

*Fits most closely into conference theme 2: Demographic Changes and Migration through Data Integration*

## **Cross-Border International Data Integration**

Joshua Comenetz, U.S. Census Bureau

### **Abstract**

The U.S. Census Bureau develops subnational population data sets linked to harmonized international and subnational boundaries that are ideal for cross-border analysis of demographic change, migration, disease prevalence, the effects of disasters, and spatial demographic patterns.

Administrative area products link national census and survey data to multiple levels of subnational geography (such as provinces and districts) that nest within national boundaries. These have been validated and edited to be consistent with the national boundaries of neighboring countries, permitting seamless mapping across regions such as southern and eastern Africa.

The Demobase gridded mapping program creates high-resolution map layers, using census and survey data and other layers such as land cover and road networks. Recent work has focused on simultaneous development of data sets for cross-border areas with significant migration or economic integration, such as the Democratic Republic of the Congo and Zambia – with a focus on the cross-border Copperbelt region – and Angola and Namibia. The resulting layers show population distribution for 100-meter grid cells and provide insights into how population clusters near landscape features such as rivers.

Census Bureau international data are used by government, charitable, and research organizations. Many are developed on behalf of the U.S. President's Emergency Plan for AIDS Relief, which supports global response to HIV infection. Free geospatial data sets are available for more than 60 countries. A primary goal is to provide the maps and data required for international humanitarian assistance and disaster relief efforts.