

To End Persistent Geographical Disparities in Education Outcomes in Sierra Leone a Radical Approach is Needed

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Key Message

- Sierra Leone has made progress in education outcomes over the last 60 years but disparities in gender and geography continue to be a challenge.
- Gender disparity is closing faster than geographical disparities. In fact, for the age group 10 to 14 years, the gender gap in literacy and primary education attainment is close to zero in 2020.
- Geographical disparities on the other hand have persisted since independence. At independence (1961), the Western Area (Urban and Rural) had literacy and numeracy rates magnitudes higher than the rest of the country.
- This trend persists today. Comparing the 1963 census data with the latest census data on literacy reveals that **literacy levels in the provinces in 2015 are still below those attained by Western Area Urban in 1963.**
- Rural areas that had poor education outcomes continue to do so. From the 2015 population census, close to 1 in 3 persons of age 10 years and above, are literate in chiefdoms that were below the median literacy rate in 1963, compared to close to 1 in 2 persons for those above the median.
- Similarly, primary education attainment is on average 21% for chiefdoms below median literacy in 1963, compared to 29% for those above the median. This is dispiriting in the face of years of universal primary education in the country.
- These disparities persist in large part because the quality of education learners receive varies widely from place to place. The decade (2002-2012) following the end of the civil war saw a big push to increase access. Primary schools were built in every chiefdom and teachers hired and trained to meet the demand from fee-free primary education. Many other sector challenges remain including retaining good teachers in the rural areas.

Introduction

Quality education is perhaps the single most impactful investment for individual social mobility and national economic and political progress. Across Africa, basic education is seen as a powerful tool to eliminate abject poverty. Post-independence, Governments, including Sierra Leone recognised this potential and invested to extend access to schools to millions of boys and girls across the continent.¹ But these investments were not always evenly spread geographically.

In this policy brief we use historical and contemporary census data to assess the level of progress Sierra Leone has made over the years in education and learning outcomes to build the human capital base of the country. Our analyses focus attainment at national and sub-national levels. While national progress has been made over the years, sub-national analysis portrays a sobering picture where progress has overwhelmingly come from urban areas. Nationally, the gap between boys and girls is closing, but both boys and girls in rural areas lag behind those in urban areas.

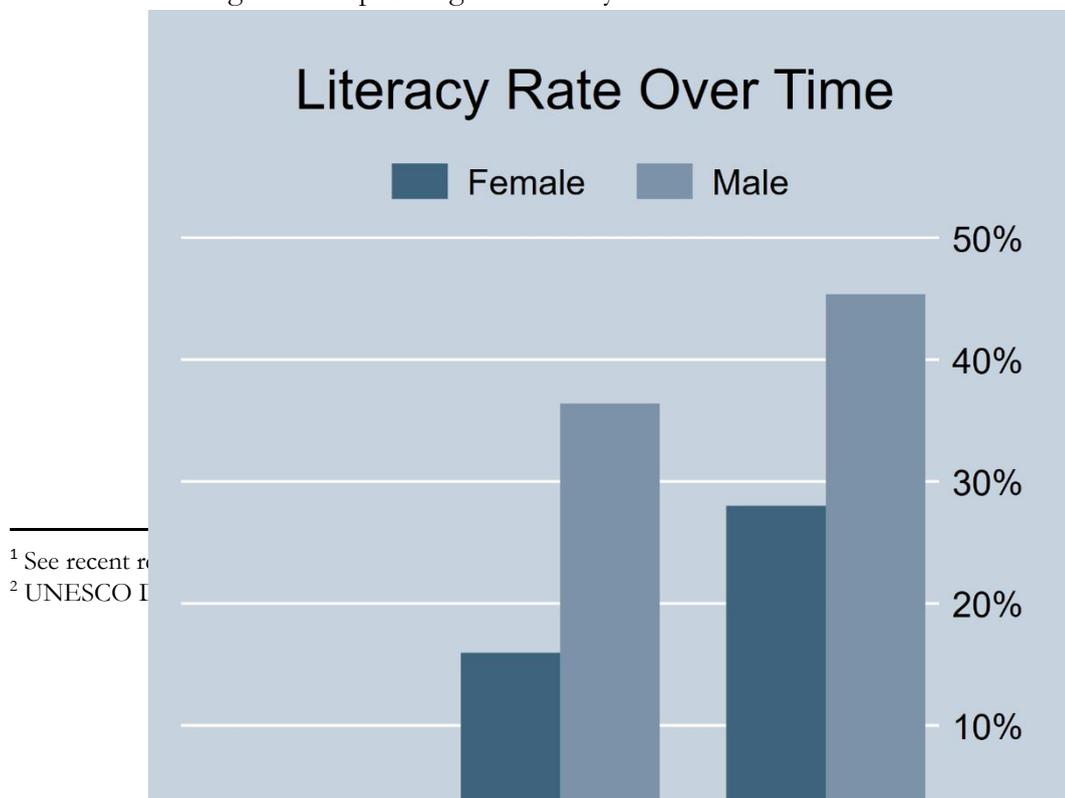
Mixed Progress over Time at the National Level

Using census data from 1963, 2004 and 2015, we focus on a few education outcomes including literacy and primary and secondary attainment. We also use enrolment rates and school density from the recently completed education census to give evidence of geographic disparities in the current education infrastructure and services that may partly explain disparities in outcomes.

Literacy

As a nation, Sierra Leone has made huge gains in literacy since independence. Figure 1 below shows that at independence less than 5% of the population was literate. In 2015, this number was 47%. To put this into perspective, this number is on par with other neighbouring countries: Liberia with similar conflict history at 48.3% and Guinea at 32%. But the region's top performer, Ghana has adult literacy at 75%.² Gains have been made for both males and females, although the gender disparity persists today. In 1963 1% females were literate compared to 4% males. In 2015 male literacy is about 45% compared to 28% for females.

Figure 1: Step Change in Literacy Rates



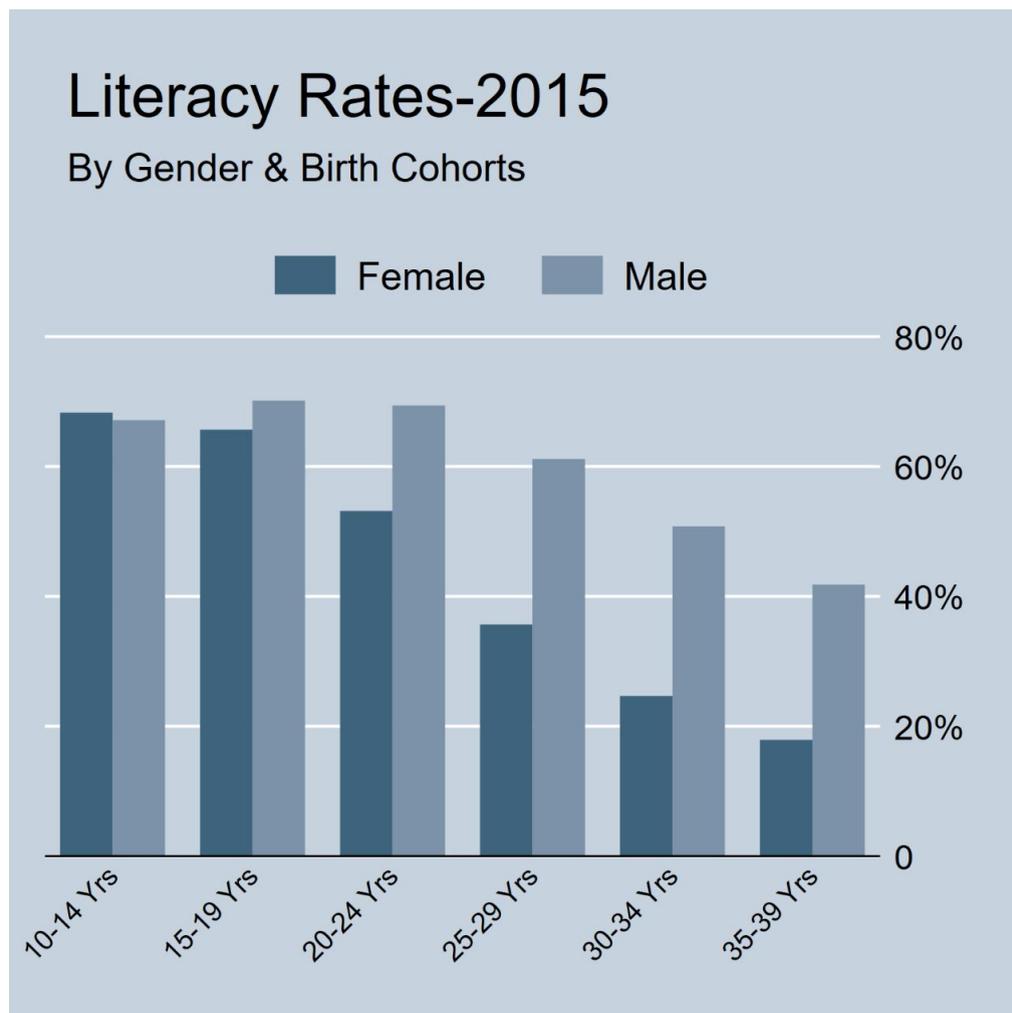
¹ See recent r

² UNESCO I

Note- Authors calculation from national censuses for 1963, 2004 and 2015. The 1963 Census is captured at the chiefdom. The 2004 census includes over 5 million individuals, where 2015 has data only on 700,000 individuals (10% of the whole census). A Literate person in 1963 is defined as someone who can read and write English. This definition is broadened in the 2004 and 2015 census to include other languages such as French and Arabic.

The population-wide literacy statistics in fact belies progress that has been made in equalising the gender gap for the literacy outcome. Figure 2 below shows that in the same 2015 census, literacy rate for the age group 10 to 14 years is almost identical between males and females. The gender gap in literacy begins to appear at age group 15 to 19 and grows larger. By adulthood (post-35 years) female literacy is only about half of that of their male counterparts. This widened gap for adults is a reflection of the education levels about 20 – 30 years ago.

Figure 2: Gender Gap in Literacy Appears After Age Group 15-19 Years.



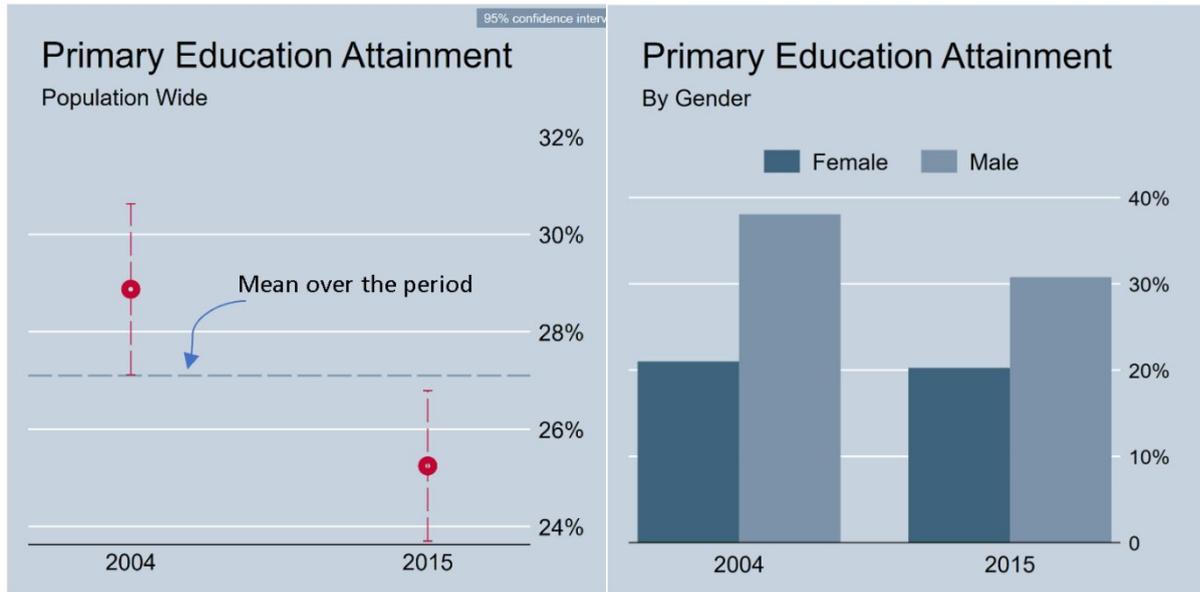
Note- Authors calculation from national 2015 censuses. 2015 census has data only on 700,000 individuals (10% of the whole census). A Literate person in 2015 is defined as someone who can read and write English and other languages such as French and Arabic.

Primary and Secondary Education Attainment

The storyline for primary and secondary education attainment is less encouraging. Data on primary and secondary attainment is not available in the 1963 census, but the 2004 and 2015

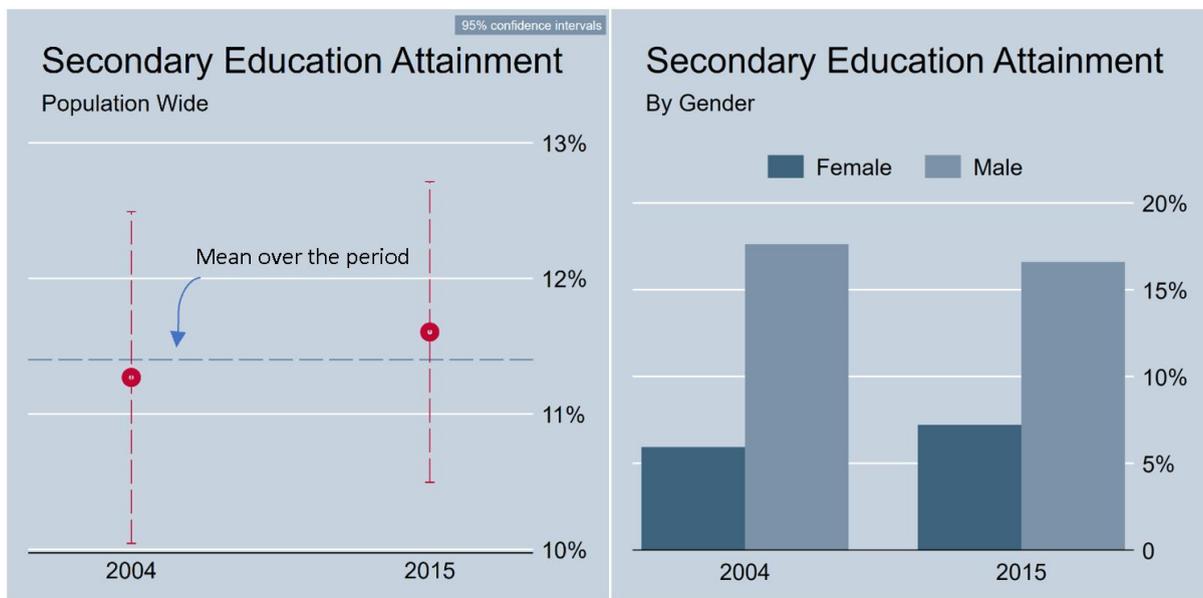
censuses suggest that primary education attainment fell between the two periods, from about 29% in 2004 to 25% in 2015. This difference is statically significant as shown in the left panel of Figure 3 below. In terms of gender, females had a slight upward movement, whilst male attainment dropped. In Figure 4, the data suggests stagnation for secondary education attainment. The figure practically remained unchanged from a very low base of 11%, suggesting a lost decade for secondary education in Sierra Leone.

Figure 3: Overall Drop in Primary Education Attainment in the Decade between 2004 and 2015



Note- Authors calculation from national 2015 censuses. 2015 census has data only on 700,000 individuals (10% of the whole census). In the left panel, the hollow circles are mean outcomes for each year, with a 95% confidence interval error bar. The bars in the right panels means for each gender in the two periods.

Figure 4: No Progress in Secondary Education Attainment Between 2004 and 2015



Note- Authors calculation from national 2015 censuses. The 2015 census has data only on 700,000 individuals (10% of the whole census). In the left panel, the hollow circles are mean outcomes for each year, with a 95% confidence interval error bar. The bars in the right panels means for each gender in the two periods.

Sub-National Level Data Reveals Persistent Geographic Disparities

The national level figures shown so far obscure a legacy of regional disparity in education outcomes that persist to this day. The education system Sierra Leone inherited at independence is one where most of the services were in the Western Area (Rural and Urban) and a handful of towns in the provinces. As Figure 5 below shows, the fraction of ten-year olds enrolled in school in 1963 in the Western Area Urban was about 75%, well over two times more than the best performing district in Moyamba Province at 29%. This pattern is the same for the literacy rate.

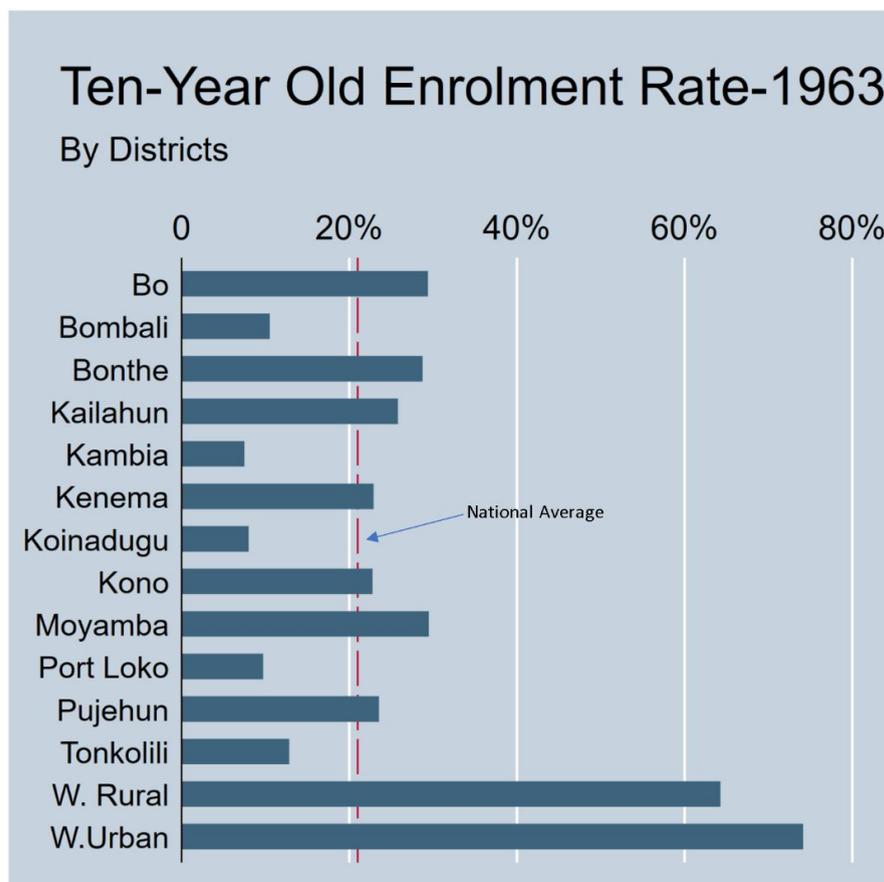


Figure 5: A Legacy of Geographic Disparity in Education Opportunities

Note- Authors' calculation from national 1963 census. School enrolment for ten-year olds reported at the chiefdom level for all chiefdoms and Western Area (Rural and Urban). The bars are meant for each district.

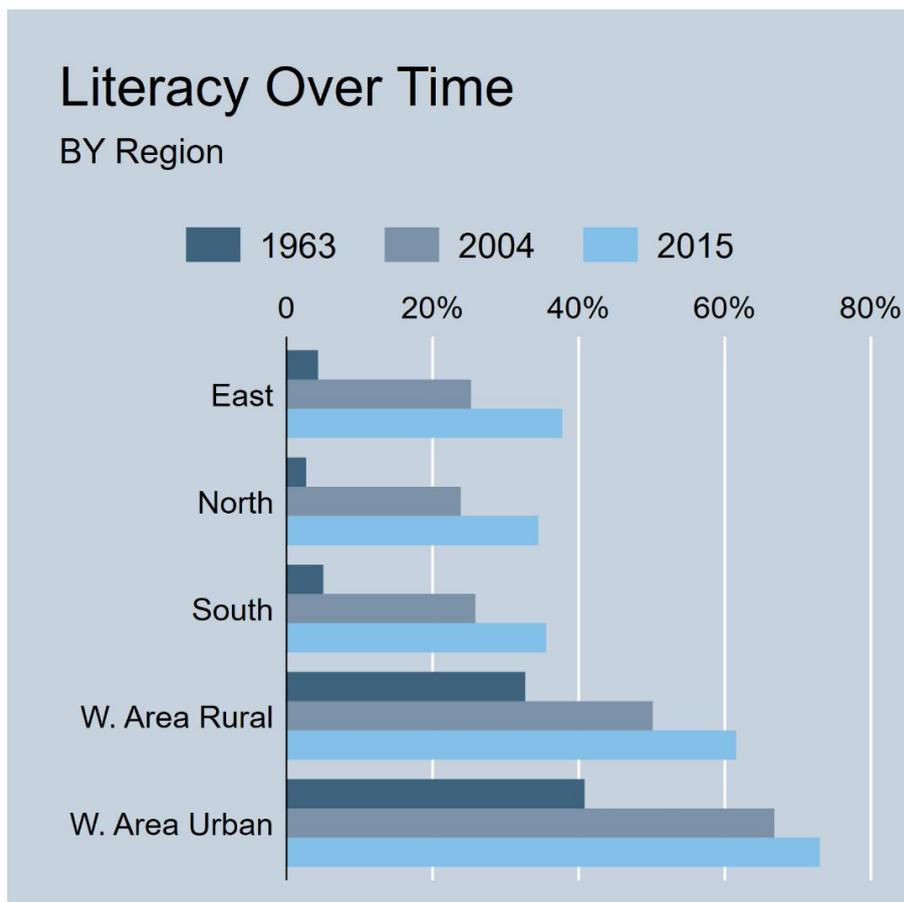
Perhaps the most surprising aspect is that this disparity persists today. Across every education outcome for primary and secondary, performance is magnitudes are better in Western Area (Urban and Rural). Figure 6 below reveals a sobering picture of the situation. It shows that **literacy levels in the provinces in 2015 are still below those attained by Western Area**

Urban in 1963. In the Western Area, about 7 out of 10 people aged 10 and older are literate, compared to less than 4 out of 10 anywhere in the provinces by 2015.

The story is the same for primary and secondary education attainment in the decade between 2004 and 2015. Figure 7 (left panel) shows that **in 2015 close to 6 in 10 people in the Western Area attained primary education, compared to 4 out of 10 in the rest of the country. This is especially discouraging given the years of investment in universal primary education in the country.** The right panel of the same figure shows secondary education attainment outcomes. It suggests that 1 in 10 people attained secondary education in the provinces, compared to about 4 in 10 in the Western Area.

This geographic disparity is not only a matter of Freetown versus the rest of the country. In fact, when we dig deeper into the data, we see that disparities exist even within districts. We see that disparities inherited at independence have not disappeared. As Figure 8 in the Appendix shows, chiefdoms that had above median literacy rate in 1963 perform much better than those below median literacy across all outcomes we look at. For 2015 primary education attainment, the mean attainment is about 22% for chiefdoms with below median literacy rate at independence, versus 28% for those above median. The gap is similar for secondary attainment today, and current education services, such as school density, and enrolment per thousand population.

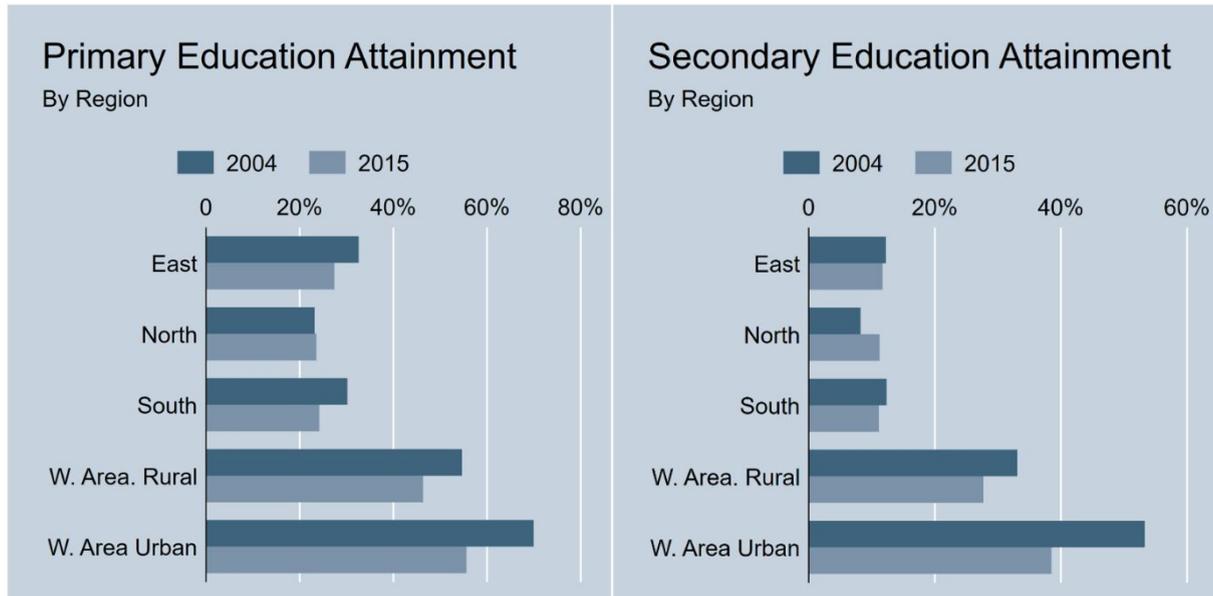
Figure 6: Literacy Rate in Provinces Today Still Lag Behind Those Attained in the Western Area in 1963



Note- Authors calculation from national censuses for 1963, 2004 and 2015. 1963 Census is captured at the chiefdom. The 2004 census includes over 5 million individuals, where 2015 has data only on 700,000 individuals (10% of the whole census). A Literate person

in 1963 is defined as someone who can read and write English. This definition is expanded in the 2004 and 2015 census to include other languages such as French and Arabic. The bars are mean literacy rate for person 10 years and older.

Figure 7: 2015 Primary and Secondary Attainment in Provinces only about Half of What was Attained in the Western Area in 2004



We are aware that education outcomes tend to be sticky over time because it can be a generational issue. The young girl that lives in a household with parents and grandparents that have never seen the door of a school facility is much less likely to enroll, let alone complete primary education than another whose parents are educated. However, we live in the year 2020. Sierra Leone along with the rest of the world, through the Millennium Development Goals (MDGs), and now five years into the Sustainable Development Goals (SDGs), have made lots of investments to improve education outcomes precisely for such children.

Investments in this period prioritize access to education. In Sierra Leone, teachers were trained and hired and schools were built in every chiefdom since the 2002/2003 fee-free primary education policy. Figure 9 in the Appendix shows the lion share of government education expenditure went to primary education between 2007 to 2015. Today, on average we have about 50 schools (primary and secondary) per chiefdom. The 2010 Teacher Training Policy emphasised teacher training as key to improving quality of education. This effort followed others such as the in-service training programs such as SABABU Teacher Training Program for the untrained and unqualified teachers that ran from 2003-2008.³ These activities produced some results, but the biggest challenge has been retaining these good teachers in the rural areas. When good teachers leave rural areas for other opportunities in urban centres, the quality of education learners in rural areas receives drops. Sierra Leone is not alone in this regard. Urban-rural disparities in education outcomes in Africa is endemic in large part for this reason. However, for a country the size of Sierra Leone, the extent and persistence of this disparity makes the country stand out. A new approach is needed to circumvent this problem.

³ For more details on this see Sierra Leone Education Country Status Report 2013, found: <file:///C:/Users/henry/Downloads/226039eng.pdf>

Recommendations

- The education sector in Sierra Leone is challenged by high rates of exclusion and disparities in education services and outcomes. This needs to be addressed explicitly either by policy or regulation.
- While access has been extended to millions of children, and continues to grow, the quality of education has been generally low, and varies a lot between rural and urban areas. New and creative incentive schemes for teachers and school management for rural areas are needed for improved outcomes.
- While incentives to attract quality teachers in rural areas can be a part of the solution, government hardly has money to sustain such incentives over the long run.
- A radical approach that relies on digital tools and education technology (EdTech) can be used to raise quality levels across the board. Emphasis on the use of EdTech for teachers in rural areas.
- Connectivity and digital support to teachers and mentors in the rural areas is needed to close the gap and difference in learning.

Appendix

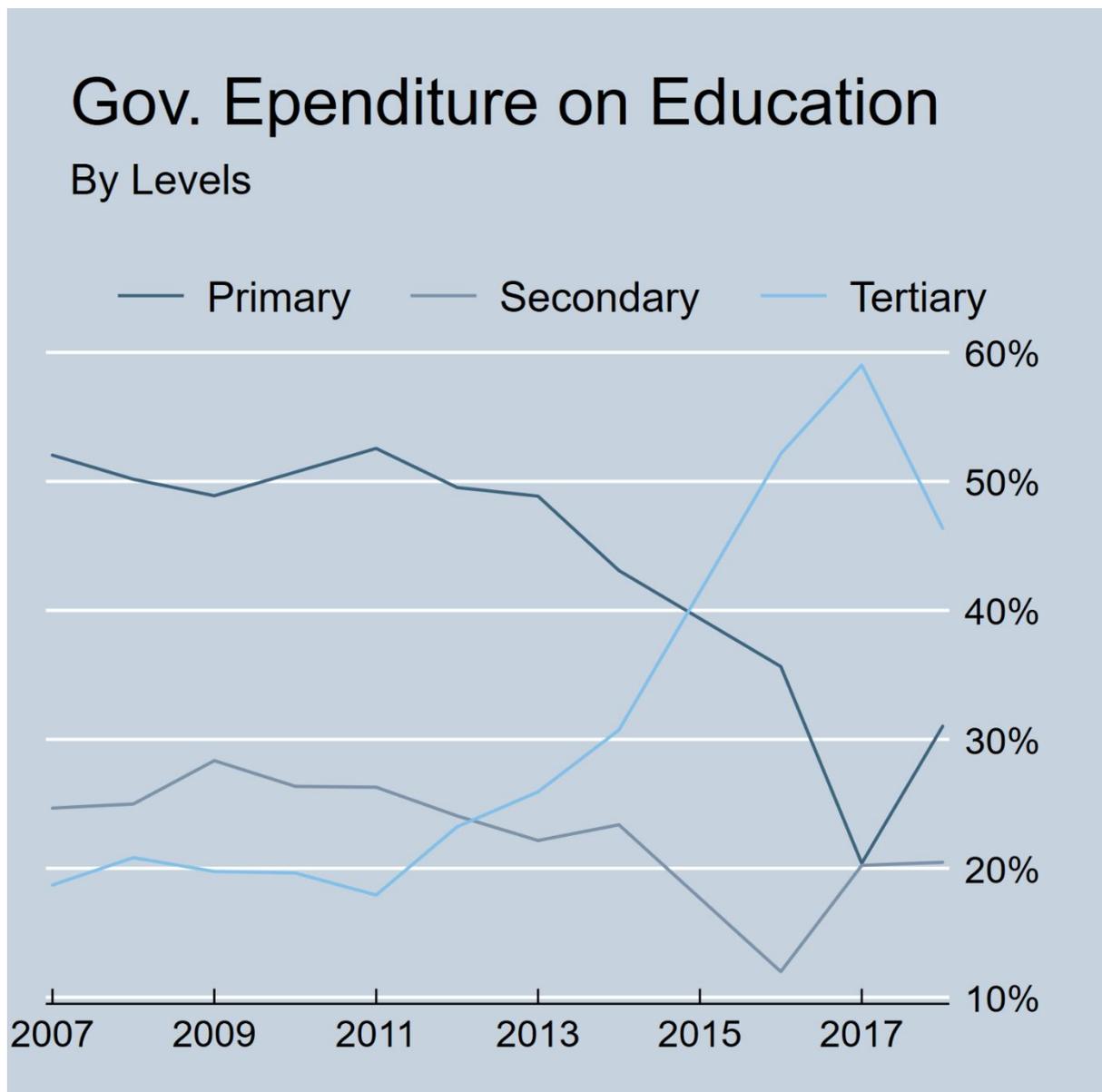
Figure 8. Chiefdoms with Better Education Outcomes at Independen Continue to Have



Better Outcomes Today.

Note- Authors calculation from national 2015 censuses . The 2015 census has data only on 700,000 individuals (10% of the whole census). IN each panel, the hollow circles are chiefdoms mean outcomes for each of the two categories- **Chiefdoms that have above median literacy rate in 1963 and those that had below median**. The error bars are for 95% confidence interval.

Figure 9: Education Expenditure Over Time.



Source: UNESCO/World Bank data found here:

<https://www.indexmundi.com/facts/sierra-leone/public-spending-on-education>

