

The 2007 Population Census in the Amhara Region Is Underreported

By

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December 2008

The result of the 2007 population census in the Amhara region shows a population of 17 million. This does not agree with the overall projections of Ethiopian government and foreign agencies. My own blind estimate would have been a population ranging from 20 million to 23 million. Here, I analyze data from 2007 and 1994 censuses to argue that the census result in the Amhara region is not consistent with current demographic and development trends in Ethiopia. I conclude by making suggestions.

First, let us provide a theoretical framework. Population size changes overtime because of three factors: mortality (people dying), fertility (people bearing offsprings) and population movement (people immigrating). But the most important factor affecting population change is development or what demographers call “demographic transition”. This transition has five stages:

- Stage One. Parents bear too many children, yet this would be offset by a high mortality rate among infant children and adults, ensuring a constant and balanced population growth. With a few exceptions, human society has now passed this stage of demographic transition.
- Stage Two. Modern medicine, aided by technologies that help to get sufficient food supplies, enable infant children to survive and adults to live longer. This causes a population boom. Most developing countries including Ethiopia are at this stage.
- Stage Three. A society that has healthy and affluent population encourages positive cultural and social changes such as the use of birth controls and better employment opportunities for women. This delays bearing children, resulting in reduced fertility and steady population growth. Middle-income countries such as Brazil, Thailand, China and Libya are at this stage.
- Stage Four. People just get used to comfortable lifestyles with good income and fewer children. They no longer worry about rearing children. This results in sustained low birth rates and low death rates (as people live longer). Western industrialized countries are at this stage.
- Stage Five. Getting used to comfortable living, people become reluctant to bear children, resulting in negative population growth or what is called “population growth below replacement level”. Demographers mention Germany, Greece, Portugal, Japan and other industrialized countries as examples.

Turning to our topic, I have stated that the 2007 census result for the Amhara region is not consistent with current demographic and development trends. For example, since the last census (in 1994), there has not been famine, war, communicable disease or natural disaster that caused high rate of mortality in the Amhara region. These factors would have been important if the census was carried out in the 1970s and 1980s when disease, war and famine caused the death of millions of people in Northern Ethiopia. In fact, the post-1994 period has seen an expansion of public services to rural areas which means that life expectancy for children and adults has improved. Then, has the Amhara region reached Stage Three of the demographic transition? Absolutely not. Did people move? They might have left for other regions and abroad, but their numbers cannot be statistically significant (too low). When I recently traveled to Gojam, Gondar and Wello, I found villages and small and big towns expanded in sizes, which indicate an increase, not a decrease, in population. The data analysis presented below further confirms this argument.

Table 1 below provides an overview of data from 2007 and 1994 censuses for eight agrarian regions of Ethiopia plus Addis Ababa. Harar and Dire Dawa are left out since they are more urbanized. Addis Ababa is chosen for the purpose of comparison and also because of the fact that the census reveals population growth in Addis lower than the projected level. In relative terms, while the data on population growth for all regions are not necessarily evenly distributed, they do not deviate much from each other. The Amhara region is an exception, with data showing an increase in fertility of only 24%, compared with 40% for Affar, 45% for Oromiya, 44% for SNNP, 87% for Gambella, 45% for Benishangul-Gumuz and 29% for Somali, or, surprisingly, less than the fertility rate of a metropolitan city Addis Ababa (28%) (Table 1). My limited review of the data here provides no explanation as to why fertility has declined in the Amhara region, and not in other regions, since 1994.

Table 1. Population Data from 2007 and 1994 Censuses for Eight Regions (figures rounded up)

Region	Population in 2007	Population in 1994	Changes in population	Change in Percentage
Tigray	4.3M	3.1M	1.2M	38.7%
Affar	1.4M	1.0M	0.4M	40%
Amhara	17.2M	13.8M	3.4M	24.6%
Oromiya	27.1M	18.5M	8.6M	45.6%
Somali	4.4M	3.4M	1.0M	29.0%
Benishangul-Gumuz	0.67M	0.46M	0.21M	45.6%
SNNP	15.0M	10.4M	5.4M	44.2%
Gambella	0.3M	0.14M	0.16M	87%
Addis Ababa	2.7M	2.1M	0.6M	28%

Next is Table 2 below which presents data on youth population (1- 24 years of age) as a percentage of the total population in the two censuses for the eight regions. It is often assumed that a population over-represented by younger people has higher fertility rate

and therefore potential for a population boom. Hence, unlike Table 1 above, the data in Table 2 below show similar trends or patterns of household fertility across Ethiopia except perhaps in Somali region when, in 1994, the percentage climbed up to 71%. Young people in all regions including the Amhara region constitute over 60% of the total population. Even the data for Addis has not deviated much. This means that the population in the Amhara region should have grown at the same rate or grown to the same level as in other regions.

Table 2. Youth Population As Percentage of the Total Population for Eight Regions (2007 and 1994) (figures rounded up)

Region	Percentage of Youth /Total Population in 2007	Percentage of Youth /Total Population in 1994
Tigray	63.6%	63.7%
Affar	66.0%	not accessible online
Amhara	63.3%	62.7%
Oromiya	67.3%	65.4%
Somalia	68.0%	71.0%
Benishangul-Gumuz	66.5%	64.2%
SNNP	67.1%	65.3%
Gambella	64.6%	64.6%
Addis Ababa	52.9%	60.5%

Next, we consider data presented in three graphs below (figures 1, 2 and 3) to show what demographers call “population pyramid”, based on the 2007 census data. Demographers use this method to analyze the population structure and estimate its impact on actual and potential population growth. Data for Tigray, Amhara and Oromiya regions and Addis Ababa are presented as examples. Again, there are similar patterns or trends in all regions except for Addis Ababa which shows a decrease in the youth population between the ages of 1 and 14 years. More interesting is to look at how young people between the ages of 1 and 14 years in Tigray, Amhara and Oromiya are represented in the graphs (i.e., they are the majority), once again proving that the demographic trends in the Amhara region are not different from those of other regions.

Conclusion

This brief analysis has identified similar data patterns or attributes in the 2007 population census for all Ethiopian regions. This similarity was supposed to create the conditions that yield the same values (results) for all regions. Instead, it is apparent that the census produced a different result (declining fertility) for the Amhara region implying that this region is more developed than Addis Ababa and other regions. The problem here could attributed to three factors: 1) methodological errors (current and historical); 2) misplacement or loss of data files; and 3) mismanagement of the census survey, such as census surveyors leaving households out, probably households that were located in

remote areas like Tache Armachiho, Belesa, Qolla Wogera, Tsegedie and Quara. If the government's review (as promised) finds that there are gaps in the 2007 census result, then the whole census for the region should be re-done. The federal government carries out census to determine societal needs. And the results will have serious implications for budget allocation and political representation. Amhara region federal and regional officials should address this issue immediately.

Figure 1. Tigray Region opulation,Structure
(in millions. Figures rounded up)

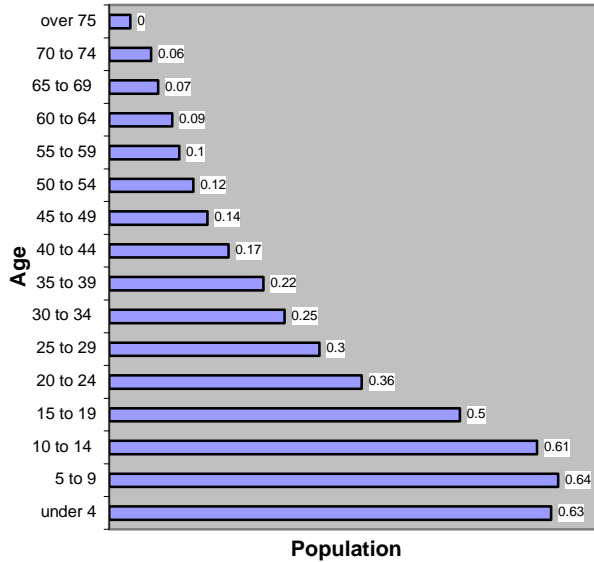


Figure 2. Amhara Region Population Structure
(in millions. Figures rounded up)

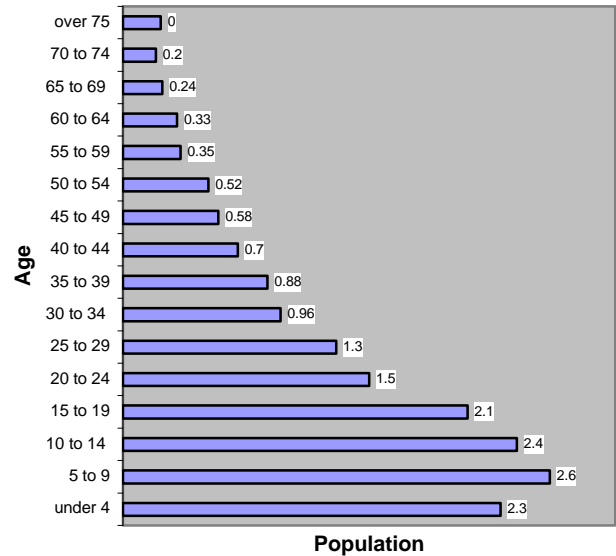


Figure 3. Oromiya Region Population Structure
(in millions. Figures rounded up)

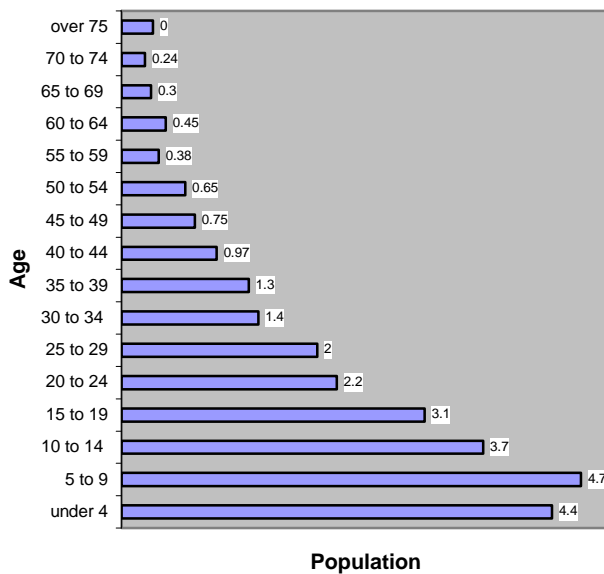


Figure 4. Addis Ababa Population Structure
(in millions. Figures rounded up)

