

Journal of Rural and Community Development

Small Business Lending and Socioeconomic Development in U.S. Counties during the Great Recession

Authors: F. Carson Mencken & Kimberly D. Mencken

Citation:

Mencken, F. C., & Mencken, K. D. (2020). Small business lending and socioeconomic development in U.S. counties during the Great Recession. *The Journal of Rural and Community Development*, 15(4), 81–99.

Publisher:

Rural Development Institute, Brandon University.

Editor:

Dr. Doug Ramsey

Open Access Policy:

This journal provides open access to all of its content on the principle that making research freely available to the public supports a greater global exchange of knowledge. Such access is associated with increased readership and increased citation of an author's work.



**BRANDON
UNIVERSITY**
Founded 1899



Small Business Lending and Socioeconomic Development in U.S. Counties during the Great Recession¹

F. Carson Mencken

Center for Community Research and Development, Baylor University
Waco, Texas, United States
Carson.Mencken@Baylor.edu

Kimberly D. Mencken

Department of Economics, Baylor University
Waco, Texas, United States
Kimberly.Mencken@Baylor.edu

Abstract

Previous research shows that small business lending declined significantly during the Great Recession. In this paper, we examine the effects of small business lending on measures of socioeconomic development in U.S. counties during this time period. Citing literature which shows that small business owners in nonmetropolitan counties depend on traditional bank loans more than their metropolitan counterparts, we propose that the effects of small business lending will be more important in nonmetropolitan counties. We utilize data from Community Reinvestment Act Federal Financial Institutions Examination Council and U.S. Census. We use two measures of small business lending: the average per loan small business lending from 2005-2010 and change in small business lending amount in the county between 2005 and 2010. We find that the per loan average amount of small business lending between 2005-2010 increased the 2010 median family income and 2010 county poverty rate in nonmetropolitan counties. The effects in metropolitan counties show no benefits of small business lending. Change in the amount of business loan had no consistent effects. Implications for existing and future research are discussed.

Keywords: rural development; small business lending

1.0 Introduction

In this paper, we examine the effects of small business lending on the socioeconomic development in metropolitan and nonmetropolitan counties during and immediately after the Great Recession (2007-2009). The analysis estimates the impact of small business lending amounts before and after the Great Recession on county measures of socioeconomic development immediately following the Great Recession: the poverty rate, median family income, and income inequality (Gini Coefficient). The

¹ Please address all questions to Carson Mencken at Carson.Mencken@Baylor.edu. F. Carson Mencken is Professor of Sociology and Senior Research Associate at the Center for Community Research and Development, Baylor University. Kimberly D. Mencken is Senior Lecturer, Department of Economics, Baylor University. A previous version of this paper was on the program at the Annual Meeting of the Southwestern Social Science Association, October 2019, San Diego, CA.

analysis is framed in two important community development traditions within rural sociology: the Community Capitals Framework and Civil Society theory. While these approaches are interrelated, the former focuses on micro, mezzo, and macro levels of analysis (Flora, Flora, & Gasteyer, 2015). The latter is a macro-level theory of community development, focusing exclusively on the macro-level structural conditions of places (Lyson & Tolbert, 2004).

In both theories, the small business sector is an important component. It provides the jobs that employ local people; it provides the civically engaged community leaders who build social capital in these communities (Tolbert, Irwin, Lyson, & Nucci, 2002). Additionally, the small business sector is vital for growth and development in the general U.S. economy, as it produces 40% of private sector contribution to GDP (Wiersch & Shane, 2013). But small businesses cannot function without a steady supply, and access to, financial capital. The financial industry has gone through a major restructuring since 1994 (see Berger, Demsetz, & Strahan, 1999; Carpenter, Mencken, Tolbert, & Lotspeich, 2020), the net effect of which has been fewer local community banks which have been the backbone of small business lending (Tolbert, Mencken, Riggs, & Jing, 2014).

During the Great Recession, the impact on small business lending was significant. Direct loans to small businesses from commercial banks declined by 22%, and the total value of bank loans to small businesses declined by \$40 billion (Duygan-Bump, Levkov, & Montoriol-Garriga, 2015). We will show how metropolitan and nonmetropolitan counties were affected by these small business lending changes during the 2005-2010 timeframe, which wholly encompasses the Great Recession (2007-2009).

2.0 Literature Review

During the transition to globalization, nonmetropolitan counties in the United States have experienced challenges stemming from changes in farming, agriculture commodification, manufacturing, and retail trade. The farm crisis of the late 1970s and early 1980s was brought about by two geopolitical events. The first was real estate speculation regarding the value of farms in response to the grain crisis in the former U.S.S.R in the early 1970s. The second was the U.S. grain embargo placed on the Soviet Union following their invasion of Afghanistan. Exports of U.S. grain fell dramatically and many producers lost their farms. The credit system that was supporting U.S. grain production failed, and agricultural banks closed (Ginder, Stone, & Otto, 1985; Lobao & Meyer, 2001). The failure of farms also led to the full transition to the commodification of agriculture, in which large corporate farms replaced family farms as the major producers of food (Guptill & Welsh, 2014).

This further pushed U.S. family farms into foreclosure, as they could not compete with the economies of scale of ‘Big Ag’ (Lyson, 2004). A latent consequence of this transition was the outmigration of former farmers, lenders, and others connected to the industry, depleting nonmetropolitan economies of many of their community leaders. The labor markets of these economies were restructured from locally organized family farms and small businesses into wage labor for Big Ag. What independent agriculture that did survive was forced into niche markets (i.e., organic foods) or into a modern-day ‘share-cropper,’ producing for Big Ag.

Since the 1920s, nonmetropolitan communities were active in seeking labor-intensive manufacturing jobs from urban economies, offering cheap labor and tax

offsets. These manufacturing plants, however, were not able to compete with overseas labor markets or survive the automation of these processes (Fitchen, 1991; Slack, 2014). In 1969, manufacturing accounted for 22% of total employment in nonmetropolitan America. By 2010, manufacturing accounted for only 10% of total employment. The apparel and textile industries in the Carolinas and Georgia are excellent examples of this trend. Between 1977 and 2010, North Carolina lost over 250,000 textile and apparel manufacturing jobs, many of which were located in small towns.²

Globalization brought the opportunities to buy larger amounts of bulk goods at much cheaper prices from overseas producers. This overproduction helped to create the ‘Big Box’ retail phenomenon, where many goods could be bought in one place. Nonmetropolitan counties were not immune from the Big Box invasion (Vias, 2004). The net effect was to ruin ‘mom and pop’ operations along Main Street, turning some communities into blights of boarded-up storefronts. Local business succumbed to the loss-leader pricing and economies of scale of these retail operations. Local communities lost locally owned businesses and business leaders. The Big Boxes, many of which extracted significant tax offsets and (nearly) free land, provided very little to the communities they invaded other than low-wage jobs (Massengill, 2013; Mitchell, 2006).

Despite these challenges, there are nonmetropolitan counties that have continued to thrive. What makes these counties different from others is the civic structure of the places. Two interrelated theories of nonmetropolitan development propose why some communities have survived during the globalization transition period. The Community Capitals framework (Flora et al. 2015; Agnitsch, Flora, & Vern, 2006) proposes that there are various forms of capital that constitute a resource pool from which communities can draw upon to create and manage growth and development. These include (but are not limited to) human capital (education and expertise), social capital (networks of civic leaders in business and government), natural capital (build environment and amenities), and the focus of this paper: financial capital (local sources of loans to create and support businesses, loans for small businesses). Communities with greater levels of these community capitals have been able to sustain development and better qualities of life in nonmetropolitan counties during the transition to globalization.

The Civic Society perspective is a macro-level community perspective that shares concepts from the Community Capitals framework and attempts to measure them empirically at different levels of geography. This theory relies heavily on the concepts of civic engagement, social capital, and community well-being. It proposes that local entrepreneurs and community leaders are central agents of development in their communities. They comprise a civically engaged, independent middle class (Mencken, Smith, & Tolbert, 2020). They volunteer for community causes at a greater rate than private sector employees (see also Rotolo & Wilson, 2006; Wilson & Musick, 1997) and feel closer to their neighbors (Mencken et al., 2020). Their leadership skills and entrepreneurial nature means that they are likely to be effective leaders and facilitators of community integration.

The local entrepreneurs become important agents for organizing and managing local civic engagement (Besser & Miller, 2013a; 2013b; Mencken et al., 2020; Blanchard

² See Paul Wiseman “When the textile mill goes, so does a way of life.” USA TODAY, March 9, 2010. It is a story about the closing of a textile mill in Mount Airy, NC, a town of 9,500.

& Matthews, 2006). Local business owners who depend on local clients/customers for their livelihood will take a greater interest in the civic welfare of their communities. Empirical research documents that nonmetropolitan communities with a greater proportion of locally owned and locally oriented businesses are more civically engaged and have higher levels of socioeconomic well-being. Empirical research shows that these communities have less outmigration (see Irwin, Tolbert, & Lyson, 1999); crime (Lee & Thomas, 2010; Lee & Berthelot, 2010); income inequality (Lyson, Torres, & Welsh, 2001); poverty (Tolbert, Lyson, & Irwin, 1998); favorable levels of public health (Blanchard, Tolbert, & Mencken, 2012); greater per job earnings (Mencken, Bader, & Polson, 2006) and higher levels of family income (Tolbert et al., 2002).

Financial capital is an important component of the Community Capitals framework. Communities with greater access to financial capital will have better levels of well-being because of the positive effects this capital has on the local/small business sector. However, access to financial capital in nonmetropolitan counties was a serious concern before the Great Recession. The Riegel-Neal Interstate Banking and Branching Efficiency Act of 1994 eliminated most barriers to interstate banking, facilitating the consolidation of bank firms and the concentration of deposits among fewer national brands. This consolidation was followed by a proliferation of establishments at the local level, many of which were former independent and regional banks that serviced local businesses (see Berger & Black, 2011; Berger & Udell, 1996; Berger et al., 1999; Boot 2011; Collender & Shaffer, 2003; 2009; Collender & Frizell, 2002; Devaney & Weber, 1995). More specifically, between 1984 and 2011, the number of Federal Deposit Insurance Corporation (FDIC) reported bank firms declined from 14,496 to 6,291, while the number of bank establishments increased from 42,717 to 83,209 (see Tolbert et al., 2014). By 2014 over half of all branch establishments in the United States were owned by a bank or bank holding company in another state (Mencken & Tolbert, 2018a; 2018b). The consolidation is also reflected in the deposits controlled by the largest national banks. The June 31, 2019, 2Q FDIC deposit report shows that 43.5% of all deposits are controlled by three banks. In the 2007 2Q report the percentage was 35%, and in the 1997 2Q report the largest three banks in the United States retained only 23% of total deposits.³

This consolidation of bank firms raised concerns about access to financial capital in nonmetropolitan counties. The relationship between small businesses and local banks in nonmetropolitan America was historically one of symbiosis (Dudley, 1996; DeYoung, Glennon, & Nigro, 2008; Gilbert & Wheelock, 2013; Berger & Udell, 1995; 2002; Berger, Miller, Petersen, Raja, & Stein, 2005). Local banks profited from commercial lending to local businesses. The loss of local banks to consolidation puts local businesses in a bind to find financial capital. The symbiotic relationship between local businesses and banks was facilitated by a practice of community reputational lending, or soft data lending. Loans could be secured by networks and community reputation if traditional hard data analytic markers were insufficient (e.g., collateral). Actors traded in what sociologist Pierre Bourdieu (1986) labeled *moral capital*, and one's standing *vis-a-vis* the moral norms of the local community (see also Sherman 2017). However, branches of large absentee banks do not engage in relationship lending (Walzer, Athiyaman & Hamm, 2007; DeYoung et al., 2008). The breakdown of this informal system makes it more

³ These data were downloaded from www.fdic.gov on November 11, 2019.

difficult for small businesses in rural communities to find locally sourced loans and may damage the socioeconomic structure of local communities.

We are concerned about the impact of the Great Recession on small business lending. How did the Great Recession affect lending to small businesses? As mentioned above, during this period, the volume of loans to small businesses (those with less than 1 million dollars in total assets) dropped by \$40 billion dollars (Duygan-Bump et al., 2015). The percentage of loans from small banks to small businesses dropped by 18% (Kiser, Prager, & Scott, 2016). Households whose primary source of income was a small business experienced, on average, an 18% decline in household income during this time frame (Wiersch & Shane, 2013). The number of small business loans in 2012 was only 78% of the volume in 2007.⁴ This decline in lending during the Great Recession is attributed to several factors, including less demand for loans by small businesses, tightening of credit standards, declining value of real estate (most common form of small business collateral), consolidation of the financial industry, and a refocus on “longer” markets (urban, big business).

The concern is that the loss of independent local banks and the decline of small business lending during and after the Great Recession has led to a small business credit constraint in nonmetropolitan economies. A reduction in the supply of loans means small businesses have less capital with which to work. Fewer investments and improvements are made, making the businesses less profitable and creditworthy (Rice & Rose, 2016; Peek & Rosengren, 1995). Moreover, the unavailability of inexpensive external credit can lead to constrained regional employment growth (Boustanifar, 2014), which will have a negative effect on measures of socioeconomic development (poverty rate, median family income, inequality). The loss of bank lending can also lead to an increase in short-term “alternative” lending sources, such as Kabbage. These online quick-decision operations target small businesses. They provide small business loans up to \$250,000 with monthly fee rates ranging from 1.25% to 4%. Less lending to local small businesses will hurt the overall economy as fewer people will be employed, and less local capital is generated. A weak local business sector is correlated with poorer socioeconomic conditions. Furthermore, since business owners in rural America rely on traditional loans from banks at a greater rate than metropolitan-based businesses (DeYoung et al., 2008; Gilbert & Wheelock, 2013; Mencken & Tolbert, 2016; 2018b), we propose that the effects of small business lending are more impactful on the socioeconomic well-being of nonmetropolitan counties. We test this hypothesis for metropolitan and nonmetropolitan counties.

3.0 Data and Methods

In the analysis, we examine the effects of small business lending on three measures of socioeconomic development U.S. counties in the 48 contiguous states. We use the Community Reinvestment Act Federal Financial Institutions Examination Council (FFIEC) data definition of a small business—those with less than 1 million dollars in total assets. The 1977 Community Reinvestment Act requires that lending institutions report the number of loans and the value of all loans to small businesses, delineated by assets. This unique data set provides annual data on small business lending in all U.S. counties. The analysis examines the effects of small business lending patterns from 2005 until 2010 on three measures of socioeconomic well-

⁴ There were 344,000 fewer small business loans in 2012 than in 2007 (Wiersch & Shane, 2013).

being, a period that covers the Great Recession.⁵ Metropolitan counties must have an urbanized area of 50,000 or more inhabitants. All other counties are considered nonmetropolitan. We create two binary variables (0,1) to represent each category.

3.1 Dependent Variables

The measures of county socioeconomic development in the analysis are taken from the 2010 Decennial Census of Housing and Population. We use three measures which are standard in the volume of research on Community Capital and Civic Society (see Lyson et al., 2001; Tolbert, Mencken, Blanchard, & Li, 2016). The measures are: 2010 Gini income coefficient; 2010 county poverty rate; and 2010 median family income. For those readers not familiar with the Gini coefficient, it ranges from 0 to 1. A value of 0 means that there is perfect income equality in the county (all households have the same income). A value of 1 means perfect inequality—one household has all earned income in the county. A general way to interpret this coefficient is by relative rank. Counties with higher Gini scores have greater levels of income inequality than those with lower scores.

3.2 Independent Variables

The primary variables of interest are two measures of small business lending. First, there is a measure of *consistent* small business lending in each county. This is calculated by averaging the per loan value of all small business loans in a county for each year 2005 to 2010. The second measure is the *change* in small business lending between 2005 and 2010. As noted above (see Duygan-Bump et al., 2015), lending to small businesses dropped off significantly during and after the Great Recession. The change in loans is a simple change in the total amount of loans to each county between 2005 and 2010. Both variables measure an important concept in the Community Capitals framework: level and consistency of financial capital to small businesses.

3.3 Control Variables

There is a variety of other county-level measures of Community Capital that we control in this analysis. We utilize several measures from previous research (Lyson & Tolbert, 1996; Tolbert et al., 1998; Tolbert et al., 2002). These include percent of total manufacturing that is ‘small manufacturing’ (i.e., less than 20 employees) (flexible capital) and the proportion of the adult population with at least a high school diploma (human capital). We included a measure of what percentage of religious adherents attend civically engaged (social capital) denominations from the 2000 Census of Churches.⁶ The final measure is a standardized index of three inter-correlated measures of civic engagement at the county level: (1) per capita third places (such as pubs, barbershops, coffee houses), (2) per capita national civic associations, and (3) proportion of the voting age population who voted in the most recent presidential election. This is a standard measure of social capital used by the Civic Society literature (see Tolbert et al., 1998).⁷

⁵ The Great Recession official dates are from December 2007 to June 2009. Retrieved January 31, 2009, from <https://www.federalreservehistory.org/>

⁶ These denominations include African Methodist Episcopal Zion, American Baptist, Church of Christ, Congregational Christian, Disciples of Christ, Episcopal, Jewish, Latter-Day Saints, Lutheran, Methodist, Presbyterian, and Unitarian.

⁷ We factor analyzed these measures. The Cronbach’s alpha for this index is .65. We then standardized them to a mean of 0 and standard deviation of 1. We combined the measures into an additive index.

3.4 Demographics

Past research indicates that county socioeconomic development measures are also correlated with the demographic composition of the county. Poverty rates are not uniform across the spatial landscape. Counties with a greater proportion of foreign migrants and racial/ethnic minorities tend, on average, to have higher levels of poverty and lower income (Sherman, 2014; Tickamyer, White, Tadlock, & Henderson, 2007). We control for percent of the county black (2010), percent Hispanic (2010), total net migration 2000-2010; population density 2010; and percent employed in retail trade. We also control for two primary industry categories: farming-dependent counties and mining-dependent counties.⁸ Measures of central tendency for all independent variables are presented in Table 1.

Table 1: *Means and Standard Deviations*

	Mean	Std
<u>Dependent Variables</u>		
Median Family Income 2010	\$52,968	12627.00
Gini Income Inequality 2010	0.43101	0.037
Poverty Rate 2010	14.54%	6.227
<u>Independent Variables</u>		
Average Small Business Loans in County 2005-2010	\$34.13	14.173
Change in Total Small Business Loan Values per County 2005-2010	-37.90%	52.074
Percent Hispanic 2010	8.30%	13.276
Percent Black 2010	8.80%	14.432
Total Net Migration Rate	7.46%	17.900
Civic Engagement Index	0	0.766
Population per sq. Mile 2010	265.59892	3122.00
% Manufacturing Establishments that are Small (LT employees) 2010	71.79681	16.243
Adherents per Civically Engaged Church 2010	217.61457	131.18
Percent with at least HS Degree 2010	71.83%	7.120
Farming Dependent County (1,0)	14%	34.70
Mining Dependent County (1,0)	4.10%	19.70
Metropolitan County (1,0)	34.60%	47.60

⁸ These measures are from the 2004 USDA ERS County Typology codes based on BEA data. Farming dependence is an annual average of 25 percent or more of total county earnings or farm employment, accounting for 16 percent or more of total employment for 2001-2003. Mining dependence is 13 percent or more of total county earnings or 8 percent or more of total county employment during 2001-2003. <https://www.ers.usda.gov/data-products/county-typology-codes>.

4.0 Results

Table 1 presents means and standard deviations for all variables in the analysis. The FFIEC data show that, on average, counties in the United States experienced a 37.9% decrease in total small business funding between 2005 and 2010. These data are consistent with values reported on analyses with other data (Duygan-Bump et al., 2015; Kiser et al., 2016; Wiersch & Shane, 2013). Furthermore, Figure 1 shows the change in small business loan amount separated by county type. These data show that metropolitan counties (-41%) experienced significantly greater small business loan loss than nonmetropolitan counties (-31.4%) between 2005 and 2010. However, data on loan values (Figure 2) show that, on average, nonmetropolitan counties (\$30,300) received significantly lower per loan amounts over the 2005-2010 timeframe than metropolitan counties (\$38,500).⁹

Figure 1. Change in \$ Amount of Loans 2005-2010 in Metropolitan and Nonmetropolitan areas.

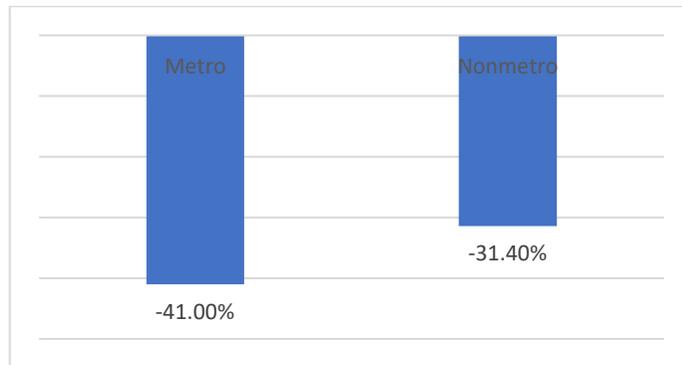
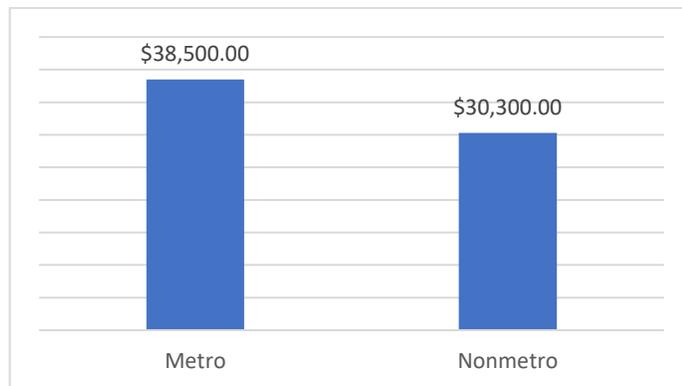


Figure 2. Average per Small Business Loan Amounts for Metropolitan and Nonmetropolitan (2005-2010).



The research question, however, is not concerned with which types of counties got larger small business lending, or which suffered the greatest declines in small business lending, but rather, are the effects of these changes more discernable for nonmetropolitan counties? The results for this question are presented in Tables 2 and 3. In the analysis, we regress three measures of socioeconomic development on measures of consistency in small business lending, changes in small business lending,

⁹ Significant differences were established with difference of means t-tests.

and controls for all counties in the contiguous 48 states. The data in Table 2 show the base line linear effects of small business lending measures on the three measures of county level socioeconomic development for all counties. These results show that there are no systematic effects of small business lending, net of other controls. The change in loans from 2005-2010 has no effect on median family income, income inequality, nor the poverty rate. The average per loan value for the 2005-2010 time period has an unexpected negative effect on median family income and a positive effect on the poverty rate. These findings are inconsistent with the general expectations of the Community Capitals and Civic Society frameworks.

Other variables from the Community Capitals framework have anticipated effects, but they are mostly limited to median family income. The civic engagement index has a positive effect on median family income, as does the percent of adherents in civically engaged congregations. Percent black and net migration have anticipated demographic effects. Counties with a higher percentage black population have, on average, lower median incomes and higher levels of income inequality and poverty. The most consistent effect is for percent of population that has greater than a high school diploma. Counties with higher educated populations have lower levels of poverty, income inequality, and higher levels of median family income.

The interaction effect models are presented in Table 3. These are the direct tests of the hypothesis that small business lending affected socioeconomic development in nonmetropolitan counties more significantly, given the dependence of nonmetropolitan counties on a strong small business sector. These models examine the effects of consistency in small business lending and changes in small business lending, allowing for the effects to vary by metropolitan vs. nonmetropolitan counties. These results show that the change in small business lending between 2005 and 2010 has no net effect on any of the measures of socioeconomic development in nonmetropolitan counties. These results are not predicted by the hypothesis that small business lending was more important for businesses in nonmetropolitan counties. Moreover, these data show that in metropolitan counties the change in small business spending increases median family income and decreases income inequality. A one percent increase in small business lending between 2005 and 2010 predicts a \$50 increase in metropolitan median county income.

Net of these effects the findings for the consistency in small business lending fit better with our expectations. These data show that this type of spending increased median family income and reduced poverty in nonmetropolitan counties. For each additional \$1,000 per small business lending, the median family income in nonmetropolitan counties is predicted to increase by \$148. These interactions also indicate a negative effect of small business lending consistency in metropolitan counties on median family income, and a positive effect on poverty. We will address possible explanations for these findings in the discussion. These relationships are depicted in Figures 3 and 4.¹⁰

¹⁰ We also examined the interactions between consistency in small business lending and change in small business lending separately. The results were very similar. We decided to include both measures in the same model since small businesses experienced both change and consistency in lending simultaneously.

Table 2: *Base Level Regression Models Small Business Lending (n=3114)*

	2010			2010			2010		
	Md Fam Income		***	Gini Coeff		***	Poverty Rate		***
	b	se		b	se		b	se	
Intercept	-35386	4276	***	0.545	0.009	***	50.98	1.067	***
Average \$ per Loan	-138.9	21.1	***	0.00008	0.00004		0.022	0.005	***
Change in Loans	13.48	9.26		-0.008	0.0002	***	-0.001	0.002	
Pct Hispanic 2010	121.32	20.97	***	0.0004	0.000004	***	-0.009	0.005	
Pct Black 2010	-107.7	20.16	***	0.0006	0.00004	***	0.0865	0.005	***
Total Net Migration 2000-2010	1.98	1.18		-0.0004	0.000004	***	-0.004	0.0002	***
Civic Index 2010	4205.1	646.9	***	0.021	0.001	***	0.184	0.161	
Pop Density 2010	0.72	8.6		3.00E-04	3.00E-04		0.013	0.0002	***
Pct Manufacturing 2010	35.05	28.03		0.0005	0.00006	***	0.031	0.007	***
Church	6.62	1.59	***	0.0003	0.00003	***	-0.0007	0.0004	
Pct GT HS	1164.3	53.91	***	-0.0022	0.00001	***	-0.535	0.013	***
Farm County (ERS)	-3608.3	1879.5		-0.012	0.004	**	-0.241	0.469	
Mining County (ERS)	-532.4	2213		-	0.005		0.178	0.552	
Metropolitan County (2003)	12712	691	***	0.0038	0.001	*	-2.29	0.172	***
*p<=.05;			**p<=.01;	RSQ=0.42			RSQ=0.665		
***p<=.001			RSQ=.47						

Table 3: Interaction Models for Small Business Lending (n=3114)

	2010			2010			2010		
	Md Fam Income		***	Gini Coeff		***	Poverty Rate		***
	b	se		b	se		b	se	
Intercept	-34859	4255	***	0.5497	0.0097	***	50.74	1.068	***
Average \$ per Loan	148.83	41.71	***	0.0002	0.0001		-0.029	0.01	**
Change in Loans	-8.36	11.51		-0.00003	0.00002		0.0002	0.002	
Pct Hispanic 2010	104.67	20.91	***	0.0004	0.00004	***	-0.006	0.005	
Pct Black 2010	-100.54	20.16	***	0.0006	0.00004	***	0.083	0.005	***
Total Net Migration 2005-2010	1.2443	1.17		-0.00004	2E-06	***	-0.004	0.0002	***
Civic Index 2010	4343.75	640.8	***	0.021	0.001	***	0.151	0.161	
Pop Density 2010	0.0009	0.008		2.00E-04	2.00E-04		0.0139	0.002	***
Pct Manufacturing 2010	37.46	27.87		0.0004	1E-06	***	0.032	0.007	***
Pct Civic Churches 2010	7.03	1.57	***	0.00003	1E-06	***	-7E-04	0.0003	*
Pct GT HS 2010	1148.23	53.47	***	-0.002	0.0001	***	-0.531	0.013	***
Farm County (ERS)	-1725.63	1874.1		-0.011	0.004	**	-0.585	0.471	
Mining County (ERS)	224.27	2191.2		0.0002	0.005		0.036	0.549	
Metro by Average \$ per Loan	-366.96	45.84	***	-0.00001	0.00001		0.066	0.011	***
Metro by Change in Loan	50.22	18.8	**	-0.0001	0.00004	***	-0.002	0.004	
Metropolitan (2003)	13781	696	***	0.003	0.001	*	-2.45	0.174	***
	*p<=.05; **p<=.01; ***p<=.001			RSQ=.429			RSQ=0.669		

Figure 3. The Effects of Average Small Business Loan Amounts (2005-2010) on 2010 Median Family Income: Metropolitan and Nonmetropolitan Counties.

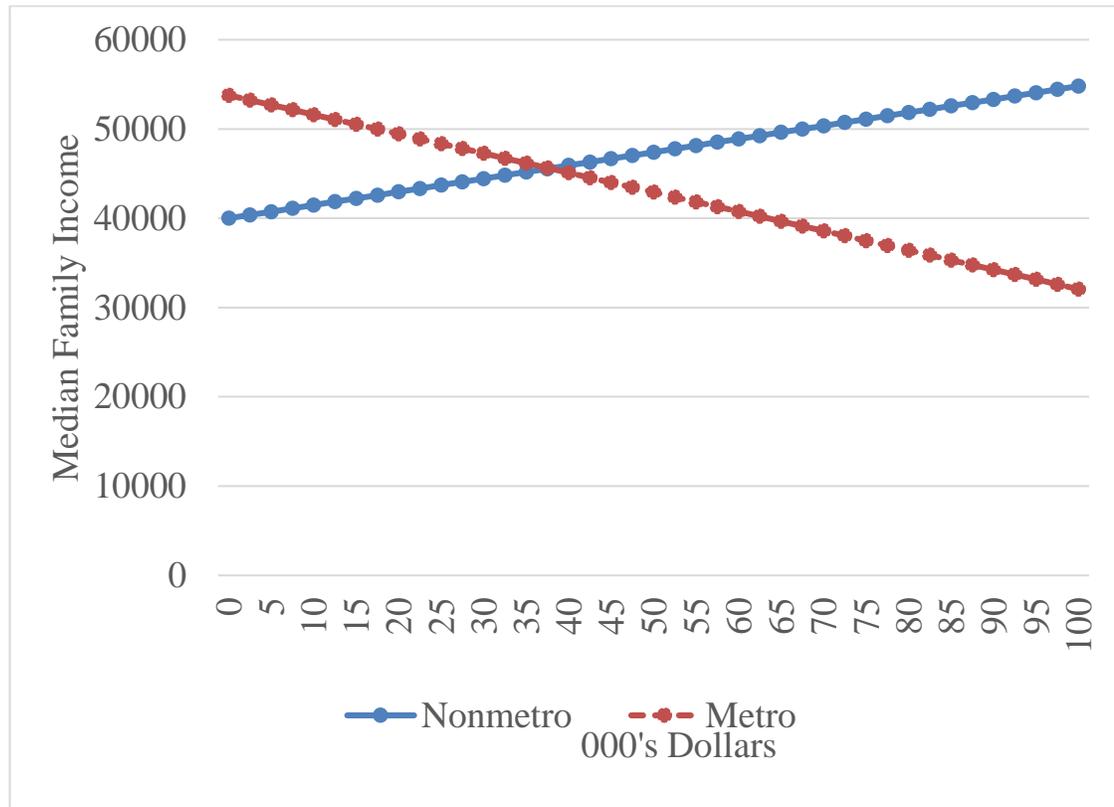
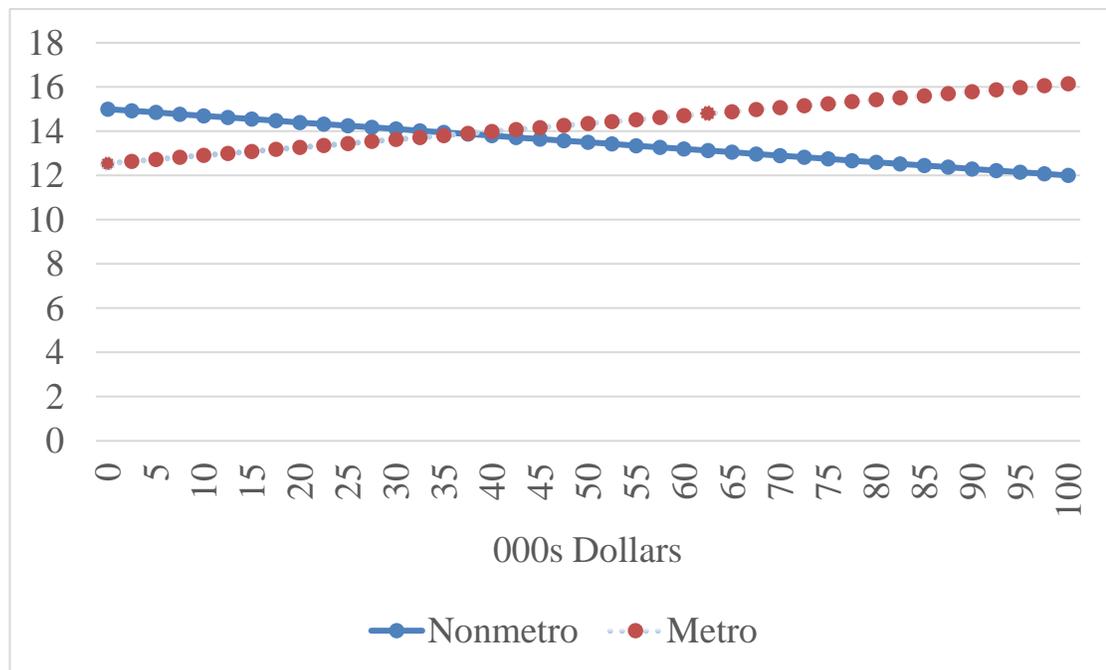


Figure 4. The Effects of Average Small Business Loan Amounts (2005-2010) on 2010 Poverty Rates: Metropolitan and Nonmetropolitan Counties.



5.0 Discussion

In this paper, we examined the effects of two measures of small business lending on the socioeconomic development of U.S. counties during the Great Recession: consistency in small business lending across the Great Recession and change in small business lending. Based on previous literature which indicates that nonmetropolitan communities thrive when they have a strong small business sector, and other research which shows that nonmetropolitan small business owners rely more specifically on bank lending (Mencken and Tolbert 2016; 2018a), we provided a hypothesis that small business lending would have a greater impact in nonmetropolitan counties. Our analysis for small business lending consistency supports the hypothesis that small business lending is important for county socioeconomic development, but the findings are not uniform across all measures. Consistent small business lending is positively associated with county median family income growth in nonmetropolitan counties. Small business lending consistency is negatively associated with 2010 county poverty rates.

The Great Recession was caused by a crisis in the financial sector, primarily around investments in mortgages. The data presented in Figures 1 and 2 show that the downstream effects of the crisis manifested in significant reductions in small business lending in both metropolitan and nonmetropolitan counties. Our analysis predicted more detrimental effects of the crisis for nonmetropolitan counties but finds that both county types suffered from a change in capital access. What is important to note about our findings is that it is not the change in small business lending that really matters but the consistency in access to capital. This has important financial policy implications for nonmetropolitan economies. During the TARP bailout of the Great Recession funds were provided for a myriad of revenue supports. Our analysis indicates that during future recessions the small business sectors of nonmetropolitan communities will help to create socioeconomic stability so long as they can have consistent access to funds that keep their businesses operating. Consistent access to financial capital is the key to sustaining nonmetropolitan communities during crises.

One unexpected finding from our results is that the consistency in small business lending has estimated detrimental effects to median family income and poverty rates in metropolitan counties. One possible reason is that metropolitan economies draw their well-being from large, corporate firms and establishments. There is a school of thought that small and medium-sized firms are more flexible and thus create greater economic growth under global capitalism (see Memili, Fang, Chrisman, & De Massis, 2015). It appears, however, that conventional theory about the scale and level of productivity in large firms—and the multiplier benefits to the communities in which they are located—may hold sway (see Idson & Oi, 1999). Those metropolitan counties that are more small business dependent did not do as well as their large firm dependent counterparts. Although it is important to note that, on average, metropolitan counties outperformed nonmetropolitan counties on all measures.

A second explanation for this inconsistent finding could be the nature of the Community Reinvestment Act (Fishbein, 1993; Abramowitz, 1993; Mencken & Tolbert, 2018b). Much of the focus of the CRA was to eliminate the practice of “redlining” in which geographic units became “credit deserts” due to a cluster of circumstances deemed “high risk.” These were typically inner-city poor

neighborhoods with high concentrations of minority populations (Ross & Tootell, 2004; Squires, 2011). Urban-based policy in which banks were required to submit evidence that they are providing loans into previously “redlined” neighborhoods. It may be that metropolitan small business lending dollars are going into areas in such counties that are structurally far behind their other urban counterparts (Friedman & Squires, 2005; Johnson & Sarkar, 1996). Future research at the sub-county level in metropolitan communities is needed to confirm this conclusion.

Previous research has documented the drop in small business lending during the Great Recession. We noted in the introduction that between 2007 and 2012, the total value of bank loans to small businesses declined by \$40 billion, and the number of direct loans to small businesses from commercial banks declined by 22% (Duygan-Bump et al., 2015). Our analysis examined the direct and conditional effects of small business lending changes during the 2005-2010 period on county measures of well-being. We found that the marginal effects of the change in small business lending had significant effects on income growth and negative effects on income inequality in metropolitan counties. However, these positive effects should be interpreted with caution as only 6% of metropolitan counties experienced positive small business loan growth during this time period. The average metropolitan county experienced a 41% decrease in small business lending.

The signs of these coefficients should be flipped to get a clear understanding of the impact of the Great Recession. If a one percent increase in small business lending increases median family income by \$50 dollars, on average, then most metropolitan counties experienced a loss of income (94% of metropolitan counties had a negative change in small business lending between 2005 and 2010). Moreover, the average metropolitan county experienced a predicted \$2,050 dollar decline in median family income due to the loss of small business lending. Our analysis indicates that those studies which focus on the change in small business lending (Duygan-Bump et al., 2015; Montoriol-Garriga & Wang, 2011) are missing the true detrimental effect of the Great Recession in nonmetropolitan economies: the sustained/consistent level of small business lending. The more lending stability across time, the better nonmetropolitan counties fared during the Great Recession.

Recent research on the effects of financial restructuring in nonmetropolitan counties has used percent of county banks “locally owned” as a proxy measure for small business lending (Tolbert et al., 2014; Carpenter et al., 2020; Mencken & Tolbert, 2018a). That is, the bank headquarters was either in the county or in the Commuter Zone (aggregate of counties) under investigation. Our analysis improves on this previous model by examining the effects of direct small business lending to businesses within the county. Moreover, our results raise the question about loan sourcing. It is not the change in lending that affected county development in our study, but the consistency of lending to small businesses. If local banks are replaced by absentee owned firms, can local businesses still get consistent loans? Additionally, did this transformation really damage the local economy so long as local businesses had continuity in their capital streams? This is a question for future analysis.

Our research makes a unique contribution to the Community Capitals framework in two important ways. First, it extends this tradition empirically by integrating financial capital into a model which predicts county socioeconomic development, while controlling for other forms of community capital. Until recently, empirical tests on the role of local finances in nonmetropolitan communities have been lacking

from this framework (Flora et al., 2015). Much of the previous work was 30 years old (Green, 1984; 1986; 1987). Our ongoing work continues to update this literature. We show that consistency in access to this capital helped to create family income growth and poverty reduction in nonmetropolitan counties during the Great Recession. Secondly, our analysis shows that small business lending did not affect socioeconomic development in metropolitan counties. The underlying assumption of the Community Capitals and Civic Society frameworks is that these are rural community-based models, but there are no explicit restrictions for understanding socioeconomic processes in metropolitan economies. Our analysis indicates that the effects of access to small business capital vary by metropolitan/nonmetropolitan context.

References

- Abromowitz, D. M. (1993). Economic development and the Community Reinvestment Act. *ABA Journal of Affordable Housing and Community Development Law* 2(3), 8–10.
- Agnitsch, K., Flora, J., & Ryan, V. (2006). Bonding and bridging social capital: The interactive effects on community action. *Community Development*, 37(1), 36–51. <https://doi.org/10.1080/15575330609490153>
- Berger, A. N., & Black, L. K. (2011). Bank size, lending technologies, and small business finance. *Journal of Banking and Finance*, 35(3), 724–735.
- Berger, A. N., Demsetz, R. S., & Strahan, P. E. (1999). The consolidation of the financial services industry: Causes, consequences, and implications for the future. *Journal of Banking and Finance*, 23(2-4), 135–194.
- Berger, A. N., Miller, N. H., Petersen, M. A., Rajan, R. G., & Stein, J. C. (2005). Does function follow organizational form? Evidence from the lending practices of large and small banks. *Journal of Financial Economics*, 76(2), 237–269.
- Berger, A. N., & Udell, G. F. (2002). Small business credit availability and relationship lending: The importance of bank organisational structure. *The Economic Journal*, 112(477), F32–F53.
- Berger, A. N., & Udell, G. F. (1996). Universal banking and the future of small business lending. In A. Saunders, & I. Walter (Eds.), *Financial system design: The case for universal banking* (pp. 559–627). Burr Ridge, IL: Irwin Publishing.
- Berger, A. N., & Udell, G. F. (1995). Relationship lending and lines of credit in small firm finance. *Journal of Business*, 68(3), 351–382.
- Besser, T. L., & Miller, N. J. (2013a). Community matters: Successful entrepreneurship in remote rural locations. *The International Journal of Entrepreneurship and Innovation*, 14(1), 15–27. <https://doi.org/10.5367%2Fijej.2013.0104>
- Besser, T. L., & Miller, N. J. (2013b). Social capital, local businesses, and amenities in U.S. rural prairie communities. *Journal of Rural Studies*, 32, 186–195. <https://doi.org/10.1016/j.jrurstud.2013.06.004>

- Blanchard, T., Tolbert, C., & Mencken, F. C. (2012). The health and wealth of U.S. counties: How the small business environment impacts alternative measures of development. *Cambridge Journal of Regions, Economy and Society*, 5(1), 149–162. DOI: 10.1093/cjres/rsr034
- Blanchard, T., & Matthews, T. L. (2006). The configuration of local economic power and civic participation in the global economy. *Social Forces*, 84(4), 2241–2257. <https://doi.org/10.1353/sof.2006.0080>
- Boot, A. W. A. (2011). Banking at the crossroads: How to deal with marketability and complexity? *Review of Development Finance* 1(3-4), 167–183. <https://doi.org/10.1016/j.rdf.2011.09.003>
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of the theory and research for the sociology of education* (pp. 241–255). New York, NY: Greenwood.
- Boustanifar, H. (2014). Finance and Employment: Evidence from U.S. banking reforms. *Journal of Banking and Finance* 46(C), 343–354. DOI: 10.1016/j.jbankfin.2014.06.006
- Carpenter, C. W., Mencken, F. C., Tolbert, C. M., & Lotspeich, M. (2020). Locally owned bank concentration and business start-ups and closures in U.S. metropolitan, micropolitan and rural counties from 1980-2010. *The Review of Regional Studies*, 50(1), 17–42.
- Collender, R. N., & Frizell, J. A. (2002) Small commercial banks and the federal home loan bank system. *International Regional Science Review*, 25(3), 279–303.
- Collender, R. N., & Shaffer, S. (2009). Banking structure and employment growth. *Applied Economics*, 41(19: Special Theme: The Applied Economics of Employment), 2403–2417. <https://doi.org/10.1080/00036840801998607>
- Collender, R. N., & Shaffer, S. (2003). Local bank office ownership, deposit control, market structure, and economic growth. *Journal of Banking and Finance*, 27(1), 27–57. [https://doi.org/10.1016/S0378-4266\(01\)00207-2](https://doi.org/10.1016/S0378-4266(01)00207-2)
- DeYoung, R., Glennon, D., & Nigro, P. (2008). Borrower-lender distance, credit scoring, and loan performance: Evidence from informational-opaque small business borrowers. *Journal of Financial Intermediation*, 17(1), 113–143. <https://doi.org/10.1016/j.jfi.2007.07.002>
- Devaney, M., & Weber, B. (1995). Local characteristics, contestability, and the dynamic structure of rural banking: A market study. *The Quarterly Review of Economics and Finance*, 35(3), 271–287. [https://doi.org/10.1016/1062-9769\(95\)90069-1](https://doi.org/10.1016/1062-9769(95)90069-1)
- Dudley, K. M. (1996). The problem of community in rural America. *The Journal of Community and Culture*, 18(2), 47–57. <https://doi.org/10.1525/cag.1996.18.2.47>
- Duygan-Bump, B., Levkov, A., & Montoriol-Garriga, J. (2015). Financing constraints and unemployment: Evidence from the Great Recession. *Journal of Monetary Economics*, 75, 89–105. <https://doi.org/10.1016/j.jmoneco.2014.12.011>

- Fishbein, A. J. (1993). The community reinvestment Act after fifteen years: It works, but strengthened federal enforcement is needed. *Fordham Urban Law Journal* 20(2), 293–310.
- Fitchen, J. M. (1991). *Endangered spaces, enduring places: Change, identity, and survival in rural America*. Boulder, CO: Westview Press.
- Flora, C. B., Flora, J. L., & Gasteyer, S. P. (2015). *Rural communities: Legacy and change*. (4th ed.) Westview Press.
- Friedman, S., & Squires, G. (2005). Does the Community Reinvestment Act help minorities access traditionally inaccessible neighborhoods? *Social Problems*, 52, 209–231. <https://doi.org/10.1525/sp.2005.52.2.209>
- Gilbert, R., A., & Wheelock, D. C. (2013). Big banks in small places: Are community banks being driven out of rural markets? *Federal Reserve Bank of St. Louis Review*, 95(3), 199–218.
- Ginder, R. G., Stone, K., & Otto, D. (1985). Impact of the farm financial crisis on agribusiness firms and rural communities. *American Journal of Agricultural Economics*, 67(5), 1184–1190. <https://doi.org/10.2307/1241397>
- Green, G. P. (1984). Credit and agriculture: Some consequences of the centralization of the banking system. *Rural Sociology*, 49(4), 568–579.
- Green, G. P. (1986). Capital flows in rural areas: An analysis of the impact of banking centralization on lending policies. *Social Science Quarterly*, 67, 366–378.
- Green, G. P. (1987). *Finance capital and uneven development*. Boulder, CO: Westview Press.
- Guptill, A., & Welsh, R. (2014). The declining idle of American agriculture: A spatial phenomenon. In C. Bailey, L. Jensen, & E. Ransom (Eds), *Rural America in a globalizing world: Problems and prospects for the 2010s - Rural Studies Series* (pp. 36–50). West Virginia University Press.
- Idson, T. L., & Oi, W. Y. (1999). Workers are more productive in large firms. *American Economic Review*, 89, 104–108. DOI: 10.1257/aer.89.2.104
- Irwin M. D., Tolbert, C. M., & Lyson, T. A. (1999). There's no place like home: Nonmigration and civic engagement. *Environment and Planning A: Economy and Space*, 31(12), 2223–2238. <https://doi.org/10.1068%2Fa312223>
- Johnson, S. A., & Sarkar, S. K. (1996). The valuation effects of the 1977 Community Reinvestment Act and its enforcement. *Journal of Banking & Finance*, 20(5), 783–803. [https://doi.org/10.1016/0378-4266\(96\)00007-6](https://doi.org/10.1016/0378-4266(96)00007-6)
- Kiser, E. K., Prager, R. A., & Scott, J. R. (2016). Supervisory ratings and bank lending to small businesses during the financial crisis and Great Recession. *Journal of Financial Services Research*, 50, 163–186.
- Lee, M. R., & Thomas, S. A. (2010). Civic community, population change, and violent crime in rural communities. *Journal of Research in Crime and Delinquency*, 47(1), 118–147. <https://doi.org/10.1177%2F0022427809348907>
- Lee, M. R., & Berthelot, E. R. (2010). Community covariates of malnutrition based mortality among older adults. *Annals of Epidemiology*, 20(5), 371–379. <https://doi.org/10.1016/j.annepidem.2010.01.008>

- Lobao, L., & Meyer, K. (2001). The great agricultural transition: Crisis, change and social consequences of twentieth century US farming. *Annual Review of Sociology*, 27, 103–214. <https://doi.org/10.1146/annurev.soc.27.1.103>
- Lyson, T. A. (2004). *Civic agriculture: Reconnecting farm, food, and community*. Tufts University Press.
- Lyson, T. A., & Tolbert, C. M. (2004). Civil society, civic communities, and rural development. In D. Brown, & L. Swanson (Eds.), *Challenges for rural America in the twenty-first century* (pp. 228–241). The Pennsylvania State University Press.
- Lyson, T. A., & Tolbert, C. M. (1996). Small manufacturing and nonmetropolitan socioeconomic well-being. *Environment and Planning A: Economy and Space*, 28(10), 1779–1794. <https://doi.org/10.1068%2Fa281779>
- Lyson, T. A., Torres, R., & Welsh R. (2001). Scale of agricultural production, civic engagement, and community welfare. *Social Forces*, 80(1), 311–327. <https://doi.org/10.1353/sof.2001.0079>
- Massengill, R. P. (2013). *Walmart Wars: Moral Populism in the Twenty-First Century*. NYU Press.
- Memili, E. H. Fang, J.J. Chrisman and A. De Massis (2015). The impact of small and medium sized family firms on economic growth. *Small Business Economics*, 45(4), 771-785. <https://doi.org/10.1007/s11187.015.9670.0>
- Mencken, F. C., Smith, B., & Tolbert, C. (2020). Self-employment and civic inclination. *Sociological Perspectives*, 63(3), 719–737. <https://doi.org/10.1177%2F0731121419899386>
- Mencken, F. C., & Tolbert, C. (2018a). Locally owned bank concentration and bank loans for nonmetropolitan business start-ups and expansions: A multilevel analysis from the 2007 survey of business owners. *Rural Sociology*, 83(2), 376–401.
- Mencken, F. C., & Tolbert, C. (2018b). Small business lending and economic development in Texas counties: A test with community reinvestment act data. *Journal of Rural and Community Development*, 13(1), 47–66.
- Mencken, F. C., Bader, C., & Polson, C. (2006). Integrating civil society and economic growth in Appalachia. *Growth and Change*, 37,107–127. <https://doi.org/10.1111/j.1468-2257.2006.00307.x>
- Mitchell, S. (2006). *Big box swindle*. Boston, MA: Beacon Press.
- Montorio-Garriga, J., & Wang, C. (2011). *The Great Recession and bank lending to small businesses* (Working Papers, No. 11-16). Boston, MA: Federal Reserve Bank of Boston.
- Peek, J., & Rosengren, E. (1995). Bank regulation and the credit crunch. *Journal of Banking & Finance*, 19(3-4), 679–692. [https://doi.org/10.1016/0378-4266\(94\)00148-V](https://doi.org/10.1016/0378-4266(94)00148-V)
- Rice, T., & Rose, J. (2016). When good investments go bad: The contraction in community bank lending after the 2008 GSE takeover. *Journal of Financial Intermediation*, 27, 68–88. <https://doi.org/10.1016/j.jfi.2016.02.001>
- Ross, S. L., & Tootell, G. M. B. (2004). Redlining, the Community Reinvestment Act, and private mortgage insurance. *Journal of Urban Economics*, 55(2), 278–297. [https://doi.org/10.1016/S0094-1190\(02\)00508-9](https://doi.org/10.1016/S0094-1190(02)00508-9)

- Rotolo, T., & Wilson, J. (2006). Employment sector and volunteering: The contribution of nonprofit and public sector workers to the volunteer labor force. *The Sociological Quarterly*, 47(1), 21–40.
- Sherman, J. (2017). Rural poverty and symbolic capital: A tale of two valleys. In A. Tickamyer, J. Sherman, & J. Warlick (Eds.), *Rural poverty in the United States* (pp. 205–230). New York, NY: Columbia University Press.
- Sherman, J. (2014). Rural poverty: The Great Recession, rising unemployment, and the under-utilized safety net. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a globalizing world: Problems and prospects for the 2010s - Rural Studies Series* (pp. 525–542). Morgantown, WV: West Virginia University Press.
- Slack, T. (2014). Work in rural America in the era of globalization. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a globalizing world: Problems and prospects for the 2010s - Rural Studies Series* (pp. 573–590). Morgantown, WV: West Virginia University Press.
- Squires, G. D. (2011). *From redlining to reinvestment: Community responses to urban disinvestment*. Philadelphia, PA: Temple University Press.
- Tickamyer, A. R., White, J. A., Tadlock, B. L., & Henderson, D. A. (2007). The spatial politics of public policy: Devolution, development, and welfare Reform. In L. Lobao, G. Hooks, & A. Tickamyer (Eds.), *The sociology of spatial inequality* (pp.113–140). Albany, NY: SUNY Press.
- Tolbert, C. M., Irwin, M. D., Lyson, T. A., & Nucci, A. R. (2002). Civic community in small-town America: How civic welfare is influenced by local capitalism and civic engagement. *Rural Sociology*, 67(1), 90–113. <https://doi.org/10.1111/j.1549-0831.2002.tb00095.x>
- Tolbert, C. M., Lyson, T. A., & Irwin, M. D. (1998). Local capitalism, civic engagement, and socioeconomic well-being. *Social Forces*, 77(2), 401–427. <https://doi.org/10.1093/sf/77.2.401>
- Tolbert, C. M., Mencken, F. C., Blanchard, T., & Li, J. (2016). American civic community over space and time. In F. Howell, J. Porter, & S. Matthews (Eds.), *Recapturing space: New middle range theory in spatial demography* (pp. 235–252). Switzerland: Springer International Publishing.
- Tolbert, C. M., Mencken, F. C., Riggs, L., & Li, J. (2014). Restructuring of the financial industry: The disappearance of locally owned traditional financial services in rural America. *Rural Sociology*, 79, 355–379.
- Vias, A. C. (2004). Bigger stores, more stores, or no stores: Paths of retail restructuring in rural America. *Journal of Rural Studies*, 20(3), 303–318. <https://doi.org/10.1016/j.jrurstud.2003.10.003>
- Walzer, N., A. Athiyaman & G. Hamm. (2007). Entrepreneurship and small business growth. In N. Walzer (Ed) *Entrepreneurship and local economic growth*. (pp. 81-102). United Kingdom: Lexington Books.
- Wiersch, A. M., & Shane, S. (2013). *Why small business lending isn't what it used to be* (Number 2310 ISSN 0428-1276). Economic Commentary. Cleveland, OH: Federal Reserve Bank of Cleveland.
- Wilson, J., & Musick, M. A. (1997). Work and volunteering: The long arm of the job. *Social Forces*, 76(1), 251–72. <https://doi.org/10.1093/sf/76.1.251>