MIX Microfinance World: Mapping the financial sector in South Africa

The South Africa Map of Financial Inclusion maps data on more than 40,000 points of service in South Africa, covering a wider range of providers than in any other survey of the market. The data goes beyond commercial banks and MFIs to cover pawnshops, cash loan providers, retailers and all types of credit providers in the market. The map integrates data on population, and surveys on poverty and financial access to put the locations of these providers in context.

The mapping was a collaborative effort, using web scraping to unlock hard-to-access data from online repositories; GIS expertise from the Centre for Geoinformation Science at the University of Pretoria; and mapping and visualization from Development Seed. We also drew heavily on research and data from FinMark Trust and the Centre for Inclusive Banking in Africa to help structure data on the sector. For more on how the data set was built see this companion post by Development Seed.
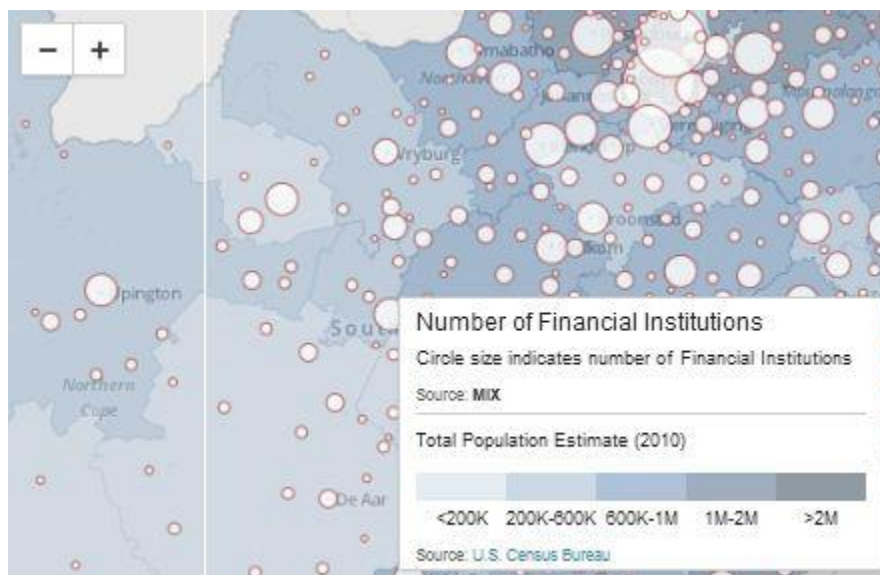

Why mapping?

Mapping is a way to visualize the infrastructure of the financial system, which correlates with the penetration of credit and deposit products. This infrastructure also provides the rails for technology-enabled services, like mobile banking. In South Africa, mobile banking providers like Wizzit and MTN both use commercial banks and their branch networks as partners.

A comprehensive mapping of the sector can also make the 'invisible' market visible, an open question for financial inclusion. The data here shows that almost 80 percent of the branches in South Africa are for non-bank, non-MFI credit providers. As such, surveys of banks or MFIs alone exclude much information.

Fig 1.Number of points of service for different types of providers
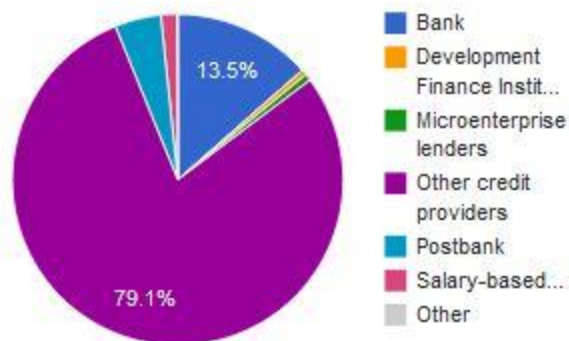
Mapping is of particular interest in South Africa. The Financial Sector Charter for South Africa defines "effective access" as "being within a distance of **20 Kms** to the nearest service point...[or]...accessible device," making it one of several countries that have a geographic component to their financial inclusion agenda: to measure progress on financial inclusion, one must also track the *location* of services.

South Africa also has a deep and diverse financial sector, but its inequality remains among the highest in the world.

Fig 2. Gini coefficients for South Africa vs. rest of world
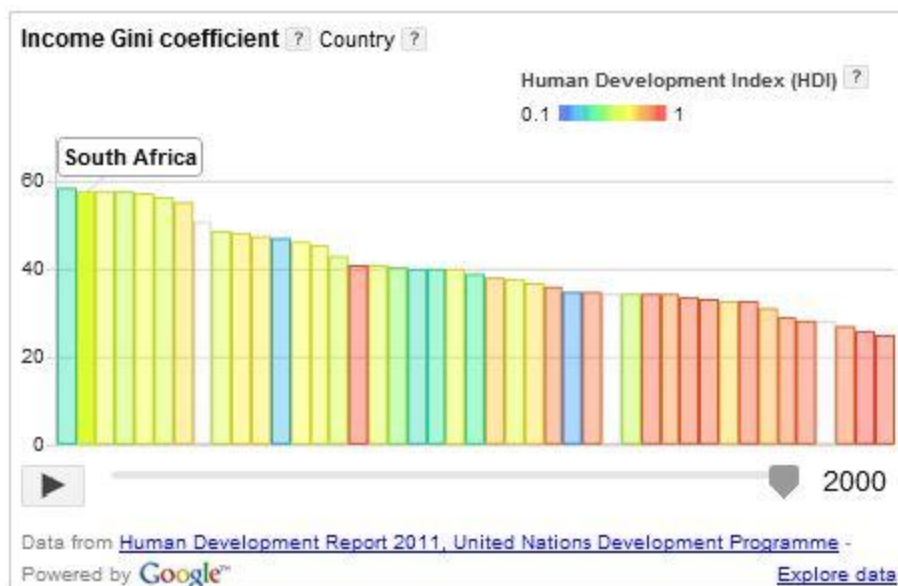
Some, but not all, organizations in South Africa have a developmental focus. Mapping lets us compare the footprint of organizations to see who provides access in under-served areas and what services are likely to be offered. While the map visualizes the distribution of services overall, the data by itself holds many interesting results, which we describe next.

Results

This dataset covers 50 percent more bank branches than other public databases on financial inclusion, without the need to send out questionnaires or surveyors, and with the location of most branches coded for the town or municipality, with attribution to the data source. Thus, we have both more data and more accurate data than ever before, and the ability to replicate this in the future. (More on how web scraping helped us build this database is coming soon.)

Database	CGAP (2010)	IMF (2010)	South Africa map data
Bank branches per 1000 km2	2.22	2.85	4.32
Bank branches per 100,000 adults	8.00	10.1	15.06

If we include non-bank branch outreach, the coverage is more than *10 times* other datasets. The roughly 5,000 bank branches are just a fraction of the total 43,000 points of service in the country. (These totals even still exclude the more than 800,000 savings clubs (or stokvels) that are used by many as a way to meet financial needs.)

MFIs (classified as microenterprise lenders) and salary-based microfinance lenders (like Blue Financial Services) play a large role in the sector. But by far the largest share are the 30,000+ other credit providers - the 'invisible market' - whose data are available due to the registration requirements with the National Credit Regulator.

Who are these other providers? A list of all providers, shows that banks have the largest branch networks. Postbank is the largest bank network- a potential concern for other banks since Postbank is able to offer full banking services only as of this year. However, non-bank providers take up the majority of spots past the top 10.

For instance, while the Woolworth's chain of five-and-dime stores no longer operates in the United States, Woolworth's South Africa still provides financial services. In fact, three of the top 30 institutions are actually all subsidiaries (Woolworths Financial Services (Pty) Ltd, Upfront Investments 132 (Pty) Ltd, Woolworths Finance (Pty) Ltd) of the same holding company. Combined, their reach is similar to that of the largest banks in the country. Should these types of retailers be more prominent on the financial inclusion radar?

There is still a long tail of providers that have just one or two or three branches, but we can query the database to learn more about these. Almost 1000 locations are branded as 'cash loan' operations (similar to payday lenders in the United States), while another 100 or so have 'repo' or 'pawn shop' in their names. Their reach is larger than the total number of 'developmental' providers, such as MFIs, in the country. While that may seem worrisome, impact evaluations have actually shown positive results for clients of these exact lenders. Such 'agile fringe providers' may also provide flexible services that clients find lacking elsewhere, and indeed cash loan providers are more concentrated in high-poverty areas than banks. In either case, the first step is having transparency and comparable data on their reach vs. other providers.

The map also lets us see the raw data on providers in context, such as market supply and demand. Initially, we can use adult population as a comparison.

Fig. 3: Adult population vs. points of service, by province
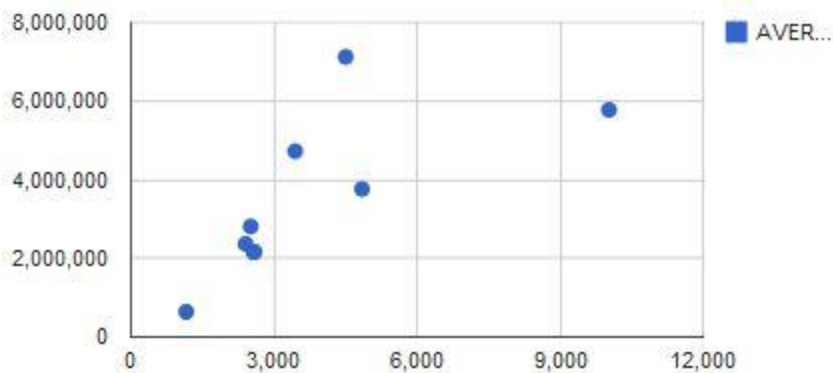
Not surprisingly, the most populous regions have the most providers. Next, we can compare supply to poverty rates by province.

Fig. 4: Poverty rates by points of service, by province
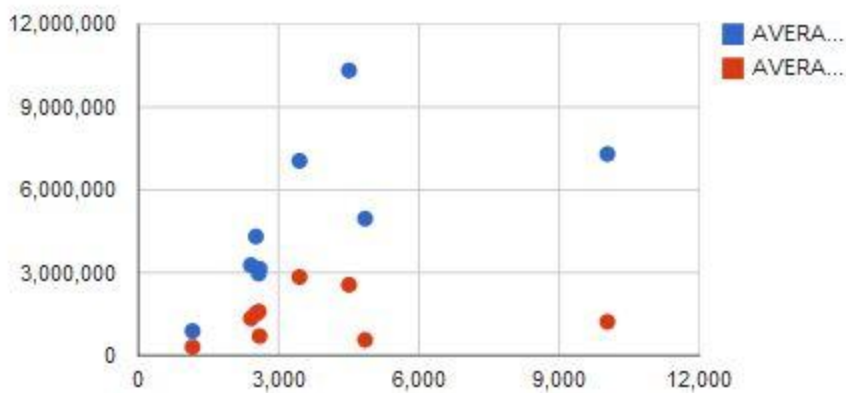
Now we see the opposite relationship - the regions with the highest poverty rates have the fewest branches.

Finmark surveys can give us more detail about the use of financial services: is there demand for financial services in those regions? Again, perhaps not surprisingly, the regions that are the least well-served are also those with the fewest branches. But we can also segment the data by provider. For example, Postbank branches are already located in the regions where the most people have never been banked (i.e., there is a positive correlation).

Fig. 5: Percent never banked (Finmark, 2010) vs. Postbank branches, by province
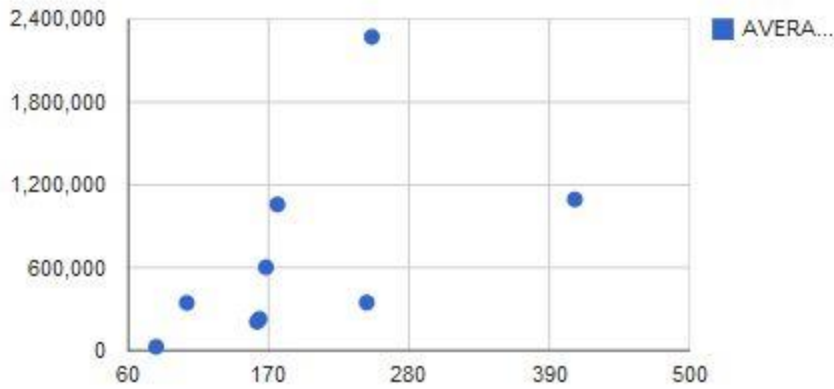
At the same time, we can see how infrastructure plays a role in the usage of financial services. While no-frills *mzansi* accounts have been deemed a 'flop,' usage rates were higher in the regions with the deepest branch networks and banks are creating new, similar products on their own.

Fig. 6: Mzansi users (Finmark, 2010) vs. bank branch outreach
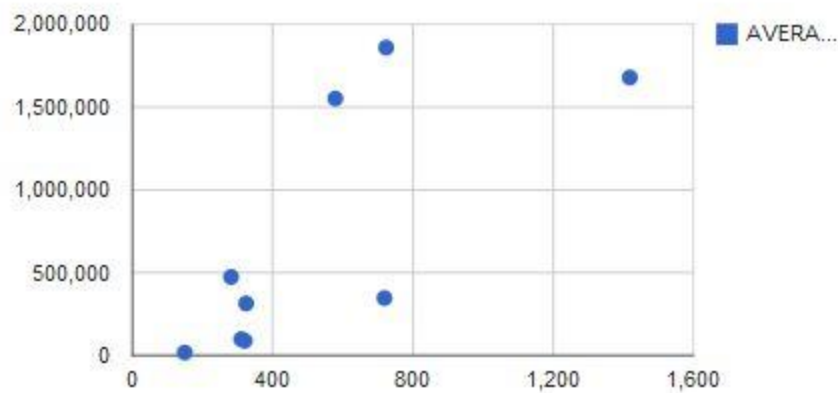
Maps can help us anticipate how other changes in the market may play out. For instance, an effort to "boost cooperative banks" to work where commercial banks "cannot and should not" will rely on the (limited) existing footprint of cooperatives in the country.

Fig. 7: Map of cooperatives in South Africa
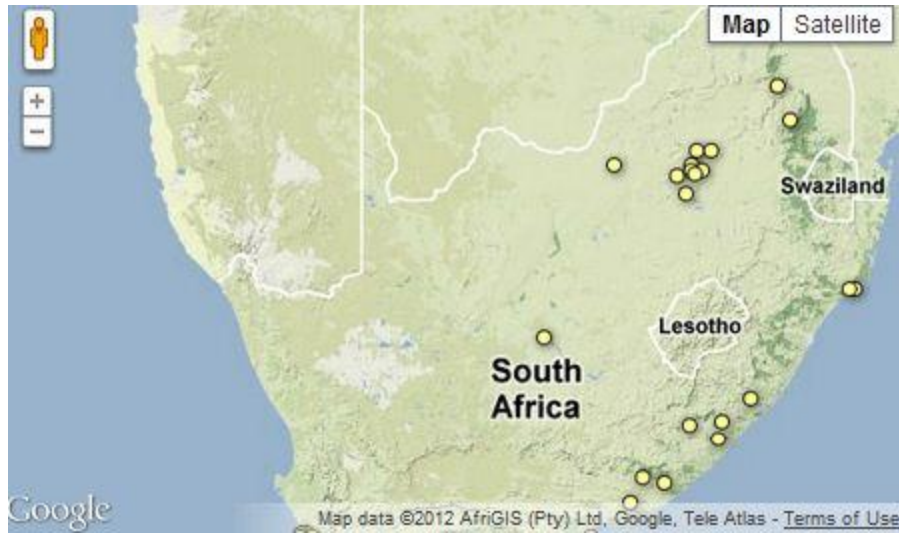
Conclusion

There is much more that can be done with the South Africa Map of Financial Inclusion data. The first step is making the data more accessible for practitioners to use and analyze. From this basis, we can build towards a realistic understanding of the landscape of financial services for the poor. Take some time to explore the map and the data to see what interesting questions (or answers) it yields.