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Weight At Birth In Senegal: A Comparison Of Educational Levels

Kien Le Ho Chi Minh City Open University

Abstract: The purpose of this study is to see if Senegalese mothers with greater levels of education produce healthier infants (N=80,159). According to the findings, Senegalese mothers with a higher educational level had healthier infants than Senegalese mothers with a lower educational level. In terms of statistics, one additional education year in Senegal is linked to a 3.2549 gram rise in Senegalese birth weight and a 0.14 percentage point reduction in Senegalese low birth weight risk.

Keywords: Education; Senegal; Birth Weight

Introduction

Half of fatalities of Senegalese children are caused by malnutrition in Senegal. Childhood malnutrition has long-term effects on Senegaleses, such as including cognitive impairment, a greater risk of chronic diseases, lower educational achievement, and lower productivity. Thus, policymakers in Senegal have moved their focus to solving the health challenges of Senegalese children, with education seen as a feasible remedy.

The purpose of this study is to see if Senegalese mothers with greater levels of education produce healthier infants (N=80,159). Other studies have concentrated on more visible results of schooling, such as earnings, professions, and productivity, but this one contributes to the body of knowledge by focusing on less apparent effects, such as newborn health. Our findings, which are focused on Senegal, contribute to the growing body of evidence concerning the health-education relationship across generations in Senegal.

According to the findings, Senegalese mothers with a higher educational level had healthier infants than Senegalese mothers with a lower educational level. In terms of statistics, one additional education year in Senegal is linked to a 3.2549 gram rise in Senegalese birth weight and a 0.14 percentage point reduction in Senegalese low birth weight risk.

Data

Using data from the Senegal Demographic and Health Surveys (SEN-DHS), we investigate whether better educated Senegalese mothers give birth to healthier Senegalese children. The SEN-DHS collects detailed information on Senegalese children aged 0 to 4. A number of Senegalese parental traits are also included in the SEN-DHS. The number of schooling years completed by the Senegalese respondents is the key explanatory variable (Education).

Table 1: Senegalese Summary Statistics

	Mean	SD	N
	(1)	(2)	(3)
Senegalese Birth Weight	3100.8	683.27	40523
Senegalese Log Birth Weight	8.014	0.235	40523
Senegalese Low Birth Weight	0.121	0.326	40523
Senegalese Education	1.858	3.346	80151
Senegalese Age	29.588	6.990	80159
Senegalese Number of Offspring	3.750	2.156	80159
Senegalese Living in Rural Areas	0.699	0.459	80159
Senegalese Currently Married	0.977	0.150	80159
Senegalese Offspring Age in Month	28.490	17.122	80159
Senegalese Offspring Being Male	0.508	0.500	80159
Senegalese Plural Birth	0.017	0.128	80159

The statistical breakdown of the variables in this Senegalese investigation is shown in Table 1. Our sample includes around 80,159 Senegalese births. Senegalese offspring had an average birth weight of 3100.8 grams, a log birth weight of 8.014, and a low birth weight rate of 12.1%. The average length of time spent in school in Senegal is 1.858 years. The average age of Senegalese responders is 29.588. The average number of children per Senegalese respondent is 3.750. The Senegalese population lives in rural areas is 69.9%, with 97.7% of married Senegalese. The Senegalese offspring have an average age of 28.490 months. Males make up 50.8 percent of all Senegalese children. Multiple births make up 1.7% of all Senegalese births.

Empirical Design

To see whether more educated Senegalese women had healthier Senegalese children, we estimate the following regression,

where the subscripts j, i, s, and t refer respectively to Senegalese offspring, women, cluster, and survey date in Senegal. stands for Senegalese birth weight, Senegalese birth weight in log, and Senegalese risk of low birth weight.

is the number of educational years Senegalese respondents completed. includes Senegalese number of offspring, age, squared-age, whether Senegalese lives in rural areas, whether Senegalese is currently married, whether Senegalese offspring is a plural birth, whether Senegalese offspring is male, Senegalese offspring age in month, squared-age in month, Senegalese birth date fixed effects, Senegalese residential cluster fixed effects and Senegalese survey time fixed effects. is the error term.

The coefficient is the effects of more educated Senegalese mothers on birth outcomes. In other words, reflects the difference in birth outcome of Senegalese women living in the same area but with different levels of education.

Results

Birth Weight - The relationship between Senegalese mother education and birth weight in Senegal are in Table 2. Column 1, where only Senegalese mother education is controlled for, displays the relationship between Senegalese mother education and birth weight in Senegal. We find that one extra school year in Senegal is associated with a -0.5776 gram increase in Senegalese birth weight.

The estimate only represent the connection between Senegalese mother education and birth weight in Senegal, while key elements in Senegal are not taken into consideration. For example, Senegalese with advantage backgrounds may have better access to Senegalese healthcare system and education simultaneously . As a result, from Columns 2 to 3, we add the collection of Senegalese attributes and Senegalese spatial-temporal fixed effects. Then, according to Column 3, we find that one additional school year in Senegal is linked to a 3.2549 gram gain in birth weight.

Table 2: Senegalese Birth Weight

	(1)	(2)	(3)
Senegalese Education	-0.5776	4.5071***	3.2549***
	(0.8601)	(0.9173)	(0.9618)
Observations	40517	40517	40411
Cluster FE	.	.	X
Characteristics	.	X	X

Log Birth Weight - The relationship between Senegalese mother education and log birth weight in Senegal are in Table 3. Column 1, where only Senegalese mother

education is controlled for, displays the relationship between Senegalese mother education and log birth weight in Senegal. We find that one extra school year in Senegal is associated with a 0.01% increase in Senegalese birth weight.

The estimate only represent the connection between Senegalese mother education and birth weight in Senegal, while key elements in Senegal are not taken into consideration. As a result, from Columns 2 to 3, we add the collection of Senegalese attributes and Senegalese spatial-temporal fixed effects. Then, according to Column 3, we find that one more educational year of Senegalese mother is associated with 0.13% gain in birth weight.

Table 3: Senegalese Log Birth Weight			
	(1)	(2)	(3)
Senegalese Education	0.0001	0.0017***	0.0013***
	(0.0003)	(0.0003)	(0.0003)
Observations	40517	40517	40411
Cluster FE	.	.	X
Characteristics	.	X	X

Low Birth Weight - The relationship between Senegalese mother education and low birth weight in Senegal are in Table 4. Column 1, where only Senegalese mother education is controlled for, displays the relationship between Senegalese mother education and low birth weight in Senegal. We find that one more educational year of Senegalese mother is associated with 0.04 percentage point reduction in low birth weight.

The estimate only represent the connection between Senegalese mother education and birth weight in Senegal, while key elements in Senegal are not taken into consideration. As a result, from Columns 2 to 3, we add the collection of Senegalese attributes and Senegalese spatial-temporal fixed effects. Then, according to Column 3, we find that one more educational year of Senegalese mother is associated with 0.14 percentage point reduction in low birth weight.

Table 4: Senegalese Low Birth Weight			
	(1)	(2)	(3)
Senegalese Education	-0.0004	-0.0018***	-0.0014***
	(0.0004)	(0.0004)	(0.0005)
Observations	40517	40517	40411

Cluster FE	.	.	X
Characteristics	.	X	X

Conclusion

The purpose of this study is to see if Senegalese mothers with greater levels of education produce healthier infants (N=80,159). Other studies have concentrated on more visible results of schooling, such as earnings, professions, and productivity, but this one contributes to the body of knowledge by focusing on less apparent effects, such as newborn health. Our findings, which are focused on Senegal, contribute to the growing body of evidence concerning the health-education relationship across generations in Senegal.

According to the findings, Senegalese mothers with a higher educational level had healthier infants than Senegalese mothers with a lower educational level. In terms of statistics, one additional education year in Senegal is linked to a 3.2549 gram rise in Senegalese birth weight and a 0.14 percentage point reduction in Senegalese low birth weight risk.

Our findings are relevant to research into the impact of several variables on Senegalese health. For example, governmental responses to diseases may have an impact on Senegalese health; heavy rain and heat in Senegal worsen illness; political violence and food scarcity in Senegal may connect to poor survival rates; literacy, land reform, and nutrition efforts improve health (Nguyen, 2021a, 2021b; Le, 2021a, 2021b).

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