COMMUNITY CONTEXT AND FOUNDING PROCESSES OF BANKING ORGANIZATIONS*

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ABSTRACT

We distinguish between two forms of local banks that build and maintain legitimacy in different ways: branches and unit banks. Branches gain legitimacy through the parent organization. Unit banks gain legitimacy through the personal reputation and social connections of the founders. Given the different ways in which legitimacy is built by these organizational forms, we think that the rural or urban nature of the community is likely to affect the founding rates of these two forms differently. Rural communities, in which personal and family relationships play an important role in both social and economic life, provide advantages to well-connected founders of unit banks. In these communities social networks serve as a demand buffer for unit banks, making the founding rate of this organizational form less sensitive to fluctuations in the demand for banking services in rural versus urban communities. In contrast, the founding rate of branches may not be greatly affected by the community context because branches gain legitimacy through a sponsoring organization whose legitimating characteristics are not local. Empirical analyses of foundings of local banks between 1976 and 1988 support these predictions. Supplemental empirical analyses also show no evidence of such buffering effect for unit retail establishments, which are expected to be less central in the social networks of rural communities than unit banks. Our results suggest that community organization channels resources to some kinds of organizations at the expense of others and that organizational research in general and organizational ecology in particular will benefit by paying more attention to community context.

INTRODUCTION

Although the social organization of communities is a venerable subject for sociological researchers in the Human Ecology tradition, and early organizational research such as Selznick's *TVA and the Grass Roots* (1949) and Gouldner's *Patterns of Industrial Bureaucracy* (1954) examined the effects of local community social organization on formal organizations, contemporary research rarely does so. Some of the first researchers to study organizational foundings also noted the effects of spatial heterogeneity (Stinchcombe 1965, Aldrich 1979, Barnett and Carroll 1987). Much of this work has emphasized the uneven spatial distribution of certain kinds of resources and how this heterogeneity influences the founding rate (Audia *et al*., 2006; Bigelow *et al.*, 1997; Carroll and Wade 1991; Delacroix and Carroll 1983; Lomi 1995; Sorenson and Audia 2000; Zucker *et al.* 1998). However, little work has been done on the effects of geographically varying social organization on the founding process (for exceptions see: Simons and Ingram, 2003; Marquis and Lounsbury, 2007; Olzak and West, 1991). This paper addresses this issue, beginning with the proposition that resources flow through communities in patterned ways and considering how the urban and rural nature of communities influences these patterns.

We begin with the generally accepted idea that legitimacy is an important condition for attainment of the resources necessary for organizational creation. A large research literature supports the argument that founding rates of organizational populations are density-dependent (see for a review: Hannan, Polos, and Carroll 2007). In the early stage of a population, when density is low, additions to population size accelerate founding rates, because, as the frequency of observation of an organization form increases, the organization is more likely to be taken for granted. Legitimacy, however, is important beyond the initial stage of an organizational population growth, especially when the organizational form under study relies heavily on trust. In such circumstances, organization building efforts are subject to the scrutiny of regulators, investors and customers who evaluate the acceptability of the new organization through reference to the history of those advocating the new organization. These advocates can be individuals, whose personal credibility and social standing buttresses the legitimacy of the organization being founded, or they can be other organizations that sponsor the nascent organizational unit.

It would be difficult to find an organizational population to which trust matters more than banks. Obviously, trust lies at the heart of the decision to deposit funds with such a business entity (which is why they are often called "trust institutions"). We distinguish between two forms of local banks that build and maintain this trust in different ways: branches and unit banks. Branches are owned by larger organizations located outside the immediate vicinity. In founding, they rely on the histories, brand names and information technologies developed by the parent. In contrast, unit banks are locally owned and managed. They are generally founded by individuals whose personal reputation and social connections provide legitimacy. One trusts the newly organized bank because one trusts its owners and managers. When branches of larger banking organizations are founded, customers do business with them because the branch's affiliation with the parent reassures those customers that the new branch will handle their accounts correctly.

The rural or urban nature of the community affects the founding rates of these two forms differently, we think. Rural communities, in which personal and family relationships play an important role in both social and economic life, provide advantages to well-connected founders of unit banks. Business flows to banks that are run by people customers have known for years, people who are able to create custom loan packages that recognize customer idiosyncrasies. Such customized services require localized private knowledge. In good times and bad, such social connections channel business to locally-owned banks. The social network thus serves as a demand buffer for unit banks in rural communities. This matters greatly when banks are founded, because they are more vulnerable when they are new and young. Thus, although the founding rate is likely to be sensitive to the demand for banking services, we think this sensitivity is most pronounced for unit banks in urban communities. In contrast, the founding rate of branches may not be affected greatly by the community context because branches gain legitimacy through a sponsoring organization whose legitimating characteristics are not local.

By examining whether the urban and rural nature of the community influence the creation of unit banks and branches, this paper provides an example of how ecological analyses of the link between community context and organizations can be extended beyond a mere characterization of communities as

resource environments. Resources may well be unevenly distributed across communities but, beyond this well accepted assertion, it is important to examine also whether and when the social organization of communities influences the manner in which local resources flow to organizations – which organizations are in an advantageous position and which organizations are not (for a review see: Freeman and Audia, 2006; but see also: Audia and Rider, 2010; Owen-Smith and Powell, 2004; Whittington *et al*., 2009). Consideration of the social organization of communities may also help reduce the gap separating ecological approaches and institutional approaches to the study of communities (Marquis and Battilana, 2009). Much recent research in the institutional tradition examines how local social systems generate pressures that influence organizational behaviors (Galaskiewicz, 1997; Lounsbury, 2007; Marquis and Lounsbury, 2007). Our analysis of how urban and rural communities generate constraints and opportunities for bank founders can be interpreted also through these lenses.

THEORY

REPRODUCIBILITY

Organizational actors make their way in societies by operating technologies, employing people, and conducting transactions with others in ways that allow these others to count on the persistence of the organizations with which they have relationships. This mutual availability and predictable behavior is generated by many of the same structural features that produce friction in processes of organizational adaptation. Such organizations are reliable performers and are transparent. That is, their processes are formalized in such a way that outsiders can be assured that they do what they do in a socially acceptable way and that accounts of their actions involve not only communications between them and other social actors but also that some actor is "in charge." Some person or organization is accountable for their actions. So accountability is the parallel in social relationships to reliability (Hannan and Freeman 1984). This stability resides, in part, in the organizational form that can be reproduced quickly and easily.

Simply put, it is less difficult and expensive to create a new organization that follows an existing organizational form than it is to innovate in all areas of organizational structure and process. So selection processes favor reproducible, stable organizational forms because they facilitate the founding process.

Stability is also favored because the transactions and other forms of exchange that occur between organizations involve long-term relations between organizations and these require planning. White (2002) argued that business organizations reside in ego-nets defined by upstream supplier relations and downstream customer relations. These involve commitments by each firm to schedules of production projected forward in time, schedules that are specific to these interfirm relationships at various price points. If all market interactions were spot contracts between anonymous actors, reproducibility of structure and operating processes would not matter for organizations operating in markets. Banking is quite clearly not a form of activity characterized by spot contracting among anonymous actors. Anonymity in such transactions is replaced by personal social connections in local unit banks and by branding and other forms of sponsorship in branch banks.

Social identity matters a great deal in banking, as does the presumption of continuing economic relations. This is partly because banks are in the business of borrowing (from depositors) for the short term, and lending those funds over the longer term. The difference in time perspective creates a spread that is the basis of their profits. Furthermore, banking is based on trust. Obviously, trust lies at the heart of depositing funds with such a business entity. In addition, however, the information bankers gather about their customers is often highly sensitive and confidential. On the lending side, much of the business decisions bankers routinely make involve creditworthiness of borrowers. Bankers lend money to individuals and businesses, trusting them to repay the debt on schedule. Such decisions are only partly calculable as subjective judgment is involved and the borrower's reputation and social position matter. Similarly, borrowers come to banks for credit because of the prior social connections with the bankers. The social structure linking potential lenders and borrowers constitutes a form of embeddedness (Granovetter 1985). The issues of reliability and accountability have magnified importance when trust figures prominently in the legitimacy of organizational forms such as the two kinds of banks under study

here. Ordinarily, such trust is engendered by an organization's history. When founding processes are the focus of attention, no such history exists. Those committing resources, especially in the form of deposits, project reliable performance and accountability on the nascent organization because they know who, or what, stands behind the new organization before it opens its doors.

ECOLOGICAL TREATMENTS OF FOUNDING PROCESSES

Organizational ecologists have written extensively about the processes by which new organizations appear in populations. These treatments focus on spatial and temporal variations in abundance of resources, especially as they pertain to niches and legitimation (Brittain and Freeman 1980; Hannan and Freeman 1989; Carroll and Hannan, 2000; Freeman and Audia, 2006).

Organizational populations expand (there is an excess of births or entries over deaths or exits) until a carrying capacity is reached. This carrying capacity is defined across a set of resource dimensions so that the least abundant resources necessary for the form's survival set a limit on the population's size. As sociologists have developed their treatment of these ideas, legitimation processes have received more attention than have the resource limitations that define carrying capacities. Legitimation is defined in two ways. In the organizational ecology literature, "constitutive legitimation" refers to the phenomenological process by which various practices and behaviors develop a taken-for-granted quality (Berger and Luckmann 1967, Meyer and Rowan 1977). This is at least partly driven by population density, as people have more frequent contact with an organizational form as its population density increases. As it becomes ordinary, it develops constitutive legitimacy.

The classical sociological view of legitimacy might be called "normative legitimacy." DiMaggio and Powell (1983) drew attention to an implication of form of legitimation as producing *coercive isomorphism*. Organizations resemble each other because they are forced to comply with normative expectations. Normative legitimacy includes more or less formal standards to which organization builders are held. In the formal sense, organizations of all kinds face legal and regulatory requirements

that necessarily follow from the legal basis of civil society (Stinchombe 1965; Ranger-Moore *et al.* 1991). Carroll and Teo (1999: 9) called this formal kind of normative legitimacy "sociopolitical legitimation" and used it to help understand the impact of the Monetary Authority of Singapore's actions regulating banking in Singapore. The more informal manifestations of normative legitimacy are bound up in the cultural standards that accompany the social identities underlying organizational forms (Carroll and Hannan 2000: 68-73). The usual approach to studying organizational populations taken by researchers working from an Institutional Theory perspective is to concentrate on changes to laws and regulations that are effected through the actions of advocates such as trade associations and lobbyists. Dobbin and Dowd (1997), for instance, wrote about the effects of various policy regimes on railroad foundings. We believe that normative legitimacy is also engendered by supportive organizations that sponsor an organizational form before agencies of state bureaucracies, and also in the less formal venues where normative support is generated. For example, newly founded organizations often seek services from prestigious law firms and venture capital firms because a client or customer relationship conveys the imprimatur of the service provider. Meyer and Rowan's (1978) original analysis of schools and school districts is a case in point. The bureaucratic apparatus in American schooling does not control educational technology, but manages various processes that generate myths, ceremonies and rituals supporting a logic of confidence and good faith. Essentially, the bureaucratic apparatus of the school and school district manages the institutional environment, while decoupling instructional activity from organization. The districts sponsor the schools, providing routines and technologies for reporting information such as student attendance and teacher certification that is intended to satisfy the state and the broader society that the educational process is working correctly. These ideas were further developed by numerous researchers, including Baum and Oliver (1992), Baum and Ingram (1998) and Ingram and Simons (2002).

Carroll and Hannan (2000: 40) organized their discussion of organizational creation processes by noting the distinction between building new organizations from scratch, *de novo entrants*, from other patterns of entry. Carroll *et al.* (1996) referred to diversifying entry as *de alio* entry and elaborate this distinction by noting mergers and spinoffs also create new organizational entities. Most of the research

that examines such differences focuses on mortality as it is affected by the nature of the entry process. Organizations start with some endowment of resources, and this is likely to be relatively larger when these organizations have a previous existence, or when they are the scions of existing parents. On the other hand, such organizations come into existence with established ways of doing things that may make them more inert.

This literature suggests that the comparative analysis of founding processes in a set of organizational populations should explore the ways in which resources are gathered by organization founders, and the social processes that support their claims to legitimacy.

BANKS AND BANKERS

Banks are an especially interesting kind of organization because they play an important role in the economic life of the social systems in which they operate. One can think of banking services in two categories. Much of what banks do is routine, processing small replicated transactions such as depositing funds in checking accounts, and clearing checks. Consumer loans are also highly routinized as banks use credit scoring systems to standardize the information inputs for lending decisions. The second category is the provision of customized services. Private bankers, for instance, advise customers on wealth management that involves the purchase of securities, insurance and various forms of deposits. On the lending side, such custom services involve packaging short and long term loans for business entities with complex ownership and complex existing debt structures (Federal Reserve System 2002). Estimation of risk cannot easily be routinized under such circumstances, and the complexity of the information required can produce substantial differences in the time required to make decisions. While economies of scale obtain in the more routine forms of banking, there may actually be diseconomies of scale in the more customized forms of banking activity because the structurally simpler unit banks use face-to-face communications among decision makers taking advantage of close proximity. Proximity is also partly a function of community size and scale.

Most of the early case studies of community social life emphasized the social position of bankers. For some, the issue was coercive power. Floyd Hunter (1953:204-5), for instance, noted that

> The men who control credit relationships are for the most part bankers, and in Regional City the banking interests have a large part in the informal policy-making machinery of the community. An elaborate network of credit bureaus and banking facilities keep close watch over this important phase of American 'dollar down' activity operative in the lower social scale of the city . . .Some get credit and some do not, and therein lies a tale of power.

For others, the issue is elite social status and the connection of bankers to other elite business and social service organizations (for a recent review of this literature see: Zald and Lounsbury, forthcoming). The Lynds discussed at length the socially dominant role of the "X family" in their studies of Middletown. Members of that family managed and sat on the boards of the town's banks, and most of its charitable organizations and industrial firms. "People don't dare complain about the way the Community Fund and other local affairs are run because all of these things stem straight back to the people who control our local credit resources" (Lynd and Lynd, 1937: 79). During the Depression, members of the X Family personally and publicly vouched for the security of the local banks and there was no run on Middletown banks.

Kimbrough's (1958) case study of banking in a small town (population 30,000) provides detail on the organizational positions occupied by the owners of a bank that held approximately 30% of the community's deposits. One fourth of the bank's accounts were farm accounts. Another fourth were personal. And half were held by business and social institutions. The President and Vice-President were trustees or held board positions (sometimes as chairman) of: the School District, Chamber of Commerce, the local hospital, a new nursing home, the Civitan Club, the local college alumni association, the Civic Concert Association, a local church, the Y.M.C.A., state bankers' association, the military affairs committee and the local industrial development committee. By maintaining this array of prominent social positions, and by avoiding overt political activism, bankers built trust and respect in the community, and

this generated a stable deposit base, and automatic inclusion in the financing of large community development projects.

Much of the early literature on bankers as members of elite status groups was written by researchers taking a critical perspective. Some this work was either produced by government agencies or was sponsored by them (see for a review Mintz and Schwartz 1981: 851-3, 1986). The same political process that led to the Clayton Antitrust Act in 1914 produced a series of commissions and legislative committees exploring the power corporations and financial institutions (Pujo Committee 1913; Sweezey 1939). A common way of approaching this problem was by focusing on corporate interlocking directorates. More recent research on interlocks has employed social network analysis techniques and is less concerned with the dominance of banks in society than on the social structure itself (see Mizruchi, 1996, for a detailed review). Lincoln and Gerlach (2004) provide a detailed analysis of Japanese *keiretzu* structure and the central role played by banks and other financial institutions in those structures.

This research makes the point that senior managers as well as board members in financial institutions are centrally positioned in the social structure that underlies economic exchange, the distribution of political power, and membership in exclusive high social status organizations and voluntary associations. Of course, the same elite connections that provide advantage to large money-center banks at the national and international levels provide advantages to local bankers in small cities and towns. The social structure scales down with the size of the system. While bankers like the Baron de Rothschild (Ferguson 1998) and J.P. Morgan (Chernow 1990) finance nations in crisis, local bankers finance small town municipal projects and small business.

Importantly, despite the fact that over the past two decades the financial industry has undergone a radical process of consolidation (Davis, 2009), community banks are still a very important organizational form. Marquis and Lounsbury (2007), for example, show that considerable numbers of community banks were created during the period between 1994 and 2002 and that foundings of community banks were often reactions to acquisitions of local banks by national banks.

Consider the following example of a senior manager from an acquired bank who is creating a unit bank drawing upon local resources to generate the required capital. Presumably, these local investors will also steer deposits and lending business to the new bank, as success of their investment will hinge in large measure on the ability of the new bank to attract sufficient quantities of each.

> *Virginia Company Bank to capitalize on the continued consolidation of financial institutions in the region*. The organizers' efforts to launch a bank serving small businesses, professionals and individuals on the Peninsula came after last March's sale of Harbor Bank, which was based in Newport News. More than 90 percent of the capital raised so far has come from Peninsula residents, said Geoffrey C. Warner, the bank's executive vice president and chief financial officer. Before launching their offering, the bank's organizers lined up commitments from prospective investors to buy 607,500 shares, which would generate more than half of the minimum amount of capital needed . . . The president and CEO of Virginia Company Bank is Jon A. Nystrom, a veteran banker who had been president and chief administrative officer of First Virginia Bank, Hampton Roads, for five years and then served as its vice chairman. First Virginia and its Falls Church-based parent were acquired in 2003 by BBandT Corp. (Shean 2005).

The social position of bankers is centrally located in the flow of business in these smaller social systems and can be understood as a function of the ways in which banks conduct their business and make money. First, we can distinguish routinized activities in which competition is based on *transaction efficiency*. Banks receive deposits from individuals and businesses, and provide large volume service such as residential mortgages and credit card services. One bank competes successfully against another by providing such services at lower cost and by marketing these services to a mass audience capturing economies of scale in doing so. A second kind of activity involves providing customized packages of financial services for customers whose demand is based on the complexity and timeliness of service. In the banking industry, these customized services are often called "relational banking" because they depend on the access bankers have to privileged information and to their presumed persistent presence in the flow of economic life of the community. Competition for this kind of business can be attributed to *network centrality.*

So when local banks are founded, they compete on the basis of transactional efficiency, and also on the ability to provide customized services based on their founders' positions in the local social structure.

FOUNDING PROCESSES IN BANKING

Banking organizations stand out in the extent of demands made by the state that are enforced through bank examiners and the scrutiny of government insurers. These regulations are designed to increase bank stability and insure that depositors' funds are secure. Simply put, confidence of depositors is essential to the functioning of the organizational form. Instability in banks damages the entire economy. So the state makes demands on bankers it only suggests to others. Satisfaction of such demands may be made by the individual organizations or by sponsorship. One of the important advantages of chain structures is that such institutional demands are satisfied by the corporate headquarters, not by the local organizations. This generates pooled interdependence (March and Simon 1958; Thompson 1967). Coordination in such situations is achieved through enforcement of standards. Such standardization presumably impedes customization of service.

Part of the legitimation process that has so interested organizations researchers is the certification of new banks as reliable actors. Such certification depends on the personal reputations and financial strength of the founders and the founding board members when unit banks are being created. For branch banks, however, these requirements are satisfied in a different manner. The parent corporation buffers the local organizers from such credentialing issues. Simply put, the parent bank establishes the ability of the local unit to provide guarantees of reliability of performance. So local branches have a kind of *institutional embeddedness* paralleling the interpersonal network embeddedness that so often interests network analysts. Being part of a broader corporate structure provides three kinds of assistance for those organizing branch banks:

- access to technology that enables quick and inexpensive development of efficient transacting routines (e.g., checking, credit card services, small retail loans)
- branding that supports the sale of such services and can be supplied through advertising
- brokered relations with the institutional environment and simplification of accountability and reliability of performance through the parent's history in other locations.

We think that such founding benefits are not sensitive to community context. That is, the efficiencies introduced through up to date technology work as well in small town as they do in large cities because the core technologies are of located in central service facilities that may be located anywhere. Branding is an advantage everywhere, as the logo and legitimacy of the parent conveys to its children rather directly. Lastly, the established expertise, financial strength and existing certification of the parent satisfies regulators regardless of the new branch's location.

{Figure 1 about here}

In contrast, unit banks are founded through direct provision of such legitimating services. The founders have to satisfy regulators that their capital is sufficient and that their personal reputation for honesty along with the reputation of founding board members is strong enough to permit offering banking services. Local market embeddedness replaces corporate parental sponsorship. The founders of unit banks are typically known in the community, and both depositors and loan customers come to them because of their social capital. These advantages, in contrast to those described above for the branch banks, are very heavily dependent on the local community's social structure. The larger the community, the less personal and family reputation suffices to establish legitimacy. Simply put, owner/managers of unit banks in big cities are not major social players, or at least they are less certainly such players. The parent corporation of a newly organized branch provides resources regardless of the size of the community within which the branch is organized; not so for the network embeddedness of unit bank organizers. Here, the market position of the new bank is facilitated much more easily in small communities, where the individual founders' social capital is so valuable. They know their customers on

a first name basis. They know their histories and reputations. In a more urban environment, they do not have such advantages.

This suggests that there should be an interaction between the rural/urban nature of the community and the effect of demand for services on the founding rate such that changes in demand will have a weaker impact on the founding rate of unit banks in rural communities than in urban communities. This interaction effect should be observable for unit banks but not for branches, whose corporate parents provide benefits that are not location specific.

Hypothesis 1: *The greater the demand for services, the higher the founding rate of banks.*

Hypothesis 2: *The effect of demand on the founding rate will be weaker in rural communities than in urban communities.*

Hypothesis 3: *The interaction effect of urban/rural location and demand on founding rates of banks will be stronger for the unit firm subpopulation than for the branch subpopulation.*

For a contrast, we conduct parallel analyses of general merchandise retail firms. This category includes department stores, variety stores, general merchandise stores, catalog showrooms, warehouse clubs, and general stores. Our theory says that banking organizations occupy a special position in community social structure. We do not expect to see the same patterns of structural embeddedness when we examine general merchandise retailers. To be sure, such retailers use social resources in conducting their business. They are a more internally heterogeneous group, however. While some have elite social connections, others do not. Furthermore, elite social ties matter less for the retail organizations we study than they do for banks. This is because they sell commodity products. Customers rely on the manufacturers of those products and on the signals transmitted through branding when they engage in such transactions. We think this identity of the merchant is less important in general merchandise retailing than in banking. Among unit bankers, we expect a more uniformly prominent position in the local stratification system. Consequently, we predict different patterns of covariation between founding rates of retailers than we expect to see among banks.

Hypothesis 4a: The interaction effects of urban-rural location and demand will be stronger for the founding rates of bank populations than for retail firm populations.

Hypothesis 4b: The interaction effects of urban-rural location in retail organizations will not differ between unit subpopulations and branch subpopulations.

BANKS IN AMERICAN SOCIETY

The roots of our contemporary American banking system can be traced to the banking crisis in the Depression (1930s). At that time, the banking system collapsed with 5,000 banks closing their doors in the three years between 1930 and 1933 (Garraty 1985). In contrast, during the 1920's at least 5,700 banks closed. The Glass-Steagall Act was passed in 1933 to stem the tide of the crisis and to prevent further harm. This act established the Federal Deposit Insurance Corporation and required a separation between commercial and investment banks. This legislation contributed significantly to establishing stability and rebuilding America's confidence in the banking system.

The legislation enacted in the 1930s was welcomed by the banking industry, which struggled to recover from the cataclysmic Depression years (Mason 1997). However, once stabilized, obstacles to growth soon presented themselves. Group and chain banking (or holding companies) were widespread in the 1920s but the crises of the early thirties caused the break-up of most bank holding companies. In spite of the fact that the newly passed banking regulation generally ignored holding companies, the legislative environment at the time discouraged their formation. From 1935 to 1955, Congress repeatedly introduced legislation opposing this particular bank form (Mason 1997). This environment generated much uncertainty for anyone considering adopting the bank holding form. Chief among those opposed to bank holding companies was the Independent Bankers Association composed primarily of banks based in small towns, frequently referred to as "Main Street" banks (Mason 1997).

The Bank Holding Act of 1956 was intended to prohibit holding companies. The law prevented them operating in more than one state, unless states expressly authorize the action. Ironically, the Act facilitated the eventual proliferation of such holding companies, by providing a precise definition of bank

holding companies and by abstaining from more hostile language (Mason 1997). So organizers of holding companies simply lobbied the states to gain permission. Maine was the first state to adopt interstate branching laws in 1978. This was followed by a great expansion from 1983-85 with the formation of regional interstate banking pacts. Prior to 1994 (when the Interstate Banking and Branching Act was enacted), all states allowed some form of interstate banking (Zhou 1997).

Curiously, and contrary to expectations propounded by unit bankers, Doti and Schweikart (1991) found that in western states competition was fierce for consumer loans, real-estate and development loans, and small to medium sized business loans during the time that interstate banking expanded (1976 -- 1987). Yet during this time period, concentration ratios fell in California, Arizona, Idaho, and Oregon while rising only slightly in Washington, Utah and New Mexico, states that allowed branch banking. Surprisingly, in Nebraska, Kansas, Wyoming and Colorado – states with unit bank regulation – concentration ratios increased. It appears that unit banks have been relatively successful competitors.

DATA

To observe differential birth rates of banking organizations and retail organizations across communities, we employed data accumulated by the Small Business Administration, based on Dun and Bradstreet's, Duns Market Identifiers (Reynolds and Maki 1990). Dun and Bradstreet gathers data for credit analysis and establishes a record when a business firm opens a bank account or applies for credit. In each even-numbered year from 1976 to 1988, a report was issued at year end listing each firm, its two-digit Standard Industrial Category code, and the community in which it was located. By noting the firms present at the end of a two year period of time that were not present at the start of that period, births could be observed. So we have 6 two-year periods of observation. Note that it is not possible, using these data, to tell the exact date of founding. Our data is an aggregate count of such foundings that occur within a two-year period. The data includes separate counts of life events for branches and for unit firms. A branch is defined as an establishment that is owned by a larger organization headquartered outside the county of

observation. This is consistent with the financial research discussed previously (Carlson 2004: 114) that focused on branching outside the city in which the banking corporation was headquartered.

The operational definition of a community is a Labor Market Area, as defined by the Journey to Work surveys conducted by the U.S. Census Bureau (Tolbert and Killian 1987). People were asked where they live and where they work. Clusters of counties were defined around such commuting patterns. Information about commuting patterns was used to distinguish "bedroom" counties (where people live) from "in commuting" counties (where people work). The resulting areas made up 382 LMA's. Some LMA's, those in rural areas in particular, were aggregated to reach a minimum human population of 100,000. Both the definition of the LMA and the manner in which the data were aggregated match human ecologists' definition of the residential community reasonably well. There were 382 LMA's in our dataset, but ten had missing data for one or more years in either the banks or retail datasets. To provide a consistent sample of observational units, we deleted these LMA's from this analysis. This gave us 2,232 period-LMA observations.

{Table 1 about here}

Table 1 presents descriptive statistics and a correlation matrix for each of the variables. Since our counts of births are different for banks and for retail firms, we have organized the datasets separately (although the same LMA's are observed in each). In 1976, the mean of unit banks over all 372 LMA's was 24.37. The mean of branches was 10.14. By multiplying by 372, we have estimates of the numbers of unit and branch banks.

For each LMA, we had counts of births for unit banks and retail firms, and for branches of banks and retail firms. We also had densities of the four populations. We wanted to control statistically for a number of characteristics of the communities. It seems obvious that the founding rates of these organizational populations will depend in part on community size and wealth. We drew information from the County and City Databooks for human population size *(pop)*, income per capita (*incpc*), the dollar value of bank and savings and loan deposits (*deposits*), and retail sales (*retail*). We used the Census Bureau's percent of the population living in urban places (*purbpop*) to measure the rural/urban

composition of the LMA. The County and City Databooks are available for 1977, 1983, 1988 and 1994. Depending on the variable, the year of observation is earlier than the data of the book. We used linear interpolation to measure these control variables at the start of each two-year period. Finally, to control for the cost of capital, we included the prime interest rate observed at year end from the Federal Reserve Bank of St. Louis (*prime*).

Dun and Bradstreet does not treat mergers and acquisitions as founding or failure events. For analyses of foundings or local banking organizations, we think this is appropriate, but it does generate some problems in analysis of mortality events. We know that the process of deregulation in financial services led to the absorption of many thrift institutions by larger, corporate entities. In particular, savings and loans were absorbed in large numbers by bank holding companies and other branching structures. It seems obvious that a mortality analysis of such organizations should consider the competing risks of absorption via merger and outright closure of local banks. This is a complex analytical problem since a large portion of the mergers amount to little more than name changes. The existing organizational structure continues at both the local and corporate levels. So distinguishing the organizational events from the purely legal structural events is not a simple matter (Rhoades 2000). Of course, modeling such processes is complicated by the fact that mergers often occur at the corporate level across state lines. The individual branches and unit banks involved may be quite healthy, well-functioning organizations. So community processes of primary interest in this paper are confounded with or even obscured by regional processes when mortality is being studied. For this reason, we confine our research to founding processes.

MODELS AND ESTIMATION

We follow the literature on density dependent selection in which event counts are used to model founding processes (Carroll and Hannan 2000: 127-31). Foundings, conceived as arrivals in historical time, can be represented as

$$h_n(t) = \lim_{\in \downarrow 0} \frac{\Pr\{X(t+\in) - X(t) = 1 \mid X(t) = n\}}{\in}$$

which yields a Poisson Process in the case of a constant rate. The duration independent model, developed for density dependence and sometimes called the Generalized Yule Model, is

$$\lambda(t) = N_t^{\alpha} e^{(\beta N_t^2)}$$

However, our data are counts over time within LMA's. The underlying processes are censored on the left. Furthermore, we can follow the LMA's for only eight years. So we do not think these data are appropriate for estimating full density dependence models in either the Generalized Yule or Log-Quadratic specifications (Carroll and Hannan 2000). On the other hand, we do think we should control for density as we test the hypotheses of interest. So our model is

$$\lambda_i(t) = N_t^{\alpha} e^{(\beta_1 U_t + \beta_2 D_{it} + \beta_3 U_t * D_{it} + \delta_i \mathbf{x}_t)}$$

where subscript *i* represents the four populations, U_t is our measure of urbanization, D_{it} is demand for population *i* and $\mathbf{x}_{it}$ is a vector of control variables measured at time *t*. As a check, we also estimated these models with the Generalized Yule specification of density dependence. The results of interest were unchanged.

As noted above, we have substantial numbers of LMA's that have no foundings in a two-year spell for one or more of the four populations. Consequently, we estimated these models with a zero-inflated regression procedure. Comparing Poisson and Negative Binomial regression, we found that Vuoung statistics were positive for all models. They were not statistically significant for the unit banks, but were significant for branch banks and for both kinds of retailers. Since we wanted to estimate comparable models for each population's birth rate, we used Zero-Inflated Negative Binomial Regression throughout. In each case we used total number of establishments observed at the start of each spell in our inflation model (e.g., all depository institutions in the unit and branch models for "bank" foundings; all general merchandise retailers for the unit and branch retail foundings models). We clustered on LMA to

take into account the fact that we have repeated measures on the same units of observation. This has the effect of increasing the standard errors but does not affect the regression coefficient estimates.

Finally, branch banking has been regulated in many states and these regulations persisted in some of our LMA's, while it was relaxed in others. We include a series of dummy variables representing relaxation of anti-branching laws in the state where the LMA is located. The model includes a binary variable for each, which shifts from zero to one when relaxation occurs in that state (Amel 1993). We should note that by controlling for the log of density at the start of the time period under observation, we remove at least some of the effects of historical regulation in the models for branch bank foundings.

These models resemble specifications with second order interactions, but in fact we have a set of units with four dependent variables, each is a count of different kinds of founding events. So we are comparing effects of a set of independent variables on each of these counts, theorizing about which of them should be more sensitive to the urban/rural character of the LMA's. Consequently, it is very difficult to construct statistical tests for the differences of the coefficients across models. An analysis of covariance analogue will not work here. In the section that follows, we will show large effects in the predicted direction, and the standard errors are small enough to encourage confidence that these differences are not the result of random error, but we cannot establish this beyond doubt.

RESULTS

Table 2 reports results that allow us to test Hypotheses 1, 2, and 3. The "main effect" of percent of the human population living in urban places is negative. So the founding rate of banks is lower in urban environments. We did not hypothesize about this, but do note that such an effect is consistent with the general idea that competition is stronger in urban areas where superior transportation and communication technologies facilitate customer shopping, and the higher rate of geographical mobility permits a more purely economic competitive process. The effects of log density are inconsistent, but we should note that density is being used to predict the zero birth LMA's, and so some of its effects have already been taken

out when the coefficients in the model are controlled. We are not bothered by this, as we are including density as a control and make no claims about the relevance of these results for the theory of density dependence.

{Table 2 about here}

The effect of *deposits* is positive which is consistent with Hypothesis 1. We see in subsequent estimations that it is often negative, but that the positive interaction effect of urban location and demand more than compensates for this negative first-order effect. The product terms for percent urban and deposits are positive and statistically significant, as Hypothesis 2 predicts. The product term for unit banks is also much larger than it is for branch banks as predicted by Hypothesis 3. The coefficient is almost three times as large in the Unit Bank model as in the Branch Bank model.

{Table 3 about here}

The models in Table 3 expand the specification to control for exogenous factors reflecting the economic conditions under which bank founders create new local banks. These are the cost of capital (measured by the prime interest rate), human population size, the community's average wealth (income per capita) and a set of dummy variables varying by state that indicates the year in which anti-branching laws were relaxed. Both models are statistically significant and the Wald Chi-square doubles in value, with the loss of eight degrees of freedom.

The positive interaction effect of central interest here stands up well to these controls. Income per capita has a negative effect on the founding rate of unit banks, but a positive effect for the founding rate of branch banks. The size of the human population has positive effects for both kinds of bank foundings. Similarly, the cost of capital, measured by the prime interest rate, has a negative effect on the founding rate of unit banks, but a positive effect on branch foundings.

{Tables 4 and 5 about here}

We replicate this analysis on counts of general merchandise retail firm births. We perform this analysis primarily to show that the effects predicted and observed for bank foundings are not the consequence of more general differences between rural and urban places. Our theory supposes that

banking involves participation in elite social structures, but we think this is much less likely to be true for general retailers. The principal difference between the specifications is that demand is measured as aggregate retail sales (as reported in the City County Data Book) in the retail models. It is based on sales tax data. While percent of the human population has negative effects on the founding rate, as it did in the analysis of bank founding rates, the "main effects" of retail sales are not statistically significant. The interaction effects, that are the main focus of our interest, are positive and statistically significant (but just barely so). Hypothesis 4a is supported. Hypothesis 4b predicts that the interaction effect of demand and urban location will be similar for unit and branch retailers. It is approximately the same (=.08). These interaction effects are strikingly similar in the two models. It does not matter much whether one is estimating founding rates of units or branch retailers. This supports Hypothesis 4b. As before, the models are statistically significant and the log-likelihoods are almost equal.

We think comparisons of Tables 3 and 5 clearly indicate that banking is different than general merchandise retailing so far as local unit found rates are concerned. Models of foundings rates of branch banks look more like retail form founding rates of either kind than any of the three comparison foundings rates do to that of unit banks. So founding processes of unit banks contrast sharply with those of both branch banks and retail firms.

DISCUSSION

Both unit banks and branch banks satisfy their certification requirements as reliable actors through association to others who have reassuring histories. But whereas branch banks fall on their parent corporations for establishing their *bona fides*, unit banks rely on the personal reputations of their founders. Beyond this distinction, which echoes previous work on *de alio and de novo* organizations (Carroll et al., 1996), the novel contribution of this paper lies in suggesting that this certification process is sensitive to variations in community context. Whereas the institutional embeddedness which confers reliability to branch banks is not bound tightly to the local context, the personal reputation of founders on which unit banks depend on to be seen as reliable is generally more valuable in rural communities, where

personal and family relationships play an important role in economic life and where reputations are more easily formed, than in urban communities. The analysis of founding processes of banks supported these arguments. The founding rate of unit banks was less sensitive to the demand for banking services in rural communities than in urban communities, presumably because the local embeddedness of founders serves as a demand buffer for unit banks. The effect of the demand for banking services on the founding rate of branch banks was less dependent on whether the community was urban or rural, as predicted.

Our assumption of social position advantages for bankers is consistent with the findings of many researchers who have studied banking. Whether researchers take a critical position, or take a more neutral value position on the role of bankers, virtually everyone acknowledges the influence that bankers exert on the rest of society. Their social position and the economic advantages such embeddedness provides, scale with the social system in which they operate. Money center bankers in the major metropolitan areas have ties that reflect their banks' global scope of operations. Bankers in rural areas have influence in a smaller, more localized social system. They are important people in their towns and small cities, but not on a bigger scale. So although the nature of the influence process may be the same, we do not expect it to translate into the same pattern of advantage for those creating new banking units at the local level. Sandy Weill's personal connections may have had an effect on CitiGroup's fortunes, but probably had little to do directly with the success or failure of someone creating a new branch bank.

To test whether our results stem from some unobserved difference between rural and urban communities, a difference that has nothing to do with the elite position of rural bankers, we extended our analysis to general merchandise retailers, whose elite membership is less uniform than is the case with bankers. We measured demand using aggregate retail sales in the community, and replicated our analysis with retail foundings. The positive interaction effects were weaker, as we expected, and there was no difference between unit retailers and branch retailers. Of course we cannot be sure about the effects of social position without doing a second study whose focus is the social position of bankers and retailers.

Our analysis of bank foundings is consistent with theoretical developments that suggest that the social support that lies at the heart of both resource acquisition and legitimation is only partly a function

of population density (for a review see: Hannan, Polos, and Carroll, 2007; but see also: Haveman, Rao, and Paruchuri, 2007). Larger organizational populations make it easier for those founding new population members to gain such social support. But the social structure within which the new organization is positioned provides advantages to some nascent organizations while it denies those advantages to others. If the organization itself cannot demonstrate reliability of performance or accountability through a history of operation, it can do so through association with people and organizations having reassuring histories and social position. Social support is more likely, then, when the nascent organization is associated with individuals, who provide credibility because of their personal social position, or because the nascent organization has connections to larger and older organizations. Our analysis suggests that community context matters to resource acquisition and legitimation because it influences the kinds of associations that generate social support.

Two points of contact of this paper with related work are worth mentioning. First, although our primary focus was on the varying impact of community context on the founding rate of branch banks and unit banks, we should acknowledge that the founding rates of these two organizational forms may also be affected by resource partitioning processes (Carroll, 1985). Branch banks and unit banks tend to offer different types of services and the concentration of one type of bank in a community is likely to create the condition for increases in the founding rate of the other form, as regions of the resource space in local markets are left unattended. Consistent with this conjecture, Marquis and Lounsbury (2007) find some evidence of resource partitioning in their study of U.S. banking communities from 1994 to 2002 thought. Because resource partitioning processes are often seen as independent from community context, a potential direction for future work would be to examine whether the urban versus rural nature of communities conditions resource partitioning dynamics.

Second, we have suggested that rural communities offer more hospitable environments for unit banks because in these communities bank founders tend to occupy social positions that confer advantage to the nascent organization. Another reason why unit banks may prosper in rural communities is that actors in rural locales embrace a logic of community control that conflicts with the logic of economic

efficiency embodied by national banks. This logic of community control may be the reason why local actors support unit banks. Marquis and Huang (2010) advance this institutional logic argument to explain why in states with a greater agrarian presence multi branch banks were less likely to expand geographically. Although the mechanisms invoked differ, our local embeddedness argument and their institutional logic argument are not mutually exclusive. One can easily imagine situations in which both operate simultaneously. A possible direction for future research would be to examine the effect of both mechanisms on the founding of unit banks at the level of communities. It would be interesting to isolate the distinct contribution of the local embeddedness of founders and of support generated by residents' adherence to a logic of community control.

The main point of this paper is that organizational populations grow and decline in local environments whose social and economic organization is usually not studied with the care it deserves. If community organization channels resources to some kinds of organizations at the expense of others, and poses institutional barriers and accelerants, organizational research in general and organizational ecology in particular will benefit by paying more attention to community context.

	DIRECT	SPONSORED
INSTITUTIONAL ENVIRONMENT	Personal reputation of founder	Corporate Qualification
RESOURCE ENVIRONMENT	Social Relations of Founder	Branding

Figure 1. Modes of Environmental Interaction

Table 1. Correlations and Descriptive Statistics – Banks

BANKS

Unit Births									
Branch Births	0.3801								
Density Units (Ln)	0.2990	0.3073							
Density Branches (Ln)	0.1324	0.3814	0.4247						
Human Population (mil)	0.6182	0.6743	0.4906	0.4445					
Income per Capita	0.0297	0.3197	0.4456	0.7386	0.2963				
Prime Rate	-0.1587	0.0422	0.1413	-0.0116	0.0040	0.1666			
Percent Urban Population	-0.1464	-0.2201	-0.1292	-0.2977	-0.2926	-0.1096	0.0000		
Deposits (mil)	0.6032	0.6317	0.4196	0.3703	0.9333	0.2568	-0.0234	-0.2085	
Obs	2232	2232	2232	2232	2232	2232	2232	2232	2232
Mean	5.18	6.50	2.94	2.39	0.61	9511.83	11.21	0.05	56.53
S.D.	13.76	21.00	1.21	1.87	1.14	2986.33	3.26	0.05	168.50
Min	0.00	0.00	0.00	0.00	0.08	3450.41	6.81	0.00	4.03
Max	327.00	450.00	6.93	7.92	13.23	22968.91	15.86	0.27	3167.99

Table 2. Zero Inflated Negative Binomial Models of Bank Births within Communities

	Unit Banks			Branch Banks		
	Coef		S.E.	Coef		S.E.
Density (Ln)	-0.018		0.0474972	0.2766568	***	0.028
Percent Urban Population	-8.186	***	1.533679	-14.54608	***	2.053
Deposits (mil)	0.0034	*	0.0013675	0.0016608	*	7E-04
Urban population X Deposits	0.4196	***	0.0633375	0.1770073	**	0.063
Constant	1.0738	***	0.1276124	1.111933	***	0.116
inflate						
Total Density	-0.013	*	0.0051768	-0.0245631	***	0.003
Constant	-15.49		1.026865	0.1517221		0.169
/lnalpha	0.5603	***	0.0264524	0.3374078	***	0.053
alpha	1.7511		0.0463215	1.40131		0.074
N			2232			
Nonzero Observations			1512			1156
Wald X’			206.05 df=4 p<.001			384.32 df=4 p<.001
LPL			-5326.049			-4748

Table 3. Zero Inflated Negative Binomial Models of Bank Births within Communities

	Unit Banks			Branch Banks		
	Coef		S.E.	Coef		S.E.
Density (Ln)	0.0755		0.0415	0.1230	**	0.0404
Percent Urban Population	-6.4060	***	1.3777	-11.9311	***	1.9656
Deposits (mil)	-0.0026	**	0.0009	-0.0015	*	0.0007
Urban population X Deposits	0.3112	***	0.0483	0.1528	*	0.0633
Human Population (mil)	0.9698	***	0.2261	0.5413	**	0.1821
Income per Capita	-0.0001	***	0.0000	0.0001	***	0.0108
Prime Rate	-0.1182	***	0.0084	0.0336	**	0.0108
1978	0.1848		0.1726	-0.1822		0.1336
1980	-0.2356		0.1952	0.3204		0.2073
1982	-0.1118		0.1693	0.0551		0.3830
1984	-0.2041		0.1393	0.1117		0.3433
1986	-0.4201	***	0.0885	0.7351	***	0.1335
Constant	3.0033	***	0.1439	-0.8678	***	0.2605
inflate						
Total Density	-0.0144	**	0.0051	0.0125		0.0035
Constant	-5.1082		7.3373	0.0188	***	0.1996
/lnalpha	0.2070	***	0	0.2349		0.0585
alpha	1.2300		0.0751	1.2648	***	0.0740
N			2232			2232
Nonzero Observation			1512			1156
Wald X^2	630.0 df=12 p<.001			587.3 df=12 p<.001		
LPL			-5068			-4635

Table 4. Correlations and Descriptive Statistics – Retail

Unit Births									
Branch Births	0.4018								
Density Units (Ln)	0.4078	0.3423							
Density Branches (Ln)	0.2016	0.3864	0.3759						
Human population (mil)	0.6532	0.6663	0.5582	0.4482					
Income per capita	0.0638	0.3017	0.3326	0.6687	0.2504				
Prime Rate	-0.1154	0.0193	-0.0514	-0.2835	-0.033	-0.0894			
Percent Urban Population	-0.1911	-0.2277	-0.0927	-0.2317	-0.3073	-0.0319	0.0208		
Deposits (mil)	0.6336	0.6246	0.4867	0.3893	0.9333	0.2302	-0.0587	-0.2235	
Obs	2232	2232	2232	2232	2232	2232	2232	2232	2232
Mean	7.86	9.11	4.10	3.55	611363.70	9511.83	11.21	0.05	31.22
S.D.	21.25	12.54	0.72	1.02	1142056.00	2986.33	3.26	0.05	60.33
Min	0.0	0.0	1.1	0.0	84145.0	3450.4	6.8	0.0	3.3
Max	513.0	136.0	7.8	6.8	13200000.0	22968.9	15.9	0.3	760.7

Table 5. Zero Negative Binomial Models of Retailer Births within Communities

	Unit Retail			Branch Retail		
	Coef		S.E.	Coef		S.E.
Density (Ln)	0.6970	***	0.0499	0.4828	***	0.0344
Percent Urban Population	-2.6605	***	0.4512	-4.2613	***	0.5374
Retail Sales (mil)	0.0018		0.0027	-0.0008		0.0025
Urban population X Retail Sales	0.0788	*	0.0309	0.0809	*	0.0367
Human Population (mil)	0.0639		0.1102	0.0951		0.0000
Income per Capita	0.0000		0.0000	0.0001	***	0.0000
Prime Rate	0.0049		0.0046	-0.0617	***	0.0052
b1978	0.0776		0.0851	0.0224		0.0790
b1980	-0.0855		0.0897	-0.1406		0.0970
b1982	-0.0818		0.1195	-0.0401		0.0977
b1984	0.1523		0.1107	0.0278		0.0746
b1986	-0.0255		0.0433	0.0884	*	0.0446
Constant	-1.3006	***	0.2328	-0.2138		0.1566
inflate						
DenT	-0.0255	***	0.0061	-0.0148	***	0.0026
Constant	-1.1985	**	0.3969	-1.0079	***	0.2248
/lnalpha	-1.4649	***	0.3154	-1.1489	***	0.1857
alpha	0.2311		0.0729	0.3170		0.0589
N			2232			2232
Nonzero Observations			2042			1926
Wald c^2	2350.0 df=12 p<.001			2032.0 df=12 p<.001		
LPL			-5774			-6368

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