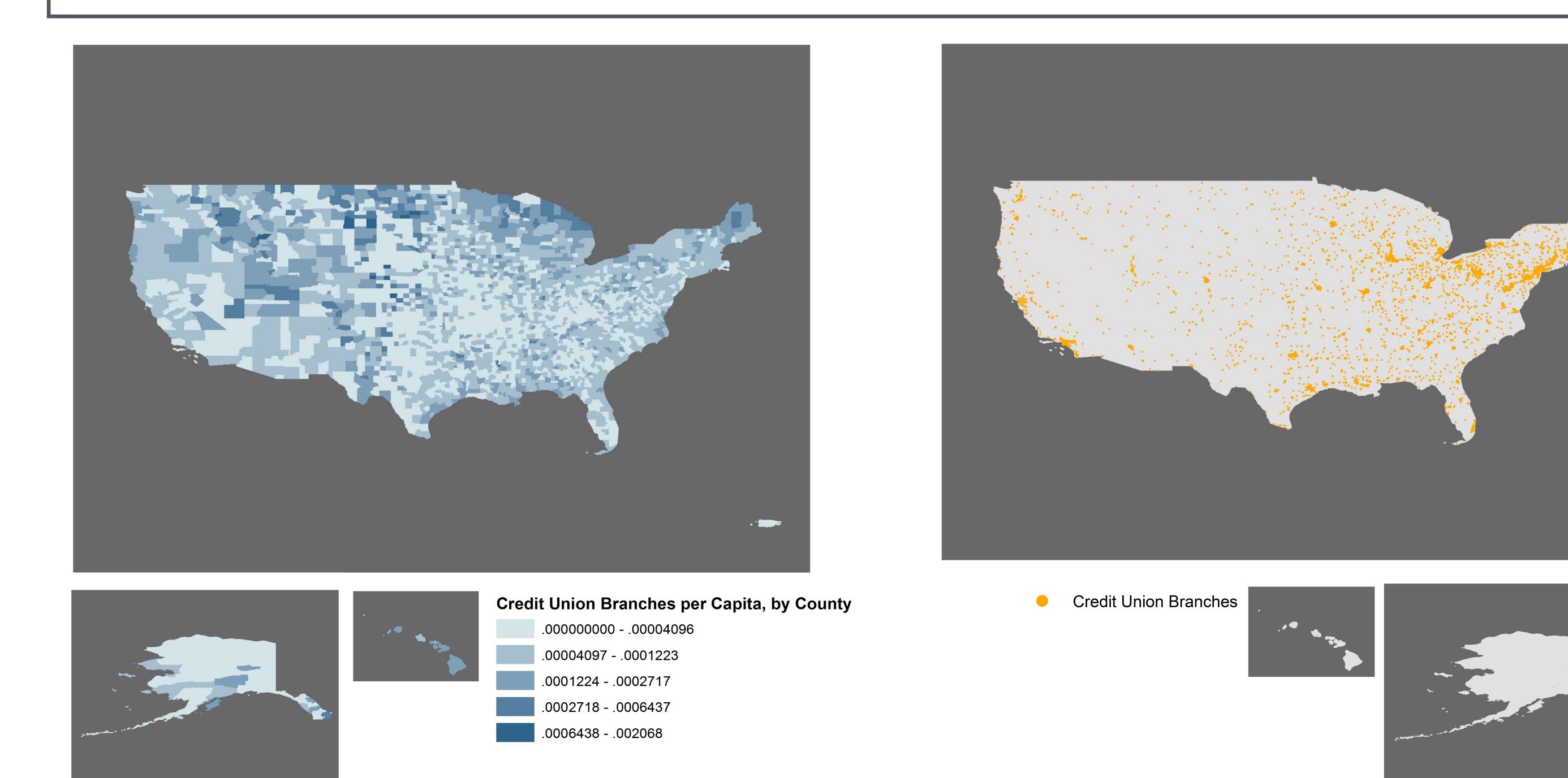
# Credit Unions at the National Scale

Credit Unions provide an alternative to traditional financing, which is often restrictive, risky, and profit-driven. Cooperative credit extends opportunities for typically underserved populations to grow their personal finances, start new business, and stabilize their economic lives. Collective Ownership of the Credit Unions' assets amongst its memberships constitutes a quintessential example of the solidarity economy in a real-world setting. This project seeks to uncover the distribution of Credit Unions, their members, and their assets in the United States in the context of the country's social, economic, and land-use make-up.



Credit Unions were geocoded, and then joined to the counties they are located in with a points-in-polygon analysis. Summary statistics for the Credit Unions were calculated, and aggregated upon each county.

## Figure 1:

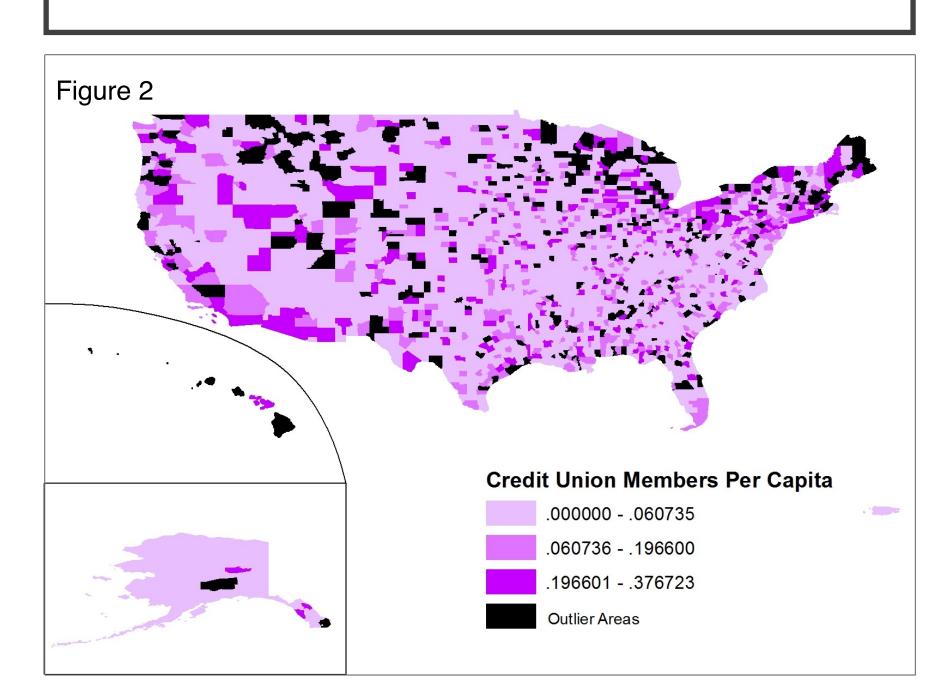
At right, county-level banking data (US Census) was joined to US counties. The chloropleth shows the pattern of spatial investment/ disinvestment by commercial banks in the US between 2000 and 2010. A dot-density map of Credit Union members is laid over it, with each dot representing 80,000 members

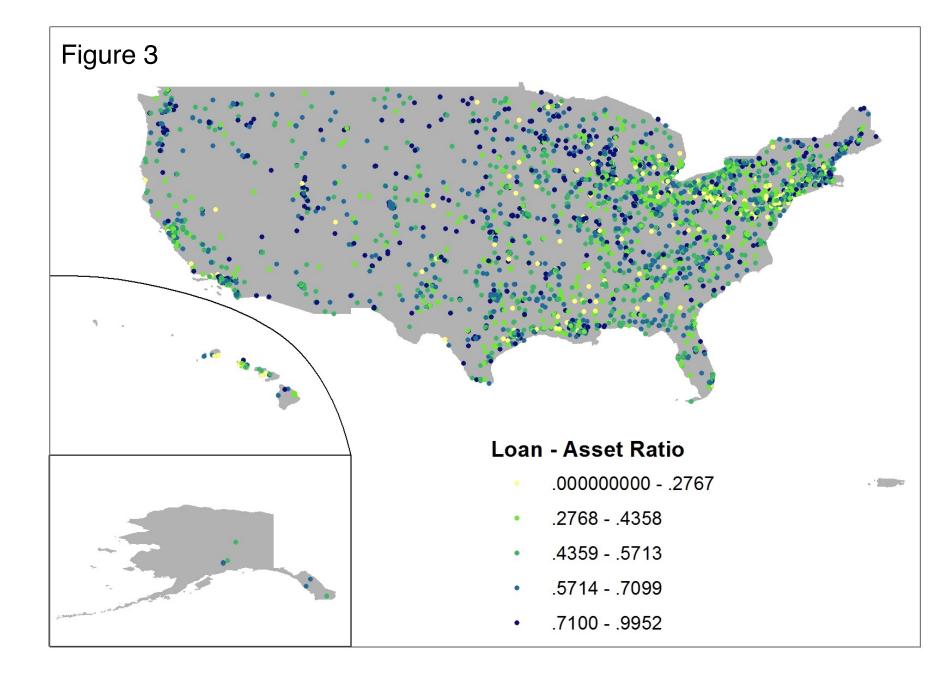
## Figure 2:

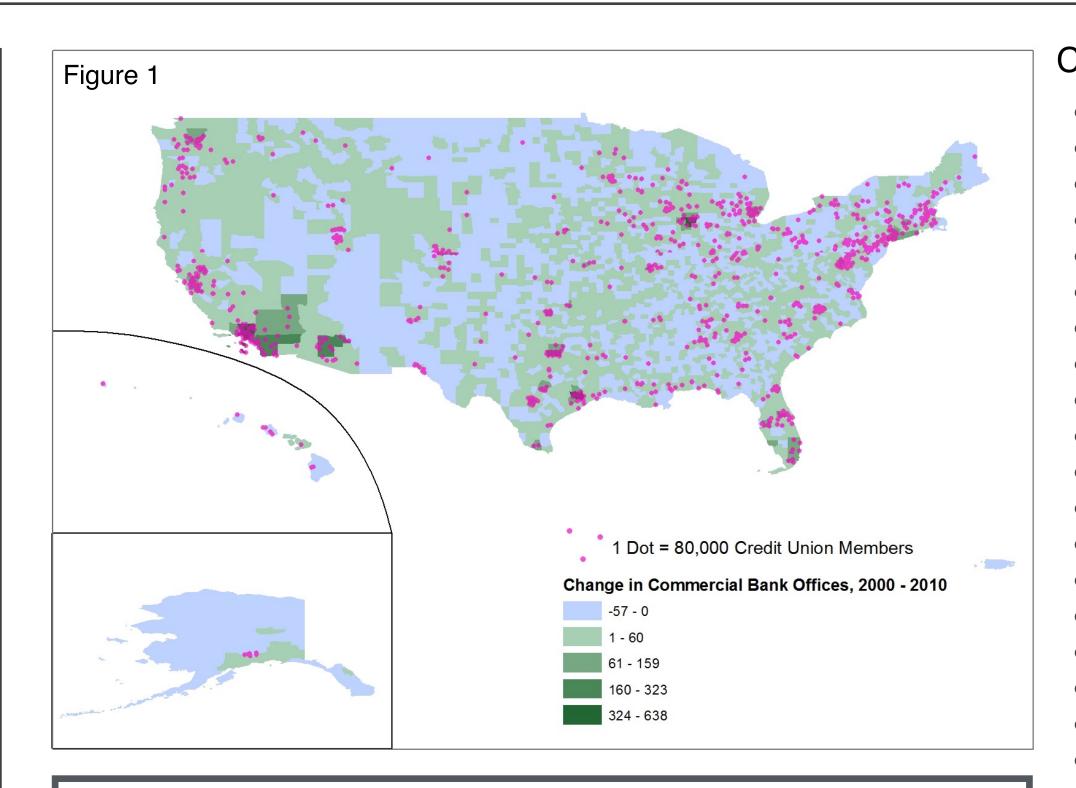
County-level aggregated Credit Union members were normalized by county population, showing the rate of membership by county. Non-geographic credit unions over-inflate some areas, resulting in a higher membership total than actual population. The most obviously affected counties are blacked out, as 'Outlier Areas'.

## Figure 3:

Each of the United States' Credit Unions is mapped by its Loan-Asset ratio. A higher Loan-Asset ratio means that an institution's liquidity is low; the higher the Loan-Asset ratio, the riskier an institution's behavior. Credit Unions differ from commercial banks in that they have less lee-way in how much risk they can take on.

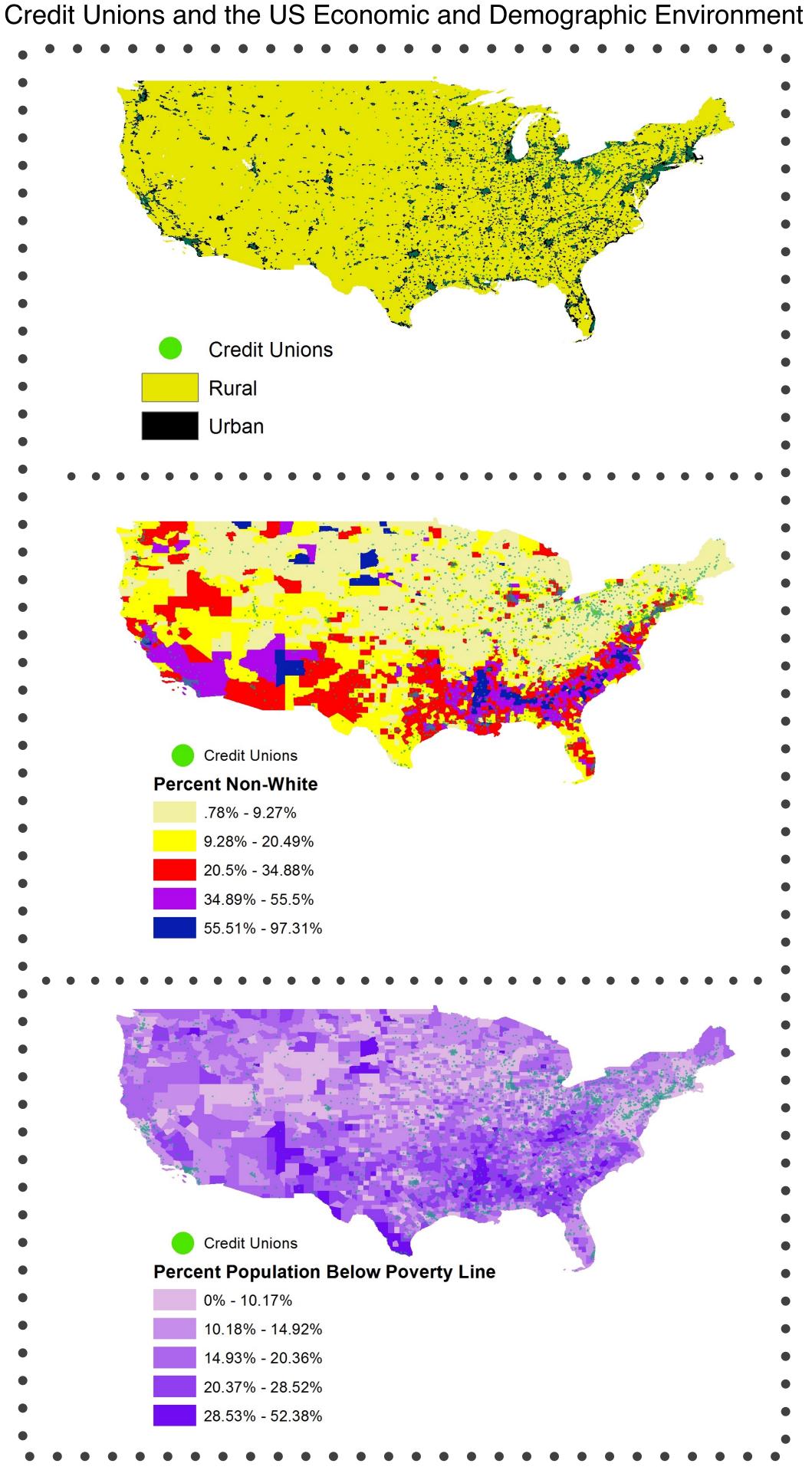






At right, we can see the distribution of credit unions in the United States when compared to land-use, the non-white population, and the population living below the poverty line. Because Credit Unions are cooperatively owned and not driven by profit, they can extend lines of credit to individuals who may be turned down by commercial banks.

These solidarity-driven lending practices, combined with the spatial distribution of wealth and race and the relationships between socio-economic factors and land-use, produce an organization of Credit Unions differing from their corollaries in traditional finance.



## Data from:

- National Credit Union Administration
- United States Census Bureau
- Global Rural-Urban Mapping Project, CIESIN, Columbia University

13 December, 2015 Trevor Lovitz, Sarah Van Norden, Ben Rubin, Gabriel Schuster Developed for GTECH 385.02/785.02, *GIS Applications in Social Geography* Instructor: Professor Marianna Pavlovskaya