, several challenges can lead to faculty turnover. Low salaries, more attractive working conditions and remuneration offered by other institutions create a constant pull factor. Additionally, the burden of a high workload within an unfavourable environment, characterised by inadequate infrastructure and equipment, contributed to faculty dissatisfaction. Opportunities for political advancement, retirement, and death further contribute to faculty turnover.

Students are primarily drawn to Burundian HEIs due to accessibility, lower tuition fees compared to the region, and scholarship opportunities, particularly in public institutions. However, harsh living conditions, particularly for students from rural areas, pose challenges to degree completion. Additionally, irregularities in scholarship distribution, especially within public institutions, and the high cost of tuition fees in private institutions were identified as creating financial strain and hindering student success. Furthermore, the lure of available job opportunities sometimes competes with the demands of completing a degree programme, leading to student dropout.

4.6 DAF model projections⁵

4.6.1 Projected faculty needed to meet STR goals in the baseline year (2021)

The DAF analysis employed student enrolment and faculty data from the University of Burundi, disaggregated by discipline, to identify challenges facing faculty in Burundian higher education. Using 2021 as the baseline year, the DAF model projected that 988 faculty members were needed to achieve the STR policy norms in 2021. However, only 518 faculty were employed in 2021. This represents a shortfall of 470 faculty members to meet the projected need (see Table 2).

The analysis further highlights how the 470 additional faculty members required would be distributed across disciplines. To achieve policy-mandated STRs in 2021, about 45% of this additional faculty would have been needed in the arts and humanities category. Similarly, 22% were required in education, while 17% were necessary in the natural sciences and mathematics category. Agriculture, forestry, fisheries and veterinary disciplines would require 13%, while health and welfare would have accounted for the remaining 3%.

Table 2: Additional faculty needed by the University of Burundi in 2021 (Baseline year)

Description	Faculty needed
Panel A: Total	
Additional faculty needed to meet STR goals*	470
Additional faculty needed to replace the ones projected to exit during the year**	20
Additional faculty needed to account for overestimation***	26
Total	515

Panel B: Breakdown of the additional faculty needed to meet STR goals by discipline	
Arts and humanities ^a	212
Education	105
Health and welfare	13
Natural sciences and mathematics ^b	80
Agriculture, forestry, fisheries and veterinary	60
Total	470

Notes: *STR policy norms are adopted from Kenya. **Assumption: student enrolment grows annually at the rate of the population of age 18–21 projected by UNPD. ***Assumption: 5% of professors and 10% of other teaching staff exit each academic year and need replacement. ****Overestimation of faculty can result from having faculty who are on the payroll but are absent from the universities for some reason, e.g., faculty may lecture in private universities and have a post in public universities. The assumption is that the faculty is overestimated by 5%.

Source: DAF-EAC Report (2023), DAF Model results

^a Arts and humanities - comprise the arts and humanities, social sciences, journalism and information, business administration, law and services

^b Natural sciences and mathematics – comprise natural sciences, mathematics and statistics, engineering, manufacturing, construction and ICTs

4.6.2 Projected faculty needed to meet growth in student enrolment by 2030

The analysis reveals that an additional 320 faculty members will be required by 2030 to accommodate projected increases in student enrolment driven by population growth (see Table 3). In terms of the distribution of these additional faculty members across disciplines, the most significant proportion (33%) will be needed in the arts and humanities category, followed by the natural sciences and mathematics category (29%).

Table 3: Additional Faculty Needed by the University of Burundi by 2030

Description	Faculty needed
Panel A: Total	
a) Additional faculty needed to meet the increased enrolment due to population growth**	760
b) Additional faculty needed to meet STR goals, considering population growth*	320
c) Additional faculty needed to replace the ones projected to exit during the year***	258
d) Additional faculty needed to account for overestimation****	26
	1,365

Panel B: Breakdown of the additional faculty needed to meet the increased enrolment due to population growth by discipline	
Arts and humanities a	105
Education	37
Health and welfare	46
Natural sciences and mathematics b	92
Agriculture. Forestry, fisheries and veterinary	40
Total	320

Panel C: Breakdown of the additional faculty needed to meet STR goals by discipline, given population growth	
Arts and humanities ^a	344
Education	169
Health and welfare	21
Natural sciences and mathematics ^b	129
Agriculture. Forestry, fisheries and veterinary	97
Total	760

Notes: *STR policy norms are adopted from Kenya. **Assumption: 5% of professors and 10% of other teaching staff exit each academic year and need a replacement; ***Overestimation of faculty can result from having faculty who are on the payroll but are absent from the universities for some reason, e.g., faculty may lecture in private universities and have a post in public universities. The assumption is that the faculty is overestimated by 5%.

- ^a Arts and humanities comprise the arts and humanities, social sciences, journalism and information, business administration, law and services
- ^b Natural sciences and mathematics comprise natural sciences, mathematics and statistics, engineering, manufacturing, construction and ICTs

Source: DAF-EAC Report (2023), DAF Model results

4.6.3 Projected faculty needed to meet STR goals by 2030

Focusing on achieving established STR goals by 2030, the analysis identified the need for approximately 800 additional faculty members (see Table 3). This significant figure (based on policy norms adopted from Kenya) suggests that the University of Burundi will need to double its baseline year faculty numbers to stay within the STR goals. The distribution of required additional faculty by disciplines to bridge the identified faculty shortfalls by 2030 shows that the arts and humanities category requires the highest proportion (45%), followed by the education category (22%), the natural sciences and mathematics category (17%), agriculture, forestry, fisheries and veterinary category (13%) and the health and welfare category (3%).

4.6.4 Addressing faculty gender disparity

The DAF model projects that achieving gender parity among faculty will require approximately 500 additional female faculty members by 2030. This represents a significant increase of about 605 compared to the number of female faculty (71) recorded in 2021.

5. Conclusion and Policy Recommendations

Burundi's HES has experienced rising student demand across disciplines, particularly after implementing the BMD. However, this growth is accompanied by challenges. Gender imbalance remains a significant issue, with a predominance of males in faculty ranks and student enrolment. Further compounding these issues is the lack of quantitative policy norms, such as student-teacher and faculty gender ratios, hindering effective planning for the future of the HES.

Data from the University of Burundi indicates a significant faculty shortage compared to policy-mandated STRs adopted from Kenya. Faculty departures exacerbate this shortage due to challenging working conditions and attractive external opportunities. Projections indicate that an additional 1,365 faculty members, among them 501 females, are required by 2030 solely to achieve these policy-mandated STRs. However, the faculty shortage is even more concerning when considering other factors. This critical faculty shortage necessitates immediate action to ensure a well-resourced HES. To address this challenge, the following recommendations are proposed:

a) Investing in Faculty and the Learning Environment

This will entail Improving faculty well-being through better salaries, mental and physical health support, and a conducive educational infrastructure. Additionally, scale up teacher training programmes. Further, enhance working conditions for staff and students by implementing quality assurance measures, building sufficient classrooms, establishing well-equipped labs, and integrating digital technology into HEIs.

b) Enhance Data Collection and Standardisation

Establishing a comprehensive and regularly updated faculty database that tracks name, gender, qualifications, and research areas is a vital first step. Additionally, strengthening data collection offices within HEIs or establishing them where they do not exist will ensure accurate and timely data on faculty and student enrolment. Furthermore, mandating all HEIs by law to collect and share faculty demographic data regularly, with this information readily accessible through a central body like the National Statistical Office, will enhance transparency and facilitate planning.

c) Establish Standardised Norms and Improve Curriculum

The CNES, working collaboratively with relevant ministries and institutions, should harmonise existing policies, update outdated ones, and create new norms where necessary. These should clearly define student enrolment and faculty recruitment practices, focusing on attracting female faculty to address the gender imbalance. Finally, recalibrating teaching programmes in some disciplines to better align with the needs of the Burundian job market can make these programmes more attractive and attract greater student enrolment.

d) Promote Gender Parity:

Implement targeted initiatives to attract and retain qualified female academics. This can involve scholarships, mentorship programmes, and addressing potential workplace biases.

6. Next Steps

The findings of the DAF-EAC study underscore the critical need for a robust and sustained approach to addressing the faculty shortage in Burundian HEIs. To ensure the ongoing relevance and effectiveness of policy interventions, it is imperative to regularly update and refine the data-driven insights generated by this study. A key next step involves undertaking new DAF projections utilising the most recent available data. Policymakers can understand evolving faculty demand and supply trends by periodically recalibrating the model. This will enable more precise forecasting of future faculty needs, facilitating proactive planning and resource allocation.

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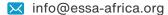
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