THE UNIVERSITY OF CHICAGO
DATA SCIENCE INSTITUTE

Rural Advancement Foundation International (RAFI) works with advocacy groups to address unequal food access and corporate dominance in grocery markets. RAFI partnered with the University of Chicago's Data Science Clinic, where the team developed visualizations and predictive models of grocery market concentration across the US. The analysis explored socioeconomic and demographic factors (e.g., income, urbanization) potentially linked to concentration. Figure 1 shows that the strongest predictor of current concentration was the previous year's level ("lag 1"), while factors like political division and education were less informative.

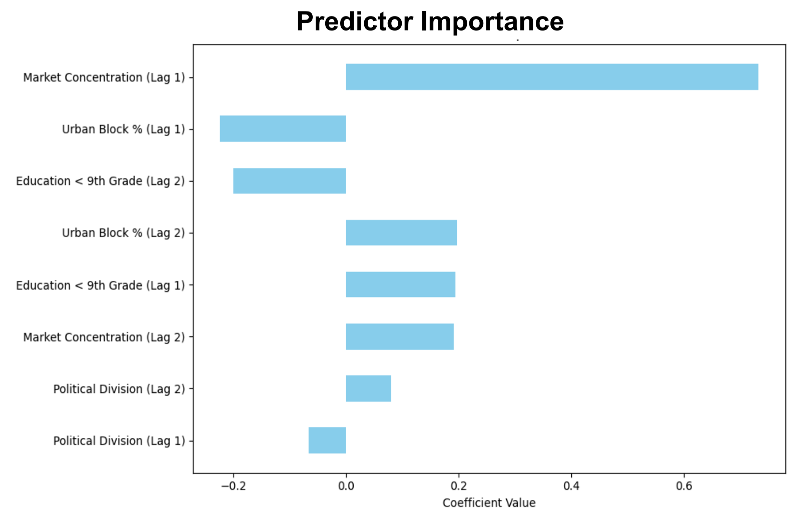

Figure 1: This chart displays the relative importance of lagged socio-economic and market variables in predicting market concentration.

To build on the modeling results, the team conducted a case study of counties where market concentration is already high or increasing rapidly, as concentration levels in the previous years were the strongest predictors of future concentration. Figure 2 shows that the most concentrated counties are mainly in the Great Plains, while those with the fastest growth lie between the Great Plains and Appalachia, with limited overlap.

County Market Concentration Map

The persistence of market concentration and its weak link to socioeconomic factors, as shown by the modeling, suggests that RAFI's advocacy should focus not only on the most concentrated counties but also on those experiencing rapid increases.

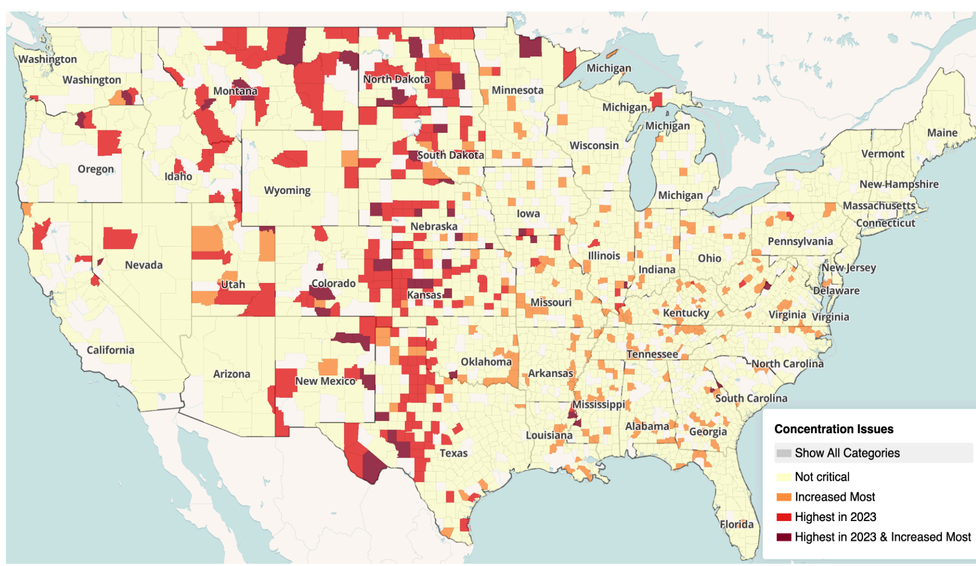

Figure 2: This map highlights county-level variations in market concentration across the United States.