Building a Better Community?:
The Role of Banks and Voluntary Associations

By

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Abstract

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This dissertation examines how commercial banks and voluntary associations affect employment in residential communities. The first chapter investigates how the presence of certain types of banks affects employment in residential communities. By providing financial resources to businesses, banks are spurring entrepreneurship and creating jobs. But locally-owned and absentee-owned banks differ in both their lending practices and their dependence on the communities where they operate. Moreover, the effect of banks on community employment is contingent what kinds of businesses exist in those communities. Empirical analysis of every community in the contiguous United States from 1994 to 2007 show that locally-owned banks that have at least one branch in another community contribute the most to local employment growth, while the contribution of absentee-owned banks to employment growth depends on the number of businesses with high levels of tangible assets relative to total assets, and the contribution of locally-owned banks that have all their branches in the focal community to employment growth varies with the number of businesses with low levels of tangible assets relative to total assets. Robustness checks validate these findings.

The second chapter investigates how different types of voluntary associations affect the ability of communities to spur the creation of new organizations and to support existing businesses. Voluntary associations allow people with common interests to come together in a non-competitive environment. But voluntary associations vary in the extent to which they facilitate demographic diversity in their members' social networks and the degree to which their members participate in association activities. Empirical analysis of every community in the contiguous United States from 1994 to 2007 show that professional, political and social advocacy associations contribute to increases in the number of establishments, while business, civic and social, and religious associations, and labor unions either decrease or do not affect the number of establishments in communities. The same pattern of results was found when examining the affect of voluntary associations on foundings of locally-owned banks that have all their branches in the focal community. Moreover, in support of the vital role played by these banks, results show that increased presence of these banks results accentuates the effect of voluntary associations that increase the number of establishments in communities and attenuates the effect of voluntary associations that decrease or have no affect on the number of establishments in communities. Robustness checks validate these findings.

This dissertation is dedicated to my family and friends.
I would not have made it this far without your support.

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1. How Commercial Banks Affect Community Employment Growth

Introduction

It is often taken for granted that organizations affect the communities in which they reside. Organizations are an important component of all modern social systems (Coleman, 1982). For example, Detroit's economic prosperity is tightly linked with the fate of the automobile sector since it is home to three large U.S. auto makers, entrepreneurial activity in Boston's biotechnology sector is actively nurtured by the universities in the area, and the public services offered to New York City residents is made possible in large part by the disproportionately high share of taxes paid by Wall Street firms.

The issue of how organizations affect society was once at the forefront of organizational research. Much of this work examined how the power structure of communities, as determined by the number and type of organizations present, affected community welfare (e.g. Fowler, 1958; Mills and Ulmer, [1946]1970; Mott, 1970; Pellegrin and Coates, 1956). However, in recent years, the issue of how organizations affect society has largely been ignored by organizational theorists (Stern and Barley, 1996). The limited recent research on this topic primarily focuses on a single organizational population, such as how chemical plants affect pollution (Grant, Jones and Trautner, 2004), how manufacturing firms contribute to civic welfare (Lyson, 2006; Young and Lyson, 1993) or, reduce crime (Lee and Ousey, 2001), or how non-profit organizations facilitate collective action (Sampson, McAdam, MacIndoe and Weffer-Elizondo, 2005). But to my knowledge no one has yet analyzed how multiple organizational populations affect community outcomes.

In contrast, there is a large body of literature exploring how organizational populations affect one another (for a review see Freeman and Audia, 2006). Organizational populations are linked by ties of commensalism and symbiosis (Hawley, 1950). Organizational populations that depend on different sets of resources and that cooperate with each other because of mutual interdependencies are symbiotic. Organizational populations that depend on similar resources are commensalistic. While symbiotic relationships generally result in cooperation, commensalistic relationships can result in either cooperation or competition (Aldrich and Ruef, 2006).

Although past research on interactions among multiple organizational populations treats residential communities as merely empirical settings, it suggests that interdependencies between organizational populations, both symbiotic and commensalistic, should affect community-level outcomes. For example, the founding rate of biotech firms is positively related to the number of universities in the area that have biotech programs (Stuart and Sorenson, 2003). Therefore, a residential community that contains both biotech firms and universities with biotech departments is likely to experience greater increases in employment than a residential community with only biotech firms. Analogously, residential communities in Iowa that contained both commercial and mutual telephone companies were more likely to have long-distance phone service than residential communities that had only one type of telephone company (Barnett and Carroll, 1987).

To study the effects of multiple organizational populations on residential communities, I focus on one important community-level outcome: employment growth. Employment growth benefits residential communities in three ways: by making it easier for employers to find the exact type of employees they need, which leads to increased productivity (Helsley and Strange,

1990), by increasing disposable income, thereby boosting retail sales, and by increasing tax revenues. Decreases in employment not only have the opposite effect, but also place a heavy strain on the local government due to increased reliance on social services at a time when tax revenues are decreasing (Bluestone and Harrison, 1982). Therefore, all else held equal, growing residential communities offer greater opportunities for existing organizations and are also more attractive places to start new businesses than residential communities that are either experiencing stagnant or negative growth.

Employment growth occurs when more existing businesses are adding employees than reducing employees, and more businesses are being founded than are failing. An important requirement in order for either of these to occur is the availability of financial resources. I focus on one source of capital: commercial banks. While the largest firms typically have alternative means of securing capital (Davis and Mizruchi, 1999), commercial banks are an important source of capital for small and medium-sized firms (Berger and Udell, 1998). Moreover, small businesses are "bountiful" (Granovetter, 1984), with over 99% of private-sector firms and establishments having 500 employees or fewer. As a result, these businesses and the banks that provide them with capital are crucial in facilitating employment growth.

But commercial banks differ in many ways, most importantly in terms of ownership. Locally-owned and absentee-owned banks use different lending procedures (Cole, Goldberg and White, 2004) and vary on how dependent they are on the community. These factors affect bank lending activity and the type of businesses to which each bank is likely to lend. As a result, the effect of banks on community employment varies by bank type and the presence of certain types of businesses in the community.

I study how the effect of commercial banks on employment growth in residential communities varies by bank type (absentee and locally-owned) and how it is moderated by the ecology of existing businesses in these communities. I find that, in aggregate, locally-owned banks that have at least one branch outside the community (i.e. locally-headquartered banks) contribute most to *increases* in employment. But, taking community organizational ecology into consideration provides a more nuanced look at this relationship. Although the effect of locally-headquartered banks on employment is not affected by community organizational ecology, only absentee-owned banks contribute to *increases* in employment as the number of local businesses with high levels of tangible assets relative to total assets increases. Conversely, only locally-owned banks that have all of their branches in the focal community (i.e. purely local banks) contribute to *increases* in employment as the number of businesses with low levels of tangible assets relative to total assets increases. These findings support the idea that multiple organizational populations influence one another in geographic space and jointly affect community-level outcomes.

Theory Development

Banks affect employment growth by lending depositors' surplus funds, thereby increasing the amount of capital available to underwrite economic activity. These funds are made available to borrowers who are likely to generate the highest rates of return. Lending to businesses, both small and large, contributes to employment growth in communities. Over 75% of businesses with fewer than 500 employees obtained credit from a commercial bank that was fewer than 25 miles away from their headquarters (Kwast, Starr-McCluster, and Wolken, 1997). In addition, after taking into account employment resulting from firm births, deaths, expansions,

and contractions, these businesses accounted for 93% of the net jobs added between 1989 and 2005 (United States Small Business Administration, 2006).

Although larger businesses may not create as many jobs directly, they often have multiplier effects on community employment. This is because larger businesses are more likely to produce goods and services intended for export to other communities, both nationally and internationally, than small businesses (Javalgi, White, and Lee, 2000). As exports increase, export-oriented employment also increases, resulting in an increase the amount of disposable income that can be spent within the communities. Since this increased spending is by community residents, it contributes to employment increases in non-export oriented sectors within the communities. A study of employment in the St. Louis metropolitan area found that for every 100 jobs created by export-oriented firms another 12 to 49 jobs were created in local firms (Hirsch, 1959).

But, not all commercial banks contribute equally to increasing employment in residential communities. Locally-owned and absentee-owned banks differ in the type of information they are able to obtain on potential borrowers and how they process that information, both of which contribute to differences in lending activity (Berger, Miller, Petersen, Rajan and Stein, 2005; Cole et al., 2004). In addition, the extent to which banks are dependent on a geographic area affects its lending activity. Furthermore, for banks to increase employment, their lending should correspond to the needs of organizations in the local communities. In other words, banks that provide the most benefits to local communities are those that are symbiotic with the businesses within the community.

Variation Among Banks: Local vs. Absentee Ownership

Locally-owned and absentee-owned banks behave differently and thereby affect communities in different ways. One important difference is how they process information. Given that they have multiple branches in different geographic areas, absentee-owned banks typically use standardized procedures when evaluating loans (Cole et al., 2004). Ensuring that all loan officers evaluate loans in the same manner increases efficiency (Chandler, 1977), facilitates supervision by top management and reduces agency problems. In contrast, locally-owned banks are better able to monitor the behavior of their loan officers due to their centralized structures, in which all decisions are approved by local bank managers (Stein, 2002).

The type of information available when making loan decisions also differs between locally-owned and absentee-owned banks. Bankers at locally-owned institutions are more likely to have private information about potential borrowers than bankers at absentee-owned institutions. Private information is qualitative in nature and typically cannot be obtained by using public sources; instead, it must be voluntarily transferred from one person to another (Uzzi, 1999). In most cases, this information is also personal in nature and is only transferred between people who are directly connected to one another. Executives of locally-owned banks, compared to executives at absentee-owned banks, are more deeply embedded in their communities, often serving as trustees or board members for local non-profits and civic organizations (Hunter, 1953; Kimbrough, 1958). Therefore, they are more likely to be connected directly to local business owners, managers and entrepreneurs. When such direct ties do not exist, the next best source of information is a “trusted informant” (Granovetter, 1985: 490). Bankers at locally-owned banks are also more likely than bankers at absentee-owned banks to get “semi-private” information by

having direct relationships with people who, in turn, are directly connected to potential borrowers. Semi-private information is identical to private information in terms of content, but obtained by a "trusted informant" rather than directly. Collectively, these ties to local actors facilitate bankers' ability to obtain private information (Reagans and McEvily, 2003), which can subsequently be used to help assess borrower creditworthiness when quantitative public information, such as credit scores, audited financial statements, and assets, are unavailable or incomplete. Given that the qualitative nature of private information makes it difficult to transfer to others, it is likely to be used most effectively when lending decisions are made by a single person, which is more common in locally-owned banks rather than absentee-owned banks (Brickley, Linck and Smith, 2003). In summary, bankers at locally-owned banks are more likely than bankers at absentee-owned banks to have access to and use private information about potential borrowers.

Differences Among Locally-owned Banks

By definition, a locally-owned bank is one that has its headquarters in the focal community. Such organizations are vested in their home communities because they are dependent on the community for resources, such as land, labor and capital. Research has shown that this dependence makes these organizations less likely than absentee-owned organizations to relocate to another community (Romo and Schwartz, 1995). It also increases the overall level of engagement between the organization and its home community (Laumann, Galaskiewicz, and Marsden, 1978; Molotch, 1976). For instance, locally-owned organizations are more likely than absentee-owned organizations to make financial contributions to local charities (Marquis, Glynn and Davis, 2007). In fact, over 70% of a firm's charitable contributions stay within the organization's home community (Galaskiewicz, 1997; Guthrie, 2003; McElroy and Siegfried, 1986). Executives at locally-owned organizations are also more likely to be involved in civic and political affairs than their counterparts at absentee-owned organizations (Galaskiewicz, 1979). There is also some evidence that this home-community bias directly affects how organizations do business: banks that are headquartered in the community lend a greater portion of their deposits to individuals and businesses within the community as compared to absentee-owned banks (Adams, 1994).

But there is great variation among banks that are headquartered in any community. For example, Charlotte, North Carolina is home to seven banks, the largest of which is Bank of America with over $1.4 trillion in assets and over 6000 branches, and the smallest of which is Carolina Premier Bank, which has $91 million in assets and one branch (Federal Deposit Insurance Corporation, 2009). A bank that is headquartered in the community is a locally-owned bank, regardless of whether it has a single branch or branches in communities throughout the country. However, not all locally-owned banks operate in a manner that allows them to obtain and use private information. As mentioned above, bankers that are embedded in the social structure of their communities are best positioned to obtain private information. But these bankers must also be able to incorporate this information into the lending process, which is most likely to occur at banks that have centralized lending operations. Therefore, the banks that are most likely to benefit from private information are locally-owned banks whose bankers are embedded in the community *and* whose lending operations are centralized. These are the banks that are headquartered in the community and *only* have branches in that community. Not only do all of the bankers reside in the community, making it possible for them to obtain private

information, but since all of the bank's branches are located in the same community it is most efficient for them to centralize their lending operations rather than have each branch evaluate loans independently. Compared to these purely local banks, locally-headquartered banks, which are headquartered in the community but have at least one branch outside the community are less likely to be able to obtain and incorporate private information since the people evaluating loans are less likely to be physically near to potential borrowers and these banks are also less likely to have centralized lending operations.

The Effect of Banks on Employment

Whereas purely local banks have an advantage over other banks in obtaining and using private information, locally-headquartered banks and absentee-owned banks have a scale advantage that allows them to allocate their lending resources more efficiently. Generally speaking, the more widespread the bank's branches, the more diversified its loan portfolio. Diversification makes it easier for banks to manage their risk level by giving banks a larger set of potential borrowers (Hughes and Mester, 1998). Therefore, both locally-headquartered banks and absentee-owned banks are able to allocate their lending resources more efficiently since they are able to evaluate borrowers from multiple communities.

The relative advantages of each bank type influence how the banks are likely to affect community employment. Due to their vested interest in the community, banks that are headquartered in the community may be more partial to lending to local businesses than to businesses outside their home community. Therefore, I expect that both purely local banks and locally-headquartered banks will have a bigger effect on community employment than absentee-owned banks. Among the two types of locally-owned banks, I expect locally-headquartered banks to have a bigger effect on employment because they can benefit from scale and may also be able to benefit from private information, whereas purely local banks only benefit from private information.

> *Hypothesis 1: Holding community size constant, locally-headquartered banks will have the largest effect on employment growth, followed by purely local banks, then by absentee-owned banks.*

Note that these hypotheses require me to control for community size. This is necessary because communities with larger populations have more demand for goods and services than communities with smaller populations (Reynolds, 1994). Therefore, larger communities are more attractive for businesses, and more likely to see increases in employment growth. By controlling for community size, I can better isolate the effect of commercial banks on employment.

The Importance of Community Business Demography

While all banks contribute to community employment growth, there is reason to believe that the demography of businesses in the community moderates the relationship between banks and community employment growth. Residential communities vary greatly in their mix of local businesses. In addition, local businesses vary greatly in the community resources (i.e. land, labor, and capital) they require. Since community resources are shared, the way in which businesses

interact with one another affects the availability and quality of these resources (Chinitz, 1961), thereby affecting the ability of existing businesses to grow or new businesses to be created.

Explicitly considering the role of business demography allows for a more nuanced examination of how bank lending activity affects community employment growth. The effect of bank ownership on employment growth should be more pronounced when the type of businesses to which the bank is better suited to lend are prevalent in the community. Based on differences in their lending procedures and their relationship with the community, purely local banks, locally-owned banks and absentee-owned banks prefer to lend to different types of businesses.

One way to examine business demography is to look at the type of assets possessed by businesses. Banks strive to minimize their exposure to risk (Levine, 1997; Santomero, 1997) and can lessen the risk they undertake by asking borrowers to pledge collateral (Lane and Quack, 1999). Businesses' tangible assets are a common source of collateral (Berger and Udell, 2006). Tangible assets can consist of items that are directly related to the products being sold by the business, such as inventory and accounts receivable, or indirectly related to the products being sold, such as equipment or real estate.

In addition to reducing risk, lending to borrowers with tangible assets also lowers bank operating costs. Lending is a costly process due to the resources involved in making the lending decision and, subsequently, monitoring the financial health of the borrower to ensure repayment. The higher the level of perceived risk, the more resources a bank spends on monitoring a borrower (Blackwell and Winters, 1995). Since the costs of handling borrowers that go into default can be quite high, active monitoring of borrowers allows banks to identify potential problems before they arise (American Institute of Banking, 1970). It is easier to monitor tangible assets than intangible assets because tangible assets can typically be uniquely identified via serial numbers or official documents, such as deeds and titles. Therefore, all else equal, I expect that banks will prefer to lend to businesses that have more tangible assets. As such, I expect that the effect of banks on community employment growth will be positively affected by the number of businesses that have high levels of tangible assets relative to total assets. Note that this argument applies to all bank types.

> *Hypothesis 2: Holding community size constant, the beneficial effects of purely local, locally-headquartered and absentee-owned banks on employment growth will be amplified by increases in the number of businesses in the community that have high levels of tangible assets relative to total assets.*

However, not all businesses have tangible assets to use as collateral. New businesses are not likely to have any assets that can be pledged as collateral. But even established businesses may have no tangible assets. For instance, many service-sector firms have no manufacturing equipment, raw materials or inventory. If borrowers have no tangible assets to pledge as collateral, banks must compensate for the increased risk. Private information can be used to lessen bank risk. Since private information is obtained from a trusted source, by using it to supplement the available public information banks can better assess the borrower's creditworthiness. Relying primarily on private information to assess the borrower's creditworthiness is known as relationship lending. Through repeated interactions over time with the borrower and/or others who are connected to the potential borrower, such as suppliers and customers, bankers are able to gather information that can be used to assess the future prospects of the business (Berger and Udell, 1995; Petersen and Rajan, 1994). But relying on private

information may instead increase bank risk. Given the idiosyncratic nature of private information, lending decisions based on it are more susceptible to individual cognitive biases (McNamara and Bromiley, 1997).

Purely local banks have an advantage in relationship lending over locally-headquartered and absentee-owned banks for two reasons. First, by being more deeply embedded in their community, officers/decision-makers at purely local banks are better able obtain private information than their counterparts at other banks. Second, officers/decision-makers at purely local banks are familiar with working autonomously and not following standardized procedures, which makes them more effective than their locally-headquartered or absentee-owned bank counterparts in recognizing relevant private information and assimilating it into their lending decisions. This results in purely local banks having greater absorptive capacity (Cohen and Levinthal, 1990) for private information and greater ability to use private information to lower their risk than locally-headquartered or absentee-owned banks. Therefore, I expect that purely local banks will contribute more to increasing employment growth in communities that have more businesses with low levels of tangible assets relative to total assets than locally-headquartered and absentee-owned banks.

> *Hypothesis 3: Holding community size constant, purely local will have a more beneficial effect on employment growth than locally-headquartered banks or absentee-owned banks as the number of businesses in the community that have low levels of tangible assets relative to total assets increases.*

Research Design

Commercial banking is heavily regulated. As a result, a wealth of information about commercial banks is publicly available. The hypotheses will be tested using data from various United States government agencies and the Standard and Poors Compustat database. All data are for the years 1994-2007. I start my sampling in 1994 because it was a year of relative stability in the financial sector. In 1989, the government enacted legislation to help stem the high rate of failures among savings and loan institutions. This act gave commercial banks the right to purchase savings and loan institutions for the first time. Between 1989 and 1993, the number of savings and loans was reduced by 27% and the number of institutions that merged with commercial banks went from five to 61. By 1994, the number of mergers stabilized and the number of savings and loans that were closed decreased to zero. I end my sampling in the year 2007 because December 2007 was when the United States economy experienced an exogenous shock and entered a recessionary period (National Bureau of Economic Research).

Data Sources

I use data from five sources. The Federal Deposit Insurance Corporation is the government agency that insures deposits in commercial banks and works to preserve public confidence in the banking system. They create an annual Summary of Deposits database that contains basic demographic and asset information for every branch of every commercial bank that they insure. I use this database to obtain the location of the headquarters and branches of

each commercial bank, and the deposits held at each branch. The Bureau of Labor Statistics publishes a Quarterly Census of Employment and Wages report that contains information for each county on the number of business establishments, annual employment and total wages for all industries in each county as grouped using the North American Industrial Classification System (NAICS). They also publish the unemployment rates for each county. The Standard and Poors Compustat Fundamentals Annual database contains financial data on over 30,000 publicly traded firms in North America. I use data from the firms' income and cash flow statements to compute the investment intensity of their respective industries. The United States Census bureau publishes information on latitude and longitude of the center point of each county, which I use to compute distances between the center points of each county pair. Lastly, the Bureau of Economic Analysis publishes population and per-capita income data for each county, which I use as control variables.

Unit of Analysis

To draw the boundaries of local communities, I use labor market areas (LMAs) instead of counties. The U.S. Bureau of Labor Statistics' (2007) defines a LMA as "an economically integrated geographic area within which individuals can reside and find employment within a reasonable distance or can readily change employment without changing their place of residence." Every county in the United States belongs to an LMA. LMAs are more meaningful than counties because they are based on commuting patterns (Tolbert and Killian, 1987). Thus, they correspond more closely to the geographic area where business owners and managers will bank than counties. For example, San Francisco is part of an LMA that contains seven counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Solano) while New York City is part of an LMA that contains nine counties (Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Suffolk and Westchester).

Measures: Dependent Variable

Total private employment (i.e. non-government employment) in the community for the current year (i.e. time t) is the dependent variable in my analysis. This variable is standardized by community population to yield employment per million residents. The additional benefit of standardizing by population is that it helps normalize the distribution. Employment is a common way to measure the economic growth of communities (Dobbs and Hamilton, 2007). By using the employment value for the current year and lagging all other variables, I am able to establish the causal effect on employment based on changes in the independent variables.

Measures: Independent Variables

All of the independent variables are computed for the prior year (i.e. time t-1) and are standardized by community population to yield counts per million residents. For each community, I determine which banks have their headquarters and all branches located in the focal community. I designate these banks as being 'purely local'. By computing the total number of bank headquarters that are purely local and their respective branches, I obtain the *number of*

purely local banks. I designate banks that have their headquarters in the focal community, but have at least one branch outside the focal community as being 'locally-headquartered.' I sum up the total number of bank headquarters that are locally-owned and their branches within the focal community to obtain the *number of locally-headquartered* banks. I sum up the number of branches of commercial banks that are not headquartered in the focal community to obtain the *number of absentee-owned banks*.

I examine business demography by looking at the number and type of establishments in each community. I focus on establishments rather than firms because firms may consist of multiple establishments that cross geographic boundaries, making it nearly impossible to isolate their effect on communities. I aggregate community establishments by the asset intensity of the industry in which they primarily operate. To compute asset intensity at the industry-level, I first compute the amount of a firm's tangible assets for all firms in the Standard and Poors Compustat database. Tangible assets are computed by summing up the amount of real estate, buildings, inventory and equipment reported on the firm's annual balance sheet. I then sum these values by firm-year and divide by the total firm assets to smooth temporal fluctuations and reduce the effect of outliers. Next, I group firms by industry (3-digit NAICS code) and obtain the median for each industry. I use the industry median so that data from large firms do not mask information from small firms (Rajan and Zingales, 1998). I obtain the *number of establishments with high levels of tangible assets relative to total assets* by summing up the number of community establishments in industries that are in the top quartile in terms of tangible assets relative to total assets. Community businesses operating in industries that are in the lowest quartile of tangible assets relative to total assets are summed up to obtain the *number of establishments with low levels of tangible assets relative to total assets*. By using industries in the highest and lowest quartiles in terms of tangible assets relative to total assets, I am able to delineate potential borrowers based on perceived lending risk.

Measures: Control Variables

My analyses include a number of control variables to discount alternative explanations. I control for the effect of past employment by using *total private employment* for the prior year. To better isolate the effect of banks on employment in the private sector, I controlled for two alternatives that may account for changes in private employment. First, I control for the effect of employment from other (i.e. non-private) sources by computing *total government employment* for the prior year. Second, I control for the economic climate within the community by including the *total unemployment* for the prior year. All of these variables were standardized by community population to yield counts per million residents. To address the concern that wealthier communities may have more commercial banks because they are likely to have greater demand for financial services, I use mean *per-capita income* for the current year as a proxy for the wealth of a community.

To account for changes at the national level that may affect the dependent variable (e.g. interest rates, federal policy changes), I use year fixed effects. My dependent variable may also be affected by the geographic position that a given community occupies. Commercial banks in nearby communities may affect employment in the focal community. To control for this spatial interdependence, I include non-local variables weighted by geographic distance (Audia, Freeman and Reynolds, 2006; Hedstrom, 1994). I calculate the geographic distance between the focal

community and all other communities. I use the center point of each community, assign a latitude and longitude to this center point, and then compute the geographic distance from the focal community to all other communities. After obtaining these geographic distances, I created nonlocal variables weighted by geographic distance (NLVW) using the following formula:

$$NLVW_j = \sum_u (\mathrm{V_u}) \times (1/\mathrm{d_{uj}}), \mathrm{u} \neq \mathrm{j}$$

where j is the focal community, u consists of all communities excluding community j, V_u is the variable to be weighted in community u (e.g., number of locally-owned bank branches), and d_{uj} is the geographic distance between community u and community j.

A brief overview of all variables used in the analyses and details on how each is measured can be found in Table 1.1.

Table 1.1: Description of Constructs

Construct	Description
Total private employment (t)	Total number of people employed in the private sector within the focal community. Source: Bureau of Labor Statistics
Total private employment (t-1)	Total number of people employed in the private sector within the focal community. Source: Bureau of Labor Statistics
Government employment (t-1)	Total number of people employed in the public sector within the focal community. Source: Bureau of Labor Statistics
Unemployment (t-1)	Total number of people that file for unemployment within the focal community. Source: Bureau of Labor Statistics
Per-capita income (t-1)	Average per-capita personal income. Calculated as the personal income of the residents of the focal community divided by the population of the community. Source: Bureau of Economic Analysis
Number of banks weighted by geographic distance (t-1)	Used to control for spatial interdependence. Calculated as the product of the number of banks in community *u* and the inverse of the distance between the center points of the focal community (i.e. community *j*) and community *u*, then summed up over all communities ($u \neq j$). Source: Federal Deposit Insurance Corporation and United States Census Bureau
Number of purely local banks weighted by geographic distance (t-1)	Used to control for spatial interdependence. Calculated as the product of the number of purely local banks in community *u* and the inverse of the distance between the center points of the focal community (i.e. community *j*) and community *u*, then summed up over all communities ($u \neq j$). Source: Federal Deposit Insurance Corporation and United States Census Bureau
Number of locally-headquartered banks weighted by geographic distance (t-1)	Used to control for spatial interdependence. Calculated as the product of the number of locally-headquartered banks in community *u* and the inverse of the distance between the center points of the focal community (i.e. community *j*) and community *u*, then summed up over all communities ($u \neq j$). Source: Federal Deposit Insurance Corporation and United States Census Bureau

Number of absentee-owned banks weighted by geographic distance (t-1)	Used to control for spatial interdependence. Calculated as the product of the number of absentee-owned banks in community *u* and the inverse of the distance between the center points of the focal community (i.e. community *j*) and community *u*, then summed up over all communities ($u \neq j$). Source: Federal Deposit Insurance Corporation and United States Census Bureau
Number of purely local banks (t-1)	Number of commercial bank establishments (headquarters and branches) in the focal community that are purely local. A commercial bank is designated as being purely local if its headquarters and all of its branches are located within the focal community. Source: Federal Deposit Insurance Corporation
Number of locally-headquartered banks (t-1)	Number of commercial bank establishments (headquarters and branches) in the focal community that are locally-headquartered. A commercial bank is designated as being locally headquartered if its headquarters are located within the focal community but it has at least one branch outside the focal community. Source: Federal Deposit Insurance Corporation
Number of absentee-owned banks (t-1)	Number of commercial bank establishments (branches) in the focal community that are absentee-owned. Any bank that is not headquartered in the focal community is designated as being absentee-owned. Source: Federal Deposit Insurance Corporation
Number of establishments with high levels of tangible assets relative to total assets (t-1)	Number of establishments in the focal community that are in industries that were computed to be in the top quartile of tangible assets relative to total assets. Tangible assets consist of real estate, buildings, equipment and inventory. Source: Standard and Poors Compustat
Number of establishments with low levels of tangible assets relative to total assets (t-1)	Number of establishments in the focal community that are in industries that were computed to be in the bottom quartile of tangible assets relative to total assets. Tangible assets consist of real estate, buildings, equipment and inventory. Source: Standard and Poors Compustat

Note: All variables, except for per-capita income, are standardized by Labor Market Area population (millions).

Estimation

I analyze the data using the Arellano-Bond dynamic panel estimator (Arellano and Bond, 1991). This estimator is ideally suited for "small T, large N" dynamic panels – meaning that the data consist of many units observed over relatively few time periods. In these cases, both ordinary least squares and generalized least squares regression models lead to a bias in the coefficient for the lagged dependent variable (Greene, 2008). I found evidence of this finite sample bias in my data – OLS regression overinflated the value of the lagged dependent variable while fixed-effects regression underinflated it. The Arellano-Bond estimator eliminates this bias by taking the first difference over time and using appropriate instruments for the lagged dependent variable and all other endogenous variables. In addition, it is a fixed-effects estimator, which means that estimates are not biased by any omitted variables that are constant over time (Bond, Hoeffler and Temple, 2001).

The data cover 391 LMAs in the 48 contiguous states. Table 1.2 reports summary statistics and correlations for all variables used in the analysis. The correlations reported are within-LMA correlation coefficients. A few of the correlations are above 0.5. Government employment is negatively correlated with employment in the private-sector. Analogously, the number of establishments with high levels of tangible assets relative to total assets and those with low levels of tangible assets relative to total assets are both positively correlated with private employment but negatively correlated with government-sector employment. These correlations support the assertion that the government sector and private sector compete for the same workers. Per-capita income is also highly correlated with private-sector employment. Interestingly, the number of absentee-owned banks is positively correlated with private employment while the number of purely local banks is negatively correlated with private employment. Further analysis (not shown) revealed no evidence of multicollinearity, thereby eliminating any concern that standard errors will be erroneously inflated. Many of the other correlations that are above 0.5 pose no concern because they are between variables that are used in different models.

Table 1.2: Descriptive Statistics and Within Correlations

	Variable	1	2	3	4	5	6	7
	Mean	2.79E+05	1.46E+05	8.07E+03	2.65E+04	1.82E+02	1.49E+02	2.60E+02
	Standard deviation	1.18E+05	1.10E+05	2.95E+03	1.14E+04	1.88E+02	1.66E+02	3.08E+02
	Minimum	9.90E+04	4.57E+04	3.52E+02	1.23E+03	8.15E-01	8.16E-01	1.27
	Maximum	1.81E+06	2.07E+06	2.07E+04	2.53E+05	3.24E+03	2.69E+03	5.77E+03
	# of observations	5453	5453	5453	5453	5453	5453	5453
1.	**Total private employment**							
2.	**Total government employment**	-0.753						
3.	**Per-capita income**	0.564	-0.520					
4.	**Total unemployed**	-0.221	-0.117	-0.090				
5.	**Number of purely local banks weighted by geographic distance**	-0.736	0.692	-0.577	0.209			
6.	**Number of locally-headquartered banks weighted by geographic distance**	-0.377	0.390	-0.162	0.257	0.555		
7.	**Number of absentee-owned banks weighted by geographic distance**	0.741	-0.680	0.605	-0.181	-0.945	-0.422	
8.	**Purely local banks**	-0.566	0.479	-0.522	0.139	0.664	0.232	-0.641
9.	**Locally-headquartered banks**	0.287	-0.190	0.188	-0.157	-0.342	-0.080	0.333
10.	**Absentee-owned banks**	0.592	-0.512	0.549	-0.032	-0.597	-0.191	0.618
11.	**Establishments with high levels of tangible assets**	0.748	-0.608	0.449	-0.063	-0.616	-0.274	0.702
12.	**Establishments with low levels of tangible assets**	0.766	-0.676	0.634	-0.083	-0.667	-0.354	0.729

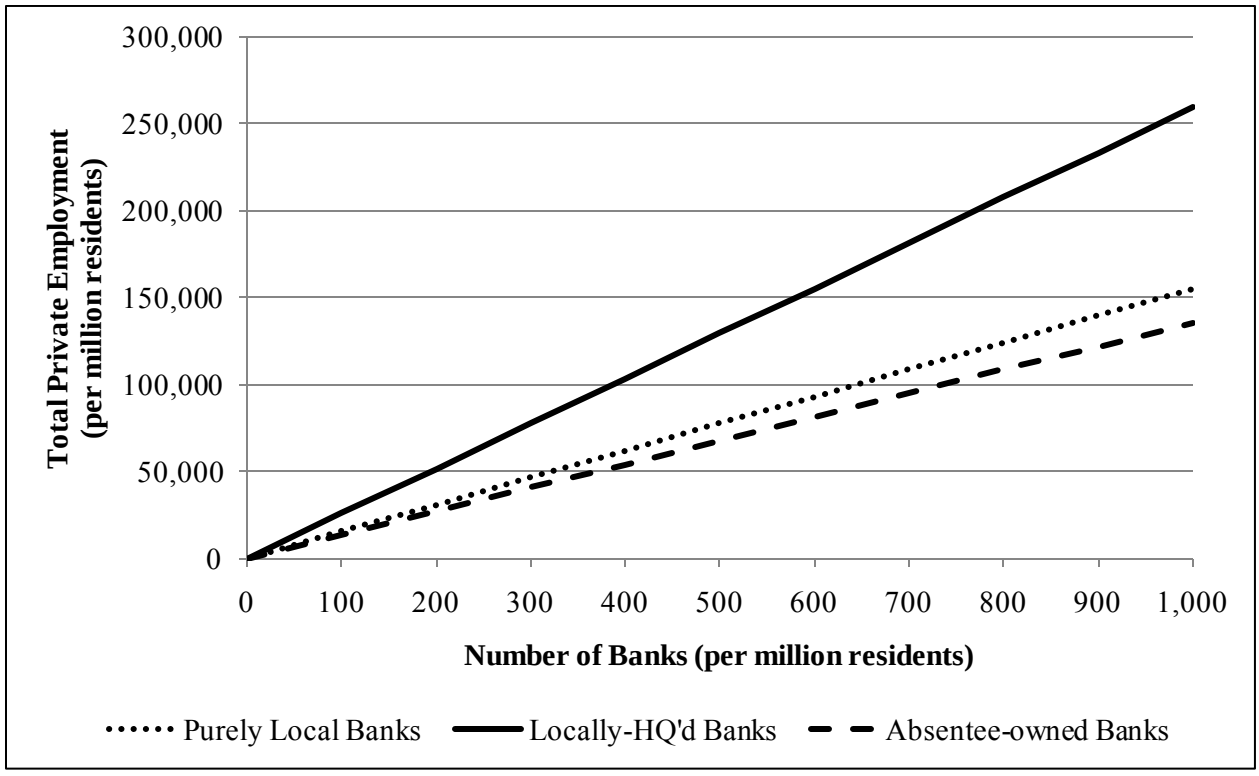
	8	9	10	11	12
Mean	1.24E+02	7.33E+01	1.55E+02	9.86E+03	8.81E+03
Std. dev	1.04E+02	7.30E+01	1.29E+02	4.53E+03	4.53E+03
Minimum	0	0	0	5.19E+03	2.21E+03
Maximum	7.43E+02	1.45E+03	2.47E+03	9.60E+04	9.39E+04
# of obs	5453	5453	5453	5453	5453
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.	-0.551				
10.	-0.608	-0.087			
11.	-0.452	0.253	0.530		
12.	-0.471	0.178	0.628	0.853	

Notes: This table is based on 5,453 observations on the presence of commercial banks at the LMA-level between 1994 and 2007. All variables are standardized by Labor Market Area (LMA) population to yield units per million residents. A commercial bank is designated as being purely local if its headquarters and all branches reside in the focal LMA. If its headquarters are located in the focal LMA and it has at least one branch outside the focal LMA, it is designated as being a locally-headquartered bank. If the bank is not headquartered in the focal LMA, then it is designated as being an absentee-owned bank. Establishments with high levels of tangible assets are in industries that are in the top quartile of tangible assets (i.e. real estate, buildings, equipment and inventory) relative to total assets. Establishments with low levels of tangible assets are in industries that are in the lowest quartile of tangible assets relative to total assets. Given that I am studying the effects that commercial banks have on employment in a focal LMA, the correlations reported are within-LMA correlation coefficients.

Results

Table 1.3 reports the results of the multivariate analyses. In Model 1, which is a baseline configuration, only two of the control variables are significant. Prior-year employment in the private sector is positively associated with private employment for the current year, and prior-year unemployment is negatively associated with current year private employment. Model 2 shows that all three bank types are positively associated with private employment. Supporting hypothesis 1, locally-headquartered banks have the largest contribution to community employment, followed by purely local banks, and then by absentee-owned banks. A graphical representation of this result can be found in Figure 1.1.

Figure 1.1: The Effect of Banks on Total Private Employment



Notes: This figure shows the effect of the number of purely local, locally-headquartered and absentee-owned banks on total private employment. The data used to generate this figure are from Model 2 of Table 1.3.

Table 1.3: Arellano-Bond Regressions of Total Private Employment (t)

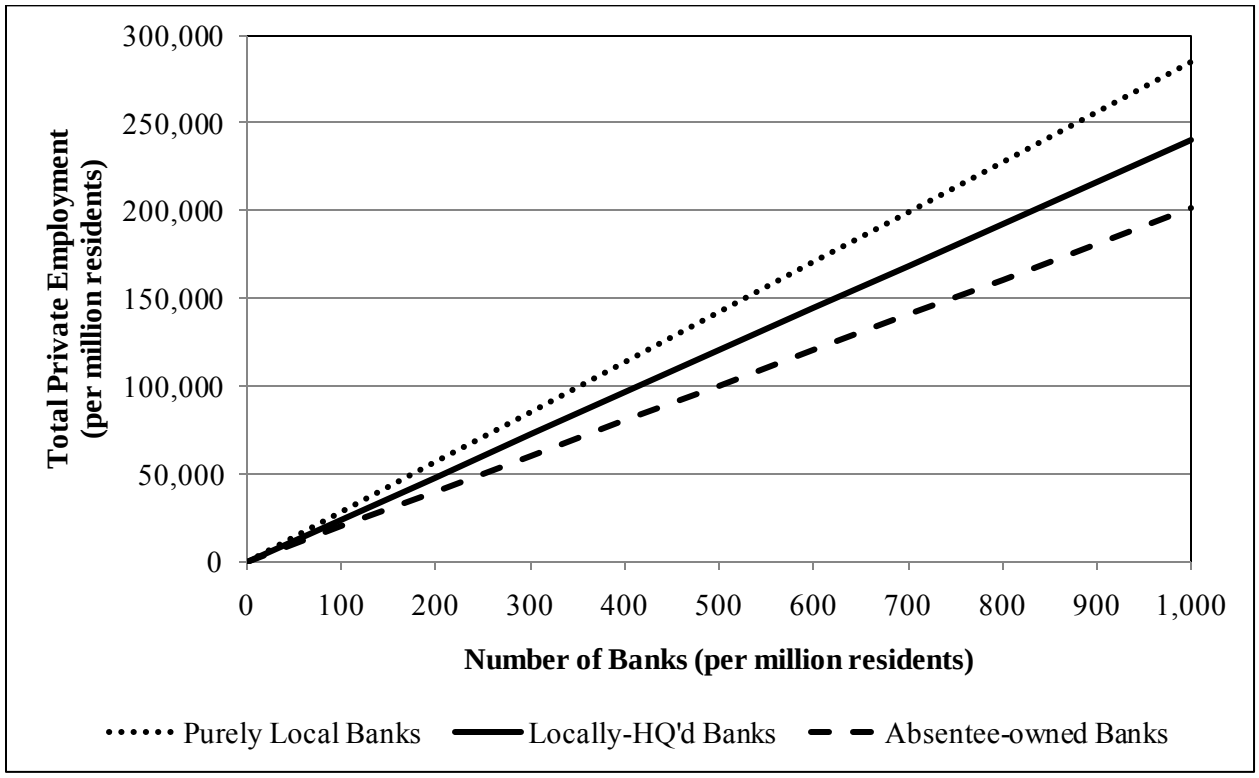
	(1)	(2)	(3)	(4)
Total private employment (t-1)	0.846***	0.549***	0.473***	0.466***
	(0.041)	(0.096)	(0.118)	(0.122)
Total government employment (t-1)	-0.051	0.037	0.038	0.029
	(0.053)	(0.105)	(0.109)	(0.113)
Per-capita income (t-1)	-0.247	-0.101	-0.088	-0.028
	(0.166)	(0.117)	(0.115)	(0.122)
Total unemployed (t-1)	-0.373**	-0.094	-0.173*	-0.203*
	(0.138)	(0.093)	(0.084)	(0.088)
Number of purely local banks weighted by geographic distance (t-1)		18.8	-49.9	52.6
		(104.7)	(87.4)	(69.8)
Number of locally-headquartered banks weighted by geographic distance (t-1)		-93.7	-64.3	14.4
		(125.1)	(103.7)	(132.9)
Number of absentee-owned banks weighted by geographic distance (t-1)		51.9	8.38	90.7*
		(31.9)	(20.9)	(37.2)
Purely local banks (t-1)		155.4***	137.7***	44.6
		(31.8)	(33.84)	(59.8)
Locally-headquartered banks (t-1)		258.9**	246.4**	240.6*
		(82.7)	(82.7)	(94.5)
Absentee-owned banks (t-1)		135.7***	127.4***	57.0
		(38.6)	(31.3)	(53.8)
Establishments with high levels of tangible assets (t-1)			2.25*	1.07
			(0.98)	(1.63)
Establishments with low levels of tangible assets (t-1)				
Purely local banks X Establishments with high levels of tangible assets				2.43e-02
				(1.33e-02)
Locally-headquartered banks X Establishments with high levels of tangible assets				-1.11e-02
				(1.28e-02)
Absentee-owned banks X Establishments with high levels of tangible assets				1.45e-02*
				(6.60e-03)
Purely local banks X Establishments with low levels of tangible assets				
Locally-headquartered banks X Establishments with low levels of tangible assets				
Absentee-owned banks X Establishments with low levels tangible assets				
# of Observations	4671	4671	4671	4671
# of LMAs	391	391	391	391

	(5)	(6)
Total private employment (t-1)	0.490***	0.507***
	(0.110)	(0.108)
Total government employment (t-1)	0.034	0.030
	(0.111)	(0.111)
Per-capita income (t-1)	-0.090	-0.028
	(0.118)	(0.123)
Total unemployed (t-1)	-0.155	-0.155
	(0.087)	(0.095)
Number of purely local banks weighted by geographic distance (t-1)	-26.5	75.4
	(91.6)	(72.2)
Number of locally-headquartered banks weighted by geographic distance (t-1)	-29.1	6.01
	(112.8)	(149.9)
Number of absentee-owned banks weighted by geographic distance (t-1)	26.1	97.3**
	(23.2)	(34.0)
Purely local banks (t-1)	121.0***	42.5
	(33.2)	(52.6)
Locally-headquartered banks (t-1)	252.4**	245.7**
	(82.3)	(88.4)
Absentee-owned banks (t-1)	110.5**	59.2
	(40.0)	(52.3)
Establishments with high levels of tangible assets (t-1)		
Establishments with low levels of tangible assets (t-1)	1.71	0.969
	(0.93)	(1.29)
Purely local banks X Establishments with high levels of tangible assets		
Locally-headquartered banks X Establishments with high levels of tangible assets		
Absentee-owned banks X Establishments with high levels of tangible assets		
Purely local banks X Establishments with low levels of tangible assets		2.33e-02*
		(1.09e-02)
Locally-headquartered banks X Establishments with low levels of tangible assets		-1.58e-02
		(8.93e-03)
Absentee-owned banks X Establishments with low levels tangible assets		7.26e-03
		(3.89e-03)
# of Observations	4671	4671
# of LMAs	391	391

Notes: This table presents regressions of the total private employment (t) in 391 Labor Market Areas (LMAs) between 1994 and 2007 using the Arellano-Bond estimator. All variables are standardized by LMA population to yield units per million residents. All independent variables are lagged (i.e. time t-1). A commercial bank is designated as being purely local if its headquarters and all branches reside in the focal LMA. If its headquarters are located in the focal LMA and it has at least one branch outside the focal LMA, it is designated as being a locally-headquartered bank. If the bank is not headquartered in the focal LMA, then it is designated as being an absentee-owned bank. Establishments with high levels of tangible assets are in industries that are in the top quartile of tangible assets (i.e. real estate, buildings, equipment and inventory) relative to total assets. Establishments with low levels of tangible assets are in industries that are in the lowest quartile of tangible assets relative to total assets. Standard errors are reported in parentheses below the parameter estimates. * indicates $p<0.05$, ** $p<0.01$, and *** $p<0.001$, two-tailed t tests.

Models 3 and 4 examine the effect of business demography based on the presence of establishments with high levels of tangible assets relative to total assets. Model 3 reveals that the number of establishments that have high levels of tangible assets relative to total assets is positively associated with total private employment. Model 4 examines whether the effect of banks on private-sector employment is moderated by the number of establishments that have high levels of tangible assets relative to total assets. In partial support of hypothesis 2, the effect of both absentee-owned banks and purely local banks on community employment increases as the number of establishments that have high levels of tangible assets relative to total assets increases, although the interaction effect of purely local banks is only marginally significant ($p=0.068$). Although the main effect of effect of locally-headquartered banks on private employment remains positive and significant, this relationship is not affected by the number of establishments in the community that have high levels of tangible assets relative to total assets. Interestingly, as seen in Figure 1.2, locally-headquartered banks continue to have the largest effect on private employment.

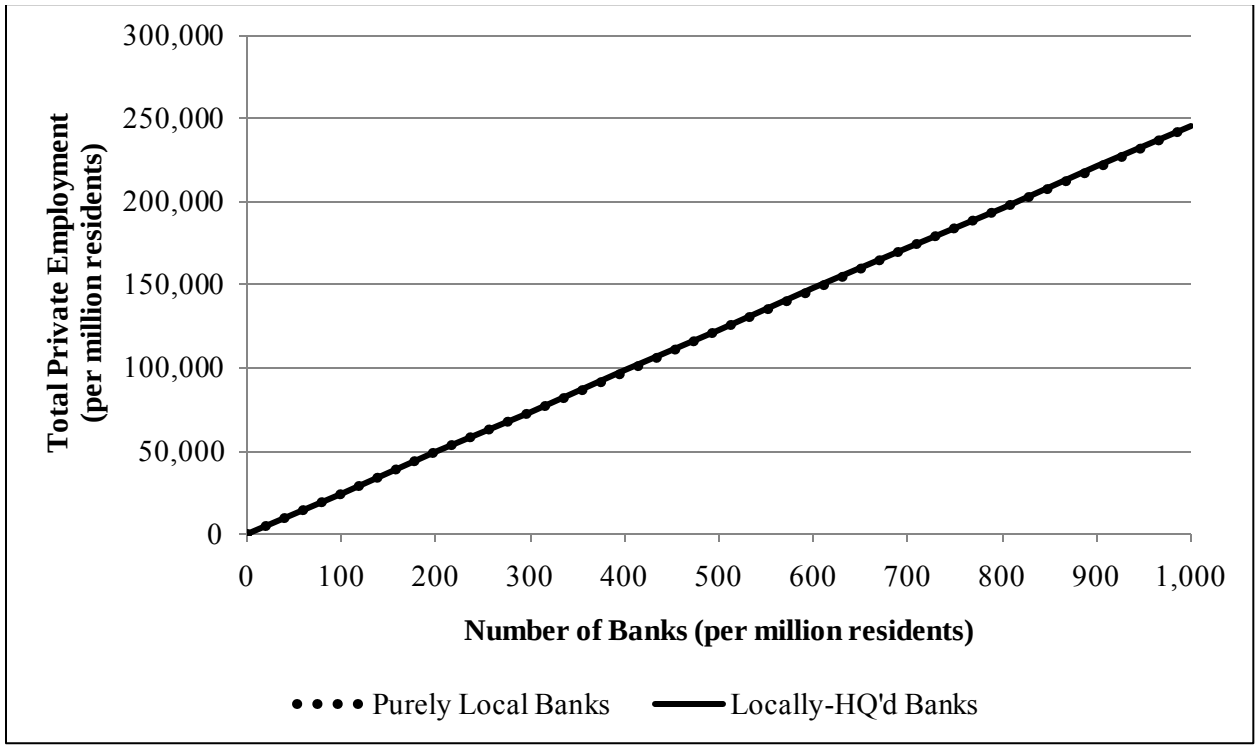
Figure 1.2: The Effect of Banks on Total Private Employment (Moderated by the number of establishments with high levels of tangible assets relative to total assets)



Notes: This figure shows the effect of the number of purely local, locally-headquartered and absentee-owned banks on total private employment, as moderated by the number of establishments with high levels of tangible assets relative to total assets in the community. The data used to generate this figure are from Model 4 of Table 1.3, and it is assumed that the community contains the mean number of establishments with high levels of tangible assets relative to total assets.

Lastly, Models 5 and 6 examine the effect of business demography based on the presence of establishments with low levels of tangible assets relative to total assets. Model 5 reveals that the main effect of the number of establishments with low levels of tangible assets relative to total assets is not significantly associated with employment. But, as seen in Model 6, the effect of purely local banks on community employment growth is positively affected by the number of establishments with low levels of tangible assets relative to total assets. If the community has the average number of establishments with low levels of tangible assets relative to total assets, then every one unit increase in the number of locally-owned banks increases employment by 248 jobs per million residents. The effect of locally-headquartered banks or absentee-owned banks is not affected by the number of establishments in the community with low levels of tangible assets relative to total assets. Once again, locally-headquartered banks affect employment regardless of business demography. However, absentee-owned banks no longer affect employment. These results support hypothesis 3. A graphical representation of this result can be found in Figure 1.3.

Figure 1.3: The Effect of Locally-owned and Absentee-owned Banks on Total Private Employment (Moderated by the number of establishments with low levels of tangible assets relative to total assets)



Notes: This figure shows the effect of the number of purely local and locally-headquartered banks on total private employment, as moderated by the number of establishments with low levels of tangible assets relative to total assets in the community. Note that the effect of purely local banks and locally-headquartered banks on employment is almost identical, hence the lines overlap. The data used to generate this figure are from Model 6 of Table 1.3, and it is assumed that the community contains the mean number of establishments with low levels of tangible assets relative to total assets.

Robustness Checks

In order to further validate these results, I ran a number of robustness checks to examine the proposed theoretical mechanisms and account for possible alternative explanations. To start with, I examine the issue of endogeneity. My finding that banks positively contribute to employment growth may be due to banks being founded in communities that are already economically prospering. In other words, instead of bank lending activity creating employment, communities that are experiencing employment growth may have more bank foundings. Although I cannot directly disprove this, I believe that proposed direction of causality of banks leading to employment is correct for at least three reasons.

First, this causal direction is supported by empirical literature. A 77-country study examining the relationship between real per capita gross domestic product growth and four measures of financial development found a positive relationship between each financial development measure and economic growth (King and Levine, 1993). Furthermore, the ratio of

the size of the formal financial intermediary sector to gross domestic product (i.e. financial depth) in 1960 predicted per capita gross domestic product growth and per capita productivity growth for the next 30 years. In other words, development of the financial sector predicted economic growth in the far future. An additional analysis of my data (not shown) is consistent with this finding. I find that while the total number of banks in the prior year is a positive and significant predictor of private employment in the current year, that the total number of banks in following year did not predict private employment.

Second, if banks opened and closed branches based on the economic conditions of communities, then I would expect to see a high rate of bank openings, closings and relocations. However, the data reveal that banks have a low turnover rate. Between 1994 and 2007, 27% of commercial banks did not add or close a branch, while 46% added three locations or fewer. Only 3% of banks closed branches during this time, with the majority of those being banks that only closed one branch. Moreover, over this same time period, less than 1% of branches moved from one zip code to another. Therefore, it seems unlikely that banks open and close branches based on year-to-year changes in the economic growth of communities.

Third, I account for bank choice in my analyses by employing the Heckman two-stage method (Heckman, 1979). This method allows me to control for the likelihood of bank founding in my analyses. To incorporate this control variable, I first estimate a probit model of bank founding based on economic conditions and the competitive landscape of the banking sector within the community. I employ the best fitting model predicting bank founding, which uses the following variables: five-year change in population, five-year change in total private employment, five-year change in total number of private businesses, five-year change in national gross domestic product, population density, per-capita income, total deposits of all banks in the community, number of locally-owned bank headquarters, number of locally-owned bank branches and number of absentee-owned bank branches. Then I take the normalized and standardized residuals and use them as an independent variable in my existing models, thereby capturing the probability that a bank will be founded in the community. Further supporting my proposed direction of causality, I find that this variable is not a significant predictor of employment in the following year and that the other independent variables and interaction terms did not change in any significant manner. Although the effect sizes changed slightly, the signs of the coefficients and significance levels of the remaining variables remain unchanged.

Next, I examine whether purely local banks are able to obtain private information on potential borrowers by examining the effects of community population. Since bankers are able to obtain private information through direct contact with other members of the community, it is likely that they have direct relationships with a greater proportion of the community in sparsely populated communities as compared to densely populated communities. This suggests that banks that are able to obtain and incorporate private information into their lending decisions play a greater role in spurring employment in sparsely populated communities than in densely populated communities. I test for this possibility by running the same models as my original analyses, but for two subsets of my original data: communities that are in the top quartile and bottom quartile in terms of population density. As expected, in sparsely populated communities, the effect of purely local banks on employment in a community with the average number of establishments with low levels of tangible assets relative to total assets is greater than for locally-headquartered and absentee-owned banks. In contrast, none of the interactions between bank type and establishments with low levels of tangible assets relative to total assets are significant

when examining densely populated communities. These findings provide additional support for the importance of private information at purely local banks.

Discussion

In this paper, I examined how multiple organizational populations collectively affect community outcomes. In specific, I examined how different types of banks affect community employment growth and how the demography of businesses in the community affects this relationship. When examining the effect of different types of banks on employment growth, I find that, overall, locally-headquartered banks have the largest effect on community employment, followed by purely local banks and then by absentee-owned banks. The effect of locally-headquartered banks on employment is not affected by other businesses in the community, suggesting that these banks favor lending to businesses in their home communities over businesses in other communities. However, the effect of the other two banks on employment is moderated by community business demography. Absentee-owned banks contribute positively to community employment as the number of establishments with high levels of tangible assets relative to total assets increases. Purely local banks contribute more to employment growth as the number of establishments with low levels of tangible assets relative to total assets increases. These results suggest that purely local banks are better than locally-headquartered and absentee-owned banks at obtaining and incorporating private information into their lending decisions.

My analysis extends previous research by demonstrating that multiple organizational populations interact in geographic space to affect community-level outcomes. This has largely been ignored by organizational theorists, who have instead focused on the effect of a single organizational population on residential communities and the effect of organizational populations on one another. By merging insights from these two research streams, organizational theorists will be able to better explain community-level outcomes and their consequences for local organizations.

This study also has practical implications for communities themselves. Given the overall strength of purely local banks and locally-headquartered banks in creating community employment, it is important for communities to preserve these banks and assist in the creation of additional locally-owned banks. This is particularly important for purely local banks. Data from 1994 to 2007 indicates that, although the overall number of banks in communities has been increasing, the number of purely local banks has actually been decreasing. In other words, the number of locally-headquartered and absentee-owned banks has been increasing at a rate high enough to offset any decreases in purely local banks. This study shows that there is good reason for communities, especially ones that have large numbers businesses with low levels of tangible assets, to increase, or at least preserve, the number of purely local banks within their locales.

Caveats

Although this study extends previous work in community ecology, the results are subject to at least two limitations. First, the data used to determine community business demography are at the establishment-level rather than the firm-level. Although there are advantages to using establishment data, having firm-level data would also be valuable. For example, at the

establishment level it is not possible to distinguish whether an establishment that has fewer than twenty employees is a small local business and a satellite office of a large multinational corporation. Being able to make such distinctions by combining firm-level data with establishment-level data would improve the external validity of the findings.

Second, not all business investment leads to employment growth. I assumed that the effect of banks providing capital to businesses can be measured through increases in community employment. However, businesses use capital to increase their outputs, which can occur in two ways. First, additional workers can be hired to staff the new facility or use the additional equipment. Second, the new facility or equipment allows for the existing workforce to work more productively. Of these two measures, only employment data are available for community level research. Productivity data are only available at the industry level and are therefore impractical for community level research. Although I am not able to measure changes in productivity within a community, employment growth is a robust proxy for the overall economic health of a community. Year-to-year changes in employment are almost identical to changes in the most common measure of economic health, gross domestic product. Using data from the Bureau of Economic Analysis and the Bureau of Labor Statistics, I found that the correlation between gross domestic product and employment for the years 1929-2007 is 0.99.

Future Research

These results indicate that there are three areas that have great potential for future research. First, researchers can examine how the performance of different types of organizations is affected by community characteristics. For example, a future study could build on the idea that banks can use private information to lower their risk by examining whether it actually affects the financial performance of banks. A second area that warrants further research is to investigate how locally-owned organizations embed themselves within residential communities so as to obtain information benefits such as private information and what community characteristics facilitate or hinder this process. Third, researchers studying the relationship between organizations and communities can search for additional factors that affect how organizations interact with one another within those communities.

2. How Commercial Banks and Voluntary Associations Affect Community Organizing Capacity

Introduction

To increase economic activity in their communities, local governments often provide financial incentives to attract large companies that are seeking to expand. The creation of a new automobile plant, technology data center, or semiconductor fabrication facility brings with it a large number of new jobs. Local planning officials hope that this increase in employment spurs a positive economic cycle that leads to sustained long-term economic activity. Job creation increases sales for other local businesses, leading to an increase in the market potential of the community, which in turn attracts other businesses to the community and leads to more jobs being created. However, relying on job creation from external sources can be risky. Many large firms relocate to the communities that offer them the largest package of financial incentives. The winning communities often pledge so much in incentives that their efforts result in a negative return on investment (Friedland, 1980; Rubin and Rubin, 1987).

An alternative way to increase economic activity and job creation is to increase home-grown businesses by helping entrepreneurs obtain the resources they need to launch firms. Communities with higher rates of new business foundings experience greater increases in per-capita income and spend less on welfare programs (Davidsson, Lindmark and Olofsson, 1995). Moreover, new firms are an important source of job creation – two-thirds of the net new jobs created between 1992 and 2008 were by firms that were one to five years old (Census Bureau, 2007).

The *organizing capacity* of communities – their ability to facilitate the creation of new organizations – depends on the ability of communities to provide entrepreneurs with the skills, values, and resources they need (Stinchcombe, 1965). The extent to which communities facilitate entrepreneurship is based on two factors: organizational experience and the richness of social life. First, much research shows that having a variety of existing organizations gives potential entrepreneurs experience working in or with many different kinds of organizations. In addition to learning about the various aspects of running a business, experience in many different types of firms can also be a source of new business ideas (Beckman, 2006). Communities that are organizationally diverse have more corporate headquarters and higher levels of employment growth, innovation, and socio-economic status (e.g., Fowler, 1964; Glaeser, Kallal, Scheinkman, and Schleifer, 1992; Jacobs, 1969; Lincoln, 1978; Lyson, 2006; Mills and Ulmer, [1946]1970).

A less studied but equally important component of organizing capacity is the richness of social life. Through participation in activities outside their work and family domains, people can form new relationships and expand their social networks. These networks of relationships influence the flow of communication, the patterns of trust, the distribution of power, and the movement of resources. The ability of entrepreneurs to develop and refine their business ideas, find partners and employees, form alliances, and obtain other resources is based on their social connections. Moreover, the likelihood of a new business being founded and surviving increases if these social connections exist within the entrepreneur's home community (Marquis and Lounsbury, 2007; Sorenson and Audia, 2000; Sorenson and Stuart, 2001; Thornton and Flynn, 2003). An important factor affecting the type of information people receive and who they interact with is the sociodemographic diversity of their social networks (McPherson, Smith-Lovin and Cook, 2001). People with more diverse social networks are more likely to interact

with people of different ages, income levels, genders, and occupations. Entrepreneurs with more diverse networks are more likely than those with less diverse networks to obtain important resources, such as expert advice and leads to potential customers, to help them launch new organizations. Therefore, all else equal, communities that facilitate their residents' ability to form relationships with people who vary in terms of age, education, occupation, income level, and gender are likely to have higher levels of entrepreneurial activity than other communities.

An important contributor to a rich social life is the presence of voluntary associations. Voluntary associations are organizations that are typically non-profit in nature, designed to pursue individual or collective interests, and membership is voluntary. Voluntary associations encourage interactions between community actors by providing a dedicated time and space for people with common interests to come together and share information (Feld, 1981). They provide settings in which people can gather to exchange ideas and share knowledge outside the realms controlled by family, the workplace, and the state. The benefits voluntary associations provide are numerous – they increase trust between actors, reduce fraud, facilitate the development of shared norms and values, and increase the diffusion of ideas (Baker and Faulkner, 2004; Brehm and Rahn, 1997; Domhoff, 1998; Putnam, 1995; Saxenian, 1994). Many of these benefits also increase entrepreneurial activity. By bringing together potential entrepreneurs in environments that foster trust, shared norms and the exchange of ideas, voluntary associations facilitate the creation of new organizations. In other words, voluntary associations allow people with either entrepreneurial experience or ambition to interact with like-minded others, thereby leading to the creation of new ideas and improving access to the resources needed to found new businesses.

But there is great variation in the type of voluntary associations. Specifically, they vary in the extent to which they facilitate demographic diversity in their members' social networks and the degree to which their members participate in association activities. For example, labor unions typically have more male members than female members, while the opposite is true for youth associations (McPherson, 1983). Professional associations have members who are on average more educated and of higher socioeconomic status than most other associations. And most members of business associations actively participate in association activities, while members of arts and culture associations tend to limit their involvement to financial contributions. These differences in voluntary associations affect the relationships that potential entrepreneurs are likely to form when joining these associations, which in turn affects entrepreneurs' ability to obtain the resources necessary to start new organizations. In other words, voluntary associations differ in their ability to foster entrepreneurship. I show this to be the case by examining the relationship between voluntary associations and two measures of new business activity. First, I examine how voluntary associations contribute to increasing the number of businesses in communities. Second, I examine how voluntary associations affect an important precursor to entrepreneurial activity: the creation of commercial banks. Commercial banks play a vital role in spurring entrepreneurship because they are an important source of capital for new businesses (Berger and Udell, 1998). Finally, I explore how the presence of commercial banks moderates the relationship between voluntary associations and organizing capacity.

This chapter makes two contributions to research on entrepreneurship. First, by merging insights from research on entrepreneurship and voluntary associations, I am able to expand our understanding of factors that contribute to the organizing capacity of communities. While the entrepreneurship literature highlights the importance of social interactions in fueling entrepreneurial activity (e.g., Saxenian, 1994; Sorenson and Audia, 2000), the voluntary

association literature emphasizes the role these organizations play in facilitating social interactions (e.g., Putnam, 2000; Sampson, McAdam, MacIndoe, and Weffer-Elizondo, 2005; Small, Jacobs, and Massengill, 2008). I merge these two streams of literature to prove Stinchcombe's argument that social life affects the organizing capacity of communities. Second, I show that voluntary associations play an important role in the economic activity of communities. While most of the literature examines the civic outcomes of voluntary associations, such as how they facilitate trust and democracy (e.g., Brehm and Rahn, 1997; Kwak, Shah and Holbert, 2004; Paxton, 2002), I show that they may also facilitate the creation of a vibrant local economy.

Theory Development

By creating a non-competitive environment that brings together people who share common interests, voluntary associations affect the creation of new businesses and help existing businesses thrive in at least three ways. First, they create new social ties by bringing together like-minded people who may not otherwise meet (Feld, 1981; McPherson, Smith-Lovin, and Cook, 2001; Useem, 1980). Second, they facilitate the transfer of information between actors by increasing interpersonal trust. As trust increases, the quality and potential benefits of the information being shared also increases (Burt, 1992; Granovetter, 2005). Trust also makes it more likely that actors will be endorsed by others, thereby affecting how they are perceived by third parties. This is especially beneficial when the endorsements come from higher-status actors. The greater the prominence of the actors that endorse new businesses, the faster that these businesses are able to have initial public offerings (Stuart, Hoang and Hybels, 1999). Third, they facilitate the creation of new knowledge and spur innovation by coordinating the interactions between individuals (McFayden, Semadeni and Cannella, 2009; Polanyi, 1966; Schumpeter, 1934). In summary, voluntary associations spur the creation of new businesses and help existing businesses thrive by allowing current and future business owners expand their social networks, form alliances, seek advice, develop and refine business ideas, and obtain any other resources they need to be successful. Moreover, the benefits conferred by voluntary associations are especially important in situations where the reliability and quality of the information and resources received from others can significantly affect the likelihood of success, as is the case when launching new organizations or when running small, privately held businesses (Rangan, 2005).

But voluntary associations differ in their abilities to bring people together in ways that benefit business people. The sociodemographic diversity of members' social networks and the typical level of participation by members in associational activities vary by association type. Sociodemographic diversity affects who people interact with and the type of information they receive (McPherson, et al. 2001). The more diverse a person's social network, the more likely they will interact with people of different ages, income levels, genders, ethnicities, and occupations. More diverse social networks provide greater access to information and resources than less diverse networks by increasing the likelihood that entrepreneurs and current business owners will either have acquaintances or acquaintances-of-acquaintances who can serve as sources of expert advice and resources. But in order to obtain these benefits, members need to actively participate in association activities, allowing individuals to interact with one another. Therefore, associations that have more diverse memberships and whose members participate

more actively are better places for entrepreneurs and current business owners to gain access to the information and resources they need to launch and grow their businesses than associations with less diverse memberships and lower levels of member participation.

The next two sections expand on these general arguments to develop and then test hypotheses.

Network Diversity via Association Membership

All else equal, voluntary associations that allow members to build more diverse social networks are better for current and future business owners than associations that foster less network diversity. More diverse social networks benefit current and future business owners in at least two important ways. First, more diverse networks provide greater access to key resources than less diverse networks. In order to improve their chances of success, business owners need to have knowledge of the business (Liles, 1974). In cases when they have little or no experience working in the industries in which they have launched or seek to launch their ventures, obtaining advice from experts is particularly important because it can often substitute for direct experience (Aldrich and Ruef, 2006). In addition to having access to advisors, business owners also need to obtain other resources: capital, suppliers, customers, and employees. More diverse social networks provide greater access to the full range of these resources than less diverse networks. For example, a network containing only bankers is likely to facilitate access to capital. But a network containing people from many different occupations, such as bankers, product designers, sales representatives, and production engineers is likely to provide access not only to capital, but to potential customers, product designers and manufacturers of key inputs. Therefore, current and future business owners with more diverse social networks are more likely to be able to obtain the resources they need to be successful than business owners with less diverse social networks.

Second, not only do more diverse social networks provide greater access to information than less diverse social networks, but that information is also of higher quality. An actor with a social network that is less diverse on one or more demographic dimensions is more likely to be surrounded by others who view the world the same way. Members of less diverse networks are able to easily transfer knowledge with others who are similar on the same dimensions but have difficulty transferring knowledge to those with whom they are less similar. Lack of exposure to dissimilar points of view reduces intellectual flexibility (Coser, 1975) and decreases tolerance (Mutz, 2002). In contrast, actors with more diverse social networks are able to share knowledge with others that differ from them demographically (Reagans and McEvily, 2003). This results in people with more diverse social networks having greater problem-solving capacity, increased cognitive complexity and better information processing capabilities than people with less diverse networks (Antonio, et al., 2004; Phillips, 2004; Phillips and Loyd, 2006; Sommers, Warp, and Mahoney, 2008). People with more diverse networks are more likely to have ideas that are evaluated as being better than those with less diverse networks (Burt, 2004). In other words, current and future business owners who have more diverse networks are more likely to have good business ideas and the resources to refine and execute these ideas than business owners who have less diverse networks.

Voluntary associations increase the diversity of members' social networks in two ways. First, the association can attract and retain a more diverse membership base. Some associations

restrict membership based on demographic attributes. For example, most professional associations restrict membership to people who have obtained college degrees or certifications in a specific field. In contrast, sports associations are much more open – often accepting anyone interested in playing a particular sport. In order for members to increase the diversity of their social networks, associations must also be able to retain their diverse membership base. Forming social ties with other members is much less likely in associations that have higher turnover rates, since members may not be able to interact with each other often enough to form meaningful connections. Having a more diverse member base helps retain members because it increases the likelihood that members will find others in the association who they perceive to be similar to them. Members who are less similar to other members of a group are more likely to leave the group (Popielarz and McPherson, 1995). As such, having fewer restrictions on membership allows associations to attract and retain people of more varying ages, races, genders, occupations, religions, education levels and incomes (McPherson, Popielarz and Drobnic, 1992).

Second, associations can facilitate the creation of more diverse social networks by attracting members who are also members of other associations. Overlapping memberships create networks of ties across associations. A member of two associations, individual A, can help individual B, a member of the first association, meet individual C, a member of the second association, either by directly facilitating an introduction or by "vouching" for individual B (Coleman, 1990). Assuming that individuals A and C know and trust one another, as do individuals A and B, vouching allows individual B to form a relationship and become trusted by individual C. Although this vouching process can occur within an association, the possible number of new acquaintances that can be formed increase significantly when multiple associations are involved. Not only can members of an association get to know their fellow members, but they can also get to know the people their fellow members know from outside the association.

Member Participation in Associations

An important precondition for members to build diverse social networks and benefit from them is for the members to frequently participate in association activities. Members can frequently participate, occasionally participate, or not participate (i.e., participate only by donating money to the association). Associations can vary in terms of whether the aim to benefit their members or whether they aim to benefit society (Gordon and Babchuk, 1959). Associations that exist primarily to improve the social and/or economic interests of their members (e.g., chambers of commerce, sports leagues, professional associations and community action organizations) tend to have high levels of frequent member participation (van der Meer, Grotenhuis, and Scheepers, 2009). In contrast, members of associations that advocate for changes in broader societal interests (e.g., environmental or human rights organizations) tend to limit their participation to donations.

These differences in participation have important consequences for the range of possible benefits that members can obtain from their involvement in associations. Participation in associations that have a high level of involvement by their members, in particular those that aim to improve the economic interests of their members, should increase current and future business owners' chances of gaining access to resources such as expert advice and loan assistance. Bringing people together through association-sanctioned activities leads to the formation of new

social ties, which increases the likelihood that entrepreneurs and current business owners will be able to obtain the resources they need. For instance, business owners with ties to bankers were more likely to obtain commercial loans and to receive them at lower interest rates than owners who lacked these ties (Petersen and Rajan, 1994; Uzzi, 1999). Since many of the benefits available from membership in an association are contingent on active participation, associations in which most members limit their involvement to passive activities, such as donating money and signing online petitions, are much less likely to be able to confer the information and resource benefits to their members than associations where the members are more actively involved.

Typologies of Associations

Although diversity of members and level of member participation can be used to differentiate voluntary associations, there is no consensus on how to group voluntary associations together. For example, the General Social Survey seeks information on individual involvement in 14 types, and the County Business Patterns reports counts of seven types. Most researchers use the same number of association types found in their data source (e.g., Lincoln, 1977; McPherson, 1983; Paxton, 2007). But these differences how associations are categorized make it difficult to compare findings across studies and create a unified body of work. In an effort to promote integration, I classify voluntary associations based a commonly-used classification scheme for all organization types, the North American Industry Classification System (NAICS). The NAICS was developed by the governments of the United States, Mexico, and Canada, and is used by federal agencies in classifying business establishments for the purposes of collecting and analyzing statistical data.

There are seven categories of voluntary associations in the NAICS (5-digit level): labor unions, and business, civic and social, political, professional, religious and social advocacy associations (NAICS 2007 Codebook). Detailed descriptions and examples of each association type can be found in Table 2.1.

Table 2.1: Classification of Associations

Category	Description	Examples
Business	Establishments primarily engaged in promoting the business interests of their members. These establishments may conduct research on new products and services; develop market statistics; sponsor quality and certification standards; lobby public officials; or publish newsletters, books, or periodicals for distribution to their members.	Real estate boards, chambers of commerce, trade associations, manufacturers' associations
Civic and social	Establishments primarily engaged in promoting the civic and social interests of their members.	Alumni associations, parent-teacher associations, scouting organizations, ethnic associations, social clubs, fraternal lodges
Labor	Establishments primarily engaged in promoting the interests of organized labor and union employees.	United Auto Workers, American Federation of Teachers, Airline Pilots Association
Political	Establishments primarily engaged in promoting the interests of national, state, or local political parties or candidates. Included are political groups organized to raise funds for a political party or individual candidates.	Campaign organizations, political organizations or clubs, political action committees, political parties, political campaign organizations
Professional	Establishments primarily engaged in promoting the professional interests of their members and the profession as a whole. These establishments may conduct research; develop statistics; sponsor quality and certification standards; lobby public officials; or publish newsletters, books, or periodicals for distribution to their members.	Bar associations, dentists' associations, engineers' associations, professional standards review boards, health professionals' associations, scientists' associations
Religious	Establishments primarily engaged in operating religious organizations, such as churches, religious temples, and monasteries, and/or administering an organized religion or promoting religious activities.	Churches, shrines, monasteries (except schools), synagogues, mosques, temples
Social advocacy	Establishments primarily engaged in promoting a particular cause or working for the realization of a specific social or political goal to benefit a broad or specific constituency. These organizations may solicit contributions and offer memberships to support these goals.	Community action organizations, human rights organizations, environmental organizations

Source: NAICS 2007 Definition File, accessed July 22, 2010 (http://www.census.gov/eos/www/naics/2007NAICS/2007_Definition_File.pdf)

In addition to variation in goals, each type of association varies on two criteria. First, associations vary in the typical level of participation of their members. Members can be actively involved in the association, either by frequently participating in association activities or volunteering with the association, or passively involved, either by being a member but not

participating in any activities or by only donating money to the association (Putnam, 2000; van der Meer et al., 2009). To determine the association types that are more likely to have members who frequently participate, I use data from the Social Capital Benchmark Survey (SCBS), a survey of United States residents administered in 2000 to examine how connected people are to family, friends, neighbors and voluntary associations. Since the SBCS has more association types (15) than the NAICS (7), some aggregation of categories is necessary. Five association types – labor unions, and political, religious, social advocacy, and professional associations – are unique categories in the SCBS and NAICS, so no aggregation was necessary for these associations. To obtain data on participation for civic and social associations, I averaged the participation data on the following association types found in the SCBS: sports, youth, parent-teacher, veteran, neighborhood, seniors, fraternal, ethnic and literary associations and self-help groups. Finally, I treat business associations as being equivalent to professional associations. Although business and professional associations are distinct categories in the NAICS, the SCBS categorizes business associations as professional associations (Social Capital Benchmark Survey Codebook, 2000). This aggregation scheme is summarized in Table 2.2.

Table 2.2: Matching Up Association Types between Multiple Data Sources

NAICS Category	Equivalent Categories in the General Social Survey	Equivalent Categories in the Social Capital Benchmark Survey
Business associations	N/A (business associations are classified as professional associations)	N/A (business associations are classified as professional associations)
Civic and social associations	Sport, school, youth, hobby, literary, ethnic, fraternal, Greek and veteran associations	Sports, youth, parent-teacher, veteran, neighborhood, seniors, fraternal, ethnic and literary associations, and self-help groups
Labor unions	Labor unions	Labor unions
Political associations	Political associations	Political associations
Professional associations	Professional associations	Professional associations
Religious associations	Religious associations	Religious associations
Social advocacy associations	Social advocacy associations	Social advocacy associations

Notes:
This table details the aggregation scheme used to categorize association types in the Social Capital Benchmark Survey and the General Social Survey so that they conform to the association types used in the North American Industrial Classification System. Both the Social Capital Benchmark Survey and the General Social Survey classify business associations as professional associations. As such, no matching of business associations was possible.

I determined participation for each association type by examining responses to two survey questions: (1) whether a member served as an officer or on a committee of any voluntary association and (2) the number of association meetings the member attended in the past twelve months. For each type, I computed the proportion of members that have served as an officer or on a committee and the proportion of members that have attended at least six meetings by association type. By using responses to both these questions, I am better able to increase the

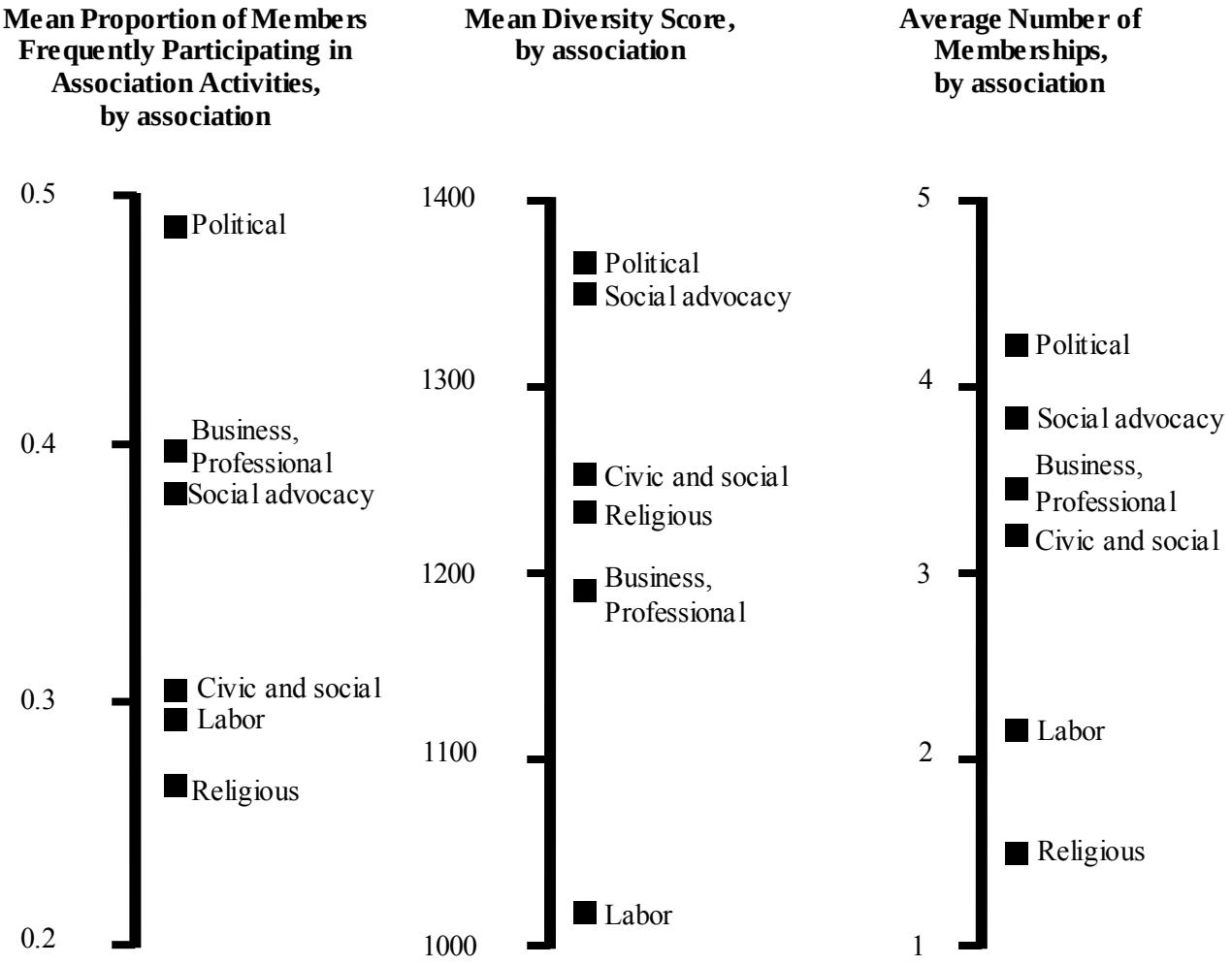
validity of my measure for overall participation in associations. Although attendance in meetings can serve as a proxy for participation, some associations (e.g., sports leagues, literary clubs, and churches) may mandate a certain level of attendance and participation in order to remain affiliated with the association. But associations do not typically require their members to take on leadership roles. By also examining the proportion of members who serve as officers or committee members, I am better able to assess the overall participation rate of each association type. Therefore, to create a measure of active participation that allows for comparisons between association types, I computed the average of these two proportions. To assess the validity of this measure, I conducted two robustness checks. First, I examined the relative rankings of each association type separately for each question on the survey. The three association types that ranked highest were identical for each question – political, business and professional, and social advocacy. The lowest ranking association type was also identical for each question – religious associations. The only differences in ranking were for civic and social associations and labor unions, but this is of little concern given that the proportions for these association types were similar for both questions. Second, I changed the threshold for the number of meetings attended by each member to at least one meeting or to twelve meetings in the past twelve months. The relative ranking of each association type remained unchanged. In descending order, the associations with the highest levels of participation are: political, business and professional, social advocacy, and civic and social associations, labor unions, and religious associations. I summarize these findings in Table 2.3 and the first column of Figure 2.1.

Table 2.3: Participation Data from the Social Capital Benchmark Survey

Category	Proportion of members who served as an officer or on a committee in the past 12 months	Proportion of members who attended at least six meetings in the past 12 months	Participation Score
Political	0.45	0.51	0.48
Business / Professional	0.34	0.44	0.39
Social advocacy	0.33	0.43	0.38
Civic and social	0.26	0.36	0.31
Labor unions	0.27	0.34	0.30
Religious	0.25	0.30	0.27

Note:
This table was computed using data from the 2000 Social Capital Benchmark Survey. The participation score is computed by taking the average of each proportion. A visual representation of these scores can be found in the first column of Figure 2.1. Business and professional associations are grouped together because they are categorized as being identical in this survey (Social Capital Benchmark Survey Codebook, 2000).

Figure 2.1: Categorizing Voluntary Associations Based on Frequency of Participation, Diversity, and Average Number of Memberships



Notes:
This table ranks each association type in terms of mean proportion of members frequently participating in association activities, level of participation, diversity and number of memberships in other associations of its members. The participation scores in the first column are obtained from Table 2.3. The mean diversity scores in the second column are obtained from Table 2.4. See the text for details on how the values in the third column are computed. While business associations are a separate category in the NAICS, both the General Social Survey and Social Capital Benchmark Survey consider business associations to be identical to professional associations. Therefore, business and professional associations are lumped together in this table.

Second, associations vary in the extent to which they promote sociodemographic diversity within members' networks. The associations most likely to promote demographic diversity in their members' social networks are those that have members who are sociodemographically diverse (i.e., internally diverse) and those that have members who are more likely to be members of other associations (i.e., externally diverse). To assess internal diversity, I used data from the General Social Survey (GSS), a survey of United States residents that is administered in even-numbered years to track societal trends. One component of the GSS examines participation in 14 categories of voluntary associations. Data on associations is available in only the 2004 version of this survey. The GSS has more association types (14) than the NAICS (7), requiring me to aggregate some association types together. Labor unions, and political, religious, social advocacy and professional associations are unique categories in the GSS and NAICS, so no aggregation was necessary for these associations. To determine the internal diversity for civic and social associations, I averaged values for sports, school, ethnic, fraternal, youth, hobby, literary, veteran and Greek associations found in the GSS data. I treated business associations as being identical to professional associations based on information obtained through conversations with staff at the offices of the organizers of the GSS. This aggregation scheme is summarized in Table 2.2.

To determine the levels of sociodemographic diversity for each association type, I followed the procedure used by McPherson (1983) to compute the range of values exhibited by the members of each association type on various sociodemographic dimensions. First, I obtained the mean and standard deviation for the members of each association type based on the following variables: age, occupational prestige, education and income. Researchers often use inherent sociodemographic characteristics, such as age, and acquired sociodemographic characteristics, such as education, income, and occupational prestige, to determine similarity among people who interact with one another (McPherson and Smith-Lovin, 1987; McPherson, Smith-Lovin and Cook, 2001). Next, I computed a 1.5 standard deviation window around the mean for each sociodemographic dimension. The only exception is the lower end of the range for income, which is zero if the lower end of the computed window is negative. This yielded a range of values for each dimension that characterized the majority of members in each association type. I calculated internal diversity scores as the product of the high and low values of the range for each dimension, with higher scores indicating more internal diversity. In descending order, the associations that have the highest levels of internal diversity are: political, social advocacy, civic and social, religious, business and professional associations, and labor unions. These findings are detailed in Table 2.4 and summarized in the second column of Figure 2.1.

Table 2.4: Internal Diversity of Voluntary Associations

Association Type	Age (years)	Occupational Prestige	Education (years)	Income ($000s)	Diversity Score (000s)
Political	20.7 – 75.7 (mean: 48.2)	26.6 – 71.3 (mean: 49.0)	11.1 – 19.1 (mean: 15.1)	0 – 69.6 (mean: 26.8)	1,368
Social advocacy	21.5 – 70.0 (mean: 45.8)	27.9 – 69.5 (mean: 48.7)	10.5 – 18.6 (mean: 14.5)	0 – 83.3 (mean: 32.2)	1,361
Civic and social	25.1 – 72.9 (mean: 49.0)	32.6 – 70.8 (mean: 51.7)	10.8 – 19.1 (mean: 15.0)	0 – 82.6 (mean: 32.6)	1,251
Religious	23.0 – 72.6 (mean: 47.8)	26.4 – 69.5 (mean: 47.9)	10.1 – 18.4 (mean: 14.3)	0 – 69.9 (mean: 26.9)	1,240
Business / Professional	23.1 – 66.2 (mean: 44.6)	36.5 – 77.5 (mean: 57.0)	13.3 – 19.9 (mean: 16.6)	0 – 102.4 (mean: 43.4)	1,194
Labor	26.7 – 67.4 (mean: 47.1)	24.7 – 69.8 (mean: 47.3)	9.5 – 19.0 (mean: 14.2)	0 – 58.3 (mean: 28.2)	1,016

Notes:
This table was computed using data from the 2004 General Social Survey. The values for the age, occupational prestige, education and income ranges are obtained computing a 1.5 standard deviation window about the mean for each variable, for each type of voluntary association. The mean value for each variable is indicated in parentheses under the range. The only exception is the lower end of the range for income, which is zero if the lower end of the computed window is negative. The diversity score is computed by taking the products of each range of values. For example, the diversity score for religious associations is (72.6-23.0)*(69.5-26.4)*(18.4-10.1)*(69.9-0) = 1,240,264.

To determine which association types are most likely to have members who are also members of other associations, I used data on the mean number of memberships by association type as reported by Cornwell and Harrison (2004) based on the 1974-1994 General Social Survey (GSS). Since the GSS has more association types than the NAICS, I grouped associations the same way as I did when computing diversity scores. No aggregation was required for labor unions, and political, religious, social advocacy and professional associations since they are unique categories in the GSS and NAICS. The mean number of memberships for civic and social associations was computed by averaging the values for sports, school, fraternal, youth, ethnic, hobby, literary, veteran and Greek associations found in the GSS data. As before, I treated business associations as being identical to professional associations based on guidance from the staff at the offices of the GSS. The result is the mean number of memberships for each of the seven association types as reported in the third column of Figure 2.1. In descending order, the association types that are most likely to have members who are also members of other associations are: political, social advocacy, business and professional, and civic and social associations, labor unions, and religious associations.

The associations most likely to benefit entrepreneurs and owners of existing businesses are those that are diverse, both internally and externally, and those in which members actively participate in the associations' activities. As seen in Figure 2.1, political associations rank highest in internal and external diversity and participation. Social advocacy associations rate just below political associations in terms of internal and external diversity, and have the third highest participation rate. Members of business and professional associations participate in association

activities at rates slightly above that of members of social advocacy associations and have almost as many memberships in other associations, but tend to be less sociodemographically diverse. Nevertheless, since members of business and professional associations tend to be wealthier, hold more prestigious occupations, and more educated than members of other associations, they are likely to be good sources of advice and resources for current and future business owners. Therefore, business, political, professional and social advocacy associations should contribute to raising the number of businesses in communities.

Hypothesis 1A (H1A): The greater the number of business associations in a community, the greater the increase in the number of businesses in that community.

Hypothesis 1B (H1B): The greater the number of political associations in a community, the greater the increase in the number of businesses in that community.

Hypothesis 1C (H1C): The greater the number of professional associations in a community, the greater the increase in the number of businesses in that community.

Hypothesis 1D (H1D): The greater the number of social advocacy associations in a community, the greater the increase in the number of businesses in that community.

In contrast, associations that are less likely to facilitate demographic diversity in their members' social networks or associations with lower levels of active participation may not affect or may hinder organizing capacity. Labor unions are the least internally diverse and are among the least embedded association types in their communities, meaning that they typically have members who are not members of other associations (Cornwell and Harrison, 2004). Religious associations are similarly deficient in terms of external diversity, but religious associations are more internally diverse than labor unions and business and professional associations based on my measure. However, most religious associations are racially and ethnically homogeneous – two demographic dimensions I was unable to analyze due to data limitations (Dougherty, 2003; Land, Deane and Blau, 1991). In addition, both these association types have lower levels of frequent member participation. Moreover, the type of participation most common in these associations is not likely to result in the formation of new relationships or maintenance of existing ones. The most common type of participation in religious associations consists of attending services (Ellison and Sherkat, 1995; Goode, 1966), whereas most friendships develop outside of these services in smaller group activities such as choir and Sunday school classes (Schaller, 1984). Similarly, the most common type of participation in labor unions consists of activities that offer little or no opportunity to form relationships with other members, such as voting in elections and reading the union newspaper (Anderson, 1979). Activities that are most likely to allow members of labor unions to form relationships with their fellow members, such as serving on committees or attending meetings, are much less common.

While civic and social associations are fairly diverse, their members are often not frequently involved in the associations' activities. It is much less likely for new and current business owners to benefit from having access to a diverse group of people when most of their fellow members do not participate in association activities. In other words, any benefits that result from diversity are offset by low levels of member participation. Therefore, membership in these types of associations makes it less likely that current and future business owners will be

able to obtain the information and resources they need to launch new businesses or help existing businesses thrive. As a result, the increase of labor unions, and civic and social and religious associations is likely to decrease or have no effect on the organizing capacity of communities.

Hypothesis 1E (H1E): The greater the number of civic and social associations in a community, the greater the decrease in the number of businesses in that community.

Hypothesis 1F (H1F): The greater the number of labor unions in a community, the greater the decrease in the number of businesses in that community.

Hypothesis 1G (H1G): The greater the number of religious associations in a community, the greater the decrease in the number of businesses in that community.

Organizing Capacity and Commercial Bank Foundings

Although data limitations allow me to only look at net changes in all organizations (i.e. births – deaths) that exist in a focal community, I am able to examine the effect of voluntary associations on the founding rate of one type of organization: commercial banks. By providing capital to launch new businesses and help existing businesses expand (Berger and Udell, 1998; Kwast, Starr-McCluster, and Wolken, 1997), commercial banks play an important role in the economic vitality of communities.

Voluntary associations that enhance organizing capacity help increase demand for the services of banks in at least two ways. First, voluntary associations that enhance organizing capacity (i.e., business, professional, political and social advocacy associations) allow current and future business owners to come into contact with a diverse group of people, which facilitates their ability to obtain the resources they need to launch and grow their businesses. By helping entrepreneurs launch and current business owners grow their businesses, these voluntary associations are increasing demand for the products and services of banks. As the number of entrepreneurs ready to launch their businesses increases, the number of potential business owners needing capital and other banking services also increases. Analogously, as the number of current business owners expanding their businesses increases, the number of existing business owners that need external capital also increases.

Second, voluntary associations that enhance organizing capacity have members that participate in association activities more frequently than voluntary associations that reduce organizing capacity (i.e., labor unions, and religious and civic and social associations). By bringing people together on a more frequent basis, voluntary associations that enhance organizing capacity facilitate bankers' efforts at obtaining private information on potential borrowers compared to voluntary associations that reduce organizing capacity. Private information is information that is qualitative in nature and typically cannot be obtained by using public sources; instead, it must be voluntary transferred from one person to another (Uzzi, 1999). In most cases, this information is also personal in nature and transferred between people who are directly connected to one another or via a "trusted informant" (Granovetter, 1985: 400). Through active involvement in associations with higher levels of frequent member participation, bankers are more likely to come into contact with potential borrowers or trusted informants that are directly connected to potential borrowers. The private information obtained via these

relationships can subsequently be incorporated by bankers into their lending decisions, thereby helping bankers to better judge the character and creditworthiness of potential borrowers than is possible by relying solely on public information (e.g., credit scores and audited financial statements). In contrast, voluntary associations that hinder organizing capacity are not likely increase demand for the services of banks and the low levels of frequent participation of their members makes it less likely that bankers can obtain private information via membership in these associations.

But not all types of banks are likely to benefit from the presence of voluntary associations. The banks that are most likely to benefit are those that are headquartered in the community and only have branches in that community (i.e. purely local banks) for two reasons. First, bankers from purely local banks are more likely to reside in the community and frequently participate in voluntary associations than other bankers (Banfield and Wilson, 1963; Galaskiewicz, 1979), often serving as officers or trustees in local political, social advocacy, professional, business, civic and social and religious associations (Hunter, 1953; Kimbrough, 1958; Ratcliff, Gallagher, and Ratcliff, 1979). Frequent participation in association activities helps bankers obtain private information on current and future business owners seeking external capital, either through direct contact or via other members who can act as trusted informants. Second, purely local banks tend to have centralized lending operations, which allow their bankers to have more flexibility to include this information into their lending decisions. Compared to purely local banks, banks that have branches within and outside the community are less likely to be able to obtain and use private information. Their bankers are less likely to be physically near to potential borrowers and these banks typically use standardized lending procedures that rely on public information.

As demand for the services of purely local banks increases, these banks are likely to expand their operations by opening additional branches (Barnett and Sorenson, 2002; Marquis and Lounsbury, 2007). Given that voluntary associations that enhance community organizational capacity increase demand for the services of purely local banks, and this leads to the founding of additional branches of purely local banks, voluntary associations that enhance community organizational capacity should increase foundings of purely local bank branches. In contrast, voluntary associations that reduce organizing capacity do not increase demand for the services of purely local banks and therefore should decrease or have no effect on foundings of purely local bank branches.

Hypothesis 2A (H2A): The greater the number of business associations in a community, the higher the number of purely local bank branch foundings in that community.

Hypothesis 2B (H2B): The greater the number of political associations in a community, the higher the number of purely local bank branch foundings in that community.

Hypothesis 2C (H2C): The greater the number of professional associations in a community, the higher the number of purely local bank branch foundings in that community.

Hypothesis 2D (H2D): The greater the number of social advocacy associations in a community, the higher the number of purely local bank branch foundings in that community.

Hypothesis 2E (H2E): The greater the number of civic and social associations in a community, the lower the number of purely local bank branch foundings in that community.

Hypothesis 2F (H2F): The greater the number of labor unions associations in a community, the lower the number of purely local bank branch foundings in that community.

Hypothesis 2G (H2G): The greater the number of religious associations in a community, the lower the number of purely local bank branch foundings in that community.

Moderating Effect of Commercial Banks

By facilitating bankers' access to private information on potential borrowers, voluntary associations improve the likelihood that entrepreneurs and existing business owners will obtain capital. In other words, an important way that voluntary associations increase the number of businesses in communities is by helping entrepreneurs and people who run existing businesses obtain external capital. The presence of purely local banks is vital to this process because these banks are more likely to lend to new and small businesses than other banks due to their advantage in obtaining and using private information. Participation by current and future business owners in any association in which bankers from purely local banks also participate provides them with more opportunities to obtain external capital. As the number of purely local banks in a community increases, the number of potential sources of external capital for new and current business owners increases. Moreover, since more bankers are members of voluntary associations, more of them are able judge the creditworthiness of potential borrowers that they meet in these associations because they are able to obtain private information on them via participation in association activities. Therefore, as the number of purely local banks increases, more entrepreneurs and current business owners should be able to obtain external capital through membership in voluntary associations. This allows more new firms to launch and existing firms to thrive, leading to an increase in the number of businesses in communities. In other words, as more new and existing businesses obtain capital, there is likely to be an increase in the overall number of businesses in a community since organization births are increasing while deaths of existing organizations are decreasing. In summary, the number of purely local banks accentuates the effect of voluntary associations on community organizing capacity.

Because more current and future business owners should be able to obtain the capital they need to launch and maintain their businesses, increases in the number of purely local banks should result in voluntary associations having a more positive effect on associations that increase organizing capacity or a less negative effect on associations that decrease organizing capacity. In other words, the increased presence of banks will accentuate the positive effect of voluntary associations that increase organizing capacity and attenuate the negative effect of voluntary associations that decrease organizing capacity. But these predictions apply only to the types of voluntary associations that are likely to have bankers as members. Among the seven types of voluntary associations, labor unions have no bankers as members because only workers who are

represented by a union can be members of labor unions, which is not the case for bankers. Therefore, no moderating effect is predicted for labor unions.

Hypothesis 3A (H3A): The beneficial effects of business associations on community organizing capacity will be accentuated by increases in the number of purely local banks in the community.

Hypothesis 3B (H3B): The beneficial effects of political associations on community organizing capacity will be accentuated by increases in the number of purely local banks in the community.

Hypothesis 3C (H3C): The beneficial effects of professional associations on community organizing capacity will be accentuated by increases in the number of purely local banks in the community.

Hypothesis 3D (H3D): The beneficial effects of social advocacy associations on community organizing capacity will be accentuated by increases in the number of purely local banks in the community.

Hypothesis 3E (H3E): The harmful effects of civic and social associations on community organizing capacity will be attenuated by increases in the percentage of purely local banks in the community.

Hypothesis 3F (H3F): The harmful effects of religious associations on community organizing capacity will be attenuated by increases in the percentage of purely local banks in the community.

Research Design

I will test my hypotheses using data from various United States government agencies and the Standard and Poors Compustat database. All data are for the years 1994-2007. Although data on voluntary associations are available prior to 1994, in order to maintain consistency between the analysis examining organizing capacity and the analysis examining commercial bank foundings, I start my sampling in 1994 because it was a year of relative stability in the financial sector. In 1989, the government enacted legislation to help stem the high rate of failures among savings and loan institutions. This act gave commercial banks the right to purchase savings and loan institutions for the first time. Between 1989 and 1993, the number of savings and loans was reduced by 27% and the number of institutions that merged with commercial banks went from five to 61. By 1994, the number of mergers stabilized and the number of savings and loans that were closed decreased to zero. I end my sampling in the year 2007 because December 2007 was when the United States economy experienced an exogenous shock and entered a recession (National Bureau of Economic Research, December 2008).

Data Sources

I use data from four sources. Data on the number and type of voluntary associations in each community come from the Bureau of Labor Statistics, which publishes a Quarterly Census of Employment and Wages report that contains information for each county on the number of establishments, annual employment and total wages for all industries in each county, grouped by the North American Industrial Classification System. Data on the number and type of commercial banks in each county come from the Federal Deposit Insurance Corporation, which publishes an annual Summary of Deposits database that contains basic demographic and asset information for every branch of every commercial bank that they insure. The United States Census Bureau publishes information on the latitude and longitude of the center point of each county, which I use to compute distances between the center points of each county pair to address concerns of spatial interdependence. Lastly, the Bureau of Economic Analysis publishes population and per-capita income data for each county, which I use as control variables.

Unit of Analysis

To draw the boundaries of local communities, I use labor market areas (LMAs). The U.S. Bureau of Labor Statistics (2007) defines a LMA as "an economically integrated geographic area within which individuals can reside and find employment within a reasonable distance or can readily change employment without changing their place of residence." Every county in the United States is in an LMA. LMAs are more meaningful than counties because they are based on commuting patterns (Tolbert and Killian, 1987). Thus, they correspond more closely than counties to the geographic area where people will join voluntary associations and where business owners and managers will bank. For example, San Francisco is part of an LMA that contains seven counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Solano) while New York City is part of an LMA that contains nine counties (Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Suffolk, and Westchester).

Measures: Dependent Variables

For the analysis examining the effect of voluntary associations on community organizing capacity and the moderating effect of commercial banks, my dependent variable is c*hange in number of private establishments* (i.e., non-government establishments) in the community between the prior year (t-1) and the current year (t). For the analysis examining the effect of voluntary associations on commercial bank foundings, my dependent variable is the *number of new purely local bank branches* in the community in the current year (t).

Measures: Independent Variables

The independent variables are identical in both sets of analyses: counts of each type of voluntary association within the focal community in the prior year.

Measures: Control Variables

My analysis includes a number of control variables to discount alternative explanations. To assure temporal priority and make causal attributions more plausible, I lag all control variables by one year. For the analysis examining the effect of voluntary associations on community organizing capacity and the moderating effect of commercial banks, I include the *number of private establishments* in the community in the previous year to control for size of the private sector. My dependent variable may also be affected by LMAs' geographic positions. Voluntary associations in nearby communities may affect business creation in the focal community. To control for this spatial interdependence, I include non-local counts of voluntary associations weighted by geographic distance (Audia, Freeman, and Reynolds, 2006; Hedström, 1994). To calculate the geographic distance between the focal community and all other communities, I use the center point of each community and assign a latitude and longitude to this center point. I then create nonlocal variables weighted by geographic distance (NLVW) using the following formula:

$$NLVW_j = \sum_u (\mathrm{V_u}) \times (1/\mathrm{d_{uj}}),\ \mathrm{u} \neq \mathrm{j}$$

where j is the focal community, u consists of all communities excluding community j, V_u is the variable to be weighted in community u (e.g., the number of business associations), and d_{uj} is the geographic distance between community u and community j.

For the analysis examining the effect of voluntary associations on purely local bank foundings, I control for dollar value of *total deposits* held in all bank branches within the focal community, which is an alternative measure of community size that may be more relevant to the decision to open a new bank branch. I also control for the current state of the banking sector within the focal community by including the *number of bank headquarters* and *number of bank branches closed* in the prior year. Following the tradition of population ecology, (e.g., Hannan and Freeman, 1977) a bank branch is considered to be closed if it shuts down completely or if it changes ownership.

The remaining control variables are used in both sets of analyses. To address the concern that wealthier communities may have more businesses because they are likely to have greater demand for all types of products and services, I use *per-capita income* in the prior year as a proxy for the wealth of a community. To control for community size, I include *population* in the prior year. Finally, to control for size of the banking sector I compute the number of banks in the prior year to obtain the *number of banks*. Lastly, I control for organizational diversity. Communities that have business establishments in many different industries and of many different sizes tend to be more economically prosperous (Glaeser et al., 1992; Jacobs, 1969). Therefore, the industrial concentration of communities may affect business creation. To examine if this is the case, for the analysis examining changes in the number of businesses, I compute the *Herfindahl index* of industrial concentration based on the number of employees in each industry as a proxy for size. For the analysis examining purely local bank foundings, I compute a Herfindahl index based on concentration at the firm level since the bank data contain detailed information on each commercial bank.

A brief overview of all variables used in this analysis and details on how each is measured can be found in Table 2.5.

Table 2.5: Description of Constructs

Construct	Description
Change in number of private establishments (t)	Change between the total number of private establishments in time t and time t-1. Source: Bureau of Labor Statistics
Number of new locally-owned bank branches	Number of new bank branches of locally-owned banks in the focal community in the prior year (i.e., time t-1). Source: Federal Deposit Insurance Corporation
Number of each type of association	The number of associations of each type operating in the focal community in the prior year. Source: Bureau of Labor Statistics
Number of private establishments (t)	The total number of private establishments in time t. Source: Bureau of Labor Statistics
Total deposits	Total amount deposited in all commercial banks located within the focal community (in dollars) in the prior year. Source: Federal Deposit Insurance Corporation
Number of bank headquarters	Total number of bank headquarters operating within the focal community in the prior year. Source: Federal Deposit Insurance Corporation
Number of bank branches closed	Total number of bank branches that closed in the prior year. Source: Federal Deposit Insurance Corporation
Population	The total number of people in a community in time t. Source: Bureau of Economic Analysis
Per-capita income	Average per-capita personal income in the prior year, calculated as the personal income of the residents of the focal community divided by the population of the community. Source: Bureau of Economic Analysis
Herfindahl index	Measure of concentration within an industry or between industries. For the analysis predicting changes in the number of establishments, this measure is computed based on the number of employees in each industry (2-digit NAICS). First, the number of employees in each industry is divided by the number of total employees in the community. Then, the Herfindahl index measure is obtained by taking each proportion, squaring it, and then summing up the squared terms. For the analysis predicting bank foundings, this measure is computed in the same manner as above, but using the number of branches for each commercial bank instead of the number of employees in each industry. Source: Bureau of Economic analysis & Federal Deposit Insurance Corporation
Number of commercial banks	Total number of commercial bank branches in the prior year. Source: Federal Deposit Insurance Corporation
Number of purely local banks	Number of commercial bank establishments (headquarters and branches) in the focal community that are purely local. A commercial bank is designated as being purely local if its headquarters and all of its branches are located within the focal community. Source: Federal Deposit Insurance Corporation

Number of each type of association weighted by geographic distance	Used to control for spatial interdependence. Calculated as the number of each association type in time t in community *u* and the inverse of the distance between the center points of the focal community (i.e., community *j*) and community *u*, then summed up over all communities ($u \neq j$). Source: Bureau of Labor Statistics and United States Census Bureau

Note: All independent and control variables are lagged by one year (t-1).

Estimation

I examine the effect of voluntary associations on community organizing capacity using regression with a change score as my dependent variable. Measuring the dependent variable at two points in time allows for causal inferences to be made when using non-experimental data (Allison, 1990). When modeling the effect of voluntary associations on commercial bank foundings, I use negative-binomial models, which are preferred for event counts when there is overdispersion – that is, the variance of the event count is much larger than the mean (Cameron and Trivedi, 1986). I found evidence of strong overdispersion in my data – the variance of the count of new bank foundings is 90 times larger than the mean. All models employ LMA and year fixed effects, which allows me to control for unobserved features that remain constant over time (i.e., natural resources that may influence economic activity, community traditions, or laws that persist over time).

Despite using lagged variables to infer causality, there is still a potential concern due to endogeneity. As the number of businesses in communities increases, there may be an increase in the number of voluntary associations to accommodate the interests and needs of the additional workers employed by these businesses and their families. Although I cannot directly disprove this, I believe that the direction of causality runs from voluntary associations to organizing capacity two reasons. First, some association types may increase in numbers as the number of businesses decreases. Voluntary associations are founded in communities where there is demand for their services (Hansmann, 1987). As such, communities experiencing declines in the number of businesses are more likely to need associations that provide welfare services to residents that are losing their jobs and assistance to existing businesses than communities that are thriving. Increased economic hardship of residents may also lead to increased political activism (Lawless and Fox, 2001). The data support these assertions – between 1994 and 2007 the mean change in the number of social advocacy, political and business associations is higher in communities experiencing decreases in the number of businesses than in communities experiencing increases in the number of businesses from one year to another.

Second, if associations opened and closed based on the economic conditions of communities, then I would expect to see a high rate of change in the number of associations from one year to the other. However, the data reveal that the rate of change in the number associations is low. Between 1994 and 2007, more than 50% of communities did not experience an increase or decrease in business, political, professional, social advocacy, or religious associations or labor unions. Moreover, more than 70% of communities experienced only a one unit increase or decrease in counts of each of these association types.

The values were slightly lower for civic and social associations – more than 33% of communities did not see an increase or decrease in the number of civic and social associations and more than

50% saw less than a one unit change in the number of civic and social associations. Therefore, it seems unlikely that associations open and close based on year-to-year changes in the number of businesses in communities.

The data cover 391 LMAs in the 48 contiguous states. Table 2.6 reports summary statistics and Table 2.7 reports correlations for all variables used when measuring organizing capacity. The correlations reported are within-LMA correlation coefficients. A small number of the correlations are above 0.5. Larger communities are likely to have more businesses, as seen in the very high correlation between population and number of establishments. Many of the association counts are positively correlated with one another, suggesting that some associations spur the creation of other associations. The strongest instances of this involve social advocacy associations, which are highly correlated with religious, professional and political associations. Many of the non-local variables weighted by geographic distance are also highly correlated with one another, which may be the reason that further analysis revealed evidence of possible multicollinearity when these were present. The mean variance inflation factor when the non-local variables weighted by geographic distance were included was 17.71. However, when these variables were removed, the mean variance inflation factor decreased to 2.41, indicating no evidence of multicollinearity. Since removing these variables from the analysis did not alter the independent variables in any meaningful manner, I report results with these variables included.

Table 2.6: Descriptive Statistics for Variables Measuring Changes in the Number of Establishments within LMAs

Variable	Mean	S.D.	Min.	Max.
1. Change in number of private establishments	4.20E+02	1.57E+03	-1.86E+04	4.19E+04
2. Number of private establishments	1.71E+04	3.81E+04	1.31E+03	5.87E+05
3. Per-capita income	2.48E+04	5.93E+03	1.11E+04	5.87E+04
4. Population	7.05E+05	1.38E+06	2.08E+04	1.77E+07
5. Herfindahl index	0.134	4.55e-02	7.82e-03	0.391
6. Number of banks	180.52	248.06	0	2533.00
7. Number of banks weighted by geographic distance	152.82	49.31	51.05	325.06
8. Number of voluntary associations weighted by geographic distance	239.13	91.14	102.20	856.20
9. Number of business associations weighted by geographic distance	30.02	10.98	11.10	75.37
10. Number of political associations weighted by geographic distance	2.33	1.41	0.60	11.11
11. Number of professional associations weighted by geographic distance	9.59	4.79	2.64	44.85
12. Number of social advocacy associations weighted by geographic distance	19.90	11.05	5.95	109.00
13. Number of civic and social associations weighted by geographic distance	56.41	21.25	22.44	130.07
14. Number of labor unions weighted by geographic distance	30.62	12.47	11.64	82.63
15. Number of religious associations weighted by geographic distance	25.69	18.29	7.32	237.30
16. Number of voluntary associations	303.29	655.30	0	8216
17. Number of purely local banks	52.61	78.22	0	1156
18. Number of business associations	37.48	84.65	0	1186
19. Number of political associations	2.93	10.57	0	226
20. Number of professional associations	11.68	42.32	0	712
21. Number of social advocacy associations	26.22	81.57	0	1455
22. Number of civic and social associations	69.14	119.95	0	1151
23. Number of labor unions	36.13	71.56	0	656
24. Number of religious associations	36.84	168.76	0	3179

Note: This table covers 5,474 annual observations on 391 labor market areas between 1994 and 2007.

TABLE 2.7: Within Correlations for Variables Measuring Changes in the Number of Establishments within LMAs

	Variable	1	2	3	4	5	6	7
1.	Change in number of private establishments							
2.	Number of private establishments	-0.035						
3.	Per-capita income	0.044	0.449					
4.	Population	0.114	0.844	0.423				
5.	Herfindahl index	-0.016	-0.116	-0.510	-0.069			
6.	Number of banks	0.002	0.437	0.262	0.499	-0.032		
7.	Number of banks weighted by geographic distance	0.026	0.190	0.643	0.161	-0.511	0.225	
8.	Number of voluntary associations weighted by geographic distance	0.035	0.324	0.865	0.300	-0.614	0.199	0.686
9.	Number of business associations weighted by geographic distance	0.017	0.294	0.800	0.244	-0.628	0.174	0.655
10.	Number of political associations weighted by geographic distance	0.009	0.295	0.780	0.243	-0.569	0.161	0.616
11.	Number of professional associations weighted by geographic distance	0.046	0.326	0.813	0.294	-0.554	0.179	0.635
12.	Number of social advocacy associations weighted by geographic distance	0.025	0.321	0.850	0.268	-0.607	0.184	0.670
13.	Number of civic and social associations weighted by geographic distance	-0.032	0.216	0.599	0.165	-0.568	0.128	0.510
14.	Number of labor unions weighted by geographic distance	-0.050	0.088	0.153	0.042	-0.233	0.019	0.067
15.	Number of religious associations weighted by geographic distance	0.026	0.319	0.837	0.285	-0.545	0.194	0.641
16.	Number of voluntary associations	-0.004	0.425	0.384	0.456	-0.101	0.345	0.168
17.	Number of purely local banks	-0.066	-0.378	-0.456	-0.407	0.188	-0.126	-0.273
18.	Number of business associations	-0.049	0.180	0.612	0.152	-0.352	0.189	0.424
19.	Number of political associations	0.002	0.339	0.351	0.333	-0.061	0.259	0.179
20.	Number of professional associations	0.083	0.476	0.373	0.449	-0.059	0.323	0.183
21.	Number of social advocacy associations	0.060	0.541	0.475	0.540	-0.114	0.361	0.232
22.	Number of civic and social associations	-0.121	-0.183	0.111	-0.223	-0.188	-0.119	0.094
23.	Number of labor unions	-0.048	-0.255	-0.008	-0.257	-0.122	-0.249	0.009
24.	Number of religious associations	0.023	0.379	0.333	0.407	-0.071	0.272	0.153

	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.	0.847															
10.	0.888	0.950														
11.	0.920	0.925	0.965													
12.	0.917	0.967	0.973	0.968												
13.	0.627	0.891	0.776	0.710	0.773											
14.	0.159	0.528	0.424	0.325	0.364	0.768										
15.	0.951	0.857	0.922	0.947	0.945	0.598	0.137									
16.	0.398	0.263	0.308	0.386	0.314	0.141	0.013	0.396								
17.	-0.412	-0.329	-0.333	-0.372	-0.358	-0.209	0.033	-0.395	-0.386							
18.	0.622	0.660	0.647	0.630	0.671	0.567	0.330	0.630	0.360	-0.232						
19.	0.344	0.307	0.364	0.381	0.343	0.197	0.087	0.375	0.615	-0.398	0.382					
20.	0.399	0.277	0.353	0.401	0.354	0.127	0.017	0.433	0.574	-0.379	0.519	0.572				
21.	0.418	0.380	0.409	0.456	0.417	0.257	0.107	0.443	0.753	-0.517	0.345	0.727	0.537			
22.	0.119	0.203	0.149	0.103	0.163	0.279	0.225	0.095	0.002	0.140	0.294	-0.092	-0.147	-0.113		
23.	0.004	0.094	0.051	0.009	0.051	0.178	0.232	-0.021	-0.094	0.159	0.157	-0.028	-0.180	-0.143	0.500	
24.	0.365	0.247	0.312	0.388	0.308	0.103	-0.022	0.408	0.794	-0.299	0.210	0.406	0.468	0.529	-0.224	-0.329

Notes: This table is based on 5,474 observations on the presence of voluntary associations in 391 LMAs between 1994 and 2007. Because I am studying the effects that voluntary associations have on businesses in a focal LMA, I report within-LMA correlation coefficients.

Table 2.8 reports summary statistics and Table 2.9 reports correlations for all variables used when measuring purely local bank branch foundings. As in the previous analysis, the correlations reported are within-LMA correlation coefficients. Further analysis (not shown) revealed no evidence of multicollinearity, thereby eliminating any concerns that the standard errors will be erroneously inflated. A few of the correlations are above 0.5. Larger communities are likely to have more banks and more money deposited in those banks, as evident by the high correlations between population, number of banks and total deposits. The number of voluntary associations is highly correlated with the number of banks and the amount money deposited in those banks. The number of business associations in a community is positively correlated with mean per-capita income, indicating that wealthier communities have more business associations.

TABLE 2.8: Descriptive Statistics for Variables Measuring Purely Local Bank Branch Foundings within LMAs

Variable	Mean	S.D.	Min.	Max.
1. Number of new purely local bank branches	3.29	8.47	0	226
2. Number of bank headquarters	21.82	22.84	1	322
3. Number of closed bank branches	17.92	38.19	0	612
4. Total deposits	9.17E+06	2.54E+06	6.13E+05	5.96E+08
5. Number of banks	181.22	248.29	23	2533
6. Population	7.07E+05	1.38E+06	2.08E+04	1.77E+07
7. Per-capita income	2.48E+04	5.93E+03	1.11E+04	5.87E+04
8. Herfindahl index	0.119	0.0657	0.0235	0.790
9. Number of voluntary associations	304.18	656.40	0	8216
10. Number of business associations	37.59	84.79	0	1186
11. Number of political associations	2.94	1.06	0	2.26
12. Number of professional associations	11.72	42.39	0	712
13. Number of social advocacy associations	26.30	81.72	0	1455
14. Number of civic and social associations	69.34	120.14	0	1151
15. Number of labor unions	36.26	71.67	0	656
16. Number of religious associations	36.96	169.07	0	3179

Note: This table covers 5,453 annual observations on 391 labor market areas between 1994 and 2007.

TABLE 2.9: Within Correlations for Variables Measuring Purely Local Bank Branch Foundings within LMAs

	Variable	1	2	3	4	5	6	7
1.	Number of new purely local bank branches							
2.	Number of bank headquarters	0.301						
3.	Number of closed bank branches	0.201	0.125					
4.	Total deposits	-0.133	-0.353	-0.173				
5.	Number of banks	-0.258	-0.551	-0.035	0.505			
6.	Population	-0.173	-0.454	-0.260	0.609	0.580		
7.	Per-capita income	-0.186	-0.571	-0.178	0.348	0.428	0.436	
8.	Herfindahl	-0.040	-0.148	-0.028	0.219	0.018	0.062	0.088
9.	Number of voluntary associations	-0.162	-0.283	-0.264	0.616	0.231	0.435	0.398
10.	Number of business associations	-0.144	-0.295	-0.112	0.117	0.228	0.150	0.617
11.	Number of political associations	-0.219	-0.269	-0.280	0.390	0.293	0.325	0.352
12.	Number of professional associations	-0.213	-0.302	-0.238	0.454	0.342	0.443	0.378
13.	Number of social advocacy associations	-0.218	-0.411	-0.311	0.567	0.385	0.533	0.482
14.	Number of civic and social unions	0.058	0.136	0.056	-0.327	-0.224	-0.255	0.110
15.	Number of labor unions	0.033	0.247	0.038	-0.356	-0.211	-0.244	-0.006
16.	Number of religious associations	-0.081	-0.258	-0.166	0.664	0.257	0.407	0.345

	8	9	10	11	12	13	14	15
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.	0.047							
10.	0.073	0.362						
11.	0.047	0.620	0.374					
12.	0.028	0.568	0.513	0.563				
13.	0.034	0.747	0.341	0.730	0.526			
14.	0.002	-0.006	0.302	-0.098	-0.152	-0.123		
15.	0.013	-0.059	0.173	-0.022	-0.173	-0.124	0.528	
16.	0.028	0.793	0.221	0.414	0.477	0.529	-0.233	-0.315

Notes: This table is based on 5,453 observations on the presence of voluntary associations in 391 LMAs between 1994 and 2007. Because I am studying the effects that voluntary associations have on businesses in a focal LMA, I report within-LMA correlation coefficients.

Results

Table 2.10 reports the results of the regressions predicting organizing capacity. In Model 1, which is a baseline configuration, three of the control variables are significant. The number of private establishments in the prior year is negatively associated with the change in the number of private establishments between the current year and the prior year, indicating that communities with more establishments have smaller increases in the change in the number of establishments. But population is positively associated with change in the number of private establishments, indicating that as communities get larger more businesses are created. Collectively these results suggest suggests that there is a ceiling effect on the number of establishments in a community. The negative association between the number of banks in the prior year and dependent variable suggests that communities with more banks create fewer businesses. Model 2 shows that the number of voluntary associations is negatively associated with change in the number of private establishments. Model 3 reports the results when separating voluntary associations by category. These results support the arguments laid out in this paper that aggregating all voluntary associations together masks important differences between association types.

In hypotheses H1A-H1D, I predicted that business, political, professional and social advocacy associations would contribute to the formation of businesses. While political, professional and social advocacy associations positively contribute to business creation, business associations are negatively associated with the dependent variable. In other words, support was found for hypotheses H1B, H1C and H1D, but not for hypothesis H1A. Each additional professional association increases the additional number of private establishments in the focal community by more than 46. Each additional political association increases the additional number of private establishments in the focal community by more than 39. Each additional social advocacy association increases the additional number of private establishments in the focal community by more than seven. But each additional business association decreases the additional number of private establishments in the focal community by more than 30.

As predicted, civic and social and religious associations are negatively associated with changes in private establishments, supporting hypotheses H1E and H1G. Labor unions are not associated with changes in private establishments, partially supporting hypothesis H1F.

The only result that did not match my predictions was that business associations are negatively associated with changes in private establishments. Although business associations are identical to professional associations in terms of diversity and participation, they have the opposite effect on organizing capacity. This result may be due to differences between the goals of each association type. Professional associations aim to further the interests of their members as it relates to their professions, making it likely that members will support potential entrepreneurs and current business owners by helping them obtain important resources. In contrast, business associations seek to foster only the interests of current business owners. In fact, it is not possible to join a business association, such as a Chamber of Commerce, without already being a business owner or being an authorized representative of the owner(s). Therefore, the idea of a member launching a new business that could potentially compete with another member's business is likely to be frowned upon. Taken in this light, my finding that business associations are negatively associated with organizing capacity is less surprising. Nevertheless, this divergent finding suggests that the goals of the association may be another dimension that can be used to differentiate voluntary associations.

TABLE 2.10: Ordinary Least Squares Regressions of Changes in the Number of Establishments within LMAs

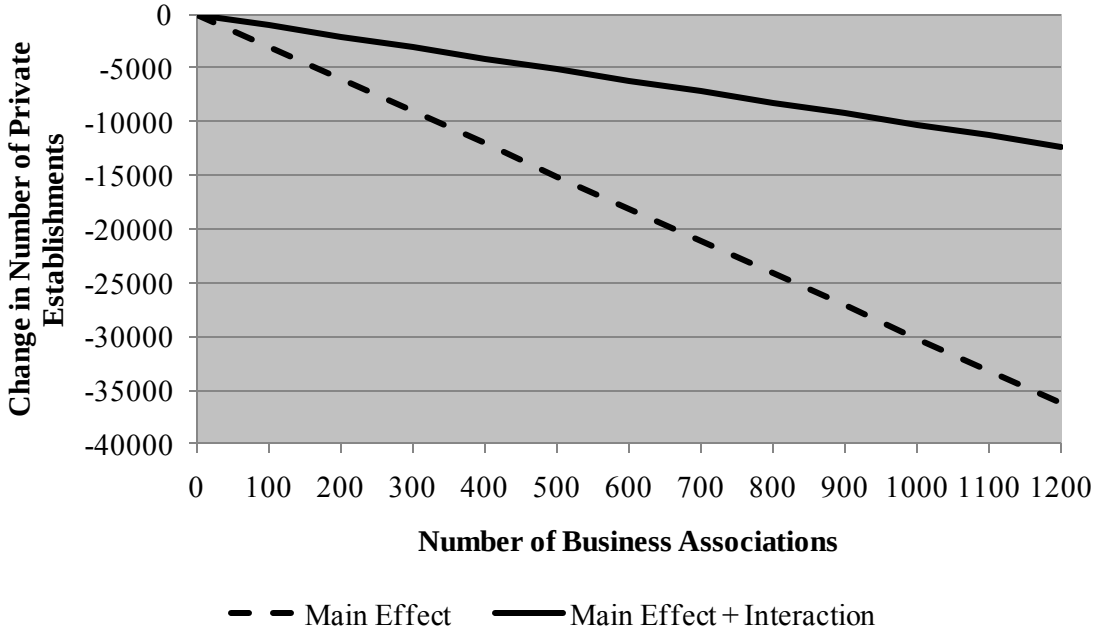
	(1)	(2)	(3)	(4)
Number of private establishments	-0.146***	-0.146***	-0.182***	-0.218***
	(0.00825)	(0.00825)	(0.00850)	(0.00907)
Per-capita income	-0.0173	-0.00183	-0.0346	-0.00299
	(0.0188)	(0.0192)	(0.0190)	(0.0192)
Population	0.00875***	0.00909***	0.00801***	0.00805***
	(0.000454)	(0.000461)	(0.000455)	(0.000467)
Herfindahl index	718.3	555.6	662.4	954.8
	(1,498)	(1,510)	(1,510)	(1,495)
Number of banks	-2.678***	-2.933***	-4.153***	-2.222**
	(0.678)	(0.682)	(0.685)	(0.802)
Number of banks weighted by geographic distance	-5.880	-7.838	-24.47**	-22.30**
	(5.755)	(5.779)	(8.251)	(8.119)
Number of voluntary associations weighted by geographic distance		-1.278		
		(3.713)		
Number of voluntary associations		-1.691***		
		(0.448)		
Number of business associations weighted by geographic distance			118.3**	66.99
			(36.97)	(37.04)
Number of political associations weighted by geographic distance			122.8	123.1
			(131.1)	(128.9)
Number of professional associations weighted by geographic distance			43.50	85.00
			(44.58)	(44.23)
Number of social advocacy associations weighted by geographic distance			-41.59	-11.93
			(31.91)	(31.87)
Number of civic and social associations weighted by geographic distance			-121.2*	-97.97
			(53.98)	(53.06)
Number of labor unions weighted by geographic distance			-49.18	-58.81
			(48.43)	(47.70)
Number of religious associations weighted by geographic distance			-69.67***	-79.19***
			(16.29)	(16.05)
Number of business associations			-30.25***	-13.90***
			(3.206)	(3.629)
Number of political associations			39.66***	20.69*
			(7.300)	(10.46)
Number of professional associations			46.60***	43.13***
			(3.487)	(4.727)

Number of social advocacy associations			7.783***	11.64***
			(1.664)	(2.774)
Number of civic and social associations			-16.60***	-7.714**
			(2.809)	(2.978)
Number of labor unions			1.688	-6.060
			(3.476)	(3.977)
Number of religious associations			-4.354***	1.084
			(0.867)	(1.043)
Number of purely local banks				2.416*
				(0.997)
Number of purely local banks X Number of business associations				-0.0382***
				(0.00540)
Number of purely local banks X Number of political associations				0.0993***
				(0.0185)
Number of purely local banks X Number of professional associations				0.0448***
				(0.0103)
Number of purely local banks X Number of social advocacy associations				0.0288***
				(0.00463)
Number of purely local banks X Number of civic and social associations				-0.0263***
				(0.00389)
Number of purely local banks X Number of religious associations				-0.0129***
				(0.00163)
Constant	-1,258	-707.1	12,593***	10,726***
	(1,229)	(1,477)	(2,897)	(2,862)
Observations	5083	5083	5083	5083
R-squared (within)	0.123	0.126	0.182	0.221

Notes: This table presents regressions of the change in total private establishments between the current year and the prior year in 391 Labor Market Areas (LMAs) between 1994 and 2007. All the independent variables are lagged by one year, representing counts for the prior year. Standard errors are reported in parentheses below the parameter estimates. † indicates $p<0.1$, * $p<0.05$, ** $p<0.01$, and *** $p<0.001$, two-tailed t tests.

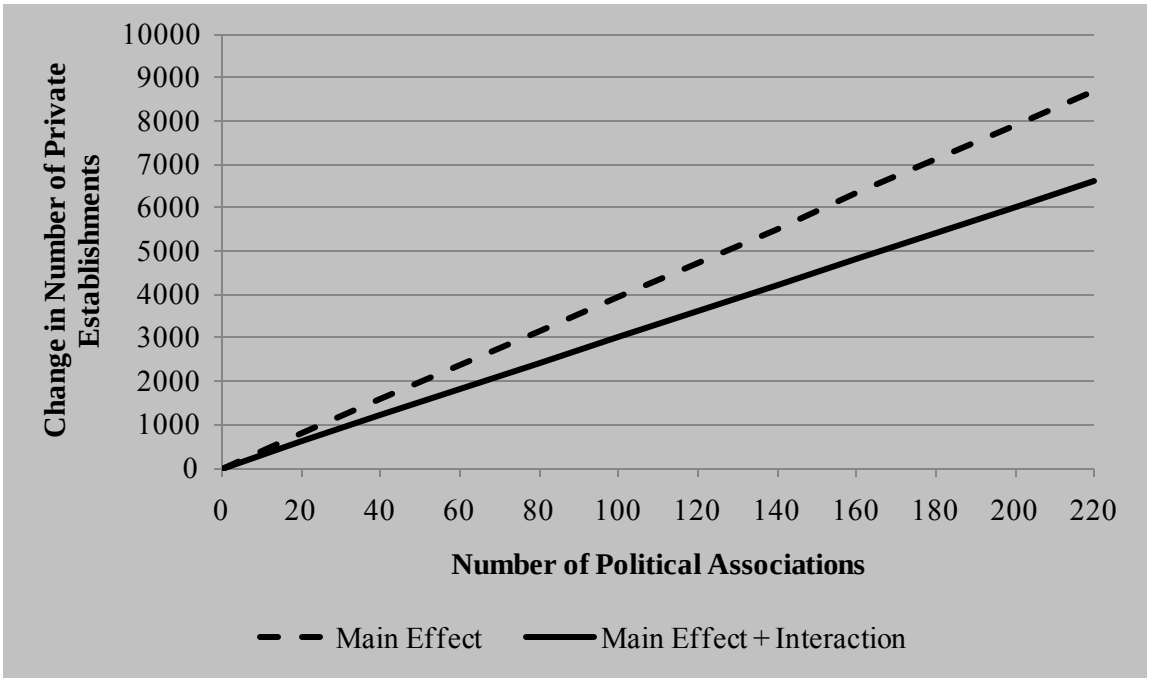
Model 4 reports the results examining the moderating effect of purely local banks on the relationship between voluntary associations and changes in the number of private establishments. To examine whether the number of purely local banks increases the effect of voluntary associations on changes in the number of private establishments, I plot the results comparing the main effect of each association type on the dependent variable, as reported in Model 3, to the main effect plus the interaction term for each association type, as reported in Model 4. These two equations are plotted over the possible range of values for each voluntary association type. Figure 2.2 shows that the negative effect of business associations is attenuated by the presence of purely local banks. Contrary to my hypotheses, but consistent with past results, business associations negatively affect organizing capacity. Nevertheless, since their effect on organizing capacity increases with the presence of purely local banks, hypothesis H3A is supported. But no support is found for hypothesis H3B because, as seen in Figure 2.3, the effect of political associations on the dependent variable is attenuated by the presence of purely local banks.

FIGURE 2.2: The Effect of Business Associations on Changes in the Number of Establishments within LMAs (Moderated by the number of purely local banks)



Notes:
This figure compares the effect of the number of business associations on changes in the number of establishments (i.e. main effect) to the effect of the number of business associations on changes in the number of establishments as moderated by the number of purely local banks in the community (i.e. main effect plus interaction term). The data used to compute these curves are from Models 3 and 4 of Table 2.10. It is assumed that the community contains the mean number of purely local banks.

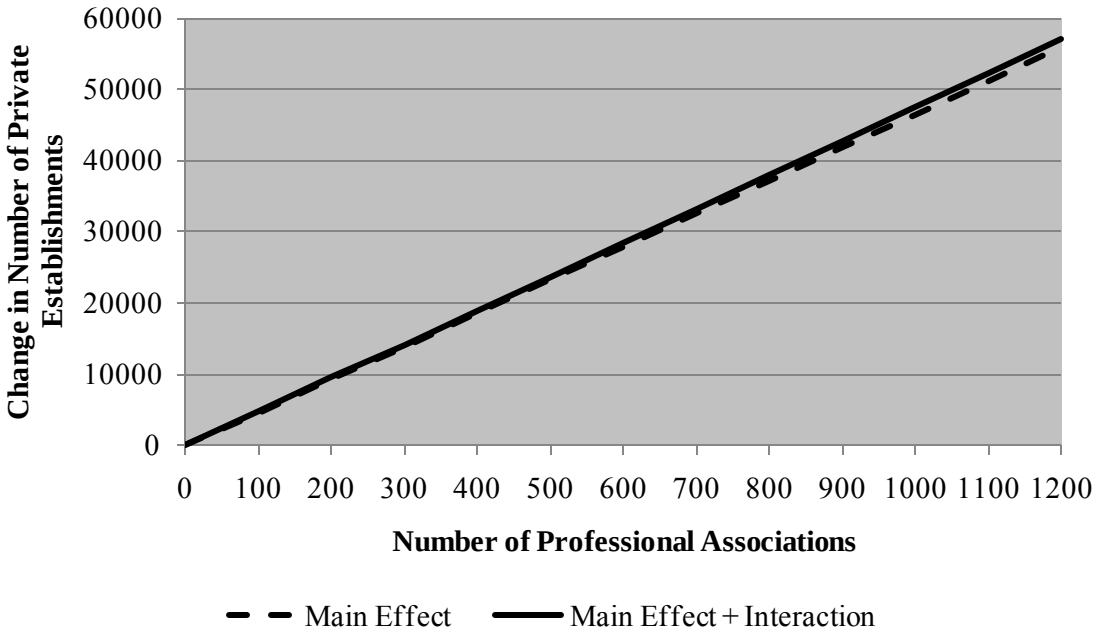
FIGURE 2.3: The Effect of Political Associations on Changes in the Number of Establishments within LMAs (Moderated by the number of purely local banks)



Notes:
This figure compares the effect of the number of political associations on changes in the number of establishments (i.e. main effect) to the effect of the number of political associations on changes in the number of establishments as moderated by the number of purely local banks in the community (i.e. main effect plus interaction term). The data used to compute these curves are from Models 3 and 4 of Table 2.10. It is assumed that the community contains the mean number of purely local banks.

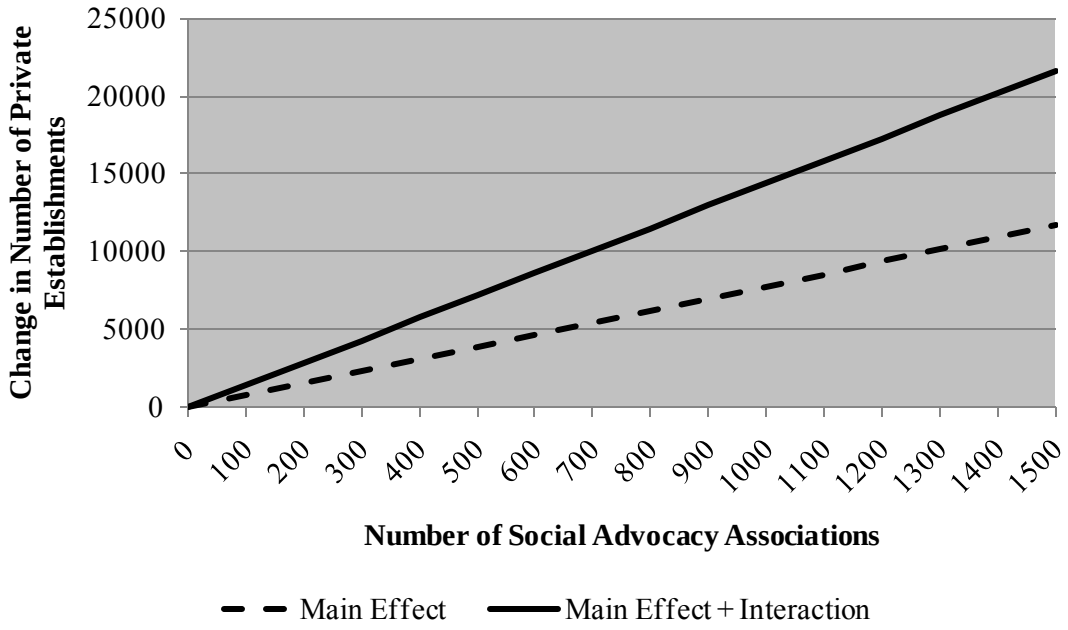
As seen in Figures 2.4 and 2.5, the positive effect of professional and social advocacy associations on the change in the number of private establishments is accentuated by the presence of purely local banks. These results support hypotheses H3C and H3D. For the association types that hinder organizing capacity, Figures 2.6 and 2.7 show that the negative effects of civic and social and religious associations on changes in the number of private establishments are attenuated by the presence of purely local banks. These findings support hypotheses H3E and H3F. Recall that since labor unions are not likely to have bankers as members, no moderating effect was predicted for this association type.

FIGURE 2.4: The Effect of Professional Associations on Changes in the Number of Establishments within LMAs (Moderated by the number of purely local banks)



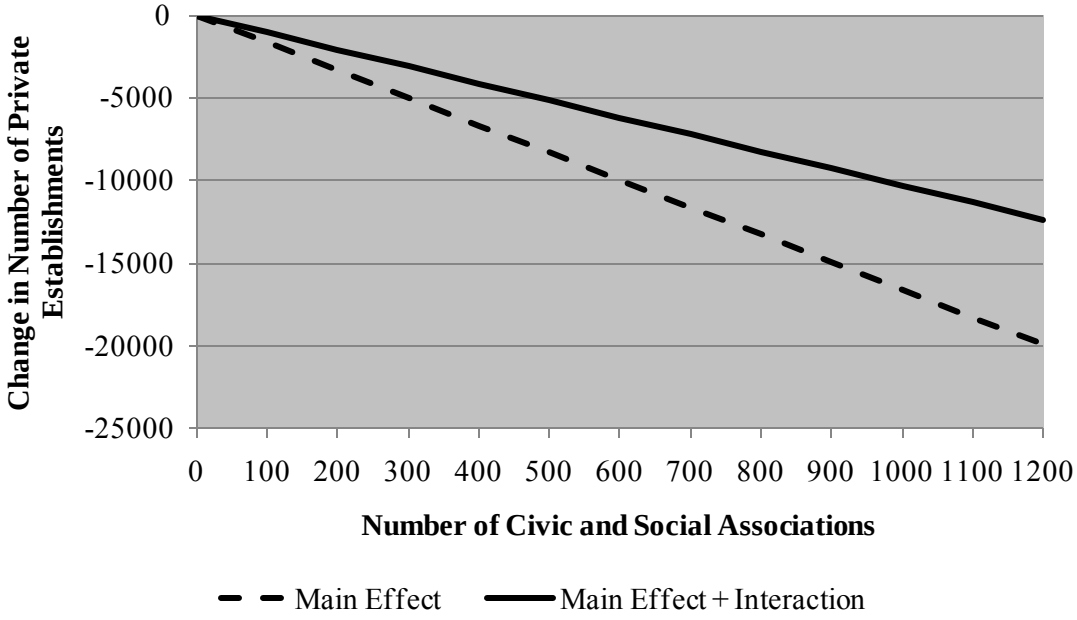
Notes:
This figure compares the effect of the number of professional associations on changes in the number of establishments (i.e. main effect) to the effect of the number of professional associations on changes in the number of establishments as moderated by the number of purely local banks in the community (i.e. main effect plus interaction term). The data used to compute these curves are from Models 3 and 4 of Table 2.10. It is assumed that the community contains the mean number of purely local banks.

FIGURE 2.5: The Effect of Social Advocacy Associations on Changes in the Number of Establishments within LMAs (Moderated by the number of purely local banks)



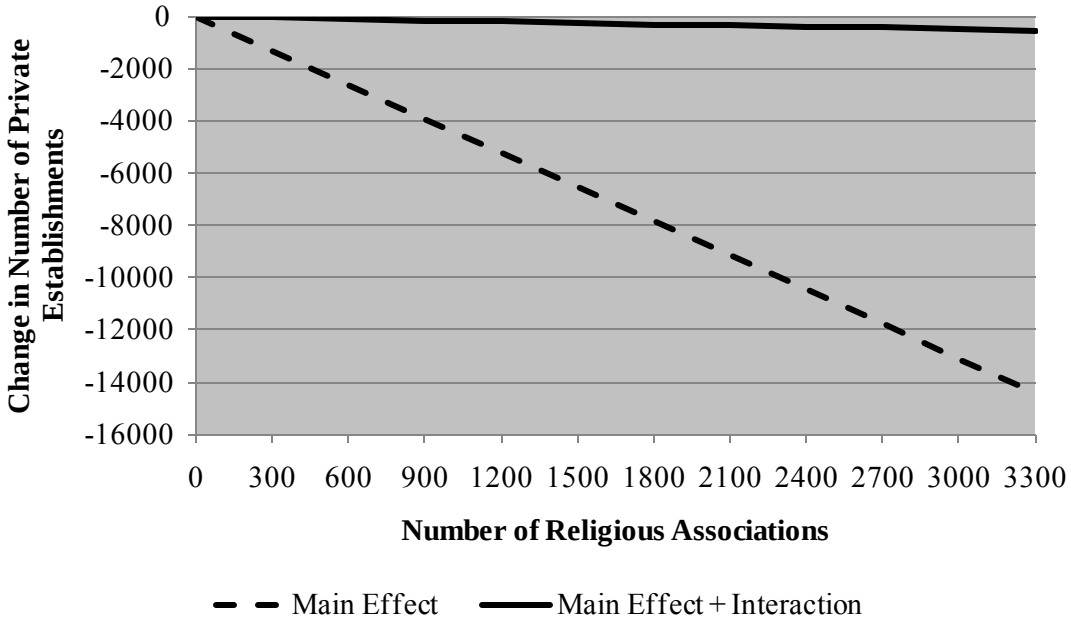
Notes:
This figure compares the effect of the number of social advocacy associations on changes in the number of establishments (i.e. main effect) to the effect of the number of social advocacy associations on changes in the number of establishments as moderated by the number of purely local banks in the community (i.e. main effect plus interaction term). The data used to compute these curves are from Models 3 and 4 of Table 2.10. It is assumed that the community contains the mean number of purely local banks.

FIGURE 2.6: The Effect of Civic and Social Associations on Changes in the Number of Establishments within LMAs (Moderated by the number of purely local banks)



Notes:
This figure compares the effect of the number of civic and social associations on changes in the number of establishments (i.e. main effect) to the effect of the number of civic and social associations on changes in the number of establishments as moderated by the number of purely local banks in the community (i.e. main effect plus interaction term). The data used to compute these curves are from Models 3 and 4 of Table 2.10. It is assumed that the community contains the mean number of purely local banks.

FIGURE 2.7: The Effect of Religious Associations on Changes in the Number of Establishments within LMAs (Moderated by the number of purely local banks)



Notes:
This figure compares the effect of the number of religious associations on changes in the number of establishments (i.e. main effect) to the effect of the number of religious associations on changes in the number of establishments as moderated by the number of purely local banks in the community (i.e. main effect plus interaction term). The data used to compute these curves are from Models 3 and 4 of Table 2.10. It is assumed that the community contains the mean number of purely local banks.

The only result that did not match my predictions was that the effect of political associations on organizing capacity was not accentuated with increases in the number of purely local banks. This result may be due to the unique nature of political associations. Due to their ability to exert influence on a broad range of community issues, local business owners and managers often actively participate in political associations to help ensure that the local policies of the communities in which they operate are consistent with the interests of their businesses. This is especially true for owners and managers businesses that only exist in the focal community because these businesses are, by definition, more reliant on their home community and therefore much less likely than other businesses to relocate elsewhere (Romo and Schwartz, 1995). However, in order to protect their firms' reputations, owners and managers from firms that are active politically go to great lengths to keep their employers out of the political spotlight (Kimbrough, 1958). In the case of bankers, their efforts to protect their professional identity may conflict with their efforts to obtain private information on potential borrowers. The transfer of private information is possible only when there is a high degree of trust between the two actors, which is harder to achieve when one actor is seeking to hide an important part of his/her identity. As such, entrepreneurs that are members in political associations may not benefit from increased access to external capital. Instead, entrepreneurs may be more likely to gain access to other resources through membership in these associations. While the positive main effect of political

associations on organizing capacity partially supports this interpretation, it is not possible to validate this argument with the existing data. Nevertheless, this further suggests that it is important to consider the goals of each association type and how that affects the motivations of the people it attracts as members.

Table 2.11 reports the results of the regressions predicting purely local bank foundings. In Model 1, which is a baseline model, all control variables except the number of banks and population are significantly associated with purely local bank branch foundings. The number of bank headquarters positively contributes to new purely local bank foundings. The amount of money deposited in banks located within the focal community is positively associated with the creation of new purely local bank branches. Per-capita income is negatively associated with bank foundings, suggesting that wealthier communities have fewer bank foundings than less wealthy communities. As the banking market becomes increasingly dominated by a small number of players, communities have fewer foundings of purely local banks. Lastly, the number of bank branches closed in the prior year is positively associated with the creation of new purely local bank branches, suggesting that purely local banks are quick to position themselves to capture the customers left behind by the closed branches.

Model 2 adds in the total number of voluntary associations and shows that it is not associated with the number of new bank branches. Model 3 shows that the effects of voluntary associations on bank branch creation vary by association type. Once again, no support is found for hypothesis H2A since business associations are negatively associated with new purely local bank branches. Political, profession and social advocacy associations are positively associated with bank branch creation – supporting hypotheses H2B, H2C and H2D. In partial support of hypotheses H2E and H2G, civic and social and religious associations are not associated with bank branch foundings. Labor unions are negatively associated with bank branch foundings, supporting hypothesis H3F.

TABLE 2.11: Negative-Binomial Regressions of Purely Local Bank Branch Foundings within LMAs

	(1)	(2)	(3)
Number of bank headquarters	5.08e-03***	5.13e-03***	1.06e-02***
	(1.20e-03)	(1.19e-03)	(1.51e-03)
Number of closed bank branches	6.35e-04*	6.59e-04*	1.20e-03***
	(2.68e-04)	(2.78e-04)	(2.90e-04)
Total deposits	3.72e-09***	3.82e-09***	-3.71e-10
	(7.12e-10)	(7.70e-10)	(1.30e-09)
Number of banks	5.10e-05	4.28e-05	2.17e-04
	(2.02e-04)	(2.02e-04)	(2.14e-04)
Population	-4.67e-08	-4.35e-08	1.32e-07*
	(5.72e-08)	(3.74e-06)	(6.73e-08)
Per-capita income	-4.37e-05***	-4.35e-05***	-4.12e-05***
	(3.73e-06)	(3.74e-06)	(3.95e-06)
Herfindahl Index	-1.15**	-1.15**	-0.533
	(0.409)	(0.408)	(0.408)
Number of voluntary associations		-3.83e-05	

		(1.08e-04)	
Number of business associations			-2.67e-03**
			(1.06e-03)
Number of political associations			2.71e-03*
			(1.32e-03)
Number of professional associations			3.01e-03*
			(1.22e-03)
Number of social advocacy associations			1.91e-03***
			(6.11e-04)
Number of civic and social associations			5.59e-05
			(5.93e-04)
Number of labor unions			-3.17e-03**
			(1.05e-03)
Number of religious associations			1.25e-04
			(2.93e-04)
Constant	2.16***	2.16***	1.994***
	(0.134)	(0.134)	(0.143)
Observations	4994	4994	4994
Wald Chi-sq	321.72	320.49	352.48
Log Likelihood	-7710.32	-7710.26	-7694.00

Notes: This table presents regressions of the number of new locally-owned bank branches founded in the current year in 385 Labor Market Areas (LMAs) between 1994 and 2007. The number of LMAs is reduced because some LMAs were dropped because they had no purely local bank branch foundings during the sampling period. All the independent variables are lagged by one year, representing counts in the prior year. Standard errors are reported in parentheses below the parameter estimates. * indicates $p<0.05$, ** $p<0.01$, and *** $p<0.001$, two-tailed t tests.

Overall, the results predicting bank foundings are fairly consistent with the results examining changes in private establishments. In both sets of analyses, political, professional and social advocacy associations are positively associated while business associations are negatively associated with the dependent variables. Also, the results for labor unions and religious and civic and social associations are analogous between both analyses and support my predictions – they are all either negatively associated or not associated with the dependent variables.

To further validate these results, I conducted a robustness check to examine the validity of my theory that purely local banks are best positioned to lend to new businesses due to their ability to obtain and use private information. I examine the effect of voluntary associations on foundings of bank branches of commercial banking firms that are headquartered in the focal community but have branches both within and outside the focal community (i.e., locally-headquartered banks) and firms that are headquartered outside the focal community but have branches within the focal community (i.e., absentee-owned banks). Both of these types of commercial banks are much less likely to have bankers that participate in voluntary associations and the decentralized organizational structure necessary to best employ private information into their lending decisions. As such, I expect that voluntary associations will either hinder or have no effect on bank branch foundings of these bank types. Consistent with my theory, I found that all

types of voluntary associations were either not associated with or negatively associated with branch foundings of locally-headquartered banks or absentee-owned banks.

Conclusion

In this paper, I examined how voluntary associations and commercial banks affect the organizing capacity of communities. In specific, I examined the effect of different types of voluntary associations on changes in the number of businesses from one year to another and on the number of new purely local bank foundings. I categorized voluntary associations based on their ability to facilitate demographic diversity in their members' social networks, and the extent to which their members participate in association activities. I expected that associations that had a more diverse membership that actively participated in the associations' activities would be better places for entrepreneurs than other associations. After categorizing voluntary associations on these dimensions, I predicted that business, political, professional and social advocacy associations would positively affect organizing capacity, while labor unions, and religious, and civic and social associations would negatively affect organizing capacity. The results matched the predictions, with one exception. Business associations were negatively associated with changes in the number of private establishments and foundings of purely local banks. The intent of business associations to promote current businesses may explain why these associations reduced community organizing capacity.

I also examined the moderating effect of purely local banks on the relationship between voluntary associations and organizing capacity. Supporting my predictions, I found that the effects of business, professional, social advocacy, religious and civic and social associations on organizing capacity were enhanced by increases in the number of purely local banks. However, contrary to my prediction, the effect of political associations on organizing capacity decreased as the number of purely local banks increased.

This divergent result may be due to the unique nature of political associations as providing forums by which business owners and managers can influence local policies. The goal of influencing local political outcomes may be in conflict with obtaining private information on potential borrowers. This suggests that additional research on the different motivations behind joining associations and a better understanding of these motivations could result in additional moderators and insights into how associations can affect organizing capacity.

Given the overall strength of professional associations in creating businesses, a practical implication of this research is that it is important for communities to preserve and grow these associations. Also, communities should take measures to prevent business associations from getting too powerful, as they clearly hinder entrepreneurial activity – possibly because their members are focused on advancing the interests of existing businesses rather than helping launch new businesses.

My analysis extends previous research by merging findings from the entrepreneurship literature with findings from the literature highlighting the importance of voluntary associations in communities. By showing that voluntary associations affect the creation of businesses and that this relationship varies by association type, I provide empirical evidence showing that a rich social life can result in tangible economic benefits. But the benefits vary with the numbers and types of associations found in communities.

Although this study extends previous work, the results are subject to at least one important limitation. The data used to determine the number and types of businesses in a

community are at the establishment-level rather than the firm-level. Although there are advantages to using establishment data, having firm-level data would also be valuable. For example, at the establishment level it is not possible to distinguish whether a new establishment is a new business or a new office of an existing business. Although the parallel analysis looking at bank foundings was intended in part to blunt this shortcoming, being able to make such distinctions by combining firm-level data with establishment-level data would improve the external validity of the findings.

Future Research

These results indicate that there are two areas that have great potential for future research. First, researchers can examine how the creation of different types of businesses is affected by voluntary associations. For example, a future study could examine whether voluntary associations with members who work in specific industries are more likely to contribute to founding businesses in those same industries. Past research supports this assertion, but to my knowledge it has not been examined at the residential community level. A second area that warrants further research is to investigate what characteristics of organizations help or hinder entrepreneurship in communities. For instance, a future study could examine whether organizations that have a history of innovation more likely to spawn entrepreneurs than organizations that innovate less. Collectively, these research areas would provide additional insight into why some communities are better places for entrepreneurs than others.

3. References

Adams, M. 1994. "Big Banks' Battle for Florida." *Miami Herald*, February 21, 1994.

Aldrich, H. E., and M. Ruef. 2006. *Organizations Evolving 2nd ed.* Thousand Oaks, CA: Sage.

Allison, P.D. 1990. "Change Scores as Dependent Variables in Regression Analysis." *Sociological Methodology*, 20: 93-114.

American Institute of Banking. 1970. *Bank Management*. New York.

Anderson, J.C. 1979. "Local Union Participation: A Re-examination." *Industrial Relations*, 18(1): 18-31.

Antonio, A.L., M.J. Chang, K. Hakuta, D.A. Kenny, S. Levin, and J.F. Milem. 2004. "Effects of Racial Diversity on Complex Thinking in College Students." *Psychological Science*, 15: 507-510.

Arellano, M., and S. Bond. 1991. "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations." *The Review of Economic Studies*, 58(2): 277-297.

Audia, P.G., J.H. Freeman, and P.D. Reynolds. 2006. "Organizational Foundings in Community Context: Instruments Manufacturers and Their Interrelationship with Other Organizations." *Administrative Science Quarterly*, 51: 381-419.

Baker, W.E., and R.R. Faulkner. 2004. "Social Networks and Loss of Capital." *Social Networks*, 26: 91-111.

Banfield, E.C., and J.Q. Wilson. *City Politics*. Harvard University Press: Cambridge.

Barnett, W. P., and G. R. Carroll. 1987. "Competition and Mutualism among Early Telephone Companies." *Administrative Science Quarterly*, 32: 400-421.

Barnett, W.P., and O. Sorenson. 2002. "The Red Queen in Organizational Creation and Development." *Industrial and Corporate Change*, 11(2): 289-325.

Beckman, C.M. 2006. "The Influence of Founding Team Company Affiliations on Firm Behavior." *Academy of Management Journal*, 49(4): 741-758.

Berger, A.N., N.H. Miller, M.A. Petersen, R.G. Rajan, and J.C. Stein. 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., and G.F. Udell. 2006. "A More Complete Conceptual Framework for SME Finance." *Journal of Banking and Finance*, 30: 2945-2966.

Berger, A.N., and G.F. Udell. 2002. "Small Business Credit Availability and Relationship Lending: The Importance of Bank Organisational Structure." *Economic Journal*, 112: F32-F53.

Berger, A.N., and G.F. Udell. 1998. "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle." *Journal of Banking and Finance,* 22: 613-673.

Berger, A.N., and G.F. Udell. 1995. "Relationship Lending and Lines of Credit in Small Firm Finance." *The Journal of Business,* 68(3): 351-381.

Blackwell, D.W., and D.B. Winters. 1995. "Banking Relationships and the Effect of Monitoring on Loan Pricing." *The Journal of Financial Research*, 20(2): 275-289.

Bluestone, B., and B. Harrison. 1982. *The Deindustrialization of America*. Basic Books: New York.

Bond, S., A. Hoeffler, and J. Temple. 2001. "GMM Estimation of Empirical Growth Models." Working paper.

Brehm, J., and W. Rahn. 1997. "Individual-level Evidence for the Causes and Consequences of Social Capital." *American Journal of Political Science*, 41(3): 999-1023.

Brickley, J.A., J.S. Linck, and C.W. Smith. 2003. "Boundaries of the Firm: Evidence from the Banking Industry." *Journal of Financial Economics,* 70(3): 351-383.

Burt, R.S. 2004. "Structural Holes and Good Ideas." *American Journal of Sociology*, 110(2): 349-399.

Burt, R.S. 1992. *Structural Holes: The Social Structure of Competition*. Harvard University Press: Cambridge.

Cameron, A.C., and P.K. Trivedi. 1996. "Econometric Models Based on Count Data: Comparisons and Applications of Some Estimators and Tests." *Journal of Applied Econometrics*, 1(1): 29-53.

Chandler, A. D. Jr. 1977. *The visible hand: The managerial revolution in American business*. Cambridge, MA: Belknap Press.

Chinitz, B. 1961. "Contrasts in Agglomeration: New York and Pittsburgh." *The American Economic Review*, 51(2): 279-289.

Cohen, W.M., and D.A. Levinthal. 1990. "Absorptive Capacity: A New Perspective on Learning and Innovation." *Administrative Science Quarterly*, 35(1): 128-152.

Cole, R.A., L.G. Goldberg, and L.J. White. 1994. "Cookie-Cutter Versus Character: The Micro Structure of Small Business Lending by Large and Small Banks." *Journal of Financial and Quantitative Analysis,* 39(2): 227-251.

Coleman, J.S. 1990. *Foundations of Social Theory*. Harvard University Press: Cambridge.

Coleman, J.S. 1982. *The Asymmetric Society*. Syracuse, NY: Syracuse University Press.

Cornwell, B., and J.A. Harrison. 2004. "Union Members and Voluntary Associations: Membership Overlap as a Case of Organizational Embeddedness." *American Sociological Review*, 69(6): 862-881.

Coser, R.L. 1975. "The Complexity of Roles As a Seedbed of Individual Autonomy." in L.A. Coser (ed.) *The Idea of Social Structure: Papers in Honor of Robert K. Merton*. Harcourt Brace: New York.

Davidsson, P., L. Lindmark, and C. Olofsson. 1995. "Small Firms, Business Dynamics and Differential Development of Economic Well-Being." *Small Business Economics*, 7: 301-315.

Davis, G.F., and M.S. Mizruchi. "The Money Center Cannot Hold: Commercial Banks in the U.S. System of Corporate Governance." *Administrative Science Quarterly*, 44(2): 215-239.

Dobbs, M., and R.T. Hamilton. 2007. "Small Business Growth: Recent Evidence and New Directions." *International Journal of Entrepreneurial Behaviour and Research*, 13(5): 296-322.

Domhoff, G.W. 1998. *Who Rules America? 3rd ed.* Mayfield Publishing: Palo Alto.

Dougherty, K.D. 2003. "How Monochromatic is Church Membership? Racial-Ethnic Diversity in Religious Community." *Sociology of Religion*, 64(1): 65-85.

Ellison, C.G., and D.E. Sherkat. 1995. "The 'Semi-involuntary Institution' Revisited: Regional Variations in Church Participation among Black Americans." *Social Forces*, 73(4): 1415-1437.

Feld, S.L. 1981. "The Focused Organization of Social Ties." *American Journal of Sociology*, 86: 1015-1035.

Fowler, I.A. 1958. "Local Industrial Structures, Economic Power, and Community Welfare." *Social Problems,* 6(1): 41-51.

Freeman, J.H., and P.G. Audia. 2006. "Community Ecology and the Sociology of Organizations." *Annual Review of Sociology*, 32: 145-169.

Friedland, R. 1980. "Corporate Power and Urban Growth: The Case of Urban Renewal." *Politics Society*, 10(2): 203-224.

Galaskiewicz, J. 1997. "An Urban Grants Economy Revisited: Corporate Charitable Contributions in the Twin Cities, 1987-89." *Administrative Science Quarterly*, 42(3): 445-471.

Galaskiewicz, J. 1979. "The Structure of Community Organizational Networks." *Social Forces*, 57(4): 1346-1364.

Glaeser, E.L., H.D. Kallal, H.A. Scheinkman, and A. Schleifer. 1992. "Growth in Cities." *Journal of Political Economy*, 100: 1126-1152.

Goode, E. 1966. "Social Class and Church Participation." *American Journal of Sociology*, 72(2): 102-111.

Gordon, W., and N. Babchuk. 1959. "A Typology of Voluntary Associations." *American Sociological Review*, 24(1): 22-29.

Granovetter, M. 2005. "The Impact of Social Structure on Economic Outcomes." *The Journal of Economic Perspectives*, 19(1): 33-50.

Granovetter, M. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology*, 91(3): 481-510.

Granovetter, M. 1984. "Small is Bountiful: Labor Markets and Establishment Size." *American Sociological Review*, 49(3): 323-334.

Grant, D., A.W. Jones, and M.N. Trautner. 2004. "Do Facilities with Distant Headquarters Pollute More? How Civic Engagement Conditions the Environmental Performance of Absentee Managed Plants." *Social Forces*, 83(1): 189-214.

Greene, W.H. 2008. *Econometric Analysis*. Upper Saddle River, NJ: Pearson Prentice Hall.

Guthrie, D. 2003. *Survey on Corporate-Community Relations*. New York: Social Sciences Research Council.

Hannan, M.T., and J. Freeman. "The Population Ecology of Organizations." *American Journal of Sociology*, 82(5): 929-964.

Hansmann, H. 1987. "Economic Theories of Nonprofit Organizations." in W.W. Powell (ed.) *The Nonprofit Sector: A Research Handbook*: 27-42. Yale University Press, New Haven.

Hawley A.H. 1950. *Human Ecology: A Theory of Community Structure*. New York: Ronald Press.

Heckman, J.J. 1979. "Sample Selection Bias as a Specification Error." *Econometrica*, 47(1): 153-161.

Hedstrom, P. 1994. "Contagious collectivities: On the spatial diffusion of Swedish trade unions, 1890-1940." *American Journal of Sociology*, 99(5): 1157-1179.

Helsley, R.W., and W.C. Strange. 1990. "Matching and Agglomeration Economies in a System of Cities." *Regional Science and Urban Economics*, 20: 189-212.

Hirsch, W.Z. 1959. "Interindustry Relations of a Metropolitan Area." *The Review of Economics and Statistics*, 41(4): 360-369.

Hughes, J.P., and L.J. Mester. 1998. "Bank Capitalization and Cost: Evidence of Scale Economies in Risk Management and Signaling." *Review of Economics and Statistics*, 80(2): 314-325.

Hunter, F. 1953. *Community Power Structure.* Chapel Hill: University of North Carolina Press.

Jacobs, J. 1969. *The Economy of Cities*. Random House: New York.

Javalgi, R.G., D.S. White, and O. Lee. 2000. "Firm Characteristics Influencing Export Propensity: An Empirical Investigation by Industry Type." *Journal of Business Research*, 47: 217-228.

Kimbrough, E. 1958. "The Role of the Banker in a Small City." *Social Forces*, 36(4): 316-22.

King, R.G., and R. Levine. 1993. "Finance and Growth: Schumpeter Might be Right." *The Quarterly Journal of Economics*, 108(3): 717-737.

Kwak, N., D.V. Shah, L. Holbert. 2004. "Connecting, Trusting and Participating: The Direct and Interactive Effects of Social Associations." *Political Research Quarterly*, 57(4): 643-652.

Kwast, M.L., M. Starr-McCluer, and J.D. Wolken. 1997. "Market Definition and the Analysis of Antitrust in Banking." *Antitrust Bulletin*, 42(4): 973-995.

Land, K.C., G. Deane, and J.R. Blau. 1991. "Religious Pluralism and Church Membership: A Spatial Diffusion Model." *American Sociological Review*, 56(2): 237-249.

Lane, C., and S. Quack. 1999. "The social dimensions of risk: Bank finance of SMEs in Britain and Germany." *Organization Studies*, 20(6): 987-1010.

Laumann, E.O., J. Galaskiewicz, and P.V. Marsden. 1978. "Community Structure as Interorganizational Linkages." *Annual Review of Sociology*, 4: 455-484.

Lawless, J.L., and R.L. Fox. 2001. "Political Participation of the Urban Poor." *Social Problems*, 48(3): 362-385.

Lee, M.R. and G.C. Ousey. 2001. "Size Matters: Examining the Link between Small Manufacturing, Socioeconomic Deprivation, and Crime Rates in Nonmetropolitan

Communities." *The Sociological Quarterly*, 42(4): 581-602.

Levine, R. 1997. "Financial Development and Economic Growth: Views and Agenda." *Journal of Economic Literature*, 35: 688-726.

Liles, P. R. 1974. *New Business Ventures and the Entrepreneur*. Richard D. Irwin: Homewood, Illinois.

Lincoln, J.R. 1978. "The Urban Distribution of Headquarters and Branch Plants in Manufacturing: Mechanisms of Metropolitan Dominance." *Demography*, 15(2): 213-222.

Lincoln, J.R. 1977. "The Urban Distribution of Voluntary Organizations." *Social Science Quarterly*, 58(3): 472-480.

Lyson, T. 2006. "Big Business and Community Welfare." *American Journal of Economics and Sociology*, 65(5): 1001-1023.

Marquis, C., M.A. Glynn, and G.F. Davis. 2007. "Community Isomorphism and Corporate Social Action." *Academy of Management Review*, 32(3): 925-945.

Marquis, C., and M. Lounsbury. 2007. "Vive la resistance: Competing logics and the consolidation of U.S. community banking." *Academy of Management Journal,* 50(4): 799-820.

McElroy, K.M., and J.J. Siegfried. 1986. "The Community Influence on Corporate Contributions." *Public Finance Quarterly*, 4: 394-414.

McFayden, M.A., M. Semadeni, and A.A. Cannella, Jr. 2009. "Value of Strong Ties to Disconnected Others: Examining Knowledge Creation in Biomedicine." *Organization Science*, 20(3): 552-564.

McNamara, G., and P. Bromiley. 1997. "Decision Making in an Organizational Setting: Cognitive and Organizational Influences on Risk Assessment in Commercial Lending." *Academy of Management Journal*, 40(5): 1063-1088.

McPherson, M. 1983. "An Ecology of Affiliation." *American Sociological Review*, 48(4): 519-532.

McPherson, M., P. Popielarz, and S. Drobnic. 1992.. "Social Networks and Organizational Dynamics." *American Sociological Review*, 57: 153-170.

McPherson, M., L. Smith-Lovin, and J.M. Cook. 2001. "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology*, 27: 415-444.

Mills, C.W., and M. Ulmer. [1946]1970. "Small Business and Civic Welfare." in M. Aiken and P. Mott (eds.) *The Structure of Community Power*: 124-154. Random House: New York.

Molotch, H. 1976. "The City as a Growth Machine: Toward a Political Economy of Place." *American Journal of Sociology*, 82(2): 309-332.

Mott, P.E. 1970. "The Role of the Absentee-owned Corporation in the Changing Community." in M. Aiken and P. Mott (eds.) *The Structure of Community Power*: 163-169. Random House: New York.

Mutz, D.C. 2002. "Cross-cutting Social Networks: Testing Democratic Theory in Practice." *American Political Science Review*, 96(1): 111-126.

Paxton, P. 2007. "Association Membership and Generalized Trust: A Multilevel Model Across 31 Countries." *Social Forces*, 86(1): 47-76.

Paxton, P. 2002. "Social Capital and Democracy: An Interdependent Relationship." *American Sociological Review*, 67: 254-277.

Pellegrin, R.J., and C.H. Coates. 1956. "Absentee-owned Corporations and Community Power Structure." *American Journal of Sociology*, 61(5): 413-419.

Petersen, M.A. and R.G. Rajan. 1994. "The Benefits of Lending Relationships: Evidence from Small Business Data." *The Journal of Finance*, 49(1): 3-37.
Phillips, K.W. 2004. "The Effects of Categorically Based Expectations on Minority Influence: The Importance of Congruence." *Personality and Social Psychology Bulletin*, 29(1): 3-13.

Phillips, K.W., and D.L. Loyd. 2006. "When Surface and Deep-level Diversity Collide: The Effects on Dissenting Group Members." *Organizational Behavior and Human Decision Processes*, 99: 143-160.

Polyani, M. 1966. *The Tacit Dimension*. Doubleday and Company: Garden City, NY.

Popielarz, P., and M. McPherson. 1995. "On the Edge or In-between: Niche Position, Niche Overlap, and the Duration of Voluntary Memberships." *American Journal of Sociology*, 101: 698-720.

Putnam, R.D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster: New York.

Putnam, R.D. 1995. "Tuning In, Tuning Out: The Strange Disappearance of Social Capital in America." *Political Science and Politics,* 28(4): 664-683.

Rajan, R.G., and L. Zingales. 1998. "Financial Dependence and Growth." *The American Economic Review*, 88(3): 559-586.

Rangan, S. 2005. "The Problem of Search and Deliberation in Economic Action: When Social Networks Really Matter." *Academy of Management Review*, 25(4): 813-828.

Ratcliff, R.E., E. Gallagher, and K.S. Ratcliff. 1979 "The Civic Involvement of Bankers: An Analysis of the Influence of Economic Power and Social Prominence in the Command of Civic Policy Positions." *Social Problems*, 26(3): 298-313.

Reagans, R., and B. McEvily. 2003. "Network structure and knowledge transfer: The effects of cohesion and range." *Administrative Science Quarterly*, 48(2): 240-267.

Reynolds, P. 1994. "Autonomous Firm Dynamics and Economic Growth in the United States, 1986-1990." *Regional Studies*, 28(4): 429-442.

Romo, F.R., and M. Schwartz. 1995. "The Structural Embeddedness of Business Decisions: The Migration of Manufacturing Plants in New York State, 1960-1985" *American Sociological Review*, 60(6): 874-907.

Rubin, I.S., and H.J. Rubin. 1987. "Economic Development Incentives: The Poor (Cities) Pay More." *Urban Affairs Review*, 23: 37-62.

Sampson, R.J., D. McAdam, H. MacIndoe, and S. Weffer-Elizondo. 2005. "Civil Society Reconsidered: The Durable Nature and Community Structure of Collective Civic Action." *American Journal of Sociology*. 111(3): 673-714.

Santomero, A.M. 1997. "Commercial bank risk management: An analysis of the process." *Journal of Financial Services Research*, 12: 83-115.

Saxenian, A. 1994. *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University Press: Cambridge.

Schaller, L.E. 1984. *Looking in the Mirror: Self-appraisal in the Local Church*. Abingdon Press: Nashville.

Schumpeter, J. A. 1934. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Harvard University Press: Cambridge, MA.

Small, M.L., E.M. Jacobs, R.P. Massengill. 2008. "Why Organizational Ties Matter for Neighborhood Effects: Resource Access through Childcare Centers." *Social Forces*, 87(1): 387-414.

Sommers, S.R., L.S. Warp, and C.C. Mahoney. 2008. "Cognitive Effects of Racial Diversity: White Individuals' Information Processing in Heterogeneous Groups." *Journal of Experimental Social Psychology*, 44: 1129-1136.

Sorenson, O., and P.G Audia. 2000. "The Social Structure of Entrepreneurial Activity: Geographic Concentration of Footwear Production in the United States, 1940-1989." *American Journal of Sociology*, 106(2): 424-461.

Sorenson, O., and T.E. Stuart. 2001. "Syndication Networks and the Spatial Distribution of Venture Capital Investments." *American Journal of Sociology*, 106(6): 1546-1588.

Stein, J. C. 2002. "Information Production and Capital Allocation: Decentralized Versus Hierarchical Firms." *The Journal of Finance,* 57(5): 1891-1921.

Stern, R.N., and S.R. Barley. 1996. "Organizations and Social Systems: Organization Theory's Neglected Mandate." *Administrative Science Quarterly*. 41(1): 146-162.

Stinchcombe, A. 1965. "Social Structure and Organizations." in J.G. March (ed.), *Handbook of Organizations*. Rand McNally: Chicago.

Stuart, T.E., H. Hoang, and R.C. Hybels. 1999. "Interorganizational Endorsements and the Performance of Entrepreneurial Ventures." *Administrative Science Quarterly*, 44(2): 315-349.

Stuart, T.E., and O. Sorenson, 2003. "Liquidity Events and the Geographic Distribution of Entrepreneurial Activity." *Administrative Science Quarterly*, 48(2): 175-201.

Thornton, P.H., and K.H. Flynn. 2003. "Entrepreneurship, Networks, and Geographies." in Z.J. Acs and D.B. Audretsch (eds.), *Handbook of Entrepreneurship Research*. Kluwer Law International: Great Britain.

Tolbert, C.M., and M.S. Killian. 1987. "Labor market areas for the United States." Agriculture and Rural Economy Division, *Economic Research Service*, U.S. Department of Agriculture. Staff report no. AGES870721.

Useem, M. 1980. "Corporations and the Corporate Elite." *Annual Review of Sociology*, 6: 41-77.

Uzzi, B. 1999. "Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing." *American Sociological Review*, 64: 481-505.

van der Meer, T.W.G., M. te Grotenhuis, and P.L.H. Scheepers. 2009. "Three Types of Voluntary Associations in Comparative Perspective: The Importance of Studying Associational Involvement through a Typology of Associations in 21 European Countries." *Journal of Civil Society*, 5(3): 227-241.

Young, F.W., and T.A. Lyson. 1993. "Branch Plants and Poverty in the American South." *Social Forces*, 8(3): 433-450.