

# Education and Banking in Burundi

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## Abstract:

This study investigate whether educated Burundians utilize more banking services (N=55,567). Our results suggest that more educated Burundian are more likely to utilize banking services. Quantitatively, an additional year of education in Burundi leads to a 2.3 percentage points rise in the probability of Burundian using banking services, completing primary schooling increases the probability of Burundian using banking services by 12.2 percentage points, and completing secondary schooling increases the probability of Burundian using banking services by 29.0 percentage points.

**Keywords:** Education; Burundi; Banking Utilization

## Introduction

Banks are important in Burundi for offering services to Burundian people. However, the banking utilization in Burundi is still very low. Hence, policymakers in Burundi are seeking ways to improve Burundian banking utilization.

This study investigate whether educated Burundians utilize more banking services (N=55,567). The data is taken from the Burundi Demographic and Health Surveys (DHS-BDI). Regression framework with DHS-BDI data is employed. The independent is Burundian education. The outcome is Burundian banking utilization. Focused on DHS-BDI sample of 55,567 Burundians, we contribute to the literature concerning the Burundian banking-education relationship across Burundi.

Our results suggest that more educated Burundian are more likely to utilize banking services. Quantitatively, an additional year of education in Burundi leads to a 2.3 percentage points rise in the probability of Burundian using banking services, completing primary schooling increases the probability of Burundian using banking services by 12.2 percentage points, and completing secondary schooling increases the

probability of Burundian using banking services by 29.0 percentage points.

The results are related to research on factors affecting Burundian well-being. For example, food shortage and violence in Burundi cause to poor survival rates; extreme temperature and precipitation in Burundi worsen living standard; education, nutrition, and land programs improve Burundian wellbeing; measures to diseases in Burundi also affect wellbeing (Le, 2020, 2021a, 2021b, 2022).

## Data

Using information from Burundi Demographic and Health Surveys (DHS-BDI), we investigate whether educated Burundians utilize more banking services. DHS-BDI records detailed data on Burundian population (Le & Nguyen, 2019, 2020a, 2020b, 2020c, 2020d). Multiple Burundian attributes are provided in DHS-BDI. Regression framework with DHS-BDI data is employed. The independent is Burundian education. The outcome is Burundian banking utilization.

Table 1: Burundian Descriptive Statistics

	Mean	SD	N
	(1)	(2)	(3)

Burundian Banking Utilization	0.186	0.389	55567
Burundian Primary School	0.433	0.496	55567
Burundian Secondary School	0.094	0.291	55567
Burundian Education	4.047	4.504	55567
Burundian Male	0.463	0.499	55567
Burundian Age	36.517	15.432	55567
Burundian in Rural Areas	0.778	0.416	55567
Burundian Currently Married	0.630	0.483	55567
Burundian Household Head	0.439	0.496	55567

Table 1 presents the descriptive statistics of our DHS-BDI sample. The sample includes around 55,567 Burundian respondents. The average share of Burundian using banking services is 0.186. The share of Burundian completing primary schooling in DHS-BDI is 0.433. The share of Burundian completing secondary schooling in DHS-BDI is 0.094. The average DHS-BDI educational attainment is 4.047 years. The Burundian male fraction is 0.463. The average age of Burundian respondents is 36.517. The fraction of Burundian living in rural areas is 0.778. The share of married Burundian is 0.630. The share of DHS-BDI respondents being household head is 0.439.

### Empirical Design

To investigate whether educated Burundians utilize more banking services, we estimate the following regression ( $N=55,567$ ),

$$Y_{ist} = \beta_0 + \beta_1 Edu_{ist} + X'_{ist} \Omega + \epsilon_{ist}$$

where  $i$ ,  $s$ , and  $t$  refer to Burundian individuals, DHS-BDI residential cluster, and DHS-BDI survey date.  $Y_{ist}$  is Burundian banking utilization (Le & Nguyen, 2021a, 2021b, 2021c).

$Edu_{ist}$  is Burundian educational year, Burundian completing primary schooling, and Burundian completing secondary schooling.  $X'_{ist}$  includes Burundian age, squared-age, gender, whether Burundian respondent is married, whether Burundian respondent is in rural areas, whether Burundian respondent is household head,

Burundian birth year fixed effects, DHS-BDI residential cluster fixed effects, DHS-BDI survey date fixed effects (Le & Nguyen, 2021d, 2021e, 2021f).  $\epsilon_{ist}$  is the error term.

The coefficient  $\beta_1$  is the effects of education on Burundian banking utilization. Simply put,  $\beta_1$  depicts the difference in banking utilization of Burundian living in the same neighborhood but differing in education.

### Results

**Burundian Education** - The effects of Burundian education on banking utilization in DHS-BDI is in Table 2. Column 1, where only Burundian education is included, depicts the effects of Burundian education on banking utilization in DHS-BDI. We find that an additional year of education in Burundi leads to a 4.1 percentage points rise in the probability of Burundian using banking services.

This estimate is simply a correlation between banking utilization and Burundian education in DHS-BDI, while factors in DHS-BDI are not included. Hence, we include Burundian features and DHS-BDI temporal-spatial fixed effects. Evident from Column 3, we find that an additional year of education in Burundi leads to a 2.3 percentage points rise in the probability of Burundian using banking services.

Table 2: Burundian Education

	(1)	(2)	(3)
Burundian Education	0.041***	0.031***	0.023***
	(0.000)	(0.000)	(0.000)
Observations	55567	55567	55567
Cluster FE	.	.	X
Characteristics	.	X	X

**Burundian Primary Schooling** - The effects of Burundian primary education on banking utilization in DHS-BDI is in Table 3. Column 1, where only Burundian primary education is included, depicts the effects of Burundian primary education on banking utilization in DHS-BDI. We find that completing primary schooling increases the probability of Burundian using banking services by 26.4 percentage points.

This estimate is simply a correlation between banking utilization and Burundian primary education in DHS-BDI, while factors in DHS-BDI are not included. Hence, we include Burundian features and DHS-BDI temporal-spatial fixed effects. Evident from Column 3, we find that completing primary schooling increases the probability of Burundian using banking services by 12.2 percentage points.

Table 3: Burundian Primary Schooling

	(1)	(2)	(3)
Burundian Primary	0.264***	0.170***	0.122***
	(0.003)	(0.003)	(0.003)
Observations	55567	55567	55567
Cluster FE	.	.	X
Characteristics	.	X	X

**Burundian Secondary Schooling** - The effects of Burundian secondary education on banking utilization in DHS-BDI is in Table 4. Column 1, where only Burundian secondary education is included, depicts the effects of Burundian secondary education on banking utilization in DHS-BDI. We find that completing secondary schooling increases the probability of Burundian using banking services by 58.3 percentage points.

This estimate is simply a correlation between banking utilization and Burundian secondary education in DHS-BDI, while factors in DHS-BDI are not included. Hence, we include Burundian features and DHS-BDI temporal-spatial fixed effects. Evident from Column 3, we find that completing secondary schooling increases the probability of Burundian using banking services by 29.0 percentage points.

Table 4: Burundian Secondary Schooling

	(1)	(2)	(3)
Burundian Secondary	0.583*** (0.005)	0.403*** (0.005)	0.290*** (0.005)
Observations	55567	55567	55567
Cluster FE	.	.	X
Characteristics	.	X	X

## Conclusion

Banks are important in Burundi for offering services to Burundian people. However, the banking utilization in Burundi is still very low. Hence, policymakers in Burundi are seeking ways to improve Burundian banking utilization. This study investigate whether educated Burundians utilize more banking services (N=55,567). The data is taken from the Burundi Demographic and Health Surveys (DHS-BDI). Regression framework with DHS-BDI data is employed. The independent is Burundian education. The outcome is Burundian banking utilization. Focused on DHS-BDI sample of 55,567 Burundians, we contribute to the literature concerning the Burundian banking-education relationship across Burundi.

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The results are related to research on factors affecting Burundian well-being. For example, food shortage and violence in Burundi cause to poor survival rates; extreme temperature and precipitation in Burundi worsen living standard; education, nutrition, and land programs improve Burundian wellbeing; measures to diseases in Burundi also affect wellbeing (Le & Nguyen, 2021g, 2021h, 2022; Nguyen, 2021a, 2021b, 2021c, 2021d, Nguyen & Le, 2022).

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