Original Article

The Role of Demographic Characteristics as an Option for Economic Diversification in Sokoto State, Nigeria

Umar Idris Boku[1], Mustapha Usman Giro[1] and Muazu Alhaji Shamaki[2] *

[1]Demography and Social Statistics Department, Federal University Birnin Kebbi, PMB 1157 Birnin Kebbi-Nigeria uiboku@gmail.com & mugmuhammad@gmail.com

[2]Department of Geography, Usmanu Danfodiyo University, P.M.B. 2346 Sokoto-Nigeria; mushamakisa@gmail.com

*Correspondence Author: Umar Idris Boku **Email:** ui.boku@fubk.edu.ng **Tel.:** +2348036291973

Abstract: This study examined the role of demographic characteristics as option for economic diversification in Sokoto State. It focuses on the study of human populations, their structure and changes. Demographic indicators in the study include population size, population growth rate, and total fertility rate, among others. The study adopted a cross-sectional approach using both primary and secondary sources of data. It involved over 300 sample size of population interviewed at various locations of the state. In addition, KII was also conducted with relevant stakeholders across the state. In addition, data from the NDHS, NPopC and other government documents were utilized and analyzed using SPSS.

The findings reveal that both infant mortality and under-5 mortality rates are high (89/1000 and 185/1000 respectively) and affected the economic development and diversification of the state. In terms of education, out of school children accounts for 66.8% of total school going children, net attendance ratio at primary level is 39.8% for boys and 24.6% for girls, while gender parity index for primary level is 0.55. The study concludes that the demographics of the State is growing very rapidly and changes at a rate far above the national average of Nigeria. The growth rate is a function of the cultural dispositions that encourages polygamy of up to four wives thus, overwhelming poverty level of the state. To avert the situation, the study suggests more economic diversification among growing population in the state and beyond.

Keywords: Population growth, development, economic diversification, Sokoto State

1. Introduction

Demography is a branch of social sciences concerned with the study of human populations, their structure and changes (through births, deaths, and migration), relationship with the natural environment and with social and economic changes. Demographic indicators/determinants could include population size, population growth rate, crude birth rate, crude death rate, total fertility rate, life expectancy, and infant mortality. In short, demographic changes affect all areas of human activity: economic, social, cultural, and political. Demography is the scientific study of human populations, including their sizes, compositions, distributions, densities, growth, as well as the causes and consequences of changes

in these areas. Analyzing these demographic variables is central to understanding population growth and development. With an estimated population of 5.3 million people, Sokoto State is the seventh most populous state in Nigeria, and Sokoto city is the 16th most populous city (Table 1). The state has a very youthful age structure with nearly 75% of its population under the age of 30 [11]. This high population is as a result of its almost 3.2% growth rate per annum, decline in death rate, and its proximity to the borders with the population of the Niger Republic, resulting in a high rate of immigration.

Table 1.0: Nigeria's Top 20 Cities by Population

S/No.	City	Population
1.	Lagos	9,000,000
2.	Kano	3,626,068
3.	Ibadan	3,565,108
4.	Kaduna	1,582,102
5.	Port Harcourt	1,148,665
6.	Benin City	1,125,058
7.	Maiduguri	1,112,449
8.	Zaria	975,153
9.	Aba	897,560
10.	Jos	816,824
11.	Ilorin	814,192
12.	Oyo	736,072
13.	Enugu	688,862
14.	Abeokuta	593,100
15.	Abuja	590,400
16.	*Sokoto*	*563,861*
17.	Onitsha	561,066
18.	Warri	536,023
19.	Ebute Ikorodu	535,619
20.	Okene	479,178

Source: *National Population Commission, 2016*

1.1 The Study Area: Location and Population

Sokoto State is located in the extreme northwest of Nigeria between approximately Latitudes 12°N and 13° 58″ and Longitudes 4° 08″ and 6° 54″ [14]. It shares boundaries with the Republic of Niger to the north, Kebbi State to the southwest, and Zamfara State to the northeast, covering an area of approximately 25,973km². Sokoto state is one of the relatively high population states in Nigeria, with a population growth rate of almost 3.2% and a population density of 142, it has suffered depopulation due to the creation of states, and at present it accounts for only 3 percent of Nigeria's total population. Being the seat of the Sokoto Caliphate, the city is predominantly Muslim and an important seat of Islamic learning in Nigeria. The Sultan who heads the Caliphate is effectively the spiritual leader of Nigerian Muslim faithful. Eventually, now according to the 2006 population and housing census, Sokoto State recorded a population of 3,702, 679

[10]. With 23 local government areas and 3.2% growth rate, the state had a projected population of 4.5 million in 2012, 5.0 million in 2016, 5.2 million in 2017, and 5.3 million in 2018.

1.2 People, Culture, and Economic Activities

The Sokoto state population is made up of two ethnic groups, namely, Hausa and Fulani. Apart from Hausa and Fulani, there are of course, the Zabarmawa and Tuareg minorities in the border local government areas. All these groups speak Hausa as a common language. Fulfulde is spoken by the Fulani. Hausa people in the state are made up of Gobirawa, Zamfarawa, Kabawa, Adarawa, and Arawa (Shamaki, 2012). The Fulani, on the other hand, are of two main groups: the town Fulani (Fulanin Gida) and the Nomads. The former includes the Torankawa, the clan of Shehu Usmanu Danfodiyo, Sullubawa, and Zoramawa. The Torankawa have been the aristocratic class since 1804.

Over eighty percent (80%) of the inhabitants of Sokoto practice one form of agriculture or the other [14]. And, the traditional approach to the role of agriculture in economic development is formulated in terms of the contributions the agricultural sector can make or the functions it can perform during the process of economic development [15]. Agricultural development can promote the economic development of the underdeveloped countries (Nigeria and Sokoto State inclusive) in four distinct ways by: increasing the supply of food for domestic consumption and releasing the labor force (population) needed for industrial employment; enlarging the size of the domestic market for the manufacturing sector; increasing the supply of domestic savings; and providing the foreign exchange earned by agricultural imports. Hence, agriculture has been assigned an important role in national development by most developing countries. It has been seen as a means of reducing dependence on certain importations, containing food price increases, earning foreign exchange, absorbing many new entrants to the labour market, and increasing farm incomes at times of severe unemployment and rural poverty [15].

The teaming populations of Sokoto state across the 23 local government areas produce such crops as millet, guinea corn, maize, rice, potatoes, cassava, groundnuts, and beans for subsistence and produce wheat, cotton, and vegetables for cash and economic diversification. On the other hand, Iliya and Baba [10] argue that local crafts such as blacksmithing, weaving, dyeing, carving, and leather works also play an important role in the economic life of the people of Sokoto. As a result, different areas like Makera, Marina, Alkammawa, and Majema areas became important. Sokoto is also one of the fish-producing areas of the country. Thus, a large number of people along the river basin engage in fishing as well.

2. Materials and Methods

The study adopted a cross-sectional study using both primary and secondary sources of data. The primary data was basically obtained through the use of a questionnaire developed and administered to respondents across the three geopolitical zones of the state, so as to obtain their demographic characteristics. The questionnaire involved over 300 participants and was administered at different locations. In addition, KII was also carried out with critical stakeholders to corroborate the quantitative component. The secondary data, on the other hand, were obtained from the Demographic and Health Survey (DHS), the National Population Commission (NPopC), and other related studies by international organizations, among other literary works. SPSS version 21 was used to run the analysis using descriptive statistics, and findings were analyzed and presented in tables to meet the study objective.

3. Results and Discussion

The findings of the study revealed that there is a great potential for economic diversification based on demographic characteristics of the population in Sokoto state.

Table 3.0 Demographic characteristics of population in Sokoto state, Northwest-Nigeria

Variables	Geopolitical Zones				
	East	**Central**	**South**	**Frequency**	**%**
Marital status					
Married	93	99	88	280	88.9
Divorced	2	3	5	10	3.2
Widowed	3	10	12	25	7.9
Total	98	112	105	315	100.0
Level of education					
No Schooling	42	19	51	112	35.6
Primary	14	26	28	68	21.6
Secondary	7	37	10	54	17.1
Tertiary	3	12	5	20	6.3
Arabic/Quranic	32	18	11	61	19.4
Total	**98**	**112**	**105**	**315**	**100.0**

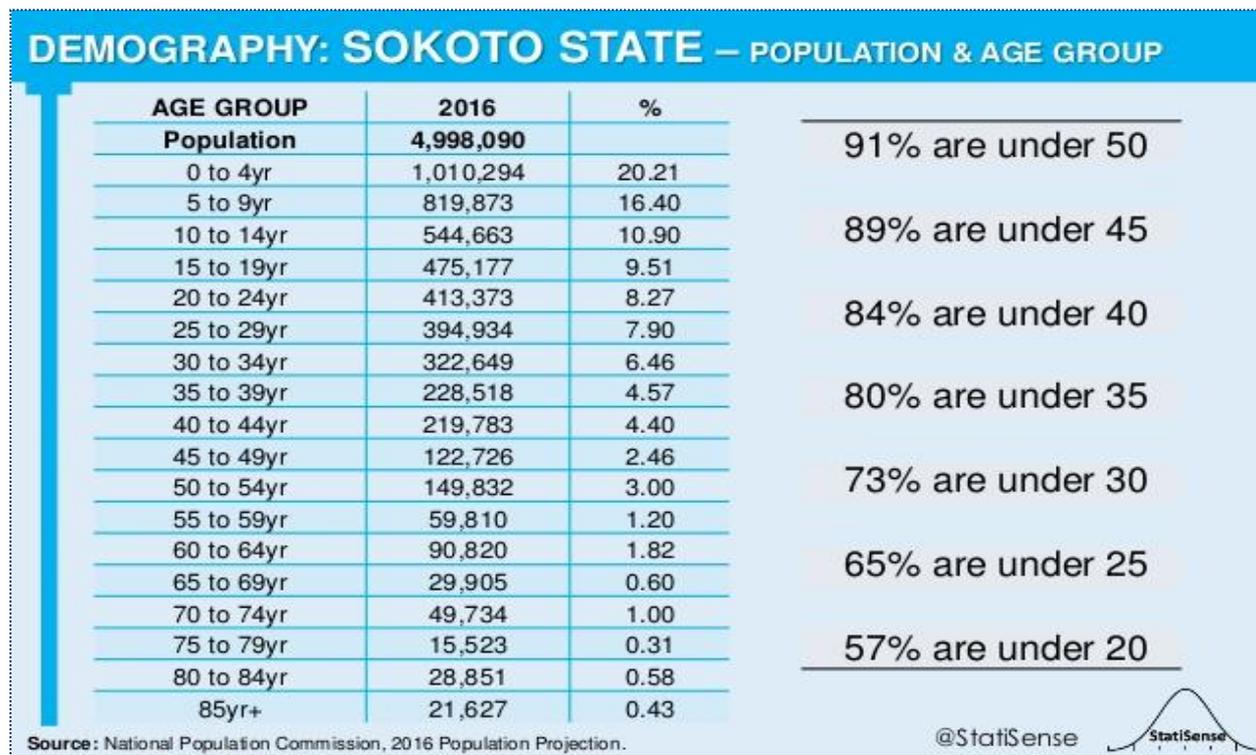**Source:** *Field Survey, 2024*

Table 3.0 presents five parameters with variables portraying the demographic characteristics of the population in Sokoto state. Beginning with marital status among the study population, the result reveals that 280 respondents, who constitute 88.9 per cent, were married women, while 3.2 per cent and 7.9 per cent were divorced and widowed, respectively. On the levels of educational attainment, the analysis reveals that among the study population, there is a significant percentage with no education (35.6 per cent), which is recognised as no schooling. However, only 6.3 per cent attended tertiary educational institutions, holding certificates ranging from a diploma to graduate levels. About 22 percent of the respondents are at a primary school education level, and a substantial number of them did not even complete primary school. During the data collection, the researcher found that those who are relatively fair among them have reached secondary school level, and the analysis shows that they constitute 17.1 per cent, while 19.4 per cent of them went to Arabic/Quran to improve their religious knowledge. In addition, the KII report reveals that on average, over 70 percent of the population in Sokoto state had not been to school, and the bulk of them are found in the rural communities of the state.

Table 3.1 Number of children by respondents

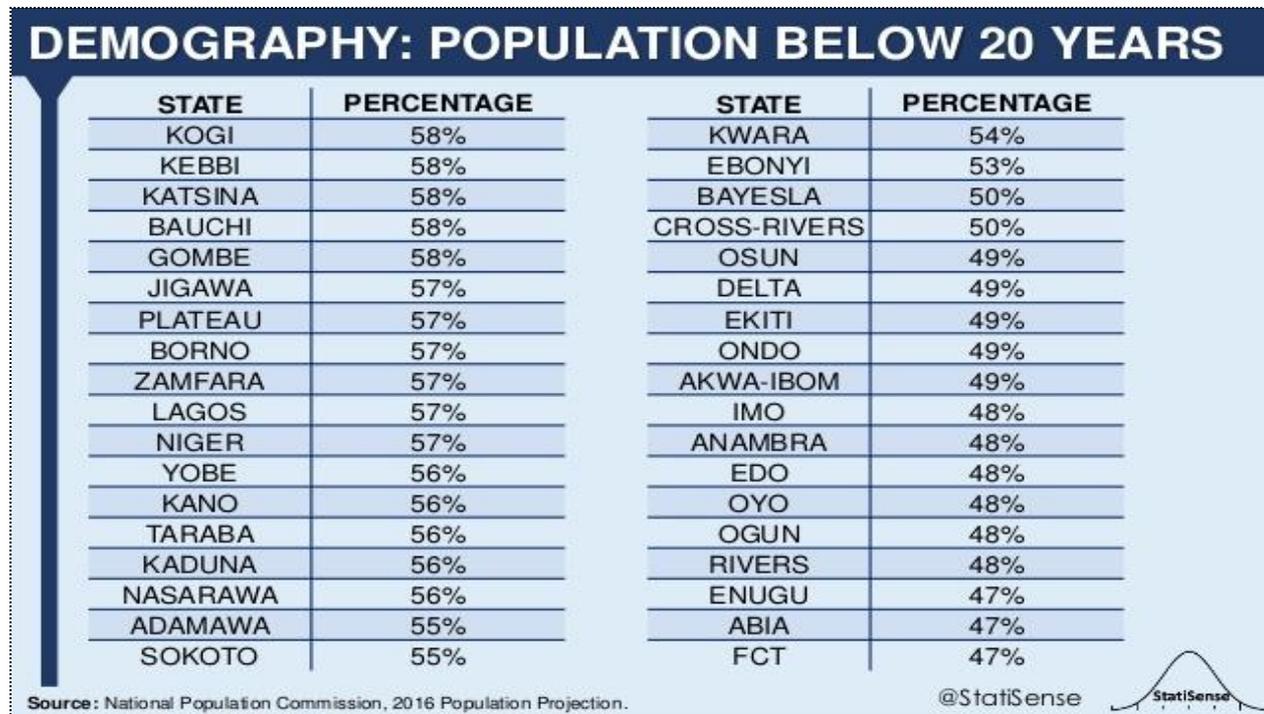| Number of Children	Frequency	Per cent	Valid Per cent	Cumulative Per cent
1-2	37	11.7	11.7	11.7
3-4	74	23.5	23.5	35.2
5-6	107	34.0	34.0	69.2
7-8	52	16.5	16.5	85.7
> 9	45	14.3	14.3	100.0
Total	**315**	**100.0**	**100.0**	

Source: *Field Survey, 2024*

Table 3.1 shows the analysis of the number of children born by the respondents at the time of this study. The largest portion of them (107) that constitutes 34.0 per cent have 5 to 6 children. While the lowest number of 37 respondents, who constitute 11.7 per cent, have 1 to 2 children. The demographic characteristics and development indicators are of great concern as they affect the labour of the state as well as other economic activities. At the moment, both infant mortality and under-five mortality rates are high (89/1000 and 185/1000, respectively). More than half (55.3%) of children under five suffer from chronic malnutrition, 35% of under-five children are underweight, and 10.3% of under-five children are wasted, while exclusive breastfeeding for children 0-5months is only 10.3%. In terms of education, out-of-school children account for 66.8% of total school-going children, net attendance ratio at the primary level is 39.8% for boys and 24.6% for girls, while the gender parity index for the primary level is 0.55.

DEMOGRAPHY: SOKOTO STATE — POPULATION & AGE GROUP

AGE GROUP	2016	%	
Population	4,998,090		91% are under 50
0 to 4yr	1,010,294	20.21	
5 to 9yr	819,873	16.40	89% are under 45
10 to 14yr	544,663	10.90	
15 to 19yr	475,177	9.51	
20 to 24yr	413,373	8.27	84% are under 40
25 to 29yr	394,934	7.90	
30 to 34yr	322,649	6.46	
35 to 39yr	228,518	4.57	80% are under 35
40 to 44yr	219,783	4.40	
45 to 49yr	122,726	2.46	
50 to 54yr	149,832	3.00	73% are under 30
55 to 59yr	59,810	1.20	
60 to 64yr	90,820	1.82	
65 to 69yr	29,905	0.60	65% are under 25
70 to 74yr	49,734	1.00	
75 to 79yr	15,523	0.31	57% are under 20
80 to 84yr	28,851	0.58	
85yr+	21,627	0.43	

Source: National Population Commission, 2016 Population Projection.

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The life expectancy in Nigeria is, unfortunately, the lowest in all of West Africa. The average life expectancy is around 54.5 years of age according to WHO data, with men living an average of 53.7 years and women living an average of 55.4 years. When it comes to the average Nigerian citizen, the country is relatively young. For both males and females, the median age of the country is actually 18.4 years of age. The split between the males and the females in Nigeria is quite even. Men take the edge in numbers, but not by much. There are, according to estimates, about 1.04 males to every 1 female in the country. It should be noted, though, that while women are slightly outnumbered by men, after the age of 65, women outnumber men.

However, there are multiple ethnic groups in the country of Nigeria. The Hausa-Fulani ethnicity outnumbers every other ethnic group, accounting for two-thirds of the population. Out of those two-thirds, a very large majority of them are of the Muslim faith. The overall religious aspect of Nigeria is generally split between Christianity and Islam. Most Nigerian Muslims are Sunni and are located in the northern parts of the country, while the Christian population is

located mainly in the middle and southern areas of the country. However, the majority of the population in Sokoto state is Muslim, and only very few Christian populations, most of whom are not indigenes, can be found.

DEMOGRAPHY: POPULATION BELOW 20 YEARS

STATE	PERCENTAGE	STATE	PERCENTAGE
KOGI	58%	KWARA	54%
KEBBI	58%	EBONYI	53%
KATSINA	58%	BAYESLA	50%
BAUCHI	58%	CROSS-RIVERS	50%
GOMBE	58%	OSUN	49%
JIGAWA	57%	DELTA	49%
PLATEAU	57%	EKITI	49%
BORNO	57%	ONDO	49%
ZAMFARA	57%	AKWA-IBOM	49%
LAGOS	57%	IMO	48%
NIGER	57%	ANAMBRA	48%
YOBE	56%	EDO	48%
KANO	56%	OYO	48%
TARABA	56%	OGUN	48%
KADUNA	56%	RIVERS	48%
NASARAWA	56%	ENUGU	47%
ADAMAWA	55%	ABIA	47%
SOKOTO	55%	FCT	47%

Source: National Population Commission, 2016 Population Projection.   @StatiSense   *StatiSense*

3.1 Economic Diversification and the Role of Demographic Characteristics

Economic diversification is the process of shifting an economy away from a single income source towards multiple sources from a growing range of sectors and markets, which can be influenced by the population size and composition [16]. In line with this, the UN [16] further asserts that traditionally, economic diversification has been applied as a strategy to encourage positive economic growth and development of a state. In the context of climate change adaptation, it takes on a new relevance as a strategy to diversify away from vulnerable products, markets, and jobs toward income sources that are low-emission and more climate-resilient, especially in developed countries. No doubt, a strong, growing, sustainable economy is the goal of every nation or state in the world [1]. A sustainable economy enhances a nation's standard of living by creating wealth and jobs, encouraging the development of new knowledge and technology, and helping to ensure a stable political climate. This can only be achieved in a growing population like Sokoto State. And, having a diverse economy, such as one based on a wide range of profitable sectors, not just a few, has long been thought to play a key role in a sustainable economy [1].

The Nigerian government must encourage the diversification of Nigeria's economy as the only viable way to survive the current environment of global economic uncertainty with the volatility of oil prices [15]. Diversification presents the most competitive and strategic option for Nigeria in light of its developmental challenges and given its background. Diversification has a lot of benefits for Nigeria to maximally utilize her abundant resource – base to rebuild the economy and enjoy the benefits of all the linkages, synergy, economies of scale, grow national technology and foreign investment profile, build human capital, exploit new opportunities, lessen averagely operational costs, increase national competitiveness and grow the standard of living and confidence of the citizens for national renaissance [15].

On the other hand, Abouchakra, *et al.* [1] measured diversification of the economy by evaluating the distribution of a nation's GDP across its various economic sectors, such as agriculture or manufacturing, to determine a "concentration ratio" and a "diversification quotient." The concentration ratio measures a nation's concentration in a given sector by

taking the sum of the squares of the percent contribution to GDP. The diversification quotient is the inverse of the concentration ratio; it provides a metric that policymakers can use to gauge their nation's economic diversity.

In a production function with constant returns to scale, an increase in population growth will lower the average availability of other factors of production – a 'resource-shallowing' effect, and, through diminishing returns, reduce the growth of worker productivity. Such an adverse demographic impact can be magnified (or attenuated) if population growth diminishes (raises) the growth rate of complementary factors [2]. The author further explains that in a standard growth model with factor inputs of labour and capital, and a saving rate and pace of technological change that are exogenous with respect to population growth, demography affects the long-run *level* but not the long-run *growth rate* of output per capita. This is because the capital-shallowing effect of increased population will eventually reduce the capital per worker ratio to a level sufficient to be maintained by a fixed rate of saving.

In a related development, Birdsall *et al.* [3] reveal that evidence on the roles of demographic-technology linkages and growth has been fragmentary and sparse. However, a pioneering study by Glover and Simon [6], which draws upon the experience of 101 countries across the income spectrum over the period 1950–70, shows that the structure of development has strong and pervasive scale effects (measured by population size) that vary by stage of development. They added that small countries develop a modern, productive industrial structure more slowly and later, while large countries have higher levels of accumulation and (presumably) higher rates of technological change.

Similarly, in agriculture, where the positive benefits of population size have been most discussed, Higher population densities can lower per unit costs and increase the efficiency of transport, irrigation, extension services, markets, and communications [6]. Possibly the most cited work is that by Boserup, who observes that increasingly productive agricultural technologies are made economically attractive in response to higher population densities. While this is probably true, the issue becomes one of identifying the quantitative magnitude of such effects over varying population sizes and in differing institutional settings [2]. One must be cautious in attributing causation. For example, while high population densities may have accounted for a portion of expanded agricultural output in recent decades, in several important developing countries, these densities were sufficiently high decades ago to justify the investments associated with the new technologies. Boserup, in more recent writing, has been less sanguine about the benefits of population size because densities appropriate to modern technologies in Asia are three to four times the average for Africa and Latin America [6].

Thus, a demographic dividend resulting from a high population in Sokoto state has implications for both economic and social development. The youths aged 18 to 40 years need access to education, healthcare, and other social services to make them become more engaged in economic development. In view of this, the rapid population growth since the 1991 and 2006 censuses have put substantial pressure on the state's capacity to provide quality social services such as existing schools, health facilities and personnel, sanitation facilities, food and nutrition and, other basic needs such as electricity, waste management, transportation flow among others, and, more importantly is the employment opportunities which will help in economic diversification. At present, available records by the state and the National Bureau of Statistics reveal that despite all efforts by the State Government since 2002, Sokoto State has not recorded any significant improvement in any of most of these issues mentioned above. There is therefore, the need to more than double the present investments and efforts if economic diversification is to be achieved through demographic characteristics of the present population [17].

4. Conclusion and Recommendations

The population demographics of Sokoto State is growing very rapidly and changing at a rate far above the national average. This growth rate is a combination of cultural dispositions that encourage polygamy of up to four wives and an aversion towards family planning. With an average fertility rate of seven children per woman, the state has one of the highest in the country. However, economic empowerment creation like more job opportunities and skills in the state, will speed up the rate of economic diversification and achievement of economic development. Notably, the state will need to:

i. accelerate progress in fertility and mortality reduction, through quality reproductive healthcare services and commodities

ii. improve access and quality education for both boys and girls, and encourage women to key into empowerment programmes

iii. introduce empowerment programmes for full participation of the teaming population in gainful employment in both the private and public sectors

iv. create employment opportunities, particularly for the youth in both the public and the private sectors

v. promoting gender equality and improving the overall healthcare systems of the state.

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