Analysis of Small Business Lending in Texas

Special Report
to

Finance Commission of Texas
2601 N. Lamar Boulevard
Austin, Texas 78705

April 2002

Analysis of Small Business Lending in Texas

Special Report
to
Finance Commission of Texas
2601 N. Lamar Boulevard
Austin, Texas 78705

April 2002

Principal Investigator
Steve A. Johnson, Ph.D.

Co-Principal Investigators
David A. Schauer, Ph.D.
and
Dennis L. Soden, Ph.D.

IPED Technical Report Number: 2002-05

Institute for Policy and Economic Development
University of Texas at El Paso
COB Building 314
El Paso, Texas 79968-0703
915.747-7974 Fax 915.747-7948
e-mail – iped@utep.edu

Table of Contents

Cite or Reference for the full report is:

Dennis L. Soden, David A. Schauer and Steve A. Johnson, "Analysis of Small Business Lending in Texas." Technical Report 2002-05, Institute for Policy and Economic Development, University of Texas at El Paso, El Paso, TX. (April, 2002).

Acknowledgements

This project explored a timely and important issue facing the small businesses of Texas and the financial community that serves them. In addition to the patience of the Finance Commission and Commissioner Randall James, Bob Bacon of the Finance Commission staff is applauded for his input and perseverance. At the Institute for Policy and Economic Development at UTEP the work of several staffers and students must be recognized for long and tedious hours that are the backbone to a study such as this. Among these are:

IPED Staff:

Mathew McElroy, MPA
Janet S. Conary, MPA, MA
Yolanda Davis, Office Manager

UTEP Student Research Assistants:

Ashley Biever
Sophia DeGroat
Armin Hinojsa
Ryan Knotts
Jose Mares
Gabriel Montoya
Alvaro Munoz
David Nichols

List of Figures

List of Tables

In the drought-stricken Texas Panhandle a businessman with a farm-based clientele will have to go to the bank to make ends meet until the rains save the region's crops. Fortunately, like his father before him, the bank has always understood farm conditions and he is a close friend of the banker and his family in their small town …

On the Texas-Mexican border a small independent contractor has an opportunity to expand his business but has done a considerable amount of remodeling work over the years for cash and never had a business bank account, having always used his personal checking and credit cards …

In Houston an African-American woman desires to expand her small restaurant as business in the surrounding area grows, but as a single mother she has been delinquent on her bills a few times, yet she has always paid her debts …

Analysis of Small Business Lending in Texas

Introduction

The issue of lending to small businesses has become a major concern to the banking community, including the Federal Reserve, state legislatures protecting minority and women business interests, and the small business community itself, which makes-up approximately 90 percent of all businesses nationwide. The stories above are, in many ways, real reflections of what small business owners must address when they consider financing alternatives. In response, the Finance Commission of Texas has undertaken an in-depth study of the small business community in the State of Texas and its concerns and responses to lending and capital access issues. The study was conducted in the summer and fall of 2001 by the Institute for Policy and Economic Development at the University of Texas at El Paso (IPED) on behalf of the Finance Commission. In general, it addresses 4 issues of small business lending:

1. Availability of Credit;
2. Pricing and Terms of Credit;
3. Quality of Credit; and,
4. Lending Practices and Borrower Experiences.

It does so through the results of a statistically valid survey of 1567 small businesses throughout Texas designed after a series of studies conducted by the Federal Reserve Bank over the past decade and a half.[1]

Access to capital (debt, equity, human, and information capital), business practices that may affect access to capital, bank responses to loan applications, and patterns in lending across sub-groups (i.e., women and minorities) among small businesses in Texas are, at the same time, both complicated and sensitive. Patterns are complicated because there is no silver bullet to address a myriad of needs of small businesses; and, sensitive, because financial records of small business are often linked to the wealth and equity of the owner versus a corporate or partnership arrangement.

The State of Texas, at both the administrative (Finance Commission) and legislative levels, is committed to equal access to capital. This study thus becomes an important step in determining

[1] Based on a response from 1567 small businesses a statistical level of analysis at the 95 percent confidence level is achieved, and is valid for analysis based on geography, industrial classifications, gender, and ethnicity of owners. Statistical significance is generated using the Statistical Package for the Social Sciences (SPSS), which automatically determines the significance level based on established theory.

practices of both lenders and borrowers. It continues the Commission's efforts to examine alternatives to current debt financing experiences and practices, as well as policy responses aimed at increasing opportunities for both businesses and the financial sector. This study has several components. The first section addresses the major issues examined by the survey and potential sources of variation in financial services and borrowing practices. It concludes by suggesting how to broadly understand the way businesses may be characterized based on their business practices and banking experiences. These characterizations are not intended to be all inclusive, but are focused upon major issues associated with small businesses. The second section moves a step further and reports the results of a series of statistical analyses based on Binary Logistic Regression to ascertain the interaction among multiple variables at one time within the state. In doing so it helps the reader understand how factors relate to each other in determining the potential to obtain a loan and demonstrates that no single factor can be used to generalize about small business lending in Texas. Lastly, recommendations about possible policies that might improve conditions for lenders and borrowers in the small business sector are presented.

Economic Landscape of the Study Period

The nation's socio-economic environment in the second half of 2001 was undoubtedly one of the most unique periods in American history. Early in the year, an economic slowdown was already well underway, a slowdown that was accelerated in some aspects by the terrorist attacks of September 11th. The previous economic expansion lasted for a record-breaking 10 years leaving many unprepared to drift into recession after an economic peak in March 2001. The fact is, real Gross Domestic Product (GDP) only declined for the third quarter of 2001, but industrial production fell 6 percent beginning in the fourth quarter of 2000. At one level, many take the position that the slowdown was only temporary and that the events of September 11th may have only had a short-term impact. Federal Reserve Chairman Alan Greenspan noted in the last week of January 2002 that the economy was indeed stronger than expected, and that the fourth quarter 2001 GDP figures show a modest increase rather than the expected decline. Added to this, record sales of existing homes and automobiles, as a result of the lowest interest rates in 2 generations, suggests strength in the consumer economy. Yet from another perspective, the pent-up consumer demand behind past economic recoveries may not exist today.

Another issue is that the recession or slowdown during the study period is different than in the past, as three factors come to play:

> First, there is greater interdependency across world markets than we sometimes realize. U.S. purchases of goods and investment of capital are major drivers of the global economy. A U.S. slowdown has the potential of making a world economic recovery a prolonged process.
>
> Second, the present recession has not been caused by a collapse in demand and high inflation. Instead, investor's high expectations about productivity and profits derived from the information technology (IT) boom, not only led to over-investment, but heavy borrowing between 1995 and 2001. Thus, this recession is more difficult to tackle through fiscal policies, such as tax cuts, since firms have already borrowed and invested significantly. The problem is aggravated if we consider that IT systems wear out faster than most traditional manufacturing equipment, thereby requiring more frequent re-investment to sustain growth.
>
> Third, the positive aspect of the present recession is that for the first time since the 1970s, the U.S. government initially faced the recession with a budget surplus. The 2001 budget surplus, estimated at some $280.7 billion (2.7 percent of GDP), allowed for tax cuts and rebates to presumably spur the economy; but, investment-led recessions are not easily tackled with fiscal policies.

Overall, these factors have created a condition that requires a different type of business response, especially among small businesses. Small businesses must realize they are more affected by globalization than they may have previously thought. Moreover, pin-pointing a turn around and recovery may be more difficult than in the past. Perhaps the main point for small businesses in Texas

is not when the recession will be over, but how long they will have to wait before economic growth returns, and how they will survive under lower growth rates than those of the 1990s. Historically, a U.S. recession averages 11 months, which would mean that the current recession is ending as this study concludes. It may also help us to realize that this study and the data collected did not occur under the best of times and that the data reflects a difficult time, and at least a period of concern among small businesses in Texas. Moreover, one must realize that the period of this study does not feature high-interest rates and inflation. Instead, the opposite holds, plus a slowdown in investment, a cautious consumer confidence and, perhaps, an even more cautious confidence among CEOs, as well as a federal budget surplus that is becoming a deficit.

This period provides an interesting and important backdrop to study the financial opportunities of Texas small businesses. The period over which data was collected for this study (July to November 2001) encompasses an extraordinary interval in our socio-economic lives that has been well-documented in a variety of sources. Although the information gathered concerns financial transactions occurring up to 3 years ago, the survey conducted also contains attitudinal questions that apply to the state and nation's current economic conditions. Thus, responses to these questions may also permit a policy assessment of the impact of these recent events on small businesses in Texas.

Review of Relevant Research

The issues surrounding small business' access to capital are not new nor are they unique to Texas. The ability of small businesses to obtain capital is of national, state, regional and local concern and in many ways is rooted in a concern about a low level of financial literacy that some suggest blankets the entire nation (Hamilton, 2002). As a result, a wide variety of studies examining this issue have been conducted over the past 20 years. These research efforts provide valuable insights into the following general areas:

- The utilization of financial services by small firms and the major providers of these products;
- The terms/conditions on credit received by small firms;
- Key concerns of small firms with respect to their business in general and debt financing in particular;
- The possibility of discrimination in lending to small businesses;
- The impact of banking industry consolidation upon firms' access to debt capital;
- The options/alternatives available to small businesses seeking financing;
- The importance of banking relationships to the availability of credit; and,
- The appropriate methodology to be employed.

Utilization and Provider Rates

The National Survey of Small Business Finances conducted by the Federal Reserve and the United States Small Business Administration in 1987, 1993, and 1998 provide a vast array of information concerning the use of financial services by small firms and the providers of products (Elliehausen and Wolken, 1990; Cole and Wolken, 1995; Cole, Wolken and Woodbrum, 1996; Board of Governors, 1997; Bitler, Robb and Wolken, 2001). Specifically, these studies find that:

- Over 95 percent of small businesses use at least one service offered by financial institutions. A similar portion maintains a liquid asset account (i.e., checking or savings-type account).
- Approximately 55 percent of firms maintain a credit line, loan, and/or capital lease.
- One-half of small businesses use transaction services (for example: provision of coin/currency, processing of credit card receipts, and wire transfers), credit-related services (for example: letters of credit and factoring), trust and pension services, and brokerage services. As one would expect, the utilization rates of these services are rising over time.

- Small firms also obtain financing via loans from their owners (30 percent) and trade credit (60 percent). The use of credit cards as a source of financing is utilized by one-third of firms via a business credit card. In addition, roughly 45 percent of small firms use a personal credit card as a source of funds in their business. These sources of funds have seen a slight upward trend over the period 1987-1998.
- Depository institutions dominate in the provision of financial services to firms, providing at least one financial product to roughly 95 percent of small businesses. Most firms rely on the services that commercial banks provide (89 percent).
- Non-depository institutions were a source of financial services for one-third of small firms, a slight increase over earlier surveys.
- Nationwide, banks are losing their market share of debt financing to the small business sector, although the rate of decline is slight. Commercial banks continue to be the major provider to firms with respect to checking accounts (85 percent), credit lines/loans (35 percent), and financial management services (35 percent).

In a recent study of the El Paso, Texas region, the utilization and provider figures noted above from the Federal Reserve/SBA studies were reaffirmed (Schauer, 2000). In addition, this study revealed additional insights concerning the extent to which small firms co-mingle their personal and business financial activities. For example:

- More than two-thirds of small firms use personal checking accounts in their business, a co-mingling of funds that exceeded expectations;
- Personal credit cards are utilized by over 70 percent of firms; and,
- Roughly 30 percent of firms' owners have taken out personal loans to finance their business.

Terms of Credit

The Board of Governors of the Federal Reserve Bank System (2001) publishes national data on a quarterly basis concerning the conditions/terms of commercial lending. Specific information includes:

- Average effective loan interest rate;
- Average loan size;
- Average loan maturity;
- The number of loans that are: secured by collateral, callable, subject to prepayment penalty, made under commitment; and,
- The most common base-pricing rate for variable-rate commercial loans.

Unfortunately the national data collected by the Federal Reserve cannot be disaggregated to specific Federal Reserve Districts (i.e., Dallas Fed). The data is intended to represent national trends and no particular region or sub-region of the country. Moreover, it is collected under the agreement that data will only be used in the aggregate and must remain confidential.

Key Concerns of Small Firms

The FED/SBA surveys identify and rank order the most important problems facing small businesses. The most recent 1998 survey revealed that labor issues (for example: the cost, availability and quality of labor) were of greatest concern. Competition issues from larger international firms, and perhaps an associated fear of globalization, as well as the rise of Internet firms and the ability of small businesses to attract labor were of great concern. Other important issues included the availability of acceptable interest rates, government regulations, taxes, and contending with poor sales. The key concerns of small firms were quite different in 1993. At that point in time, health care and health insurance costs were cited most often followed by general business conditions. Below the first two issues in 1993, were financing and interest rates, followed by firm performance, business sales, and taxes (Bitler, Robb, and Wolken, 2001). Given the robust economy during this period, sales were not high on the issues list.

The National Small Business United organization (NBSU) identified a similar collection of issues faced by U.S. small firms in a study reported in 1999. Health care reform, a variety of tax inequity/reform issues, and the availability of capital for small businesses were the top five concerns from an initial list of 50 potential concerns from which study participants could choose.

The survey of the El Paso region identified "Taxes" and "Sales" as the key general concerns of the small business sector. "Financing and Interest Rates" were the lowest ranked out of 7 issues. However, approximately one-third of the respondents rated the issue of capital access as extremely important. Firms were asked to rate 15 more specific issues as they began the year 2000. "Market Conditions" issues dominated, especially the "outlook of demand." A "Regulations and Taxes" issue cluster came next, most notably the "state and local taxes" and "workers' compensation costs" areas. The group of "Financing issues" was of least concern although roughly 20 percent viewed this area as extremely important (Schauer, 2000).

The El Paso study also asked firms to evaluate potential barriers to accessing debt financing, as well as the value of various strategies for improving access to capital. In evaluating potential barriers, lack of knowledge or information concerning financing alternatives and bank lending requirements were perceived as serious barriers by 20 percent of small firms. Approximately 30 percent perceived lack of competition in the lending sector as a serious barrier. Concerning the usefulness of possible strategies for improving capital access, more small business support programs, along with better access to information on bank lending, were ranked as the best strategies. Responses concerning potential barriers, along with possible remedies to overcome barriers, strongly suggested that a lack of human capital (i.e., knowledge, education and information) concerning debt financing alternatives and the financing "process" may be a key element of any capital access problem (Schauer, 2000).

Potential Discrimination in Small Business Lending

Concern over this issue obviously began before 1992, but an important study by the Boston Federal Reserve Bank in that year was one of the first to conclude that minorities were discriminated against in the home mortgage market (Munnell, Browne, McEneaney and Tootell, 1992). The key to the study and its findings was the significantly different loan denial rates between minority and non-minority home mortgage loan applicants. The concern over possible discrimination quickly spread to the small business lending arena. While different loan approval and denial rates do not necessarily imply discrimination, they do raise concerns and have obvious political ramifications. It is well known that a number of creditworthiness and control factors must be incorporated into a sound investigation of the discrimination question. Unfortunately, research to date provides mixed results and conclusions about this issue (M. Ferguson and S. Peters, 1995; D. Blanchflower, P. Levine and D. Zimmerman, 1998; G. Canner, G. Squires and S. O'Connor, 1995; D. Immergluck, 1999; and, the following: A. Yezer, D. Blanchflower, P. Levine, and D. Zimmerman; K. Cavlluzzo, and J. Wolken; R. Bostic and P. Lampani, all summarized in Lang, 1999. Also, see Schauer and Soden, 2001).

Banking Industry Consolidation and Small Business Access to Capital

The steady stream of bank mergers and consolidation over the past 25 years has been well documented and serves as the catalyst for many stories related to banking services. Basic economics argues that industry consolidation will increase market concentration that may lead to reduced competition, resulting, in turn, in higher prices and reduced output. In banking, this could translate into higher fees, higher interest rates on loans, lower rates on deposits, as well as fewer loans and other services. Given that banks continue to be an important provider of credit and other services to small firms, questions arise whether the consolidation trend in banking has constrained small business access to debt capital. As with most economic and finance issues, the evidence on this issue is somewhat mixed. While there is evidence that firms perceive there is less competition in banking causing capital access constraints (Schauer, 2000), empirical research generally concludes the opposite (Berger, et al., 1997; Ely and Robinson, 2001; Jayaratne and Wolken, 1999; Peek and Rosengren, 1998; and Strahan and Weston, 1998). At one level, a consensus appears to be emerging with respect to this issue. Increased concentration does not necessarily imply reduced

competition where a firm/bank can dictate prices. As long as a firm has a variety of financing choices, and is aware of these alternatives, industry consolidation is not likely to stifle competition.

Debt Financing Alternatives

As noted earlier, some suggest that small firms tend to perceive that there are limited debt financing alternatives available to them, due in part to the consolidation of the banking sector in their region. Yet, research clearly indicates that small firms have a much greater array of financing alternatives available to them than ever before. Viewing the number of banks in a market and their small business lending activities can provide a very narrow perspective of the providers of financial services, especially debt financing arrangements in a region (Cole and Wolken, 1995; Peterson and Rajan, 2000; Schauer, 2000). For example, the El Paso study revealed that, while there were six commercial banks active in lending, there were approximately 50 active business lenders in the region in 1998 (Schauer, 2000). In addition, credit unions in the area had a deposit base of $1 billion, offering a major debt financing alternative to many sole proprietorships and small partnership firms who co-mingle personal financing arrangements with business needs. Furthermore, additional research should examine alternatives available through e-banking given its growth as an alternative source of lending.

Importance of Bank Relationships

If there is one issue that has been resolved in the small business access to capital arena, it is that there are clear benefits of having an established relationship with a commercial lender. The primary benefit is that the probability of obtaining financing increases. At the same time, however, there appear to be minimal benefits in the form of a reduction in the price of credit. Thus, it follows that having multiple relationships with a number of banks generates limited advantages (Cole, 1998; Peterson and Rajan, 1994).

Appropriate Methodology

Clearly the most comprehensive studies of small business finance practices and issues were conducted by the Federal Reserve Bank in conjunction with the Small Business Administration in 1987, 1993, and 1998 (FED/SBA). While they are not as specific or limited as regional or state-specific studies, the methodology utilized to develop survey data on small firms by these studies can be regarded as the standard for surveys of this nature. Specifically, the FED/SBA studies use a two-stage stratified random design procedure to develop their survey database. The most recent 1998 study offers an excellent example as discussed by Bitler and his associates (2001). In a multi-stage approach, firms were contacted (or attempts were made) concerning the nature of the survey and to verify the eligibility of the business for the study. Based on this information, they were identified as part of the target population and as willing participants in the survey. A second stage further reduced the participating firms in order to obtain a representative sample. The final result led to a response of 9 percent of the original sample over a study period of 2 years. In reviewing the extant literature, it is the approach and methodology used in the FED/SBA studies that were adopted for this study, thus following the highest standard in this issue area.

Loans to Small Business Firms in Texas: Analysis of Providers

In order to get a better understanding of the environment within which small businesses must work to obtain financing, it is important to look at the role of commercial banks. Commercial banks have played a critical role in providing debt financing to firms for decades, and are the focus of most of the discussion that occurs about capital access issues. This has been the case especially for small businesses that lack access to most money and capital markets. The 1998 National Survey of Small Business Finances conducted by the Federal Reserve and Small Business Administration determined that 67 percent of small firms have their debt financing needs met by commercial banks. The data in Table 1 is indicative of the role of commercial banks in meeting the lending needs of small businesses in Texas.

The Community Reinvestment Act (CRA) requires that commercial banks with more than $250 million in total assets or that are part of a bank holding company with over $1 billion in assets provide annual data concerning their lending activity (number and dollar amount of loans) to small firms. This data is available to the public with a 6 month lag. Table 1 provides small business lending activity information for the 3 areas defined in this report, based on the 24 state planning regions (Figure 1) along with each region's key counties for the year 2000. Key counties were identified as those having 2.5 percent or more of the firms located in a specific region, while small firms are defined as those with less than $1million in annual revenues.

In summary, the data in Table 1 reveal that the total number of providers of debt financing to small firms (Column 1) is significantly greater than the number of commercial banks with a presence in the local market (Column 2). Generally, the total provider value is 3 times that of the number of banks. As revealed by the present and previous studies, small businesses must think "financial services industry" versus "commercial banks" when considering debt financing alternatives. On a statewide level, commercial banks continue to play a prominent role in financing small firms (bottom of Columns 7 and 8). Banks made over one-third (36.37 percent) of the number of loans and two-thirds (66.70 percent) of the dollar volume of loans to small businesses in 2000. While some caution must be taken with these figures since they are an "average of averages," they are consistent with nationwide figures noted earlier. Also, these values *understate* the role of commercial banks, since smaller banks are not required to report small business lending data. The Small Business Administration, Office of Advocacy, estimates that 25 percent-plus of total small business loans made is not reported in the CRA data. Within the 24 planning regions, 12 reveal local banks making approximately 75 percent or more of the dollar volume of small business loans while 9 regions were roughly at the level of 60 percent or less. With respect to the number of loans made by local banks, 9 institutions had a 50 percent share or higher while 11 were at 35 percent or less.[2] Thus, banks to play a prominent role in providing credit to small firms in Texas. Regardless, there may well be additional demands that need to be considered. Realization of this possibility in periods of strong or weak economic conditions and the concerns of the Finance Commission, in fact, prompts this study.

Methodology

The methodological approach of this study is considered "cross-sectional, conclusive, descriptive research." This research design classification includes:

1. Evaluations with specific research objectives and informational requirements;
2. Studies that provide information for managerial or policy decision-making; and,
3. Statistical tests that determine the degree of association between variables.

For the results of any study to be generally applicable, a research design should be chosen that considers the validity and reliability of the collected data and provides a realistic degree of accuracy. In addition, these objectives must be achieved within the budgetary constraints of the project. Following the design established by the studies of the Federal Reserve/SBA, a mail survey was utilized to develop data about small business lending experiences in Texas.

To achieve those goals, a standard randomized survey research methodology was selected for this assessment of small business finance as diagrammed in Figure 2 following the standard developed by the FED/SBA studies. Figure 2 illustrates that the research design entails 6 distinct stages. Stage One involves the development of the overall methodological approach to test the basic research questions addressed by the study. Our primary goal was to determine whether the state's financial institutions are adequately serving all segments of the Texas small business community, again following the standard developed by the FED/SBA studies.

[2] The role of Credit Unions in financing small business firms (via sole proprietors/partners combining their personal loans with business financing needs) is not revealed in the CRA data files. As shown in the present and previous analyses, Credit Unions can provide a viable financing source for many small businesses.

Stage Two consists of two actions, the survey instrument design and sample pool selection. The survey device contains questions and responses that allow researchers to respond to the research objectives. The obtained sample pool should reflect the socio-economic profile of the target population, and from this group, the sample frame is drawn and the survey device is applied (Stage Three). Stage Four consists of follow-up contact with the non-responding members of sample frame. The survey sample is compiled in Stage Five with results and conclusions generated in Stage Six.

Survey Instrument

The survey instrument used to assess the finance and credit issues of Texas small businesses was designed to comply with the requirements of the Finance Commission's Request for Proposals (RFP). The RFP specified four general areas that the survey device would address:

1. Availability of Credit;
2. Pricing and Terms of Credit;
3. Quality of Credit; and,
4. Lending Practices and Borrower Experiences.

This amount of required information determined the nature and length of the survey. Questions were included on the instrument to yield the desired information on each of these specific points, thereby adding questions and length to the survey. It is important to point out the longer and more detailed surveys result in lower response rates than do less detailed survey instruments; an experience also shared in the FED/SBA studies.

The survey instrument draft, once completed, was submitted to the Commission for review and comment. Their additional questions and suggestions were included in the revised document. The revised document was submitted to 2 focus groups (San Antonio and El Paso) for further comments and suggestions. These groups assisted, as members of the business community, in insuring the language was suitable for the small business community and that the request for detailed answers would not serve as a major deterrent to participation.

In this research design, a random sample was developed to mirror the target population, based on the U.S. Census Bureau's County Business Patterns, using Equifax, a vendor who provides samples for research purposes.[3] Each record contained the contact name, firm name, address, NAIC code, and business description of the randomly selected firms. Introductory letters describing the nature and motive for the survey were sent to the preliminary sample group of 45,183 firms during the 30-day period July 13 through August 13, 2001. The introductory letter served as a screening device to determine whether the selected firms were qualified under the guidelines established by the Commission, names and addresses of the contact individuals were correct, and to assess whether these firms were willing to participate in the survey process. Willingness to participate could be conveyed in 4 ways:

1. By faxing the introductory letter to the toll-free number dedicated to this project;
2. By calling the toll-free number;
3. By sending an email; or,
4. By accessing the business survey website at www.iped.org/surveys/.

If one of the first 3 methods was selected, a survey and self-addressed return envelope were mailed to the respondent. The survey could be completed on the website if the latter method was chosen.

[3] An Equifax partner (Info USA) provides the firm names to Equifax. A two-stage process is followed for the definition of a firm. The initial list contains all business licenses issued by municipalities. This does not, however, mean that the person or group who obtained the business license ever began operating. Each license holder is called to verify the firm is in operation, its sales volume, number of employees, and contact information. The firm, thus, is defined as having a license and actually actively operating.

The second phase of the research process commenced on August 22 when IPED call center staff began making contact with the primary sample frame, a subset of the sample who had not yet responded concerning their interest in participating. Over the next 12 weeks, 25,375 phone calls were made to Texas small businesses asking them to participate in the survey process. Calls were made to all firms in the sample frame during traditional normal business hours.[4]

In total, the survey process generated 1567[5] useable responses, 3.5 percent of the 45,183 preliminary sample and 6.2 percent of the 25,375 in the primary sample frame.[6] The total valid responses of this survey (1567) permit a statistical evaluation of the basic research questions of this study.

Findings

Sample Representativeness

The target population for the purposes of this study was defined by the Finance Commission as non-agricultural, non-depository, for-profit small businesses operating in Texas with 100 or fewer employees. The County Business Patterns database, constructed annually by the U.S. Census Bureau, provides county, state, and national level business data, including the number of establishments, payroll data, number of employees, and number of establishments by size for NAICS (North American Industrial Classification System) based on 2-digit industry groupings.[7] We employ County Business Patterns in this study to determine the target population because these data direct government planning and funding decisions in much the same way as the decennial census of the nation's population, and are standardized over three decades. As such, the County Business Patterns will stand the test of a business definition for the federal government and its policy making process. County Business Patterns exclude data on self-employed individuals who do not pay federal

[4] 395 firms in the sample frame did not meet the basic criteria established by the Commission as a Texas small business. Most of these firms reported that they were wholly-owned subsidiaries of a larger corporation with more than 100 employees. Removing these firms from the sample yielded a total viable sample of 24,980 firms. In addition, 1,752 (or 7.0 percent) of the sample frame had disconnected or out-of-service phone numbers. Of the 24,980-sample frame, 13.0 percent of the calls (or 3,240) were not answered after two attempts. In addition, answering machines were reached on 6,194 (or 24.8 percent) of the calls. In these instances, a specified explanatory statement was recorded and the staff caller requested that the business owner call the toll-free number dedicated to this survey.

Contact was made with the business owner or manager for 59.7 percent (14,920 firms) of the sample frame. Of this group, survey packets were mailed to the 8,544 firms (34.2 percent of the sample frame and 57.3 percent of those firms with whom contact was made) that agreed to participate in the survey process. Forty-two percent of those firms with whom contact was made (25.5 percent of the sample frame) chose not to participate in the survey. Of those who chose not to participate, 2,072 firms (or 8.3 percent of the sample frame) indicated that they were "too busy" to complete the survey. The largest portion (2,392 firms or 9.6 percent of the sample frame) of those who chose not to participate cited "not interested in the topic" as the reason. The final group (1,912 or 7.7 percent) of those choosing not to participate stated "other reasons" for preferring not to complete the survey.

For those firms in the sample frame that agreed to participate in the survey process, to whom survey packets were mailed but did not respond, a third phase of contact occurred. After 3 weeks, call center personnel made follow-up calls to those firms that had not returned completed surveys. Of the follow-up calls that were made, an additional 130 of the firm's phones were now "disconnected." One hundred and three of the firms contacted a second time reported that they did not meet the stated qualifications of small business in that they employed more than 100 people. Voice messages requesting participation in the survey process were left on 2,791 answering machines, and 1,570 phone calls were unanswered. One thousand and seventy-eight firms (15.0 percent of the follow-up calls and 4.3 percent of the sample) responded that they had received the survey but did not want to participate. Of this group, 166 stated that they were "too busy" to participate; 543 indicated that they were "no longer interested" in the topic; and, 369 of the firms gave some "other reason." Nine hundred ninety-three firms indicated that they would participate and would like a second survey packet mailed to them. A final group of follow-up calls yielded 504 responses that the survey packet had been received and the manager would "mail the completed survey."

[5] The total survey response pool was 1621; however, 22 respondents with more than 100 employees were removed from the sample and 32 surveys were not completely filled out.

[6] We also believe that the survey length and its complexity contributed to this relatively low response rate. This result is not unique to the present study. The FED/SBA studies have seen a dramatic decline in official response rates from 66 to 32 percent in the eleven years of their studies, and only 9 percent of their total sample in their 1998 study.

[7] The North American Industry Classification System replaces the former Standard Industrial Classification, although the transition is not entirely complete. An excellent overview, entitled *1997 Economic Census: Bridge Between NAICS and SIC,* is available at the United States Census website at www.census.gov/epcd/ec97brdg/.

payroll taxes (Schedule C Tax Filers). It also excludes employees of private households (maids, gardeners), railroad employees, most agriculture firms and agriculture workers, as well as government employees. It corrects for franchises or branches that operate under one business structure reporting only the headquarter firm. Because self-employed individuals do not, generally, have federal tax identification numbers or report payroll taxes they are excluded by the Bureau of the Census from County Business Patterns.[8] Table 2 provides an overview of the size of the population of businesses establishments in Texas used in this study.

Thus, working from County Business Patterns, in 1999, the most recent year of data available, 453,872 business establishments[9] in Texas met the definition established for this study and by the Bureau of the Census. These business establishments represent 95 percent of the 467,087 firms recognized by the Bureau of the Census through County Business Patterns in the state at that time. Between 1993 and 1999, this sector of Texas businesses grew at an average annual rate of 1.7 percent, ahead of the national average rate of growth for this classification of firms at 1.47 percent over this same period. Given the size of this business sector, there is little disagreement that the continued economic health of the state depends on the ability of small businesses to grow and prosper.

Beginning with County Business Patterns we can determine the initial make-up of the state's small business community in two basic ways: 1) geographic location; and, 2) industrial classification. The geographic distribution of small businesses can be considered in a variety of ways in order to understand a number of regional characteristics that exist in a large state. In order to manage the needs of the Finance Commission in the relatively short period of this study, the state was sub-divided into three regions: 1) urban/non-border; 2) border; and, 3) non-urban/non-border as shown in Figure 1. This figure also indicates how state planning regions, a previously established framework, can be associated with this breakdown.

Table 3 provides the percentage of the state's small business community that resides in each of the three regions using State Planning Regions as sub-units. For example, 2.21 percent of the state's small businesses as defined by the Commission are in the Panhandle region. These are part of the non-urban/non-border geographic area that has 26.48 percent of small business firms in Texas. Similarly, North Central Texas (Dallas-Fort Worth) has 27.33 percent of the businesses relevant to the study and falls into Urban/Non Border status that includes the majority (66.11 percent) of the state's small business establishments.

In the third column of Table 3 the related response rates by the three geographic regions are reported. Because survey responses do not compare exactly to the actual rates of business establishments within regions, sample weighting (a proportional correction) was used to adjust the responses to reflect the population percentages.[10].

The new standard code framework to describe business entities and industries is the North America Industry Classification System (NAICS) to provide a consistent structure for the collection, analysis, and distribution of commercial and industrial statistics. For purposes of this study, Texas small businesses are sub-divided by their two-digit NAICS codes as shown in Table 4.[11] In the column "Target Population" in Table 4, we find retail trade (15.89 percent), professional and technical services (10.46 percent), and other services (10.52 percent) dominate the small business community of Texas, with almost 37 percent of the small business population.

For analysis purposes, the self-reported responses of industrial classification were placed into five categories of: 1) Retail and Services; 2) Construction; 3) Wholesale; 4) Manufacturing; and, 5) Other,

[8] In this regard, some differences may exist among data sources which do include these individuals, subsequently reporting higher numbers.
[9] We use the terms small businesses, firms and business establishments interchangeably, but for purposes of this study, business establishments as defined the County Business Patterns represents the sample.
[10] Weighting is a common technique and is also employed in the FED/SBA studies.
[11] A two-digit code places the firms into categories analogous to SIC codes at the two-digit level.

at the request of the Finance Commission. In Table 5, we report the results of the NAICS reclassifications into these categories and self-reported industry classification from the survey respondents. What is important in this regard is to see if firms self-identify with industrial classifications in a pattern that reflects the County Business Patterns, and secondly, to determine if the responses reflect the actual patterns reported by the Census Bureau. Table 5 suggests that overall firms responded to the survey in a pattern similar to the distribution of small firms in the state. More firms placed themselves in the other category using self-identification: a fact that relates in part to how a business sees itself. For example, an oil equipment sales firm may fall into service, manufacturing or construction depending on who filled out the survey, whereas the Census Bureau may place it into the construction industry category. At the request of the Finance Commission, these self-reported categorizations were included in the survey. Within the context of small business lending, the way a firm sees itself is also how it is likely to present itself to a lending institution when seeking financing alternatives.[12]

A last consideration relating to the target population and the response pool is the size of the firm based on number of employees. In Table 6, we consider the target population to the response set which shows that responses provide a very close match to the state overall.

Non-Response Bias

The statistical validity of the sample is also based, in-part, on non-response bias. While there is no definitive test(s) for assessing a non-response bias hypothesis, we can safely conclude that the data generated by the survey is representative of the small business community in Texas when weighted by geographic distribution. Our opinion is that if there is a bias, it would be that the experiences/opinions/concerns expressed by the sampled firms might somewhat over-state that of the entire population of firms because self-selection in choosing to fill-out a survey is generally based on interest, which in this case may be the experience of having a loan application denied. However, this does not diminish the severity of the issue and how it impacts small businesses and economic development in the state.[13] Using guidelines established by extant research (Armstrong and Overton, 1977; Frey, 1989; Hui, Hall and Hedric, 2000), a host of non-response bias factors can be determined, none of which are definitive.[14] Moreover, non-response bias impacts even the best efforts and remains a problem of the Census, a legally mandated survey (www.ncpa.org/pd/govern). Kinnear and Taylor (1996, p. 339) point out that a low response rate *does not* necessarily imply a high non-response error or bias, but only a potential difference between respondents and non-respondents on variables of interest.

Armstrong and Overton (1977) suggest measuring the differences in responses for subsequent "waves" of respondents to assess the nature of the non-response error. Thus to better understand the non-response bias better, we compare the first set of respondents, those who responded as part of the original contact, to the second set, made up of those with whom phone contact was made. In comparing the two sets of respondents we wish to ascertain if there is a difference between those who responded to the first contact and those who responded to two or more contacts. Statistical comparisons of the two samples responses indicates they are consistent, or put another way, there is no statistical difference between those who responded to the initial contact or those who responded as a result of the follow-up effort. Subsequently, the sample represents and can serve to generalize to the small business community in the state.

Firm Profiles[15]

The survey asked a number of questions relating to the firm's structure and practices. The responses to these questions are provided in Figures 3 through Figure 9. Profiles of the responding firms

[12] Because of the closeness between the reported classifications and the overall pattern of business classifications in Texas reported by the County Business Patterns, no weighting was deemed necessary by industrial classification.
[13] It is also of interest to note that the FED/SBA studies do not address non-response bias in their reports.
[14] For example, Heuberlein and Baumgartner (1978) found 71 reasons for lack of responses to mail surveys, ranging from lack of interest to the color of the paper.
[15] Weighted responses based on geographic location in Texas are used from this point forward.

suggest a picture of small businesses in Texas that allows us to better understand issues associated with financial services and access to capital. We find that 40 percent of the businesses are sole proprietorships, indicative of our traditional view of small business organizations. Approximately 35 percent stated that their business is some form of corporate structure, with about 20 percent arranged as a partnership (Figure 3). Firms with annual sales from $100,000 to $499,999 accounted for 34.8 percent of the gross sales receipts distribution for the survey respondents. Over 60 percent (60.4 percent) report annual sales below $500,000. While 25.4 percent report revenues exceeding $1 million, smaller firms dominate the sample (Figure 4).

The length of time that the responding firm has operated under the current ownership structure is, to some extent, a measure of business stability and, therefore, important in the acquisition of credit. The survey shows that 35.9 percent of the sample had operated under the same structure for 15 years or more. Over half of the sample (52.42 percent) indicated that their firms have been in business under the same ownership for more than 10 years, suggesting that there is a well-established small business sector in the state. Only 3.2 percent of the sample had been operating under the current structure for less than one year (Figure 5).

Approximately one-quarter (23.5 percent) of the sample are self-identified as minority-owned, reflecting the diversity that exists in Texas (Figure 6). Among minority owners, 43.4 percent are Hispanic and 9.9 percent African American, with over one-third representing a mix of other ethnic groups (Figure 7). In addition, 82 percent of the sample reported that a single individual has majority ownership (Figure 8). Approximately two-fifths (38 percent) of the sample are reported to be women-owned businesses (Figure 9). Overall, we feel this may over-represent women ownership which has been reported at 26 percent nationwide by the U.S. Census for 1997 and 25 percent for the State of Texas for the same period. However, that rate may exceed 35 percent nationwide according to some sources, and undoubtedly is the fastest growing area of small business enterprises (*Texas Business Review*, 2002).

Financial Services Uses and Processing Issues

As a beginning step in assessing financial services usage and overall satisfaction, some basic criteria deemed necessary for meeting lending requirements are considered by the survey that address business practices. Underscoring these conditions and practices is the degree to which the small business community can respond to the requirements imposed by lenders; conditions that, to a large degree, determine the probability of obtaining financing.

Effective Demand

Effective Demand is based on business legitimate needs for funds consistent with its business plan and operating strategy within its industry. It includes its willingness to provide all the necessary data and supporting financial information to a lending institution necessary to meet the institution's regulatory body's demands. This may include processing costs, requirements such as certified financial statements and business plans, as well as collateral and determinations about the financial security and future of the firm.

Supply Conditions

The providers of both traditional (commercial bank) and alternative financing (finance companies, lease companies, brokerage firms and credit unions), and the requirements they face, may vary by institution. These are requirements borrowers *must* meet as a result of the regulatory environment.

Findings

Critical to obtaining any form of credit financing from a financial institution is the requirement that the firm maintain adequate financial records. These accounting systems may range from rudimentary tax records to professionally audited financial statements. Survey respondents were asked to describe the accounting system that their firm employs. Table 7 provides responses to this question showing a

clear majority (56.2 percent) maintain an accounting system "that provides monthly, quarterly, and year-end financial statements and tax information." This category represents the highest level of financial reporting sophistication among possible responses. Among the three other response options, approximately 22 percent of responding firms utilize an accounting system that generates no financial statements. Lack of adequate record keeping may create problems when credit is sought at depository institutions because of the regulatory requirements they must follow that determine the supply and demand conditions. Slightly less than 15 percent of small businesses generate only a year-end tax return and financial statements. Although an improvement over the rudimentary accounting systems, this level of reporting may also be insufficient to meet the application requirements for certain types of credit. Lastly, a quarterly system is used in less than 10 percent of the responses, and may serve as an adequate system for lending purposes in many instances.

The questionnaire also posed 2 important questions concerning the responding firm's level of outstanding liabilities. The existing debt load and ability to service that debt can be a critical factor in a lending decision. Table 8 shows that almost one-half of the sample (48.2 percent) have outstanding liabilities to financial institutions less than $10,000. An additional 20 percent stated that they owed between $10,000 and $49,999 to banks. Thus, approximately 70 percent (68.3 percent) of the respondents maintain outstanding obligations to financial institutions of less than $50,000. All small businesses reporting debt in excess of $500,000 and debt over $1 million is limited to less than 3 percent.

Total liabilities to all creditors, in addition to those owed to financial institutions, are less than $10,000 for 38.4 percent of the sample, while approximately 60 percent responded that their firm's total liabilities were less than $50,000 as seen in Table 8. Thus, the overall picture is of a debt structure that is not major in many regards, when one considers that a family with 2 new cars and some outstanding consumer credit could also have $50,000 or more of liability. Servicing this debt can, however, be problematic for small businesses, especially those who may be operating with small margins.
These conditions – financial record keeping, and level of liabilities – can be critical to obtaining debt capital. The loan application experience may also be a function of these levels of liability and play a significant role in how debt capital is accessed and the experience of small businesses in the lending environment.

Loan Application Experience

The loan application experience can range from quite easy and expedient to a long and detailed process that is difficult for many potential borrowers to understand. The loan application experience also has an effect on future financing/borrowing tendencies among business owners and how they view their potential to work with a financial institution it is, thus, a two-way experience. The degree to which the borrower can feel that they are part of a business relationship, and the way in which that relationship plays itself out during a capital or debt request is important to both the lender and borrower. In addition, small businesses also are likely to look for consistencies in requests made by their financial institution, in order to have or prepare the appropriate documentation. When inconsistencies arise the borrower may see the process as problematic in a time when they are seeking solutions to business growth or sustainability.

To address these issues, the survey questionnaire inquired about the firm's recent history in applying for business loans. The survey assessed the motive for the loan, the institution approached for the loan, the source of information about the loan, whether the loan application was approved or denied, and, if denied, the stated reason for the denial. In Table 9 we address the basic issue of whether a loan application was made during the past 3 years for business credit. In summary, we find that there is a near even distribution among those who applied for a loan (48.4 percent) and those who did not apply for a loan (51.6 percent) in the previous 3 years. Thus, pursuing credit is a common practice among small businesses and given their numbers is a substantial part of commercial lending in Texas. To this end, Table 10 shows that among those who did apply for loans, 9 times out of 10 (88.7 percent) the loan was with a Texas-based institution. Thus, Texas small businesses for the most part are linked to the state's lending bodies and use them as their primary lending sources over out-of-state sources.

An examination of the most recent loan applications in Table 11 shows that 46.9 percent were for a line of credit followed by working capital loans for 14.2 percent of the respondents. Equipment loans (9.9 percent) and vehicle loans (9 percent) were third and fourth most common, followed by land and building loans for 7.3 percent. Other loan types, including refinancing under the attractive interest rates of the past few years all fail to occur for more than 5 percent of the cases reported.

Survey respondents were also asked to indicate the institutions from which their firms made loan requests. The type of institution and the relationship with an institution are possible factors in the type of loan that may be obtained and initially are examined in Figure 10. Over two-thirds (67.3 percent) of the credit requests were made at "local" financial institutions, those in close proximity to the business, with multi-state banks being the second most approached institutions for business loans, receiving 26.3 percent of the credit requests. Clearly, Texas small businesses approach local depository institutions more frequently than other types of institutions. In addition, small businesses report uses of credit card companies in 15.9 percent of the responses. Credit Cards have grown in use among small businesses in the last decade and undoubtedly have become more frequently used, especially for short term financing, in the past several years. At the same time these companies are expanding their reach into general lending and consolidation lending that may have attraction for many small businesses.

One of the avenues to obtaining financial assistance for small businesses is through guaranteed government loan programs. Application for such programs is, however, relatively low among small businesses in Texas based on 8.4 percent of the responses to the survey reporting such applications as shown in Table 12. Clearly, this is an area where opportunities may not be fully developed. Table 13 goes further by reporting that the Small Business Administration (SBA) is the most often utilized program by small businesses in Texas, although at a relatively low rate overall.

The relationship that a business owner has with his bank is potentially a factor in how a loan application is treated and processed. In this regard, a first question is the general relationship and borrowing history between the small business and its bank when applying for a loan. Table 14 addresses this critical issue by indicating that loan applications were submitted by new customers approximately one-quarter of the time (23.9 percent) and by customers who had previously had a loan over 50 percent of the time (56.5 percent). It would seem that having a relationship with a bank prior to loan application could be important, an issue to which we shall return.

In applying for a loan several options exist in how to proceed. Table 15 shows that two-thirds of the time (66.4 percent) the applicant makes the loan request in person and in slightly less than one-quarter of the cases (22.6 percent) does so by telephone. In making applications (Table 16), two-thirds of the time (65.1 percent) there is only one application made, while in approximately one-fifth of the reported applications (18 percent) 2 applications are submitted. Less than 10 percent of the time (9.7 percent) 3 applications are filed, but 4 or more applications occur in less than 10 percent of the cases (7.2 percent). The experience of only one application in the majority of cases suggests many businesses are, more than likely, aware that they will qualify for lending and do not see the need to submit multiple applications.

Firms become aware of borrowing alternatives in a variety of ways. Figure 11 shows that the primary sources are local bankers (47.4 percent), through business relationships (40.3) and friends or business acquaintances (14.6). In all, the network of the small business operator, either formal through business or informal outside of business, remains the primary way of obtaining information about loan opportunities.

The process of obtaining a loan includes a number of factors that determine the terms of the credit contract. A series of questions in the survey concerned credit issues and what was required in order to obtain credit. The first question addressed the type of financial records required by the lender, usually due to regulatory controls. Figure 12 shows that the request for records varies. At one extreme 27 percent reported not needing to provide any additional documentation, a fact we associate with a banking relationship over time. Nearly one-half (46.3 percent) provided the previous year's financials,

also required for 3 years in one-third (33.8 percent) of the applications. Audited financial statements were necessary in one-fifth of the cases (19.4 percent) and a business plan in 15.8 percent. Consistent with other research that suggest small businesses are linked to the financial status of the owner, in 49.1 percent of the cases personal financial records were requested. This confirms the results of previous research concerning co-mingling of business financial matters with personal ones.

How the credit application is processed includes an evaluation either by a credit score (5.8 percent), a loan officer (33.2 percent) or both (17.8 percent) is considered in Table 17. Surprisingly, 43.3 percent had no knowledge of how their credit was evaluated. Following this, Table 18 reports if the respondent believed the evaluation was conducted fairly which an overwhelming 84.6 percent agreed that the process was fair.

Finally, whether the loan was approved or denied is considered by Table 19. Of those who applied for a loan (709), 82 percent report they were approved, while 18 percent experienced a denial or were still waiting for a determination at the time of the study. These results suggest small businesses are generally very successful in obtaining financing when required. For the approximately one-fifth who were denied credit, 59 percent reported they discontinued credit solicitation, while 25.3 percent sought financing with another lender. For those firms making subsequent loan applications, one-quarter were able to obtain funding and three-quarters were unsuccessful (Table 20).

For those denied credit, reported in Figure 13, the major reason given for the denial was poor credit history (31.5 percent). Insufficient capital and earnings, critical factors to lenders in determining the likelihood the loan will be repaid, were cited in 21.9 percent and 22.3 percent of the cases, respectively. Too much debt also was associated with the denial for 22.8 percent of the respondents, as well as the lack of collateral in 26 percent of the reasons cited.

The processing time of a loan application was found to also vary. Table 21 shows that loans were processed in less than 7 days 50.5 percent of the time and less than in 2 weeks 67.5 percent of the time. Lengthier periods were evidenced in one-third of the responses, undoubtedly a function of type of loan (i.e., real estate needing appraisals, etc.) or because of attempts to clarify credit-related issues. These lengthier periods probably vary on an institution-by-institution basis and are difficult to generalize about in this project setting.

Terms of Credit

Included in the survey were questions designed to determine the underlying terms of credit on small business loans. Small business lending is sometimes made at a greater risk to the lender. Overall, the terms of credit to small businesses are important to insure they are treated fairly and can benefit from their borrowing rather than be burdened by terms that do not work in their favor. In Table 22, the issue of collateral is considered and indicates that over 60 percent (62.1 percent) of the loans required some form of collateral. Figure 14 shows that inventory and accounts receivables accounted for 44.2 percent of the collateral, followed by vehicles and equipment. Business real estate contributed to 22.9 percent of the responses, with personal assets of cash and securities (19.7 percent), personal real estate (10.3 percent) or other personal assets (7.2 percent) placed as collateral; again evidence to suggest co-mingling of the personal assets of the firm's owner with the business itself. In addition, Table 23 shows that additional written agreements were required 21 percent of the time, supplementing the basic agreement with performance standards, additional financial covenants or call conditions. Table 24 adds to this condition by illustrating that 44.5 percent of the time additional protection such as a co-signer or insurance was required for the loan.

The amount of a loan can also bear directly on the terms of credit. Table 25 reports requested loan amounts with the majority of the requests being for less than $100,000 (62.4 percent). Loans between $100,000 and $250,000 make up 19.3 percent of the requests with larger requests dropping off as a percentage of the total. Loan applications with less than $1 million make-up 96.2 percent of all requests, with only 1 percent being over $5 million.

The length of payoff for a loan also plays a role in credit terms because of its relationship to the amount a borrower can safely pay in any period. Table 26 examines this condition and shows a majority of loans are scheduled for repayment in 5 years or less, with 20.6 in 1 year or less, 21 percent in 1 to 2 years and 32.8 percent between 2 and 5 years. In light of the large number of line of credit, working capital, and vehicle/equipment loans, these are consistent findings. Longer payoff times are likely to be associated with other assets (i.e., land or large capital assets). Loan payments are predominantly set for monthly terms in 82.9 percent of the responses. Quarterly payments are required in 3.2 percent of the cases.

Fixed interest rates are charged in 58.6 percent of the loans obtained as seen in Table 28, while 34.8 percent report a variable rate. Fixed interest rates do result in constant payoff amounts, but variable rates do occasionally provide for loan qualification by being somewhat lower. The majority of loans are at a rate below 12 percent as seen in Table 29. Less than a 6 percent rate was available in 5.2 percent of the cases, while 44 percent obtained a rate between 6 and 8.9, and another 35.9 percent between 9 and 11.9. A few borrowers reported rates in excess of 12 percent, rates relatively high in light of the past three years under consideration. Refinancing has also been quite prevalent in the past few years as interest rates reached their lowest point in several decades. Refinancing resulted in a lower rate for 44.6 percent of those who undertook a loan and at the same rate for 44.8 percent as provided by Table 30. Over 10 percent (10.7 percent) reported a higher rate after refinancing.

Over one-third (38.3 percent) reported they also incurred additional fees in order to obtain their loan, such as processing fees, points, etc., while 50 percent (49.5 percent) did not incur such costs as seen in Table 31. Fees can vary for a variety of reasons and can take a number of forms as shown in Figure 15. The most common fees are loan processing (44.4 percent), administrative fees (43.5 percent), document preparation fees (38.6 percent) and filing fees (36.0 percent). The costs for these fees are borne by the borrower and range from less than $1000 to several thousand dollars as evidenced by Table 32. Fees under $100 are reported 20.9 percent of the time; between $100 and $200 for 25.8 percent. Over one-quarter of the respondents report fees in excess of $1000, no doubt including origination or discount points or fees where extensive documentation is required. Over 10 percent (13.2 percent) report no knowledge of the fees and throughout the fee question set, low knowledge levels about the fees is consistently over 10 percent (Tables 31 and 32). Hence, financial illiteracy may be present in these cases. Table 33 adds to this issue when one sees that 31.7 percent, almost one-third of the loan recipients, were unaware that loan fees are a true cost of borrowing.

Quality of Credit and Services

Information Sources and Financial Services

One common complaint from those who engage in business activities is that the legalistic language used in credit applications and loan agreements can be difficult to understand. The survey instrument included two questions addressing this issue. Specifically, a question asked whether the marketing information associated with the business loan was difficult to read and understand. The results shown in Table 34, suggests borrowers find marketing information easy to read (44 percent) but did not receive any information in 30.5 percent of the cases. We would think disclosures might be less easy to understand, but a majority (59.9 percent) found them suitable. For both marketing information and disclosures, over 10 percent did not find them easy to understand.

Survey participants who requested and received business loans were asked their overall satisfaction with the terms and conditions of the agreement. Three-quarters of the respondents were either very satisfied (40.2 percent) or satisfied (36.6 percent) with the credit or loan they obtained. Table 35 also shows that 5 percent were dissatisfied or very dissatisfied, and approximately one-fifth were neutral about their satisfaction level.

Another concern is the degree to which loan applicants use business support services. Many small businesses may not have the “in-house” capabilities that allow them to meet all loan requirements. Thus, the use of outside accounting, legal and other support services can become quite important.

Figure 16 provides data on the firms using support services. Accounting firms are used in over one-third of the businesses involved in the study (35.4 percent). However, this means that two-thirds of small businesses have not relied on accounting firms in developing loan applications in the last 3 years under consideration. Legal firms record the second level of usage (14.6 percent) followed by less than 10 percent use among other options. Small businesses also rely on a host of financial products as shown in Figure 17. A business checking account, not surprisingly, is the most utilized service (93.3 percent), followed by personal credit cards (68 percent) and personal checking accounts (52.8 percent). The latter 2 uses further the concept that the small business owner routinely co-mingles personal and business funds. This is further supported by over one-quarter reporting personal loans (26.5 percent) being employed. Additional services are also reported in a range of use patterns that contribute to the financial condition of the small business firm.

Figure 18 reports use of new financial services technologies, and overall suggests low utilization of technology as a financial instrument. The most common use is for automatic funds transfers (36.5 percent) and automatic payment services (24.1 percent). The remainder of the options received 10 percent or less use among small businesses, suggesting that this area of banking is one where expansion is likely to occur in the not-too-distant future.

Credit Issues

As earlier reported, credit reporting is critical to loan decisions. A series of questions concerning credit issues were included in the survey. In Table 36 we see that 12.8 percent of the small businesses report having a discrepancy in their credit record, an error which can be problematic when seeking new financing. Less than 10 percent (8.3 percent) report having filed a report to correct the credit error as seen in Table 37, with the same number reporting that resolution of the credit error was very easy in Table 38. However, almost one-half (47.7 percent) report that resolving the issue was difficult or very difficult. Among those who have dealt with credit discrepancies, over one-third (35.8 percent) report that resolving credit issues generally occurs in a timely fashion as reported by Table 39.

Another credit issue relates to delinquencies. Three-quarters of the respondents in Table 40 report they had been delinquent in the past to creditors. Small businesses do not always have cash reserves or savings, as shown earlier. Thus when business conditions are not optimal, they are faced with the inability to pay all credit in a timely fashion. The presence of these delinquencies in previous credit obligations can be a major obstacle to obtaining additional credit.

Once a delinquency occurs, several approaches can be made by the credit granting institution. Figure 19 indicates that the most common procedures experienced were reminder notices in three-quarters of the cases (75.6 percent), phone calls over half the time (57.8 percent) and certified letters less than 20 percent of the reported cases (17 percent). Visits by creditors or their representatives, occurred in 8.1 percent of the cases, with legal action and repossession used in 8.6 and 5.6 percent of the reported cases, respectively.

Barriers to Obtaining Financing

Obtaining credit involves a variety of issues that are both borrower-based and due to requirements placed on lenders by state and federal agencies. Potential issues include perceived barriers to debt financing along with economic and industry conditions. While a variety of strategies can be employed to work through these issues and barriers, how small businesses address them and respond can determine their potential to obtain credit and financing. Figure 20 and Table 41 record small business responses about barriers to financing using mean scores from a 5 point scale ranging from 1 being no problem to 5 being a serious problem. Rigorous lending requirements obtained the highest mean score (mean = 2.73) followed in order by cost of obtaining finance (mean = 2.3), the feeling that only conventional and SBA loans are available versus other alternatives such as factoring receivables, leasing of equipment, or flooring (mean = 2.66) and reporting requirements (mean = 2.6). Issues relating to financial literacy, namely lack of information and lack of knowledge about loans, received lower mean scores. Overall, no barrier obtained a mean score of 3 or higher suggesting that barriers in general are not a problem. However, for each of the potential barriers, 20 to 30 percent of the

respondents gave ratings of 4 or 5. Thus, they are indeed obstacles to a fairly large segment of the Texas small business community that needs to be considered in a policy context.

Figure 21 and Table 42 provide insight into a number of issues that small businesses must face in the current economy. Using mean scores based on a scale of 1 being unimportant to 5 being very important, income and property taxes received the highest mean scores, 4.0 and 3.78, respectively. Government regulations also weighed in with a mean score of 3.78 followed by the quality of the labor pool (mean = 3.69) and costs of labor (mean = 3.53). Declining sales concerns (mean = 3.5) and competition from larger firms (mean = 3.3) also draw the attention of small businesses, while inflation (mean = 3.3) and interest rates (mean = 3.2) are ranked lower. All the mean scores indicate concern and, except in the case of franchise taxes, all responses in the top two categories of importance exceeded 40 percent.

In light of the barriers and issues that small businesses encounter, a series of strategies that can be employed were proposed to the respondents. Figure 22 and Table 43 report support for these strategies among small businesses in Texas. Access to more information obtained the highest mean score on a scale from 1 being not at all helpful to 5 being extremely helpful, with a mean of 3.14. In general, support is below the mid-point of the scale for all strategies except access to more information. However, 19 percent or more do think each of the strategies would be helpful, indicating a market for them by financial services providers.

Bivariate Relationships as Sources of Variation

One major objective of this research is to determine whether the state's financial services institutions meet the needs of the Texas small business community. Specifically, are all subsets of the business community served?

Each subset represents potential groups with varying concerns and issues within the small business environment. Because of its size, Texas has a wide range of businesses linked to geographic regions. There also are a variety of businesses in Texas ranging from manufacturing and construction to retail and service. The extent to which small business financial services may vary by industry may be important to our understanding of the issues they face. Texas also has a large minority population including Hispanics in the border area and a diverse mix in the major urban areas. Minority concerns about lending, along with how women increasingly play a larger role in businesses, also require full consideration.

Highlights of Cross Tabulations

The following provides the findings from cross tabulations. To achieve this objective, the small business community of the state was subdivided by four basic characteristics:

1) geographic area;
2) industrial classification;
3) ownership ethnicity; and,
4) gender of the majority owner.

The data collected for this study is voluminous. Thus we report only the statistically significant relationships in each category in this the text. The following summarize the key findings from the cross tabulations which allow for comparisons between the basic characteristics and the survey responses for all questions.[16]

Geographic Area

[16] In addition, numerous ways of examining the data exists. Data requests can be made through the Finance Commission, and IPED will inventory and maintain the data set for a period of one year.

- ✓ Minority ownership issues are prominent in the border region, consistent with the ethnic mix in that area;
- ✓ The legal structure of the firm suggests sole proprietorships are more likely to occur outside the major urban areas of east Texas;
- ✓ Two-thirds of all loans are applied for in urban areas, consistent with their distribution among firms in the state;
- ✓ Urban respondents are more likely to be new customers and have a limited previous banking relationship while border and non-urban/non-border businesses have histories of longer relationships with banks;
- ✓ Lines of credit requests are higher in urban areas, as is use of credit unions and multi-state institutions;
- ✓ Form of initial contact is related to the manner in which business is conducted in the various regions, such that personal meetings with lenders are more likely in the border over other regions and non-urban/non-border over urban;
- ✓ The number of institutions contacted is higher in the border and non-urban/non-border regions;
- ✓ Non-urban/non-border applicants are more likely to need to provide collateral, while the border requires additional protection at a higher rate;
- ✓ Interest rates paid appear higher in the border region and lower in the major urban areas;
- ✓ Supplemental fees are added to loans more often in the border;
- ✓ Co-mingling of a firm's finances with personal banking services is higher outside the urban areas.

Industry Classification

- ✓ Small firms were more likely to be sole proprietorships in the retail or service sectors;
- ✓ Gross revenue was likely to be lowest in retail and service sector;
- ✓ Minority ownership is slightly higher in retail and service sector;
- ✓ Number of employees per firm were lowest among retail and service firms;
- ✓ One individual with majority control is more dominant among retail and service businesses;
- ✓ Size of most recent loan is likely to be under $100,000 and more likely to be in the retail and service classification;
- ✓ Gender ownership shows women are more likely to be in retail and service businesses;
- ✓ Sophistication of accounting systems suggest the weakest systems are in retail and service businesses;
- ✓ Type of credit requested is primarily a line of credit;
- ✓ Applications for credit are more likely to be among the retail and service classification of small businesses a response consistent with their frequency;
- ✓ In the retail and service sector co-mingling of funds between the business and the owner is higher;
- ✓ Delinquency on a credit agreement is more prone to occur in the retail and service classification;
- ✓ Additional protection is more likely to be required for a loan applicant from the retail and service businesses;
- ✓ Fixed rate loans clearly dominate regardless of industry classification;
- ✓ Amount of liabilities are lowest in retail and service sector.

Minority-Owned Businesses

- ✓ Minority-owned firms generate lower gross revenue than their non-minority-owned counterparts;
- ✓ Minority-owned small businesses appear to be newer;
- ✓ Women-owned minority firms are more prevalent than male-owned;
- ✓ Accounting systems for minority-owned firms are less sophisticated than for non-minority firms, but at rates lower than reported in earlier studies;
- ✓ Applications for credit financing occur at a higher rate among minority-owned firms;
- ✓ Minority-owned firms also take greater advantage of guaranteed loan programs;

- ✓ The credit evaluation process is longer for minority firm credit applications than for non-minority firms;
- ✓ Minority firms question the fairness of the loan evaluation process at a much higher rate than do non-minority firms, although the evaluation process appears to be the same;
- ✓ Minority-owned firms are denied credit at a higher rate;
- ✓ Minority-owned firms are more likely to pay higher interest rates;
- ✓ Credit discrepancies are more frequent with minority firms;
- ✓ Minority-owned firms are not required to provide additional credit enhancements at a higher rate than non-minority small businesses.

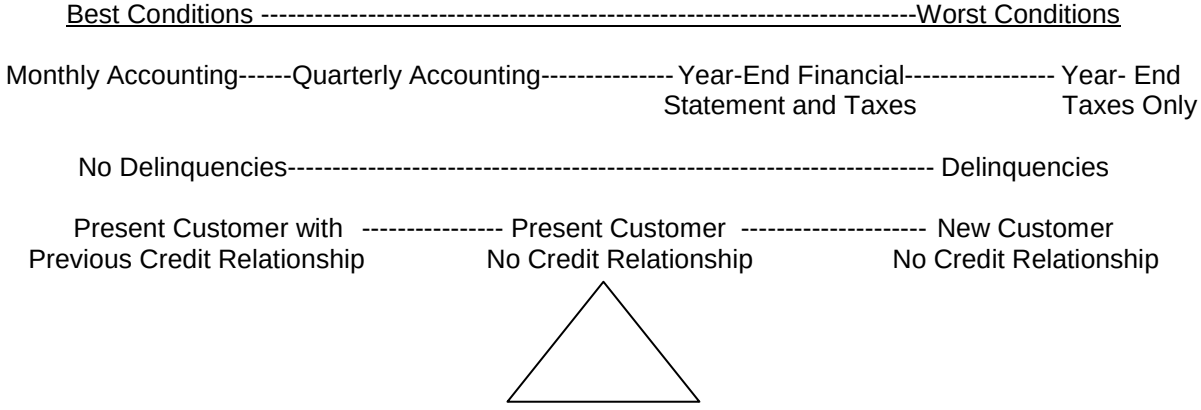
Women-Owned Businesses

- ✓ Women-owned firms are likely to be newer businesses;
- ✓ Women-owned firms are smaller in terms of gross revenues but not in number of employees;
- ✓ Women-owned firms are likely to be structured as sole proprietorships;
- ✓ Women-owned firms are more likely to utilize a less sophisticated accounting system;
- ✓ Women-owned businesses report having fewer outstanding liabilities;
- ✓ Women-owned businesses also borrow smaller amounts, on average, than non-women-owned businesses;
- ✓ Women-owned firms apply for government-guaranteed loans at a higher rate than the remainder of the small business community;
- ✓ Women-owned businesses are no more likely to be required to provide additional written agreements as part of lending requirement;
- ✓ Women-owners, however, report no substantial differences in the terms or requirements of credit.

Assessing Small Business Lending Using Multiple Criteria

Lending decisions are based upon the institution's assessment of the applicant's creditworthiness. Given this, the lender seeks to gather as much relevant financial information as possible. As discussed, key sources of such information include: the applicant's financial records and the degree of sophistication of the record keeping; reviewing the institution's past relationship with the prospective borrower, if any; and, evaluating the firm's (and its owner's) credit history, especially with respect to past delinquencies. Such factors, of course, vary from firm to firm. Collectively, evaluation of these factors leads to approval/denial of the request for credit. Figure 23 offers a scale ranging from "best" to "worst" case of these 3 considerations.

Figure 23
Scale of Multiple Loan Criteria



Using this scale, we can develop an index that reflects on 3 key issues discussed. In Table 44 we have examined loan denial rates based on an index of the accounting system, delinquency, and customer status assuming the extant literature in this regard is correct and these 3 factors have a significant bearing on a loan decision. The index ranges from 1 to 3, where 1 equals having a year-end only financial record keeping system, a history of having been delinquent, and being a new customer with no previous relationship with a bank through previous loans. A score of 3 represents having monthly accounting systems in place, no reported delinquencies, and a history with an institution as a customer and previous borrower. A score of 2 represents a mix of these conditions. As Table 44 represents, we were able to develop index scores for 682 respondents who sought loans. One-fourth of those respondents appear to have the worst set of conditions confronting them in the loan process, while approximately one-third would conceivably be in the best position. Further consideration in Table 45 indicates that among those with an index score of 1, approximately one-sixth (15.4 percent) were still able to obtain financing regardless of the conditions they faced. Those who had the higher scores, and thus, we would argue, the better chance of obtaining financing, were funded at a significantly higher rate. A score of 2 also shows that even with a mixed record, funding is likely to occur 6 out of 7 times. Overall, it appears that small firms, if the combination of the 3 factors noted sum to an index score of 2 or higher, have a good chance of obtaining funding and can overcome potential obstacles related to their past experiences and practices. We keep these criteria in mind as we proceed to a more technical level of analysis based on multivariate statistical techniques.

Multivariate Analysis of Factors Influencing Loan Approval

The purpose of this section is to provide a more comprehensive statistical analysis with respect to the factors which influence or "predict" the approval or denial of a business firm's loan application. The multivariate statistical analysis technique, binary logistic regression (BLR), is utilized to identify the individual and collective roles of a host of variables concerning their influence on loan approval/denial rates, as described below.

The principles of economics and finance, along with the wide variety of lending regulations, suggest a number of factors that would influence the accept/reject commercial lending decision. Of these, a critical factor is that the institution has access to financial information concerning the present and prospective performance of the applicant.

The present study provides data which can be analyzed to assess the role of financial information availability in the lending decision. In addition, as described below, a variety of other variables can be considered. Specifically, we examine those who applied for a loan during the past 3 years. The following research considerations are suggested by the previous research in the field and the findings reported to this point.

-Banking relationship: The traditional banking relationship that existed in many small communities has been supplanted by mega-banks and a re-structuring of the financial industry. However, contact with a banker has not disappeared and reports suggest that personal banking relationships and favorable loan approval outcomes may be a function of a previous relationship between the lender and borrower.

-Delinquency record: Firms with a poor credit history cannot anticipate having the same probability of receiving loan approval as firms with a "clean" record.

-Type of financial record keeping system: Firms employing a basic, year-end compilation accounting method for tax purposes and basic financial statements can only provide limited financial information to a prospective lender. One would anticipate that utilization of this accounting method would have a negative effect upon the probability of gaining loan approval.

-Size of firm by revenues: A larger firm, as measured by sales revenues or number of employees, may be generating significant cash flows. This fact would enhance the chances of loan approval. On the other hand, the current and prospective performance of a large business

is not always bright. Therefore, one cannot hypothesize a direct (that is, positive) or an indirect (that is, negative) impact of this variable on the probability of receiving a loan.

-Size of firm by number of employees: The existence of a larger number of employees relates to the ability to generate more revenues. If revenues relate to employees, it may serve as a further indicator of ability to pay. However, a firm may also be over-staffed and not operating efficiently.

-Age of firm: An older firm, in terms of years since inception or years under current owner, has demonstrated its ability to be successful in its market over time. However, long-term staying power does not automatically insure strong cash flows at present and/or an optimistic future outlook. Thus, the directional effect of this variable upon the loan acceptance probability cannot be assessed a priori.

-Legal form of business: The legal structure of a firm, that is, whether it is a sole proprietorship, partnership, corporation, or sub-chapter S corporation, should have no significant impact by itself, upon the accept/reject lending decision.

-Type of business: The nature of a firm's business, for example retail/service, wholesale, manufacturing, or construction, could influence the probability of loan approval depending upon the type of loan requested and present/anticipated economic conditions for the industry in question. The effect could be positive or negative.

-Geographical location: The physical location of a firm, as a separate factor, should have no impact upon loan approval/denial rates. That is, the census tract or zip code of a firm's operation should not be a predictor of loan approval. Such a practice, termed red-lining, is discriminatory and is in violation of banking regulations. If the geographic area is defined in much broader terms, as we do here, pockets of the state that may require more in-depth study can be determined.

-Gender of owner: Whether the majority owner of a firm is male or female should not affect the chances of obtaining debt financing. As above, this would be an act of discrimination.

-Minority ownership status: The race or ethnicity of a business owner, by law, cannot play a role in the lending decision process of a bank.

These comments also introduce a key point. Conceptually, multivariate analysis will separate out the effects that each of the variables has upon the probability by loan approval. However, if the "predictor" variables are highly correlated with each other, it becomes difficult (although not necessarily impossible) to disentangle these interrelationships. This is a point to which we shall return, but, in part, have already addressed in the cross-tabulations discussed earlier. The previously reported data suggests that certain sub-groups of respondents have varying experiences with respect to loan application approval rates. The assessment of the potential role of these variables, collectively and individually, in determining the chances or probability of gaining loan approval from a local bank is the justification for the Binary Logistic Regression (BLR) reported here.

The BLR method (see Hasmer and Lemeshaw, 1989; Norusis, 1997; Field, 2000) allows the researcher to directly estimate the probability of an event occurring; in this case whether a business loan application will be approved or denied. When the variable one seeks to predict or explain is binary in nature; that is yes/no, life/death, approved/denied, or 1/0, traditional regression analysis and its hypotheses testing methods are invalid. The same is true when some or all of the independent or predictor variables are of a binary nature, as in the present case: for example, basic compilation accounting system or sophisticated method, small/large firm, young/old firm, minority owned versus other ownerships of firm. The BLR procedure is designed to deal with such cases.

The BLR method was employed to estimate 17 equations that provide insight to the role of the variables noted above in determining the probability of loan approval. Specifically, the first 16 equations follow a so-called "forward selection" approach. That is, potentially key variables are analyzed with respect to their effects on the odds of loan approval/denial. In the present study, the relationship the firm has with the lending institution, the firm's delinquency record, and the type of financial record keeping method (that is, "accounting system") are believed to be critical predictors of loan approval. The first equation estimates the role of these variables along with a value of the "constant" term.[17]

Given this, the next step is to include an additional potentially important predictor to the analysis. For example, previous discussion has indicated that the size of firms could have an impact upon the odds of a loan application being accepted. Therefore, the second equation adds this variable to the "constant" and "financial" factors. The BLR technique and its diagnostic statistics allow us to assess the relevance or significance of the new predictor in explaining loan approval/denial probabilities.

Multivariate Findings

Our first equation estimates the predictive powers of the 3 financial information variables we considered in the previous section in association with a loan application and the "constant" term with respect to the probability of loan approval. Overall, these 4 factors predict or correctly classify loan approval rates 81.7 percent of the time. And, we can be highly confident concerning the overall equation and its parameter estimates. The significance of the applicant's relationship with its lending institution and the firm's delinquency record is very strong. This result holds for each of the 17 equations considered. The significance of the firm's accounting system in influencing the probability of obtaining credit is also strong; being significant at the 10 percent level or higher in 15 of the 17 estimated equations. These results strongly support the findings of previous research and our hypothesis that financial information factors used in the loan decision process play a critical role in determining the probability of obtaining a loan.

The next 15 equations introduce one additional, potential predictor to the original factors (the constant and the 3 financial factors) in equation 1 in a systematic fashion. This allows one to assess the incremental impact of each variable on the overall predictive power by the BLR analysis via the predicted percentage correct (PPC). Further, the marginal impact of the new factor upon the probability of loan approval can be estimated.

Overall, the results of this process indicate that the predictive power of the simple BLR model in equation 1 cannot be improved. Specifically, the PPC values remain essentially the same over entire range of equations. This implies that the addition of an incremental predictor to equation 1 is of little value. A review of the marginal effects of these variables supports this conclusion in general. However, the results did call for additional analysis concerning the roles played by a firm's size (as measured by sales revenue), age, minority owner status, and a border location in determining loan/approval or denial likelihood.

The BLR technique can employ a "backward elimination" approach to conduct this type of analysis. This approach includes all hypothesized relevant predictors in the BLR model. The backward elimination algorithm estimates this equation with coefficient estimates and reports their significance levels. Using these estimates, the program eliminates the least significant variable (the one that explains the least) and re-estimates the relationship. It then re-runs the program and eliminates the least significant predictor again, and does so until the best set of predictor variables is obtained. During this process the researcher cannot force the results and the true statistical values emerge.

Ultimately, at a statewide level, there are 5 predictors that emerge through the backwards elimination process. As a group, these provide the best general model/equation for calculating the probability of loan approval. The factors are:

[17] The constant encompasses the effects of all other factors not included in the equation.

- The firm's relationship with its lending institution.
- The firm's delinquency record.
- The size of the firm.
- The fact that the firm is located on the border.
- And, the constant that incorporates all others factors not explicitly considered by the equation.

In summary, the BLR technique was implemented to estimate a total of 17 equations evaluating the predictors noted above. Key findings were as follows:

- ✓ Three financial predictors: previous relationship with lender, delinquency record, and accounting system play a significant role in determining the probability of loan application approval.
- ✓ The status of minority ownership does not impact the probability of loan approval.
- ✓ The gender of a firm's majority owner has no statistically significant impact upon loan acceptance/denial rates.
- ✓ The nature of a firm's business (for example, retail/service or manufacturing) has no significant effect upon approval or denial odds.
- ✓ The legal form of the firm (sole proprietorship, corporation, partnership) plays no role in determining loan approval rates.
- ✓ The age of the firm is not a significant predictor of loan approval or denial rates.
- ✓ Larger firms gain an advantage with respect to credit obtainment relative to small businesses based on revenues. This may reflect the fact that a firm's size and a more sophisticated accounting system are highly correlated. The BLR was not entirely successful in separating these two variables and their relationship to each other.
- ✓ There is evidence that border-based firms are faced with lower loan approval rates after allowing for the role of financial variables and firm size. Before any formal conclusions can be drawn, focused research into narrowly defined areas should be undertaken.
- ✓ The "constant" coefficient in the BLR equations has a significant impact upon the lending decision and the associated probabilities. This factor represents a composite of all other considerations in a variety of combinations that may be relevant to the loan approval/denial process in varying degrees; those which were not analyzed explicitly in the BLR analysis.

The BLR analysis presented in this report assesses the impact, individually and collectively, of a considerable number of factors which are potentially important in determining success in obtaining debt financing. The estimated equations, however, are not intended to be interpreted as credit scoring decision models but provide an overview of the research that needs to be done and areas where policy concerns might be focused in the future.

General Conclusions

In a study of this size, it is important to consider that general conclusions are representative at the statewide level and within regions, and that exceptions to every finding no doubt exist. The data collected clearly indicate that financial institutions treat certain subsets of Texas small businesses differently than others in terms of:

1. Availability of Credit;

2. Pricing and Terms of Credit;
3. Quality of Credit; and,
4. Lending Practices and Borrower Experiences.

Many differences in the lending process are easily attributed to issues associated with the loan applicant's bank relationship, the credit history of the firm and its owner and the ability to support debt service in light of a newer firm, lack of a business plan or general lack of revenues. Some differences are related to type of loan application (land and buildings or vehicle and equipment loans) where collateral can be used to secure the debt. The access to debt lending can also change if the borrower looks to non-traditional sources such as credit card companies and is willing to accept higher rates in lieu of meeting all bank conditions of credit supply.

The preponderance of small businesses in Texas view themselves as retail and service oriented, generating revenues less than $500,000, and are likely to have small payrolls of less than ten employees under a sole proprietorship structure. We find that the border area of Texas has more issues that are likely to work against access to debt finance. This condition, however, cannot be assessed without understanding the border more generally. Specific areas of the border each face different problems and the border region has been identified by the State of Texas as an area in need of specific policy considerations. Additional assessment of the conditions in the border is called for as one conclusion of this study.

Women, especially minority women, are growing in the small business sector. The data suggest problems related to availability of credit, but more closely to the way these businesses maintain records and approach the overall credit picture. Women-owned firms in the sample do not report practices by lending institutions that suggest they are treated differently than non-women owned firms. Women and minorities are also the most receptive of alternative strategies to improve their knowledge of financing and loan processes.

Policy Considerations

Clearly small business lending is an area of tremendous complexity that results when a myriad of factors are brought into the business and lending process. Overall, the current economic condition at the beginning of 2002 is unclear, resulting in a period of greater risk for small businesses. Potential policy options do emerge from this study.

1. Regionally there appear to be some noticeable differences and statewide policies must take into account regional patterns.

2. State support of regional capital access centers that serve as focal points for training of business owners and provide concentrated access to small businesses for lenders can assist in tailoring to regional-specific needs.

3. Underlying many business practices are educational needs that have not been met. Programs that train and advance business knowledge, especially those related to lending and the regulations that are imposed on lenders, need to expand and new methods of outreach (on-line certification) should be encouraged.

4. Building on the above, "Financial Literacy" for small businesses in Texas should be a goal of civic and public economic development institutions.

5. Lending practices still involve considerable face-to-face effort by lenders and borrowers. Even in light of rapid banking mergers, personal contacts may remain the primary method for assisting small business borrowers.

6. Minority-owned businesses are prevalent in Texas and policies must take into account the emerging majority-minority conditions.

7. Minority and women-owned businesses are open to alternative strategies to assist them in pursuit of finance options and should be provided access to the greatest range of services and strategies possible.

8. Commercial banks dominate debt financing. Alternatives ranging from Internet banking to a variety of finance companies are emerging but are not a significant source of financing for the vast majority of small businesses in Texas. Overall, commercial banks remain the primary conduit for meeting the financial needs of small businesses.

9. With the growth in alternative financing mechanisms (i.e., Internet banks, credit card lending, lease/financing) regulators must examine practices to insure that protection of small businesses is extended into these new areas.

10. Small businesses remain subject to greater risk in many cases and, to the extent possible, lending programs that share or can transfer risk for lending institutions through guaranteed loan programs or risk sharing should be considered among alternatives.

11. Non-bank credit providers should also be more fully explained to small business borrowers who may be faced with greater costs than traditional banking opportunities.

12. The critical nature of the issue of small business access to capital must also take into account the risk of small business ventures and the reality that some businesses will not survive regardless of debt leniency.

13. The development of new policies to provide greater assistance to small businesses must also take into account the rights of bank-owners and shareholders who have invested based on an expected return that may not involve expanded higher risk small business lending. Protection of shareholder rights must be considered as part of the process of providing new opportunities to small businesses in Texas.

Figure 1

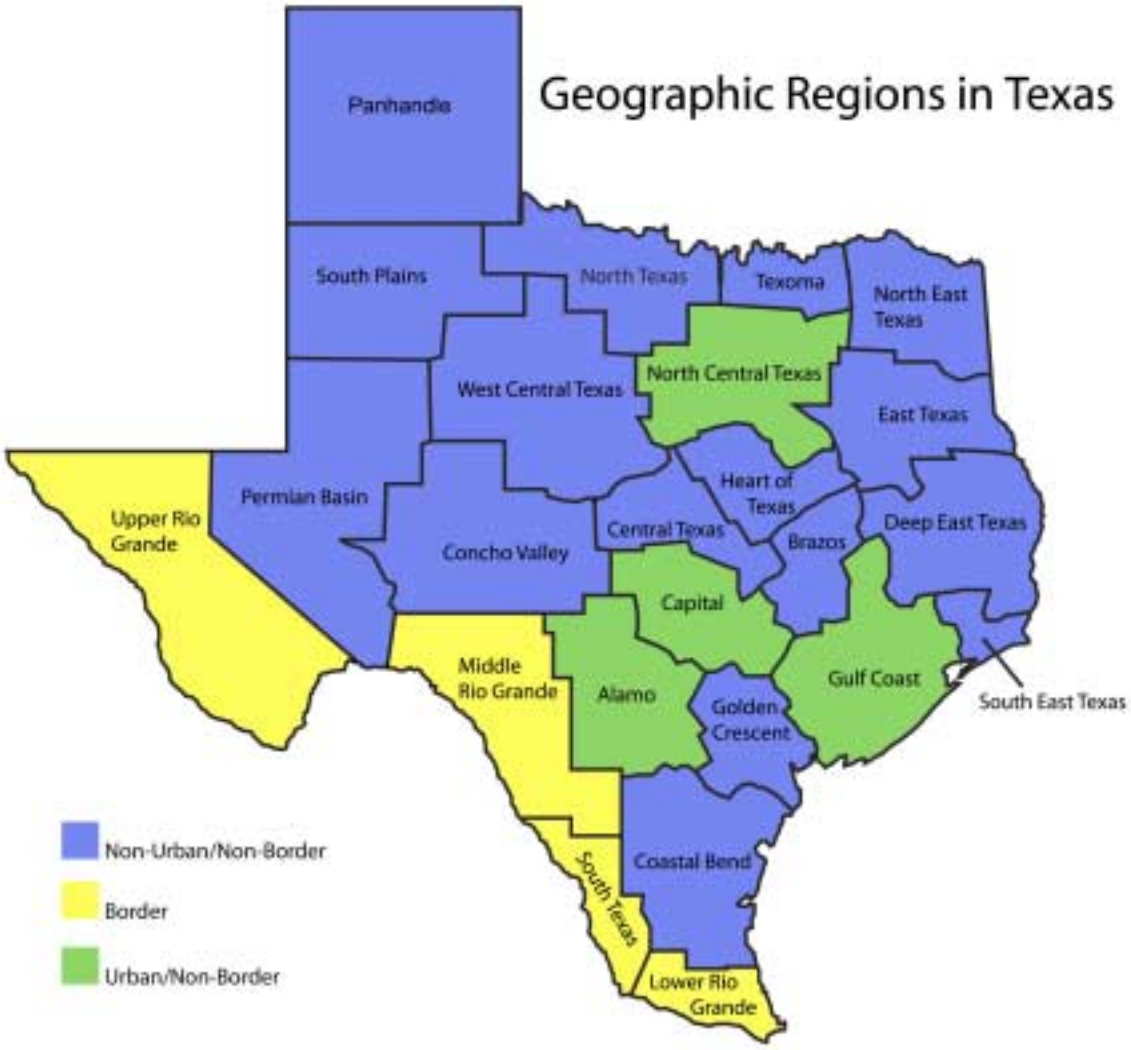

Geographic Regions in Texas
Panhandle
South Plains
North Texas
Texoma
North East Texas
West Central Texas
North Central Texas
East Texas
Permian Basin
Heart of Texas
Upper Rio Grande
Concho Valley
Central Texas
Brazos
Deep East Texas
Capital
Middle Rio Grande
Alamo
Gulf Coast
South East Texas
Golden Crescent
Coastal Bend
South Texas
Lower Rio Grande
Non-Urban/Non-Border
Border
Urban/Non-Border

Figure 2
Research Design and Process

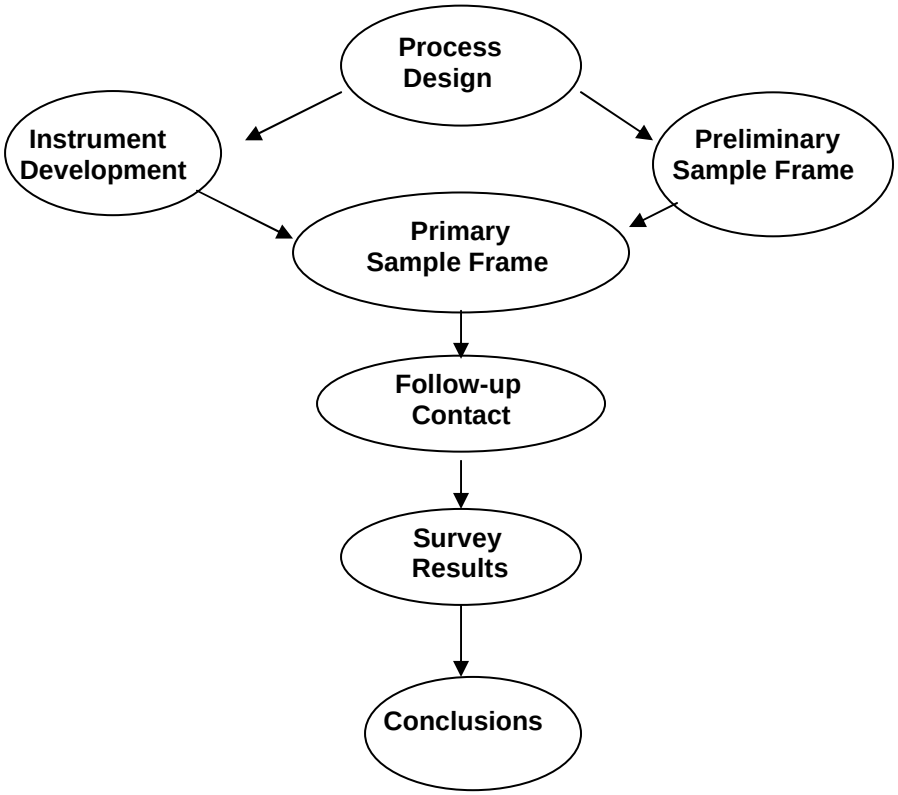


Figure 3
Legal Structure of Firm

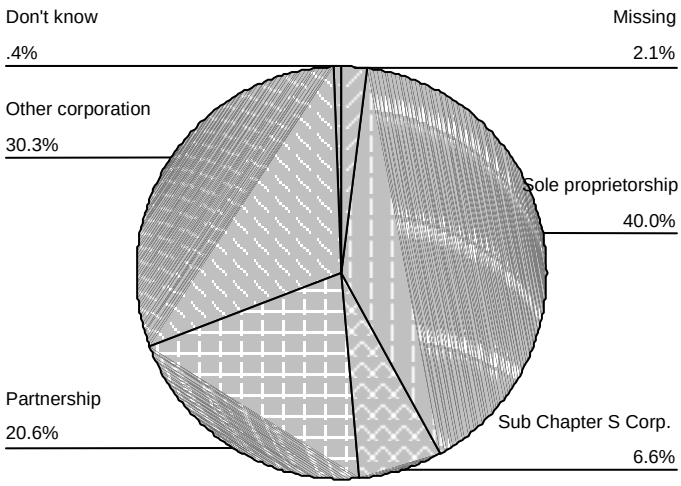


Figure 4
Annual Gross Revenues

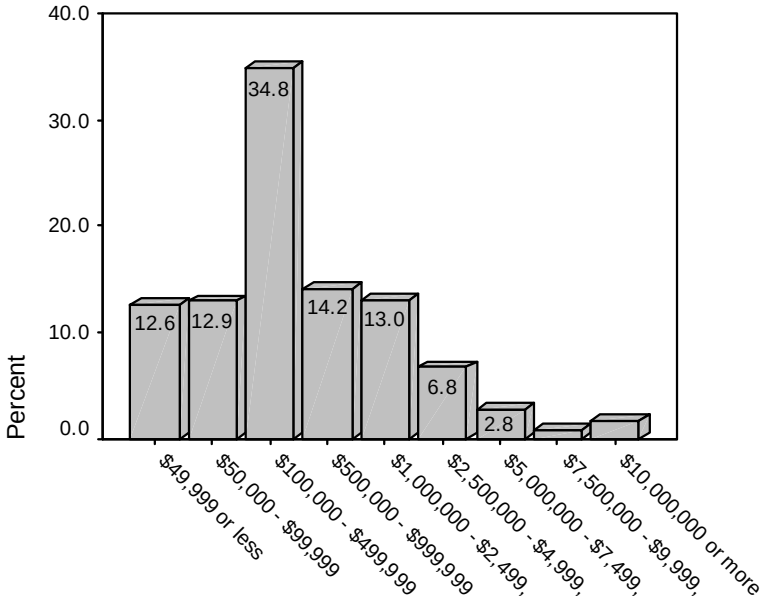


Figure 5
Years in Business with Current Owner

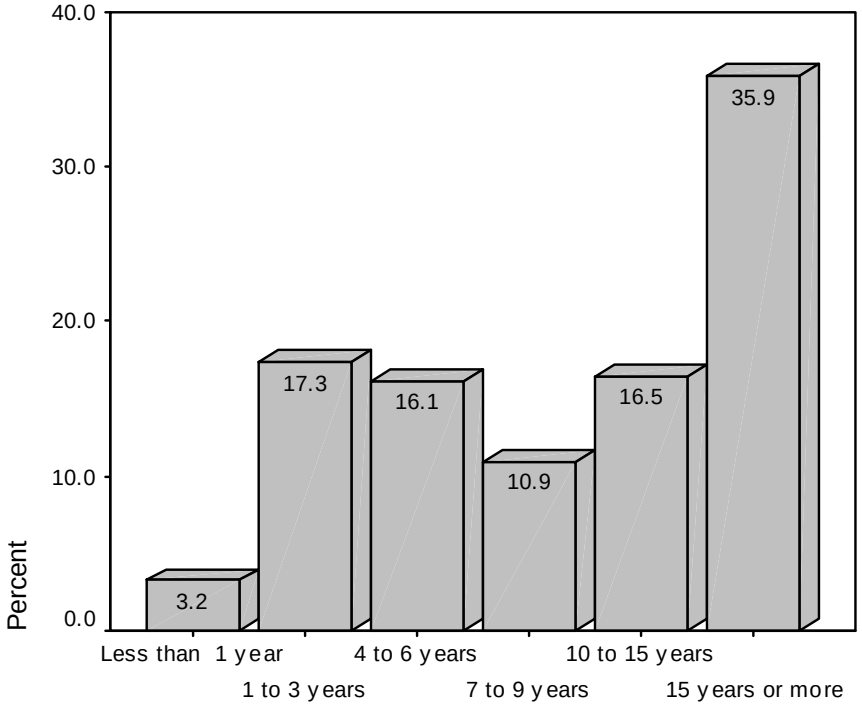


Figure 6
Minority Ownership

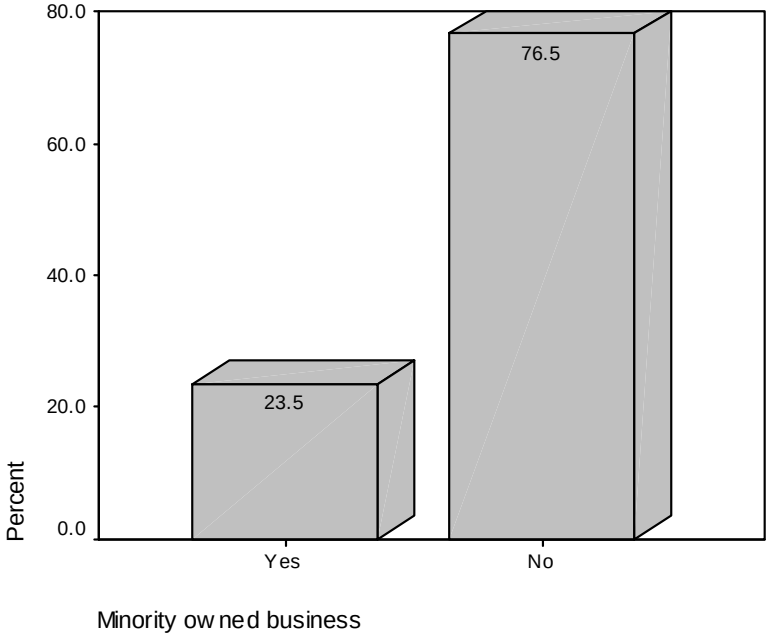


Figure 7
Type of Minority Ownership

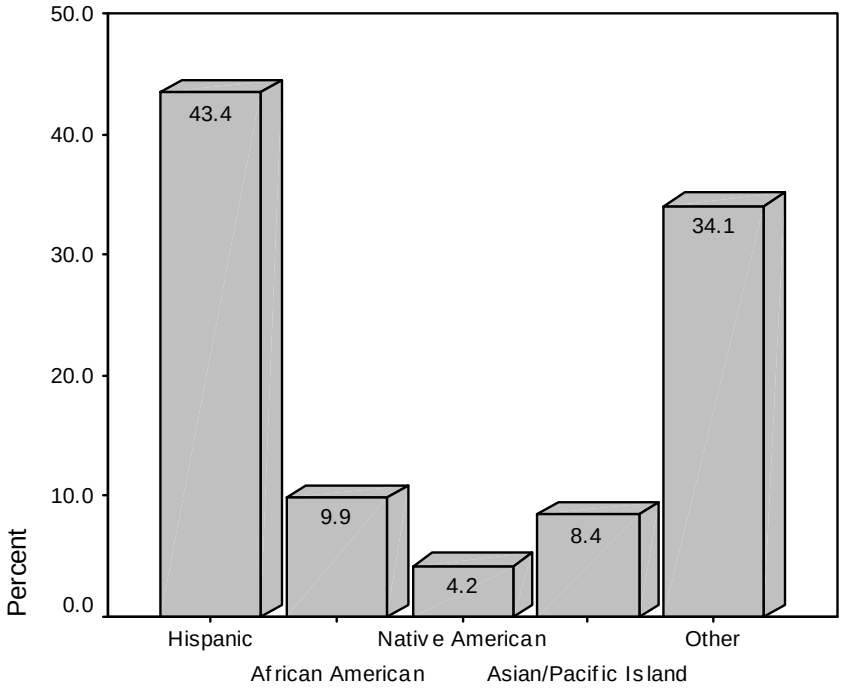


Figure 8
Individual Ownership

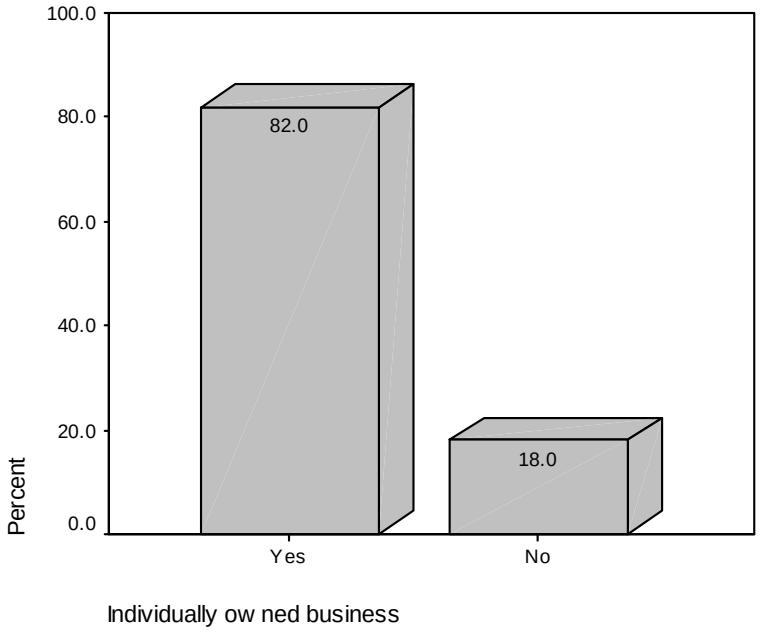


Figure 9
Woman Ownership

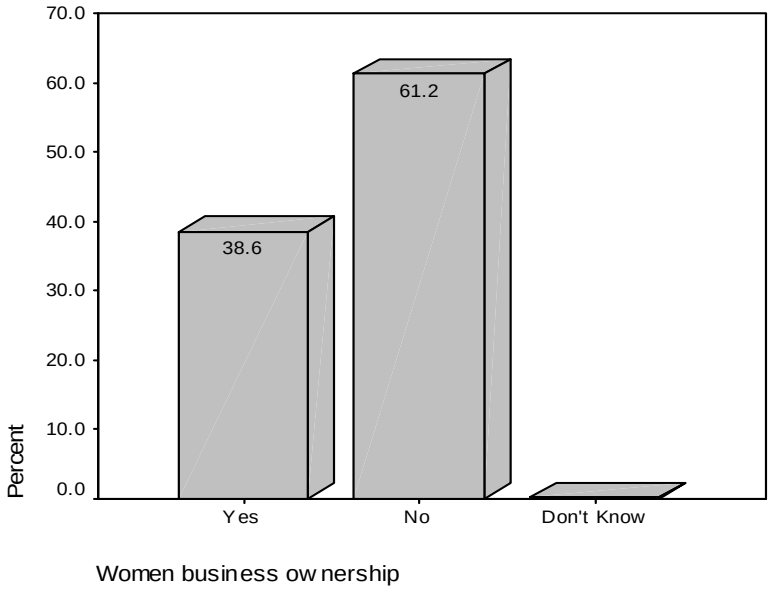
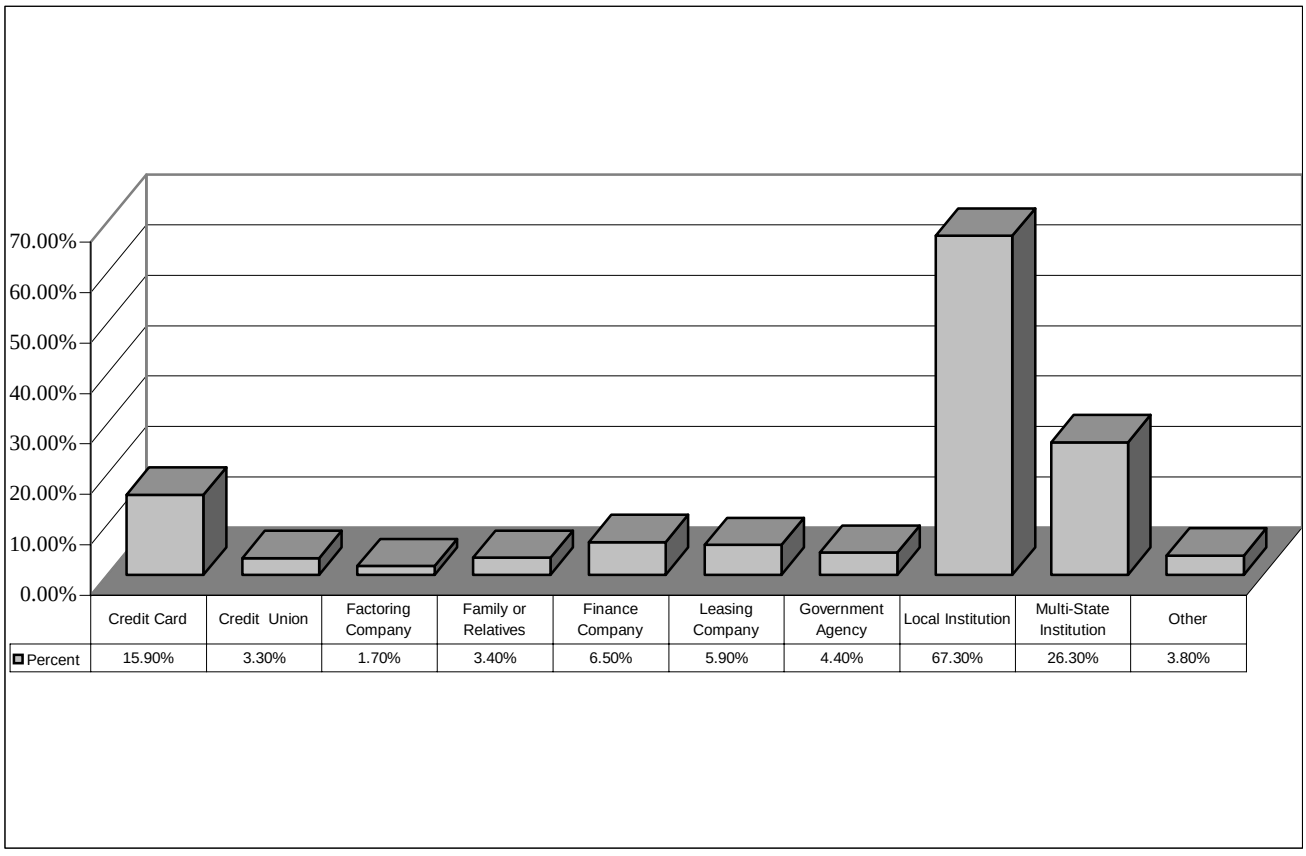


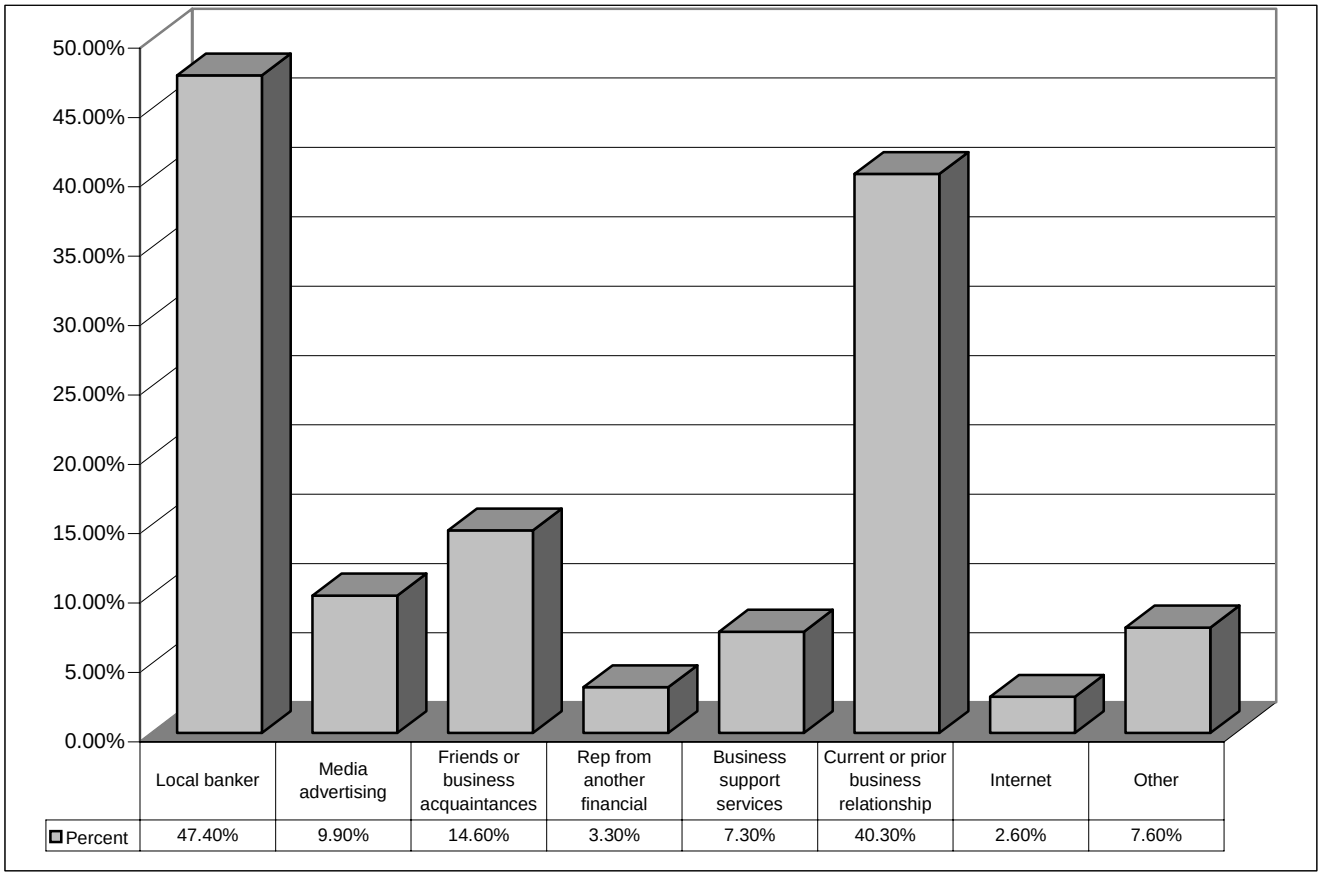
Figure 10
Types of Institutions at which Loan Requests Were Made



	Credit Card	Credit Union	Factoring Company	Family or Relatives	Finance Company	Leasing Company	Government Agency	Local Institution	Multi-State Institution	Other
Percent	15.90%	3.30%	1.70%	3.40%	6.50%	5.90%	4.40%	67.30%	26.30%	3.80%

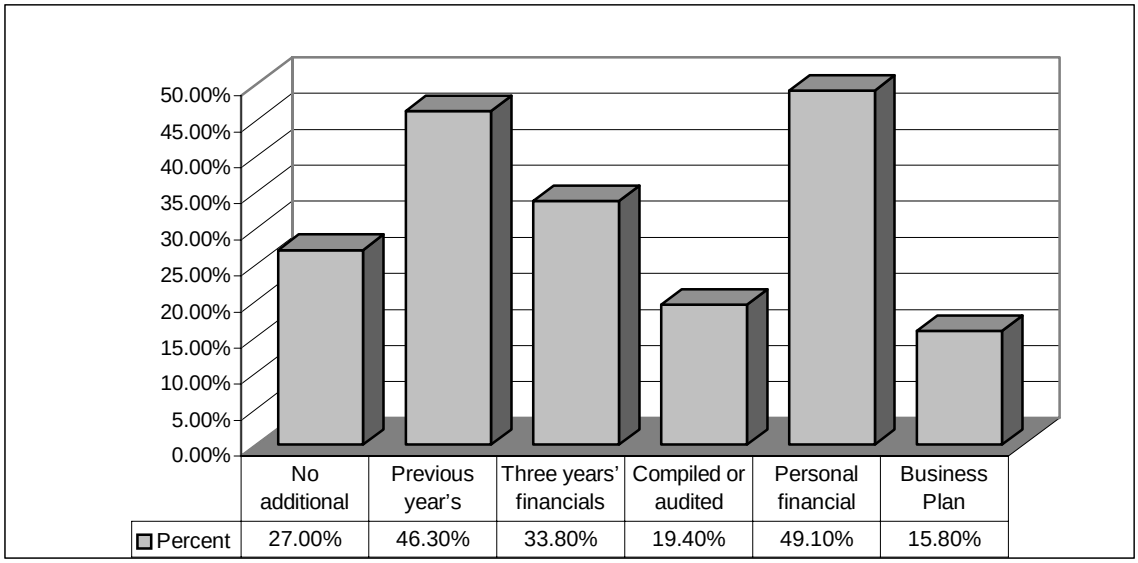
n = the 1004 total applications for loans or credit products.

Figure 11
Source of Knowledge About Credit Product



n = 963
* respondents were asked to mark all that apply, thus percentage totals will exceed 100%

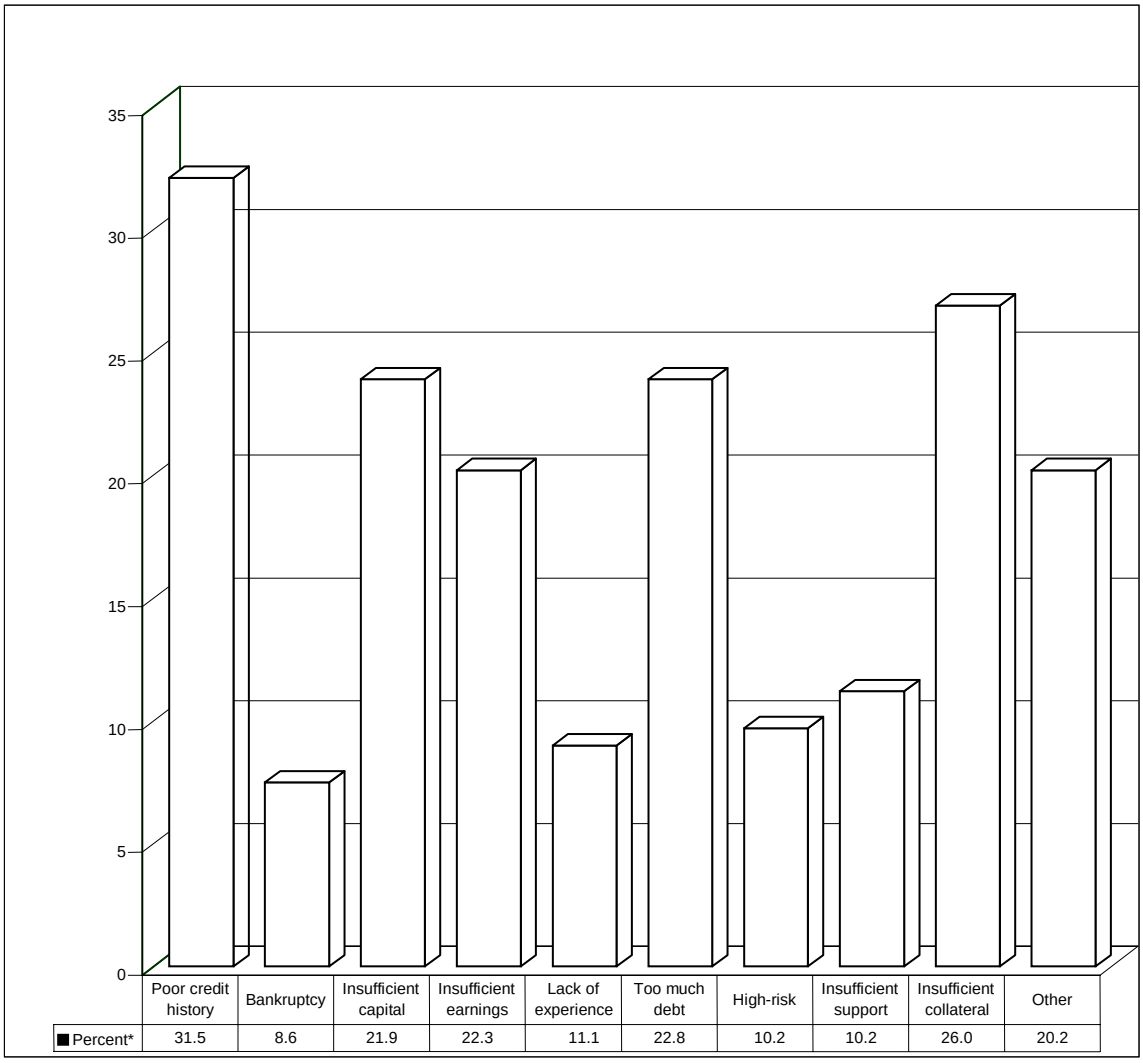
Figure 12
Financial Records Required for Loan Application*



n = 1378

* respondents were asked to mark all that apply, thus percentage totals will exceed 100%

Figure 13
Reasons for Loan Denial

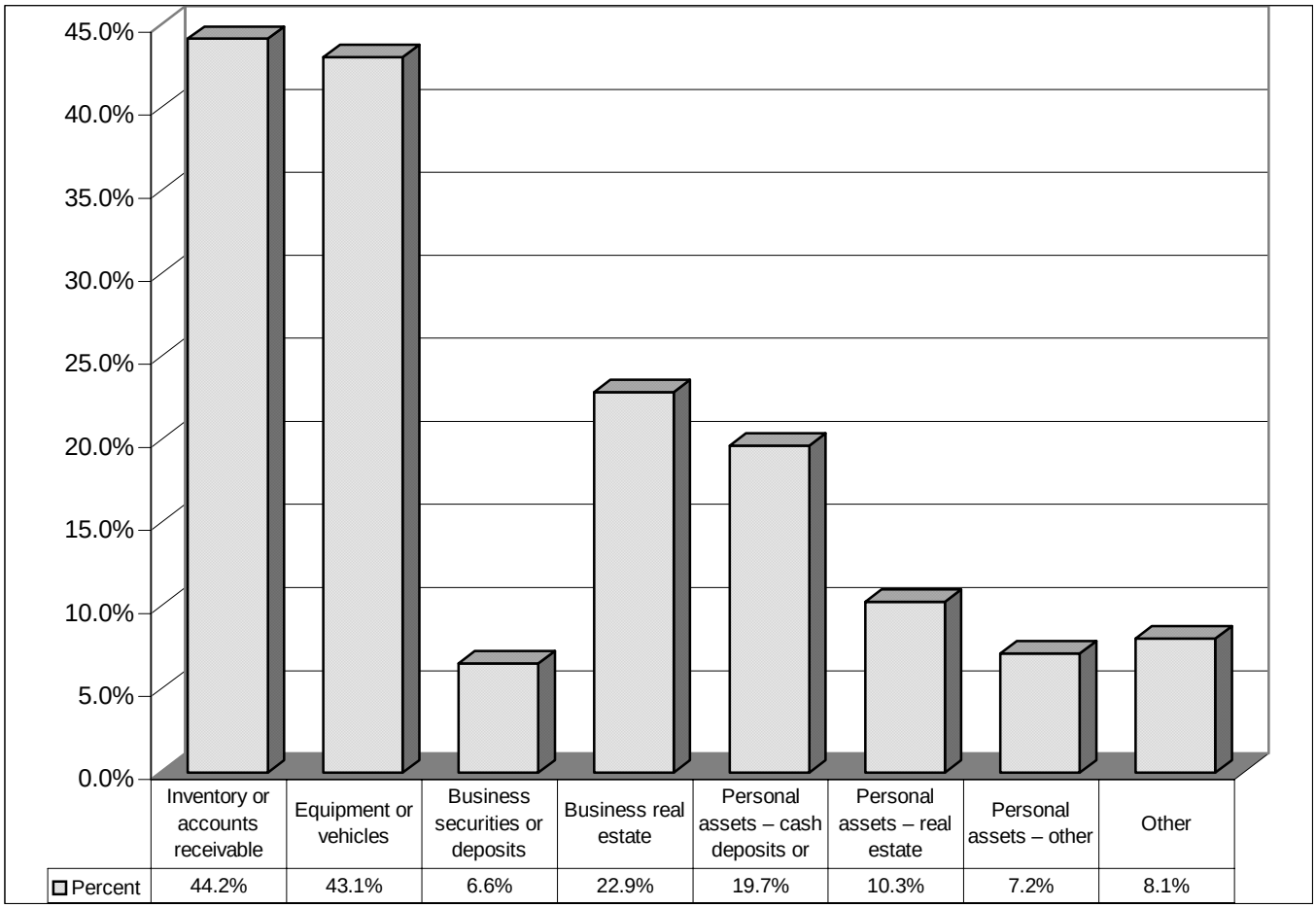


	Poor credit history	Bankruptcy	Insufficient capital	Insufficient earnings	Lack of experience	Too much debt	High-risk	Insufficient support	Insufficient collateral	Other
Percent*	31.5	8.6	21.9	22.3	11.1	22.8	10.2	10.2	26.0	20.2

n = 134

* respondents were asked to mark all that apply, thus percentage totals will exceed 100%

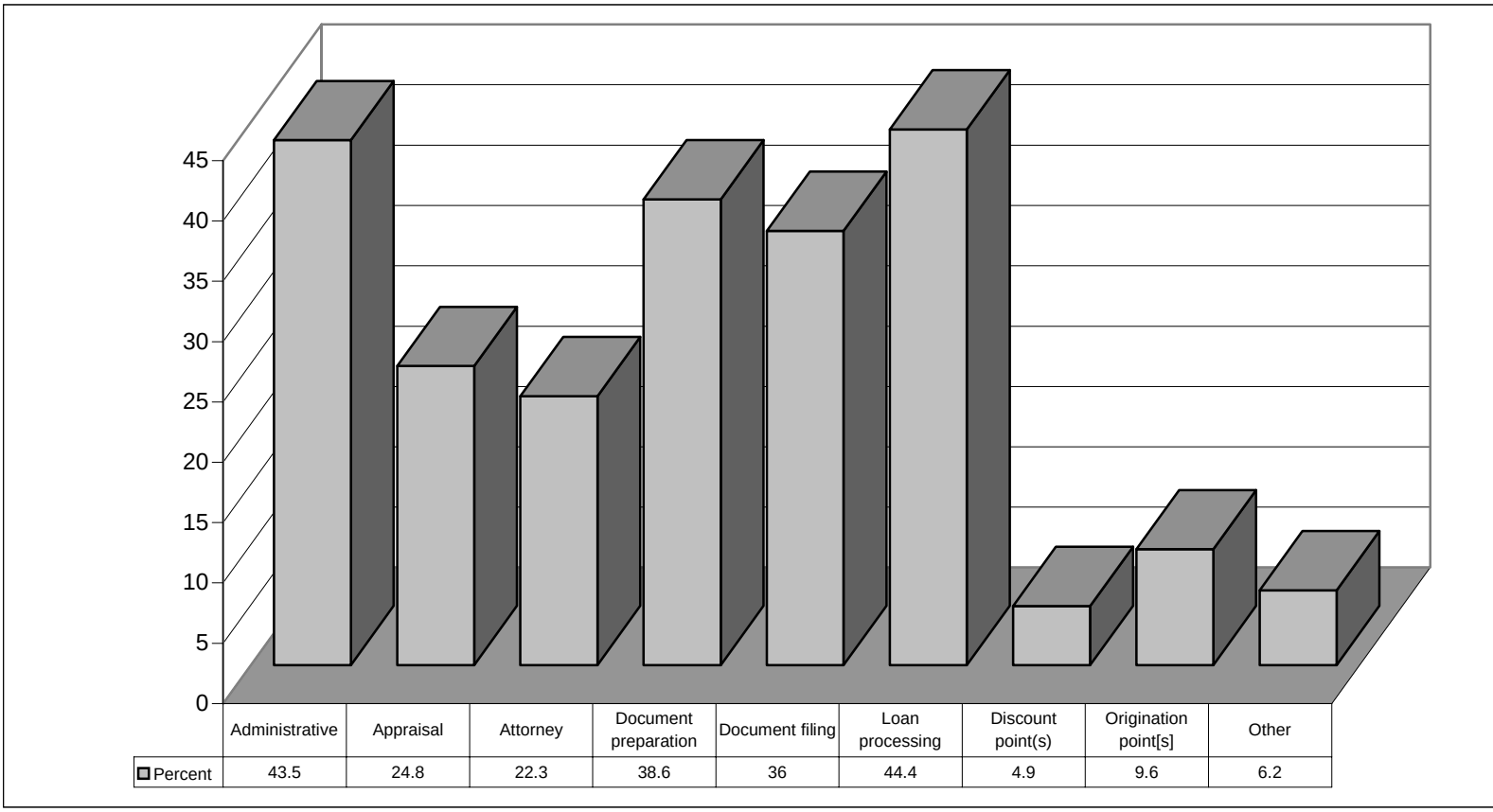
Figure 14
Type of Collateral



	Inventory or accounts receivable	Equipment or vehicles	Business securities or deposits	Business real estate	Personal assets – cash deposits or	Personal assets – real estate	Personal assets – other	Other
Percent	44.2%	43.1%	6.6%	22.9%	19.7%	10.3%	7.2%	8.1%

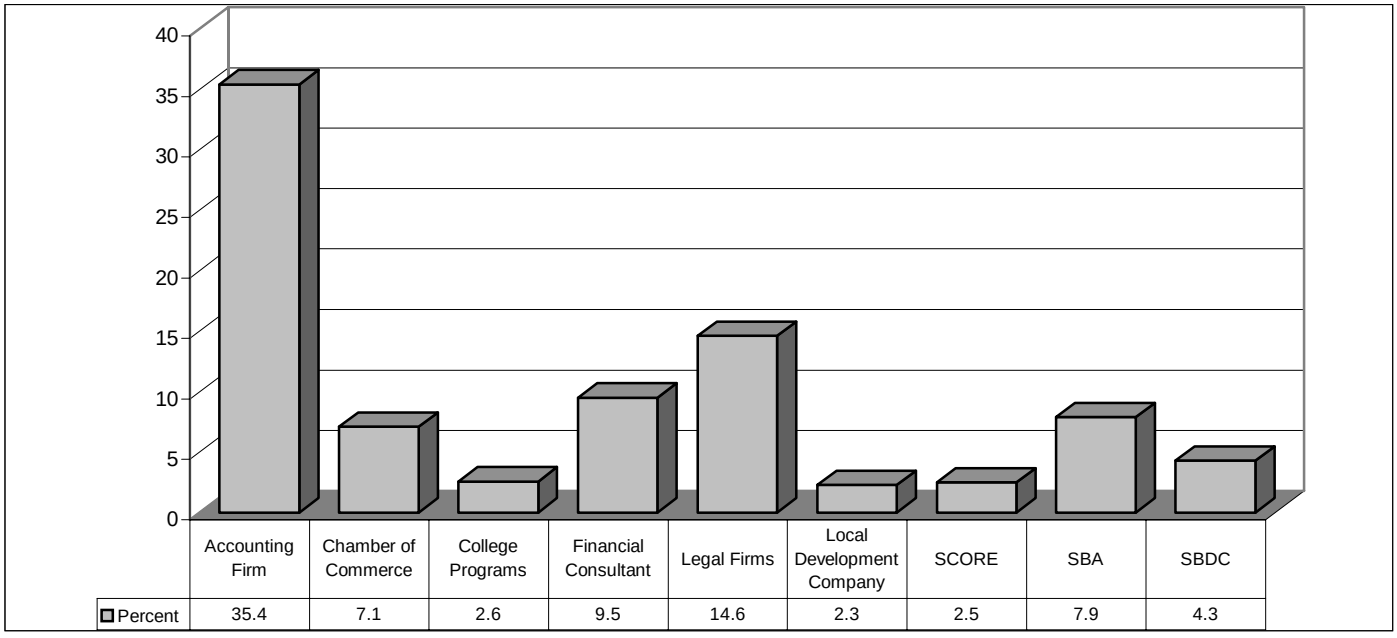
n = 430

Figure 15
Frequency of Fee Types



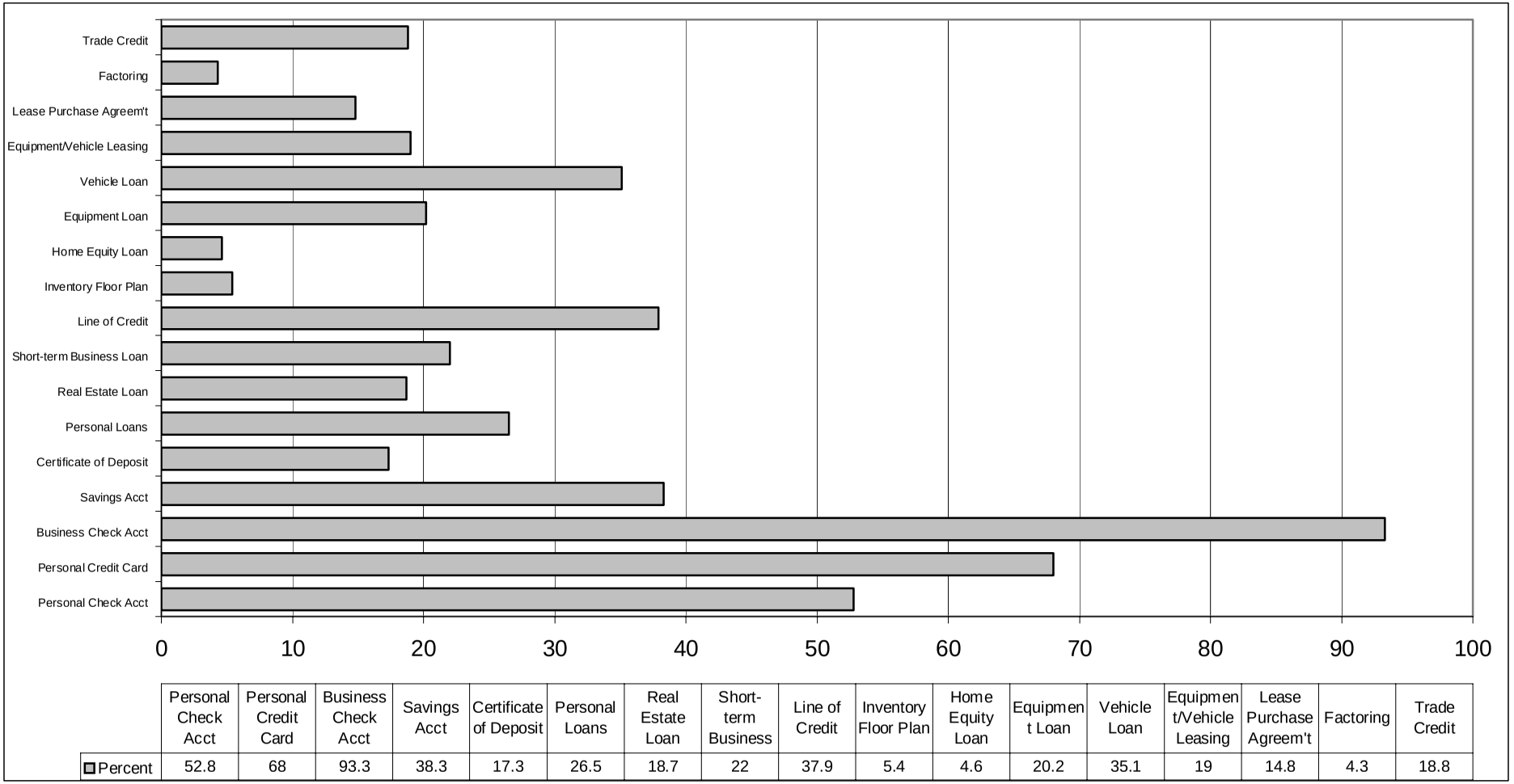
	Administrative	Appraisal	Attorney	Document preparation	Document filing	Loan processing	Discount point(s)	Origination point[s]	Other
Percent	43.5	24.8	22.3	38.6	36	44.4	4.9	9.6	6.2

Figure 16
Use of Business Support Services



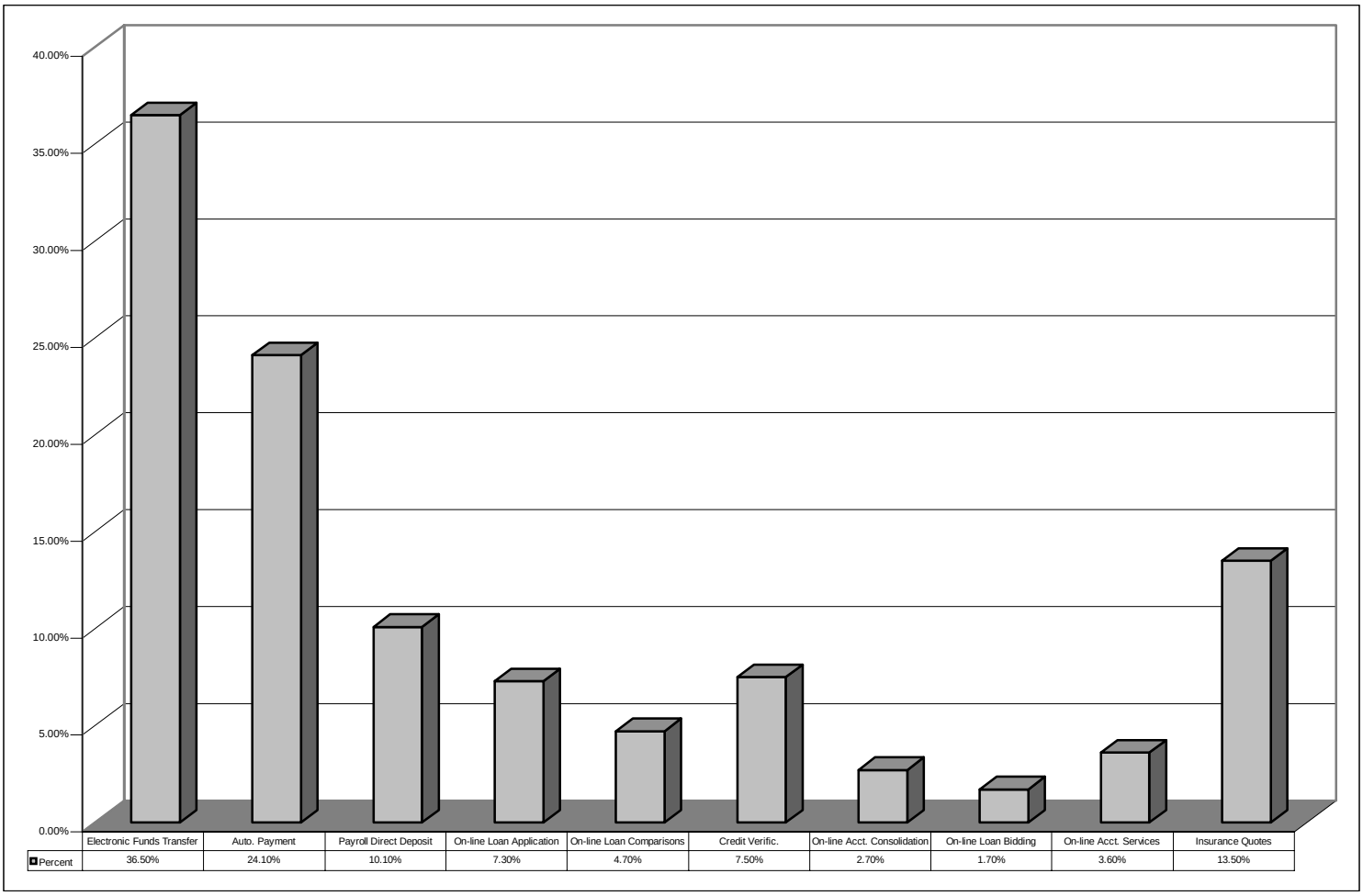
	Accounting Firm	Chamber of Commerce	College Programs	Financial Consultant	Legal Firms	Local Development Company	SCORE	SBA	SBDC
Percent	35.4	7.1	2.6	9.5	14.6	2.3	2.5	7.9	4.3

Figure 17
Use of Financial Services



	Personal Check Acct	Personal Credit Card	Business Check Acct	Savings Acct	Certificate of Deposit	Personal Loans	Real Estate Loan	Short-term Business	Line of Credit	Inventory Floor Plan	Home Equity Loan	Equipment Loan	Vehicle Loan	Equipment/Vehicle Leasing	Lease Purchase Agreem't	Factoring	Trade Credit
Percent	52.8	68	93.3	38.3	17.3	26.5	18.7	22	37.9	5.4	4.6	20.2	35.1	19	14.8	4.3	18.8

Figure 18
Use of Technology Based Financial Services



	Electronic Funds Transfer	Auto. Payment	Payroll Direct Deposit	On-line Loan Application	On-line Loan Comparisons	Credit Verific.	On-line Acct. Consolidation	On-line Loan Bidding	On-line Acct. Services	Insurance Quotes
Percent	36.50%	24.10%	10.10%	7.30%	4.70%	7.50%	2.70%	1.70%	3.60%	13.50%

Figure 19
Delinquency Actions by Creditors

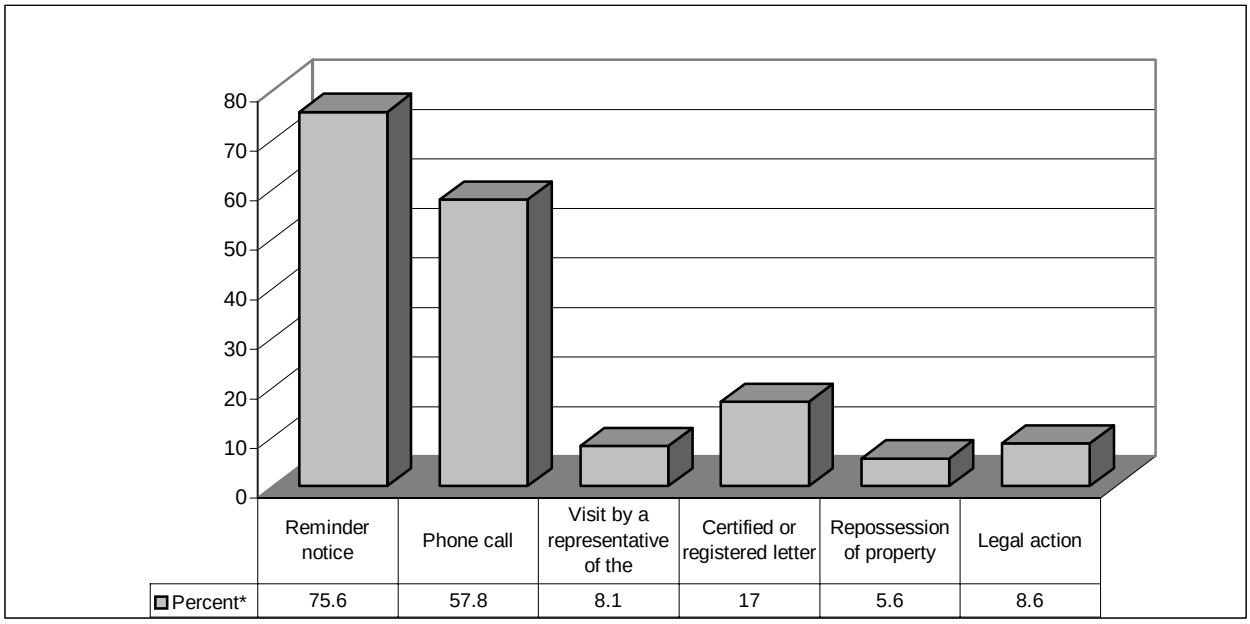


Figure 20
Barriers to Obtaining Financing

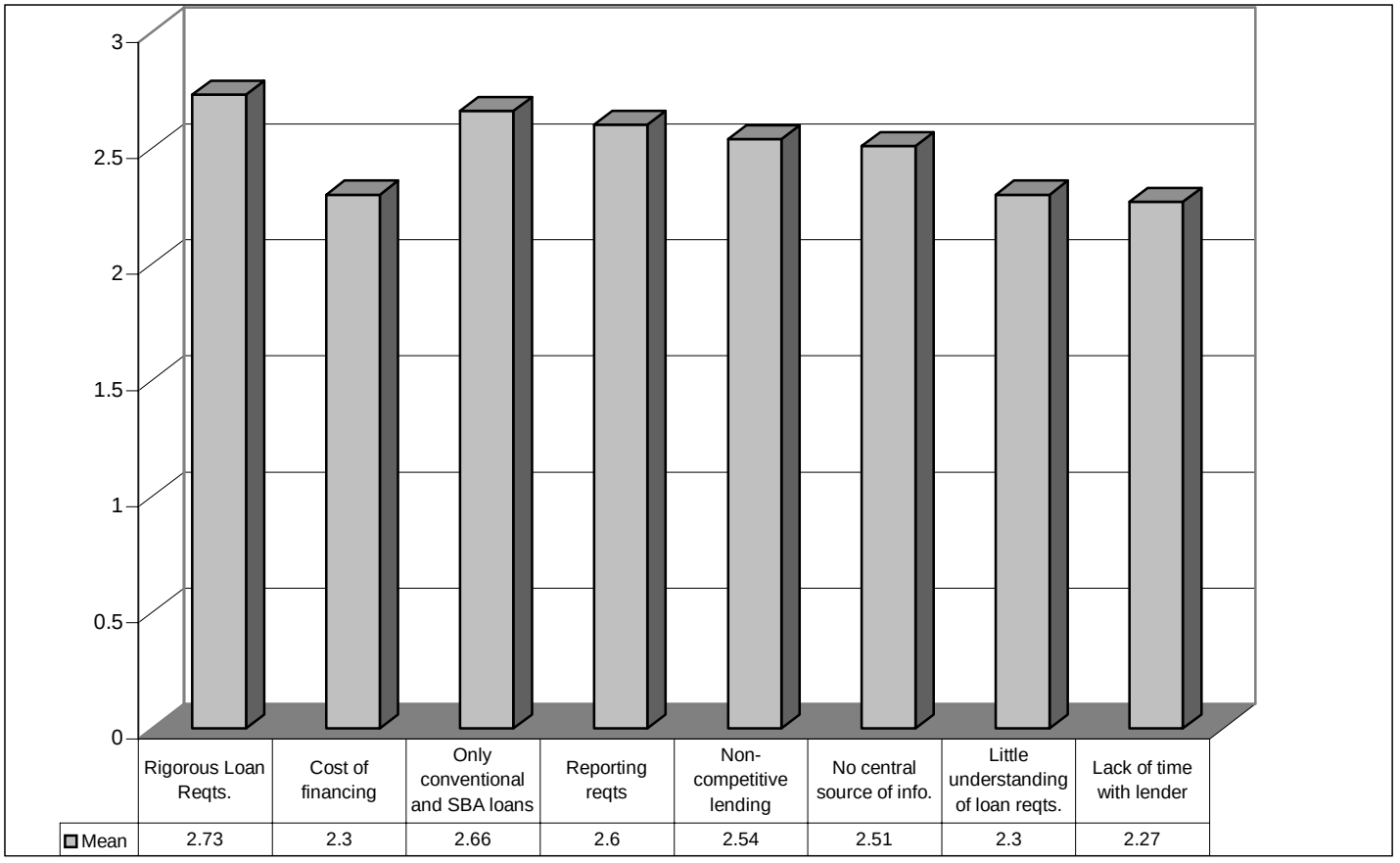


Figure 21
Issues Facing Small Business

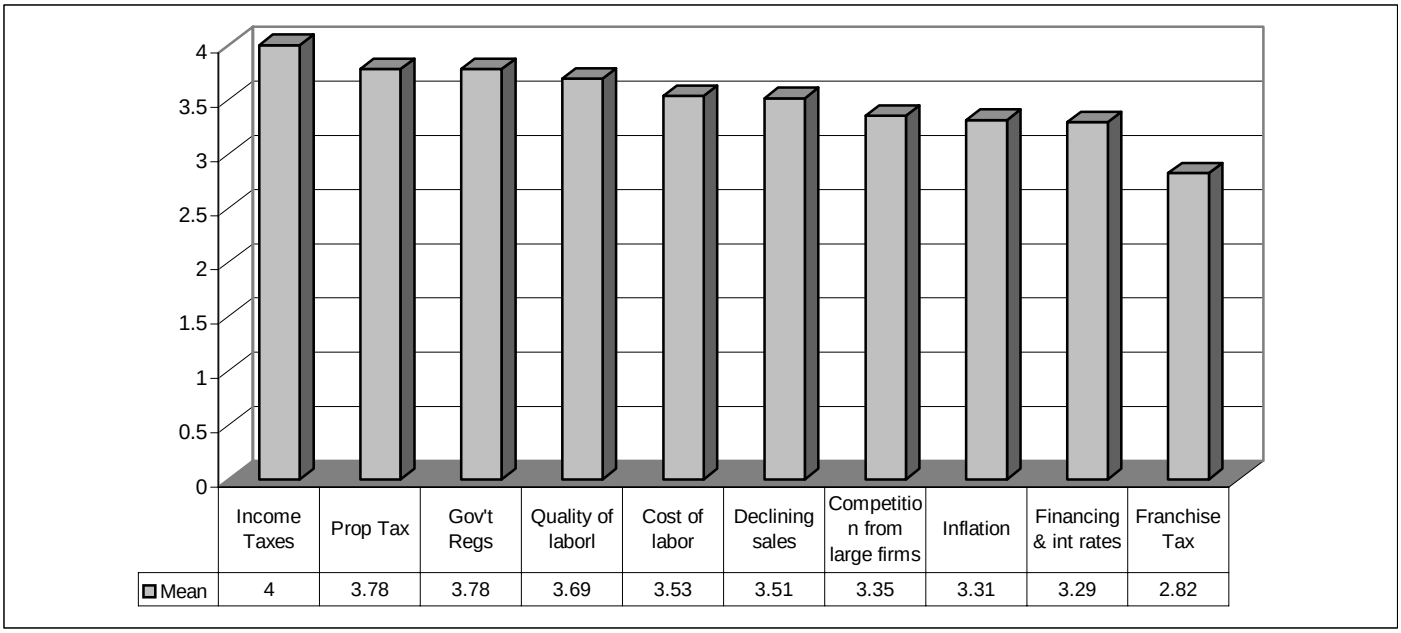


Figure 22
Strategies to Enhance Access to Capital

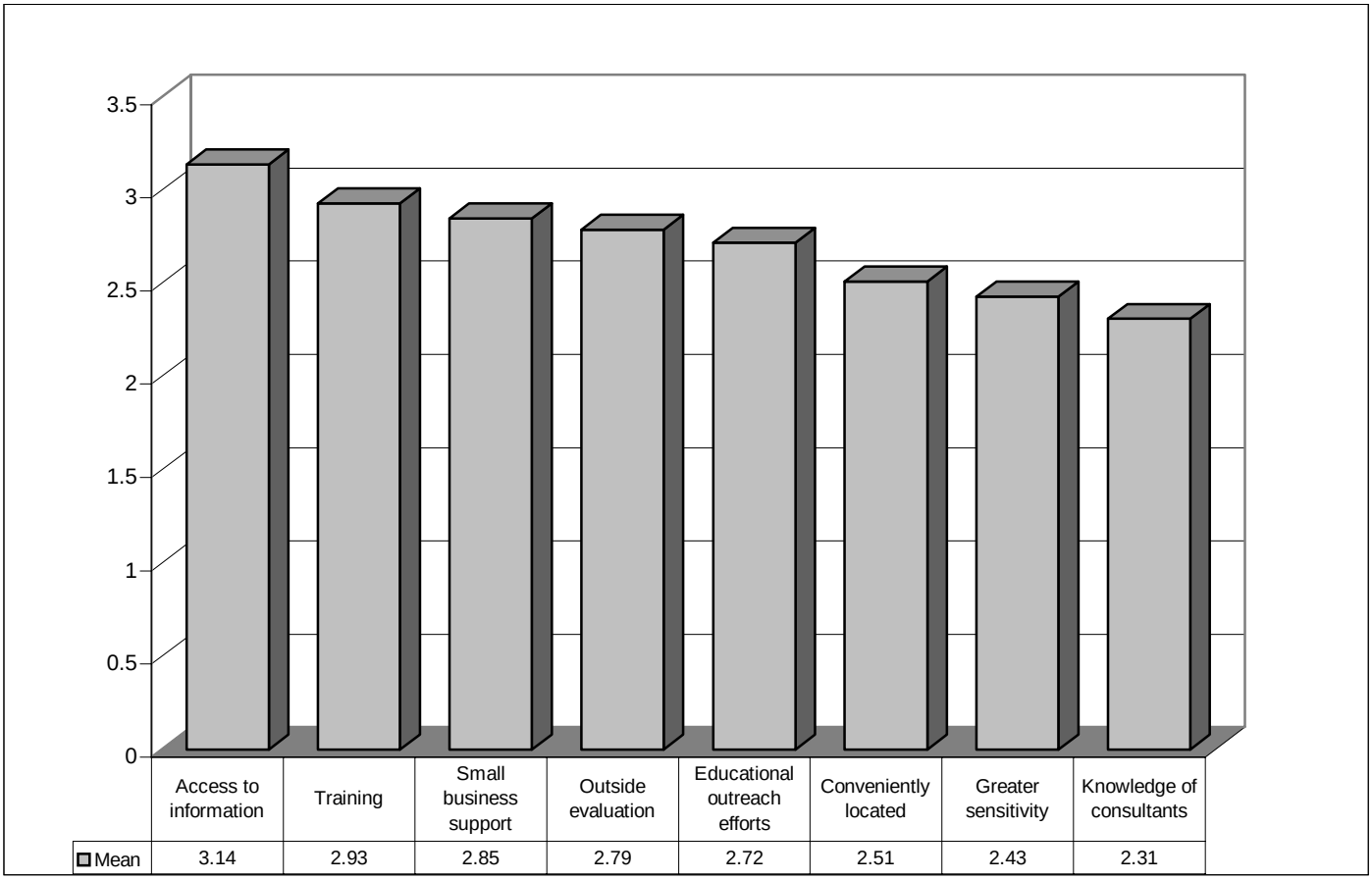


Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	**# OF PROVIDERS[1]**	**# OF LOCAL BANKS[2]**	**# OF LOANS TO SMALL FIRMS[3]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]**	**# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]**	**PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS**	**PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS**
I. URBAN/NON-BORDER:								
GULF COAST REGION:								
Brazoria	53	20	1,245	$38,092	322	$13,134	25.86%	34.48%
Fort Blend	66	29	2,687	$90,840	897	$59,080	33.38%	65.04%
Galveston	59	20	1,582	$48,418	200	$13,376	12.64%	27.63%
Harris	168	87	27,358	$1,137,926	11,618	$911,113	42.47%	80.07%
Montgomery	88	19	2,492	$88,741	939	$52,743	37.68%	59.43%
Weighted Average[7]							**39.52%**	**74.75%**
CAPITAL REGION:								
Burnet	34	11	381	$14,776	193	$12,488	50.66%	84.52%
Hays	50	9	788	$22,013	169	$8,005	21.45%	36.36%
Travis	113	30	6,491	$278,032	1,790	$152,909	27.58%	55.00%
Williamson	63	23	1,678	$57,957	306	$20,213	18.24%	34.88%
Weighted Average							**26.32%**	**51.94%**
ALAMO REGION:								
Bexar	108	34	7,259	$251,658	2,233	$153,137	30.76%	60.85%
Comal	42	11	704	$21,815	212	$13,368	30.11%	61.28%
Guadalupe	40	9	452	$12,040	128	$7,178	28.32%	59.62%
Kerr	28	8	537	$23,001	296	$19,528	55.12%	84.90%
Weighted Average							**32.05%**	**62.63%**
N. CENTRAL TX REGION:								
Collin	111	32	4,564	$141,826	1,189	$84,272	26.05%	59.42%
Dallas	189	77	15,157	$526,849	4,223	$332,729	27.86%	63.15%
Denton	89	28	2,633	$67,264	581	$34,586	22.07%	51.42%
Tarrant	133	53	9,528	$279,710	2,502	$154,421	26.26%	55.21%
Weighted Average							**26.65%**	**59.67%**
URBAN/NON-BORDER WEIGHTED AVERAGE[8]							**31.84%**	**64.53%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	# OF PROVIDERS[1]	# OF LOCAL BANKS[2]	# OF LOANS TO SMALL FIRMS[3]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]	# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]	PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS	PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS
II. NON-URBAN/NON-BORDER:								
PANHANDLE REGION:								
Dallam	19	6	49	$655	15	$389	30.61%	59.39%
Deaf Smith	21	4	382	$9,716	296	$8,398	77.49%	86.43%
Gray	21	6	323	$8,924	220	$7,389	68.11%	82.80%
Hutchinson	20	4	175	$4,234	94	$3,083	53.71%	72.82%
Moore	19	4	89	$1,900	14	$529	15.73%	27.84%
Ochiltree	16	3	124	$3,695	89	$3,427	71.77%	92.75%
Potter	39	10	2,195	$58,391	1,720	$46,672	78.36%	79.93%
Randall	36	9	1,507	$58,622	1,084	$51,241	71.93%	87.41%
Weighted Average							**72.91%**	**82.89%**
SOUTH PLAINS REGION:								
Hale	24	7	209	$3,506	109	$2,283	52.15%	65.12%
Hockley	24	6	292	$4,117	192	$3,263	65.75%	79.26%
Lamb	16	9	109	$2,177	50	$1,457	45.87%	66.93%
Lubbock	45	18	2,798	$136,649	1,786	$124,846	63.83%	91.36%
Terry	16	3	127	$3,837	78	$3,061	61.42%	79.78%
Weighted Average							**62.66%**	**89.77%**
PERMIAN BASIN REGION:								
Andrews	21	2	44	$825	1	$200	2.27%	24.24%
Dawson	18	3	72	$802	3	$95	4.17%	11.85%
Ector	30	11	635	$21,692	203	$13,066	31.97%	60.23%
Gaines	22	3	89	$1,245	6	$210	6.74%	16.87%
Howard	18	5	163	$4,930	66	$2,240	40.49%	45.44%
Midland	40	10	1,303	$92,042	760	$83,313	58.33%	90.52%
Pecos	18	3	77	$1,241	1	$37	1.30%	2.98%
Weighted Average							**43.64%**	**80.77%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	# OF PROVIDERS[1]	# OF LOCAL BANKS[2]	# OF LOANS TO SMALL FIRMS[3]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]	# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]	PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS	PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS
CONCHO VALLEY REGION:								
Crockett	12	2	19	$259	0	$0	0.00%	0.00%
Kimble	16	2	24	$223	0	$0	0.00%	0.00%
Mason	8	3	26	$134	0	$0	0.00%	0.00%
McCulloch	14	3	28	$480	0	$0	0.00%	0.00%
Reagan	10	2	13	$497	0	$0	0.00%	0.00%
Sutton	15	2	23	$280	0	$0	0.00%	0.00%
Tom Green	28	15	681	$17,594	267	$12,700	39.21%	72.18%
Weighted Average							**32.80%**	**65.24%**
W. CENTRAL TX REGION:								
Brown	21	8	230	$2,859	83	$1,236	36.09%	43.23%
Coleman	13	4	35	$659	2	$409	5.71%	62.06%
Comanche	19	5	126	$1,436	64	$849	50.79%	59.12%
Eastland	21	6	256	$3,748	160	$3,109	62.50%	82.95%
Jones	17	5	119	$1,664	3	$125	2.52%	7.51%
Nolan	19	3	217	$6,666	1	$20	0.46%	0.30%
Runnels	16	7	51	$531	8	$188	15.69%	35.40%
Scurry	20	5	143	$3,541	83	$2,197	58.04%	62.04%
Stephens	15	4	48	$887	3	$364	6.25%	41.04%
Weighted Average							**33.22%**	**38.64%**
NORTH TEXAS REGION:								
Archer	13	2	47	$1,648	18	$1,400	38.30%	84.95%
Baylor	14	3	27	$366	2	$215	7.41%	58.74%
Jack	11	4	20	$155	2	$42	10.00%	27.10%
Montague	19	5	90	$1,609	16	$1,132	17.78%	70.35%
Wichita	29	13	919	$26,337	456	$21,166	49.62%	80.37%
Wilbarger	16	4	48	$423	1	$20	2.08%	4.73%
Young	21	7	114	$1,104	8	$204	7.02%	18.48%
Weighted Average							**38.34%**	**76.41%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	# OF PROVIDERS[1]	# OF LOCAL BANKS[2]	# OF LOANS TO SMALL FIRMS[3]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]	# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]	PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS	PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS
SOUTH EAST TEXAS REGION:								
Hardin	24	4	612	$12,717	463	$10,870	75.65%	85.48%
Jefferson	46	11	2,282	$106,327	1,493	$87,298	65.43%	82.10%
Orange	28	9	556	$14,922	329	$12,256	59.17%	82.13%
Weighted Average							**66.23%**	**82.43%**
DEEP EAST TEXAS REGION:								
Angelina	34	8	432	$19,274	97	$4,581	22.45%	23.77%
Houston	26	7	89	$1,510	3	$148	3.37%	9.80%
Jasper	21	4	246	$3,367	115	$2,146	46.75%	63.74%
Nacogdoches	34	10	881	$31,432	484	$21,468	54.94%	68.30%
Polk	32	5	155	$3,377	8	$1,119	5.16%	33.14%
Sabine	14	3	45	$805	0	$0	0.00%	0.00%
Shelby	20	6	131	$1,586	0	$0	0.00%	0.00%
Trinity	15	3	43	$394	1	$7	2.33%	1.78%
Tyler	19	5	185	$5,771	133	$3,897	71.89%	67.53%
Weighted Average							**38.11%**	**49.42%**
EAST TEXAS REGION:								
Anderson	29	8	335	$8,519	42	$1,238	12.54%	14.53%
Cherokee	29	7	283	$5,457	151	$4,159	53.36%	76.21%
Gregg	46	18	2,060	$97,599	1,363	$76,367	66.17%	78.25%
Harrison	30	9	543	$18,652	357	$15,946	65.75%	85.49%
Henderson	37	8	774	$19,758	409	$11,587	52.84%	58.64%
Panola	26	5	97	$1,792	2	$131	2.06%	7.31%
Rusk	28	6	406	$9,831	238	$6,489	58.62%	66.01%
Smith	55	18	1,911	$71,267	931	$46,617	48.72%	65.41%
Upshur	24	5	173	$5,074	1	$50	0.58%	0.99%
Van Zandt	29	9	326	$5,644	19	$1,017	5.83%	18.02%
Wood	22	10	222	$4,531	30	$741	13.51%	16.35%
Weighted Average							**49.69%**	**66.23%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	# OF PROVIDERS[1]	# OF LOCAL BANKS[2]	# OF LOANS TO SMALL FIRMS[3]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]	# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]	$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]	PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS	PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS
N. EAST TEXAS REGION:								
Bowie	33	8	1,100	$36,906	441	$14,968	40.09%	40.56%
Cass	23	7	255	$8,209	28	$756	10.98%	9.21%
Franklin	13	3	68	$2,018	0	$0	0.00%	0.00%
Hopkins	26	6	766	$17,855	646	$16,561	84.33%	92.75%
Lamar	26	9	336	$7,085	174	$5,214	51.79%	73.59%
Morris	17	7	44	$2,011	1	$25	2.27%	1.24%
Red River	15	5	139	$2,218	96	$1,796	69.06%	80.97%
Titus	18	6	336	$15,507	239	$13,878	71.13%	89.50%
Weighted Average							**53.38%**	**57.94%**
HEART OF TEXAS REGION:								
Bosque	16	5	73	$736	10	$304	13.70%	41.30%
Falls	22	6	66	$1,010	8	$247	12.12%	24.46%
Freestone	18	6	110	$1,254	8	$171	7.27%	13.64%
Limestone	18	6	64	$532	3	$67	4.69%	12.59%
McLennan	44	22	1,283	$51,951	532	$39,839	41.47%	76.69%
Weighted Average							**35.15%**	**73.23%**
CENTRAL TEXAS REGION:								
Bell	42	20	985	$25,696	307	$17,655	31.17%	68.71%
Coryell	23	6	252	$4,265	119	$3,143	47.22%	73.69%
Hamilton	16	5	76	$1,236	40	$950	52.63%	76.86%
Lampasas	21	5	73	$1,679	3	$66	4.11%	3.93%
Milam	20	5	70	$579	1	$10	1.43%	1.73%
San Saba	12	2	32	$260	1	$10	3.13%	3.85%
Weighted Average							**31.65%**	**64.76%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	**# OF PROVIDERS[1]**	**# OF LOCAL BANKS[2]**	**# OF LOANS TO SMALL FIRMS[3]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]**	**# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]**	**PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS**	**PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS**
BRAZOS VALLEY REGION:								
Brazos	42	11	968	$30,871	420	$23,680	43.39%	76.71%
Burleson	16	5	90	$4,011	32	$631	35.56%	15.73%
Grimes	22	6	94	$3,288	17	$628	18.09%	19.10%
Leon	18	7	115	$2,858	19	$987	16.52%	34.53%
Madison	14	4	161	$2,786	99	$1,917	61.49%	68.81%
Robertson	16	3	69	$1,070	10	$273	14.49%	25.51%
Washington	29	9	278	$7,864	45	$2,194	16.19%	27.90%
Weighted Average							**36.17%**	**57.46%**
TEXOMA REGION:								
Cooke	30	6	174	$3,122	18	$352	10.34%	11.27%
Fannin	23	6	118	$2,078	24	$1,206	20.34%	58.04%
Grayson	35	14	619	$16,153	159	$11,764	25.69%	72.83%
Weighted Average							**22.06%**	**62.39%**
COASTAL BEND REGION:								
Aransas	28	5	161	$5,821	69	$4,006	42.86%	68.82%
Bee	15	3	126	$2,523	49	$1,888	38.89%	74.83%
Jim Wells	20	5	153	$3,381	64	$2,597	41.83%	76.81%
Kleberg	21	5	113	$1,680	17	$675	15.04%	40.18%
Nueces	48	18	2,186	$71,412	781	$41,941	35.73%	58.73%
San Patricio	29	10	268	$5,539	62	$1,857	23.13%	33.53%
Weighted Average							**34.65%**	**58.62%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	**# OF PROVIDERS[1]**	**# OF LOCAL BANKS[2]**	**# OF LOANS TO SMALL FIRMS[3]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]**	**# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]**	**PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS**	**PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS**
GOLDEN CRESCENT REGION:								
Calhoun	21	7	208	$6,849	133	$5,332	63.94%	77.85%
DeWitt	21	7	141	$4,274	62	$2,367	43.97%	55.38%
Gonzales	17	6	95	$1,605	33	$983	34.74%	61.25%
Jackson	19	5	109	$4,262	68	$3,725	62.39%	87.40%
Lavaca	15	7	76	$1,294	21	$762	27.63%	58.89%
Victoria	37	11	999	$41,376	700	$36,646	70.07%	88.57%
Weighted Average							**62.47%**	**83.50%**
NON-URBAN/NON-BORDER WEIGHTED AVERAGE							**45.56%**	**67.71%**
III. BORDER:								
UPPER RIO GRANDE REGION:								
El Paso	56	10	2,695	$76,785	774	$57,646	28.72%	75.07%
Weighted Average							**28.72%**	**75.07%**
MIDDLE RIO GRANDE REGION:								
Dimmit	16	2	42	$2,243	22	$1,752	52.38%	78.11%
La Salle	15	1	15	$358	1	$27	6.67%	7.54%
Maverick	23	4	196	$5,571	87	$4,023	44.39%	72.21%
Real	10	2	34	$449	19	$184	55.88%	40.98%
Uvalde	26	3	606	$14,258	512	$12,887	84.49%	90.38%
Val Verde	18	3	106	$1,921	2	$14	1.89%	0.73%
Zavala	11	2	24	$291	1	$42	4.17%	14.43%
Weighted Average							**62.95%**	**75.44%**

Table 1
Small Business Lending in Texas: Analysis of Providers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COUNTY	**# OF PROVIDERS[1]**	**# OF LOCAL BANKS[2]**	**# OF LOANS TO SMALL FIRMS[3]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS[4]**	**# OF LOANS TO SMALL FIRMS BY LOCAL BANKS[5]**	**$ AMOUNT (000s) OF LOANS TO SMALL FIRMS BY LOCAL BANKS[6]**	**PERCENT OF # OF LOANS BY LOCAL BANKS TO ALL LOANS**	**PERCENT OF $ AMOUNT OF LOANS BY LOCAL BANKS TO ALL LOANS**
SOUTH TEXAS REGION:								
Starr	21	4	148	$5,073	49	$2,094	33.11%	41.28%
Webb	38	7	1,372	$73,776	856	$68,688	62.39%	93.10%
Zapata	11	2	104	$3,490	1	$20	0.96%	0.57%
Weighted Average							**55.79%**	**85.99%**
LOWER RIO GRANDE REGION:								
Cameron	45	11	1,905	$76,956	1,008	$58,634	52.91%	76.19%
Hidalgo	52	18	3,181	$132,456	1,869	$110,733	58.76%	83.60%
Weighted Average							**56.57%**	**80.88%**
BORDER WEIGHTED AVERAGE							**46.53%**	**78.96%**
STATEWIDE WEIGHTED AVERAGE							**36.37%**	**66.70%**

Table 1
Small Business Lending in Texas: Analysis of Providers

FOOTNOTES:

1. CRA Small Business Lending Data
   2000 CRA MSA Aggregate Report - Table 1-1A
   Loans By County
   http://www.ffiec.gov/webcraad/ProcessRetrieveAggr.htm
   Chosen for each specific county

2. FDIC/OTS Summary of Deposits
   2000 Data for Institution and Branch Selection
   Institution By County
   http://www2.fdic.gov/sod/sodInstBranchRpt.asp?rState=Texas&rCounty=El+Paso (for El Paso County)
   Chosen for each specific county

3. CRA Small Business Lending Data
   2000 CRA MSA Aggregate Report - Table 1-1A
   Loans By County
   http://www.ffiec.gov/webcraad/ProcessRetrieveAggr.htm
   Chosen for each specific county

4. CRA Small Business Lending Data
   2000 CRA MSA Aggregate Report - Table 1-1A
   Loans By County
   http://www.ffiec.gov/webcraad/ProcessRetrieveAggr.htm
   Chosen for each specific county

5. Number of Local Banks determined from #4
   2000 CRA MSA Aggregate Report - Table 1-1A
   Loans By County
   http://www.ffiec.gov/webcraad/ProcessRetrieveAggr.htm
   Chosen for each specific county

6. Number of Local Banks determined from #4
   2000 CRA MSA Aggregate Report - Table 1-1A
   Loans By County
   http://www.ffiec.gov/webcraad/ProcessRetrieveAggr.htm
   Chosen for each specific county

7. Weights with respect to # of loans computed from Column 3. Weights with respect to $ amount of loans computed from Column 4.

8. Weights based upon distribution of business firms in state.

Table 2
Population of Texas Business

Category		Source
Total Number of Firms	467,087	County Business Patterns, 1999
Commercial Banks and Credit Unions [1]	(1400)	Statistical Abstract of the United States, 2001.
Sub-total	465,687	
Firms with more than 100 employees	(11,204)	
Sub-total	454,483	
Agriculture-Related Firms[2]	(611)	
County Business Pattern firms meeting study parameters	453,872	County Business Patterns, 1999

[1] Excluded by study parameters.
[2] Excluded by study parameters.

Table 3

Geographic Distribution of Texas Small Businesses

Geographic Area State Planning Regions	Target Population*	Response Percentage (Frequency)	Weighted Response Frequency
Urban/Non-Border	**66.11%**	**42.6% (668)**	**1037**
Gulf Coast	23.43%		
Capital	7.18%		
Alamo	8.17%		
North Central Texas	27.33%		
Non-Urban/Non-Border	**26.48%**	**45.1% (706)**	**414**
Panhandle	2.21%		
South Plains	2.02%		
Permian Basin	2.19%		
Concho Valley	0.81%		
West Central Texas	1.74%		
North Texas	1.19%		
Southeast Texas	1.75%		
Deep East Texas	1.39%		
East Texas	3.59%		
North East Texas	1.31%		
Heart of Texas	1.34%		
Central Texas	1.31%		
Brazos	1.29%		
Texoma	0.84%		
Coastal Bend	2.57%		
Golden Crescent	0.93%		
Border	**7.41%**	**12.3% (193)**	**116**
Upper Rio Grande	2.78%		
Middle Rio Grande	0.59%		
South Texas	1.01%		
Lower Rio Grande	3.03%		
Total Values	**100.00%**	**100.00% (1567)**	**1567**

* Source: County Business Patterns, 1999.

Table 4
Number of Establishments by Employment-size Class

NAICS	NAICS Description	Number of firms with100 or fewer employees*	Target Percent
	Total	453,872	100.00%
11----	Forestry, fishing, hunting and agriculture**	11	0.0%
21----	Mining	5,845	1.29%
22----	Utilities	1,930	0.43%
23----	Construction	37,250	8.21%
31----	Manufacturing	19,800	4.36%
42----	Wholesale trade	32,401	7.14%
44----	Retail trade	72,110	15.89%
48----	Transportation & warehousing	13,493	2.97%
51----	Information	7,801	1.72%
52----	Finance and insurance	29,381	6.47%
53----	Real estate, rental & leasing	21,339	4.7%
54----	Professional & technical services	47,496	10.46%
55----	Management of companies	3,363	0.74%
56----	Administrative, support, waste mgt	20,898	4.6%
61----	Educational services	3,962	0.87%
62----	Health care	42,535	9.37%
71----	Arts, entertainment & recreation	4,935	1.09%
72----	Accommodation & food	33,739	7.43%
81----	Other services	47,743	10.52%
95----	Auxiliaries	1,201	0.26%
99----	Unclassified	6,639	1.46%

* Source: County Business Patterns, 1999.
** Agriculture firms were deleted from the list under the study parameters leaving 11 firms to participate in the study.

Table 5
Target to Survey Responses for Industry Type

Industry Type	Target Percent	Survey Responses Percent
Retail and services	61.2%*	56.1%
Construction	8.21%	9.3%
Wholesale**	11.83%	5.3%
Manufacturing	4.36%	7.0%
Other	14.3%	22.3%
Total	100%	100%

* Retail = 23.8% and Services = 37.4%
** Includes transportation and warehousing (4.8%).
$X^2 = 161.3761$ $p = .0005$ [3]

[3] The statistical test chi-square is represented by X^2 and represents association between two categorical measurements. Its probability is represented by "p" which represents the probability that the same results would be obtained by chance or randomly.

Table 6
Target to Survey Responses for Number of Employees

Number of Employees	Target Percent	Survey Responses Percent
1 to 4	54.5%	57.4%
5 to 9	20.0%	19.3%
10 to 19	13.0%	11.1%
20 to 49	9.3%	8.6%
50 to 99	3.2%	3.5%
Total	100%	100%

$X^2 = 8.537772$ p = .1

Table 7
Accounting Method

Accounting method	Frequency	Percent
Year-end tax compilation	333	21.7
Year-end tax and financial statements	221	14.4
System that generates quarterly along with an annual statement	119	7.7
A system that utilizes and provides monthly records	865	56.2
Total	1538	100.0

Table 8
Liabilities

	Financial Institutions		All Liabilities	
Amount	Frequency	Percent	Frequency	Percent
$9,999 or less	704	48.2	570	38.4
$10,000 to $49,999	293	20.1	345	23.3
$50,000 to $99,999	160	11.0	172	11.6
$100,000 to $249,999	146	10.0	189	12.8
$250, 000 to $499,999	79	5.4	100	6.8
$500,000 to $999,999	43	3.0	54	3.7
$1,000,000 to $4,999,999	27	1.8	42	2.9
$5,000,000 or more	8	.6	10	.7
Total	1462	100.0	1484	100.0

Table 9
Applied for a Bank Loan

	Frequency	Percent
Yes	741	48.4
No	789	51.6
Total	1530	100.0

Table 10
Loan Request with Texas Lender

	Frequency	Percent
Yes	653	88.7
No	83	11.3
Total	736	100.0

Table 11
Type of Credit

	Frequency	Percent
Line of credit	351	46.9
Vehicle loan	67	9.0
Equipment loan	74	9.9
Working capital	107	14.2
Land and building	54	7.3
Refinancing of existing loan	24	3.3
Business start-up	24	3.2
Business acquisition	15	2.0
Other type of loan	33	4.3
Total	749	100.0

Table 12
Use of Government Sponsored Lending Programs

Response	Frequency	Percent
Yes	63	8.4
No	680	91.6
Total	743	100.0

Table 13
Type of Government Sponsored Lending Program

Program	Frequency	Percent
State of Texas (CAF, TX link, IDB)	8	11.0
Other TX program	8	10.4
SBA	53	72.8
Other federal program	1	.8
Other sponsored or guaranteed program	4	5.1
Total	73	100.0

Table 14
Relationship with Lender

Response	Frequency	Percent
New customer	175	23.9
Current customer, but no prior loan	144	19.6
Current customer with prior loan within last 3 yrs	414	56.5
Total	733	100.0

Table 15
Type of Contact

	Frequency	Percent
Personal meeting	494	66.4
Telephone	168	22.6
Email	7	1.0
USPS	56	7.5
Internet	7	.9
Other	12	1.6
Total	745	100.0

Table 16
Number of Applications Made

	Frequency	Percent
One	483	65.1
Two	134	18.0
Three	72	9.7
Four	28	3.7
Five or more	26	3.5
Total	742	100.0

Table 17
Credit Evaluation Method

Method	Frequency	Percent
Computerized credit scoring	42	5.8
Loan officer consideration	243	33.2
Both computerized and loan officer	130	17.8
Not sure	318	43.3
Total	734	100.0

Table 18
Was Evaluation Fair?

Response	Frequency	Percent
Yes	610	84.6
No	111	15.4
Total	720	100.0

Table 19
Loan Approval or Denied

Status	Frequency	Percent
Denied or pending*	128	18.0
Funded	581	82.0
Total	709	100.0

*** Pending loans account for 2.7 percent**

Table 20
Alternatives to Denied Loan Application

Response	Frequency	Percent
Apply for & received loan from another institution	9	7.1
Apply for and did not receive from another institution	24	18.2
Seek & acquire from some other source	19	14.2
Discontinue credit solicitation	78	59.0
2 & 3	1	.9
2, 3 & 4	1	.5
Total	132	100.0

Table 21
Time of Loan Processing

Time	Frequency	Percent
Less than 7 days	342	50.5
7 - 13 days	115	17.0
14 - 20 days	86	12.7
21 - 27 days	49	7.2
more than 28 days	85	12.6
Total	677	100.0

Table 22
Collateral Required for Loan

Response	Frequency	Percent
Yes	410	62.1
No	223	33.8
Don't know	27	4.1
Total	660	100.0

Table 23
Required Written Agreements

Response	Frequency	Percent
Yes	137	21.0
No	387	59.5
Don't know	127	19.5
Total	651	100.0

Table 24
Additional Protection Requirements

Response	Frequency	Percent
Yes	290	44.5
No	313	48.0
Don't know	49	7.5
Total	652	100.0

Table 25
Loan Amount Requested

Amount	Frequency	Percent
$99,000 or less	409	62.4
$100,000 - $249,999	126	19.3
$250, 000 to $499,999	53	8.1
$500,000 to $749,999	30	4.6
$750,000 to $999,999	12	1.8
$1,000,000 to $1,999,999	12	1.8
$2,000,000 to $2,999,999	3	.5
$3,000,000 to $4,999,999	4	.6
$5,000,000	6	.9
Total	655	100.0

Table 26
Length of Loan

Time Period	Frequency	Percent
Less than 12 months	130	20.6
From 12 to 23 months	132	21.0
24 to 59 months	207	32.8
60 to 83 months	85	13.5
84 to 119 months	24	3.9
More than 120 months	51	8.1
Total	629	100.0

Table 27
Repayment Schedule

Time Period	Frequency	Valid Percent
Monthly	509	82.9
Bi-monthly	4	.7
Quarterly	19	3.2
Semi-annually	10	1.6
Annually	31	5.0
Other	40	6.5
Total	614	100.0

Table 28
Fixed or variable % Rate

Rate	Frequency	Percent
Fixed	379	58.6
Variable	225	34.8
Don't know	43	6.6
Total	647	100.0

Table 29
Current % Rate Paid

Rate	Frequency	Percent
Less than 6 percent	34	5.2
6 to 8.99 percent	281	44.0
9 to 11.99 percent	230	35.9
12 to 14.99 percent	29	4.6
15 to 17.99 percent	9	1.4
18 and above	7	1.1
Unsure	49	7.7
Total	639	100.0

Table 30
Rate for Refinancing a Loan

Rate	Frequency	Valid Percent
Same as interest rate on previous loan	100	44.6
Lower than interest rate of previous loan	101	44.8
Higher that interest rate on previous loan	24	10.7
Total	225	100.0

Table 31
Additional Fees or Charges.

Response	Frequency	Valid Percent
Yes	237	38.3
No	306	49.5
Don't know	76	12.3
Total	620	100.0

Table 32
Amount of Additional Fees or Charges

Fees	Frequency	Percent
Less than $99	55	20.9
$100 to $299	67	25.8
$300 to $499	16	6.1
$500 to $999	15	5.6
$1000 to $1,999	38	14.4
$2,000 to $4,999	20	7.5
$5,000 or more	17	6.4
Unsure how much	35	13.2
Total	261	100.0

Table 33
Charges as a Function of Borrowing Costs

Response	Frequency	Percent
Yes	421	68.3
No	195	31.7
Total	616	100.0

Table 34
Ease of Use of Marketing and Disclosure Information

Response	Frequency	Percent
Marketing Information		
Yes	261	44.0
No	63	10.6
Don't know	89	14.9
Did not receive	181	30.5
Total	593	100.0
Closing disclosures		
Yes	354	59.9
No	86	14.5
Don’t know	80	13.5
Did not receive	72	12.2
Total	592	100.0

Table 35
Satisfaction with Loan or Credit Product

Satisfaction Level	Frequency	Percent
Very satisfied	247	40.2
Satisfied	225	36.6
Neutral	113	18.3
Dissatisfied	22	3.6
Very dissatisfied	8	1.4
Total	616	100.0

Table 36
Discrepancy in Credit

Response	Frequency	Percent
Yes	174	12.8
No	1193	87.2
Total	1367	100.0

Table 37
Filed Credit Dispute

Response	Frequency	Valid Percent
Yes	124	8.3
No	1307	87.1
Don't know	69	4.6
Total	1501	100.0

Table 38
Ease of Resolving Dispute

Response	Frequency	Percent
Very easy	19	8.3
Easy	29	12.9
Neutral	69	31.1
Difficult	54	24.4
Quite difficult	52	23.3
Total	222	100.0

Table 39
Dispute Resolved Timely

Response	Frequency	Percent
Yes	71	35.8
No	104	52.3
Still pending	23	11.8
Total	198	100.0

Table 40
Delinquent with Payments

Response	Frequency	Percent
No	357	25.0
Yes	1069	75.0
Total	1426	100.0

Table 41
Barriers to Obtaining Financing

Potential Barriers	No Problem 1	2	3	4	Serious Problem 5
Rigorous loan requirements.	28.80%	16.00%	23.80%	16.60%	14.80%
Cost of financing	31.00%	14.60%	23.20%	17.30%	13.80%
Only conventional and SBA loans available	34.30%	13.50%	20.70%	15.50%	16.10%
Reporting requirements	33.40%	14.50%	22.80%	16.80%	12.40%
Non-competitive lending environment	34.80%	14.90%	23.10%	15.50%	11.70%
No central source of information	35.00%	13.60%	27.10%	13.80%	10.50%
Little understanding of loan requirements	39.50%	19.20%	21.80%	11.10%	8.20%
Lack of time with lender	41.60%	16.90%	23.10%	10.10%	8.40%

Table 42
Issues Facing Small Business

Business Issues	Unimportant 1	2	3	4	Very Important 5
Taxes – Income	9.90%	5.30%	14.00%	18.50%	52.40%
Taxes – Property	12.40%	8.20%	16.50%	20.20%	42.60%
Government regulations	11.00%	10.60%	17.00%	21.30%	40.20%
Quality of labor pool	13.70%	9.60%	16.40%	20.00%	40.40%
Cost of labor	12.50%	11.60%	20.00%	22.20%	33.70%
Declining or poor sales	15.10%	10.70%	19.50%	17.60%	37.10%
Competition from larger firms	17.00%	13.60%	21.50%	17.00%	30.80%
Inflation	13.30%	15.10%	27.60%	19.10%	24.90%
Financing and interest rates	17.30%	14.80%	22.60%	17.60%	27.60%
Taxes – franchise	35.40%	9.70%	16.10%	11.80%	27.00%

Table 43
Strategies to Enhance Access to Capital

Strategies	Not at all helpful 1	2	3	4	Extremely Helpful 5
Access to more information	19.00%	13.00%	24.90%	23.30%	19.80%
Training	22.90%	16.50%	25.20%	18.00%	17.40%
Small business support programs	27.50%	15.90%	22.20%	15.90%	18.50%
Outside evaluation	26.60%	16.50%	25.10%	16.00%	15.80%
Educational outreach efforts	27.20%	17.90%	26.80%	14.50%	13.60%
Conveniently located banks	33.70%	17.10%	27.80%	10.70%	10.70%
Greater sensitivity to women and minorities	42.10%	14.00%	18.70%	10.00%	15.10%
Knowledge of consultants	38.50%	21.30%	22	10.30%	7.90%

Table 44
Index Scores for Potential Loan Criteria

Index Score	Frequency	Valid Percent
1.00	170	25.0
2.00	298	43.7
3.00	214	31.3
Total	682	100.0

Table 45
Index Score by Loan Approval and Denial Rates*

		Index Score			
Status of loan request		1	2	3	Total
Denied		58	41	8	107
	% of Total	9.0%	6.4%	1.2%	16.6%
Funded		99	240	197	536
	% of Total	15.4%	37.3%	30.6%	83.4%
Total		157	281	205	643
	% of Total	24.4%	43.7%	31.9%	100.0%

* Missing cases not included.

References

Armstrong, J. Scott and Terry S. Overton, 1977. "Estimating Nonresponses in Mail Surveys," Journal of Marketing Research, 12, pp. 396-402.

Berger, Allen N., Anthony Saunders, Joseph M. Scalise and Gregory F. Udell, 1997. "The Effects of Bank Mergers and Acquisitions on Small Business Lending," Board of Governors, Federal Reserve Bank System.

Bitler, Marianne P., Alicia M. Robb and John D. Wolken, 2001. "Financial Services Used by Small Businesses: Evidence from the 1998 Survey of Small Business Finances," Federal Reserve Bulletin, pp: 183-205.

Blanchflower, David G., Phillip B. Levine and David J. Zimmerman, 1998. "Discrimination in the Small Business Credit Market," National Bureau of Economic Research, Working Paper 6840.

Bostic, Raphael W. & Glenn B. Canner, 1998. "New Information on Lending to Small Businesses and Small Farms: The 1996 CRA Data," Federal Reserve Bulletin, pp: 1-21.

Board of Governors of the Federal Reserve Bank System, 1997. "Report to the Congress on the Availability of Credit to Small Businesses."

Board of Governors of the Federal Reserve Bank System, 1998. "Thrift Involvement in Commercial and Industrial Lending," Federal Reserve Bulletin, pp: 1025-1037.

Board of Governors of the Federal Reserve Bank System, 1999. "1998 Survey of Small Business Finances: Survey Questionnaire."

Board of Governors of the Federal Reserve Bank System, 2001. "Terms of Lending at Commercial Banks," Federal Reserve Bulletin, www.federalreserve.gov/pubs/bulletin, pp: A66-A70.

Bostic, Raphael W. and K. Patrick Lampani, 1999. "Racial Differences in Patterns of Small Business Finance: The Importance of Local Geography," Business Access to Capital and Credit, Research Conference of the Federal Reserve System.

"Business-Cycle Peak of March 2001," National Bureau of Economic Research, December 13, 2001, www.nber.org/cycles.recessions.html.

Cavalluzzo, Ken, Linda Cavalluzzo and John Wolken, 1999. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey," Business Access to Capital and Credit, Research Conference of the Federal Reserve System.

Conner, Glenn B., 1999. "Evaluation of CRA Data on Small Business Lending, Business Access to Capital and Credit," Research Conference of the Federal Reserve System.

Cole, Rebel A. & John D. Wolken, 1995. "Financial Services Used by Small Businesses: Evidence from the 1993 National Survey of Small Business Finances," Federal Reserve Bulletin, pp: 630-667.

Cole, Rebel A., John D. Wolken and R. Louise Woodburn, 1996. "Bank and Nonbank Competition for Small Business Credit: Evidence from the 1987 and 1993 National Surveys of Small Business Finances," Federal Reserve Bulletin, pp: 983-995.

Cole, Rebel A., 1998. "The Importance of Relationships to the Availability of Credit," Journal of Banking and Finance, pp: 960-977.

"Down but Not Out: The U.S. Economy after Sept. 11," Southwest Economy, Federal Reserve Bank of Dallas, Issue 6, November/December 2001.

Elliehausen, Gregory E. & John D. Wolken, 1990. "Banking Markets and the Use of Financial Services by Small and Medium-sized Businesses," Federal Reserve Bulletin, pp: 801-817.

Ely, David P. and Kenneth J. Robinson, 2001. "Consolidation, Technology, and the Changing Structure of Banks' Small Business Lending," Economic and Financial Review, Federal Reserve Bank of Dallas, pp: 23-32.

Federal Reserve Board, February 2001. "Federal Reserve Board's Semiannual Monetary Policy Report to the Congress," Federal Reserve Board Documents, www.federalreserve.gov/boarddocs, pp: 1-59.

Federal Reserve Board, July 2001. "Federal Reserve Board's Semiannual Monetary Policy Report to the Congress," Federal Reserve Board Documents, www.federalreserve.gov/boarddocs, pp: 1-65.

Ferguson, Michael F. & Stephen R. Peters, 1995. "What Constitutes Evidence of Discrimination in Lending?" The Journal of Finance, pp: 739-748.

Field, Andy, 2000. Discovering Statistics Using SPSS for Windows. Newbury Park: Sage Publications.

Frey, James H., 1989. Survey Research by Telephone. Newbury Park: Sage Publications, 2nd ed.

Hamilton, Martha MacNeill, 2002 "The Cost of Ignorance, Officials Say Most People Aren't Getting Their Money's Worth When It Comes to Banking." The Washington Post Weekly, February 11-17, 2002, p. 20.

Hasmer, D. W. and S. Lemeshaw. 1989**.** Applied Logistic Regression. New York**:** John Wiley and Sons**.**

Herbelein, Thomas A. and Robert Baumgartner, 1978. "Factors Affecting Response Rates to Mailed Questionnaires: A Quantitative Analysis of the Published Literature," American Sociological Review, 43: pp. 447-462.

Hui, Gao S., K.S. Hall, HC. Hendric, 2000. "Estimating Disease Prevalence from Two-Phase Surveys with Non-Response at the Second Phase," Statistical Medicine, 19 (16): pp. 2101-2114.

Immergluck, Daniel, 1999. "Intra-Urban Patterns of Small Business Lending: Findings from the New Community Reinvestment Act Data," Business Access to Capital and Credit, Research Conference of the Federal Reserve System.

Jayaratne, Jith & John Wolken, 1999. "How Important are Small Banks to Small Business Lending? New Evidence from a Survey of Small Firms," Journal of Banking and Finance, pp: 427-458.

Kinnear, Thomas C. & James R. Taylor, 1996. Marketing Research: An Applied Approach, Fifth Ed. New York City, New York: McGraw-Hill, Inc.

Lang, Richard W., 1999. "Summary: Business Access to Capital and Credit," Federal Reserve Bank System Conference.

Munnell, Alicia H., Lynn E. Browne, James McEneaney and Geoffrey M.B. Tootell, 1992. "Mortgage Lending in Boston: Interpreting HMDA Data," Federal Reserve Bank of Boston, Working Paper 92-7.

National Small Business United, 1999. "Final Results from the 1999 Small Business Congress," pp: 1-4.

North American Industry Classification System (NAICS), 2001. "An Unofficial Clearinghouse Concerning NAICS," http://gulib.lausun.georgetown.edu/swr/business/naics.htm.

Norusis, Marija J. 1997. *SPSS Professional Statistics 7.5*. Chicago: SPSS, Inc.

Office of the President of the United States, 1999. "The State of Small Business: A Report of the President, 1998," U.S. Government Printing Office, Washington D.C.

Pankratz, Aaron & Glenn Yago, 2000. "The Minority Business Challenge: Democratizing Capital for Emerging Domestic Markets," Milken Institute, www.mbda.gov, pp: 1-60.

Peek, Joe and Eric S. Rosengren, 1998. "The Evolution of Bank Lending to Small Businesses," New England Economic Review, pp: 27-36.

Peterson, Mitchell A. & Raghuram G. Rajan, 1994. "The Benefits of Lending Relationships: Evidence from Small Business Data," The Journal of Finance, pp: 3-33.

Peterson, Mitchell A. & Raghuram G. Rajan, 2000. "Does Distance Still Matter? The Information Revolution in Small Business Lending," NBER Working Paper No. W7685.

Pinkus, David R. & Dan T. Serna, 1998. "Texas Conference of Small Business: Final Report," 1998 Texas Conference on Small Business Planning Committee.

Pinkus, David R., 1999. "Financing Options for Small Business," Small Business United of Texas.

Schauer, David A., 2000. "Capital Access and Financial Services in El Paso," Special Report to the El Paso Leadership and Research Council, IPED Technical Report 2000-6, pp: 1-73.

Schauer, David A. & Soden, Dennis L., 2001. "Capital Access in El Paso: A Multivariate Analysis of Factors Influencing Loan Approval," Special Report to the El Paso Leadership and Research Council, IPED Technical Report 2001-02, pp: 1-26.

Strahan, Philip E. & James P. Weston, 1998. "Small Business Lending and the Changing Structure of the Banking Industry," Journal of Banking and Finance, pp: 821-845.

Squires, Gregory D. and Sally O'Connor, 1999. "Access to Capital: Milwaukee's Small Business Lending Gaps," Business Access to Capital and Credit, Research Conference of the Federal Reserve System.

Texas Business Review, 2002. "Women Entrepreneurs in the Americas," April, pp: 1-5.

U.S. Small Business Administration, Office of Advocacy, 1997. "The State of Small Business: A Report of the President," Washington D.C., pp: 273-310.

U.S. Small Business Administration, Office of Advocacy, 1999. "Small Business Economic Indicators for 1999," http://www.sab.gov/advo, pp: 1-18.

U.S Small Business Administration, Office of Advocacy, 1999. "The Facts About Small Business 1999," http://www.sab.gov/advo, pp: 1-10.

U.S. Small Business Administration, Office of Advocacy, 2001. “Small Business Lending in the United States,” http://www.sab.gov/advo, pp: 1-8.

Select the best answer to each of the following questions by marking or filling in the bracketed letter of the correct response. All responses will be *completely confidential* and reported only in the aggregate.

1. What is the legal form of your firm? *(Please select only one.)*
   [1] Sole Proprietorship [2] Partnership [3] Subchapter S [4] Other Corporation [5] Don't Know

2. Estimate your firm's Gross Sales Receipts (Revenues) for 2000 or the most recent fiscal year.
   [1] $49,999 or less [4] $500,000 to $999,999 [7] $5,000,000 to $7,499,999
   [2] $50,000 to $99,999 [5] $1,000,000 to $2,499,999 [8] $7,500,000 to $9,999,999
   [3] $100,000 to $499,999 [6] $2,500,000 to $4,999,999 [9] $10,000,000 or more

3. What type industry is your business associated with?
   [1] Retail and Service [2] Construction [3] Wholesale [4] Manufacturing [5] Other

4. Approximately how many paid employees (working twenty or more hours per week) does your firm currently have?
   [1] 4 or less [3] 10 to 19 [5] 50 to 74 [7] More than 100
   [2] 5 to 9 [4] 20 to 49 [6] 75 to 100

5 How long has your business operated in Texas under the present form of ownership?
   [1] less than one year [3] 4 to 6 years [5] 10 to15 years
   [2] 1 to 3 years [4] 7 to 9 years [6] more than 15 years

6. Is your firm classified as a minority-owned business (that is, fifty percent or more minority owned)?
   [1] Yes [2] No

7. If you answered "Yes" above, what is the key minority ownership category?
   [1] Hispanic [3] Native American [5] Other _____
   [2] African American [4] Asian/Pacific Islander

8. Is there one individual owning fifty percent or more of your firm? [1] Yes [2] No

9. Does a female own fifty percent or more of your firm? [1] Yes [2] No

10. Please check the financial/accounting system that most nearly describes the system used by your firm.
    [1] Keep expense and revenue receipts/documents that are compiled at the end of the year for tax purposes.
    [2] Maintain records that can provide information to generate an income statement and balance sheet along with tax information at the end of the year.
    [3] Have a system that generates quarterly along with year-end financial statements and tax information.
    [4] Utilize a system that provides monthly, quarterly and year-end financial statements and tax information for the year.

11. Has your firm requested/applied for a business loan or credit product in the past three years? [1] Yes [2] No

If you have not applied for a business loan or credit product in the last three years, skip to question 43.

12. Was the party from whom you requested the loan or credit product located within Texas? [1] Yes [2] No

13. What type of business loan or credit product was your firm's most recent request?
    [1] Line of Credit [4] Working Capital [7] Business Start-up
    [2] Vehicle Loan [5] Land and Building [8] Business Acquisition
    [3] Equipment Loan [6] Refinancing of Existing Loan [9] Other type of loan

14. Describe your relationship with whom you received the loan or credit product.
    [1] New customer (no prior business relationship with entity within last three years)
    [2] Current customer, but no prior loan or credit relationship
    [3] Current customer with prior loan or credit relationship within last three years

15. From which of the following types of institutions did you make your loan request? *(Mark all that apply.)*
    - [1] Credit card company
    - [2] Credit union
    - [3] Factoring company
    - [4] Family, relatives or friends
    - [5] Finance company
    - [6] Leasing company
    - [7] Local, state, or federal government agency
    - [8] Local bank, savings, or thrift institution
    - [9] Multi-state bank, savings or thrift institution
    - [10] Other _____

16. Was your request associated with a government sponsored or guaranteed program? [1] Yes [2] No
    If yes, which government entity:
    - [1] State of Texas (Capital Access Fund, Texas Linked Deposit Program, or Industrial Development Bond)
    - [2] Other State of Texas Program
    - [3] U.S. Small Business Administration (7a Loan Program, LowDoc, Express, CDC-504, or other SBA program)
    - [4] Other Federal Government Program
    - [5] Other sponsored or guaranteed program

17. In what manner was your request initially submitted?
    - [1] Personal meeting
    - [2] Telephone
    - [3] Email
    - [4] U.S. Mail
    - [5] Internet
    - [6] Other _____

18. Approximately how many entities/financial institutions did you contact in shopping for this loan?
    [1] 1 [2] 2 [3] 3 [4] 4 [5] 5 or more

19. How did you learn of the institution offering the loan of credit product? *(Mark all that apply.)*
    - [1] Local banker
    - [2] Media advertising
    - [3] Friends or business acquaintances
    - [4] Representative from another financial institution
    - [5] Business support services
    - [6] Current or prior business relationship
    - [7] Internet
    - [8] Other _____

20. Which of the following financial records were required as part of your credit application (either filed in conjunction with your credit application or previously supplied concerning another business matter)? *(Mark all that apply.)*
    - [1] No additional records
    - [2] Previous year's financial documents (e.g. Tax Return, Balance Sheet and/or Income Statement)
    - [3] Last three years' financial documents (e.g. Tax Returns, Balance Sheets and/or Income Statements)
    - [4] Professionally compiled or audited financial statements
    - [5] Current personal financial statement of business owner(s)
    - [6] Business Plan

21. How was the credit evaluation process conducted by the institution?
    - [1] Computerized credit scoring
    - [2] Loan officer consideration
    - [3] Both computerized credit scoring and loan officer consideration
    - [4] Not sure

22. Do you believe that your credit evaluation was conducted in a fair manner? [1] Yes [2] No

23. Was your request approved, denied or is still pending? [1] Funded [2] Denied [3] Pending

If No. 23 is "Funded" or "Pending" skip to question 26.

24. If your request was denied, did you:
    - [1] Apply for and receive a loan or credit product at another institution.
    - [2] Apply for and did not receive a loan or credit product from another institution.
    - [3] Seek and acquire funds from some other source.
    - [4] Discontinue funding or credit solicitation.

25. If your request was denied, what was the stated reason for the denial of your application? *(Mark all that apply.)*
    [1] Lack of or poor credit history
    [2] Bankruptcy within last 7 years
    [3] Insufficient equity capital
    [4] Insufficient earnings compared to current obligations
    [5] Lack of business/management experience or time in this business
    [6] Too much outstanding debt
    [7] High-risk business environment
    [8] Insufficient financial support
    [9] Insufficient collateral
    [10] Other _____

26. How much time passed between the submission of your most recent application and the approval or denial?
    [1] Less than 7 days [3] 14 to 20 days [5] more than 28 days
    [2] 7 to 13 days [4] 21 to 27 days

If your loan was not funded, please skip to question 43.

27. Was any type of collateral required to secure this most recent business loan or credit product?
    [1] Yes [2] No [3] Don't Know

28. If yes, was the collateral: *(Mark all that apply.)*
    [1] Inventory or accounts receivable
    [2] Equipment or vehicles
    [3] Business securities or deposits
    [4] Business real estate
    [5] Personal assets – cash deposits or securities
    [6] Personal assets – real estate
    [7] Personal assets - other
    [8] Other _____

29. Did the institution require a written agreement that specified items such as: financial covenants, collateral margins, or performance levels? [1] Yes [2] No [3] Don't Know

30. Did the institution(s) that you requested a loan or credit product from require additional protection in the form of personal guaranties of interested parties, letters of credit, or other credit enhancements?
    [1] Yes [2] No [3] Don't Know

31. What was the total dollar amount of the most recent business loan or credit product that the firm requested?
    [1] $99,999 or less
    [2] $100,000 to $249,999
    [3] $250,000 to $499,999
    [4] $500,000 to $749,999
    [5] $750,000 to $999,999
    [6] $1,000,000 to $1,999,999
    [7] $2,000,000 to $2,999,999
    [8] $3,000,000 to $4,999,999
    [9] $5,000,000 or more

32. What was the original term of the most recent business loan or credit product?
    [1] Less than 12 months
    [2] From 12 to 23 months
    [3] From 24 to 59 months
    [4] From 60 to 83 months
    [5] From 84 months to 119 months
    [6] More than 120 months

33. If a loan, what is the contracted frequency of repayment?
    [1] Monthly [3] Quarterly [5] Annually
    [2] Bimonthly [4] Semi-annually [6] Other _____

34. Concerning your most recent business loan or credit product, was the interest rate fixed or variable?
    [1] Fixed [2] Variable [3] Don't Know

35. What interest rate is **currently** being charged on your most recent business loan?
    [1] Under 6% [3] 9% to 11.99% [5] 15% to 17.99% [7] Unsure
    [2] 6% to 8.99% [4] 12% to 14.99% [6] 18% and over

36 If your most recent business loan or credit product was a refinancing of existing debt, describe the interest rate on the new refinancing agreement.
    [1] The same as the interest rate on the previous loan

[2] Lower than the interest rate on the previous loan
[3] Higher than the interest rate of the previous loan

37. Were additional financing fees or charges (such as loan processing fees, administrative fees, etc.) incurred with the acquisition of this loan or credit product?
[1] Yes [2] No [3] Don't Know

If yes, what types of fees? *(Mark all that apply.)*
[1] Administrative [4] Document preparation [7] Discount point(s)
[2] Appraisal [5] Document filing [8] Origination point[s]
[3] Attorney [6] Loan processing [9] Other

38. If additional financing fees or charges were incurred with your most recent business loan or credit product, what was the approximate dollar cost of these additional charges?
[1] Less than $99
[2] $100 to $299
[3] $300 to $499
[4] $500 to $999
[5] $1,000 to $1,999
[6] $2,000 to $4,999
[7] $5,000 or more
[8] I know there were additional changes but unsure how much.

39. Are you aware that additional charges (such as processing fees, administrative fees, etc.) increase your firm's effective cost of borrowing? [1] Yes [2] No

40. In what year was your most recent business loan or credit product approved?
[1] 1998 [2] 1999 [3] 2000 [4] 2001

41. Were the following materials associated with your most recent loan or credit product easy to read and understand?

Marketing information about	[1] Yes	[2] No	[3] Don't Know	[4] Did Not Receive
Disclosures at closing	[1] Yes	[2] No	[3] Don't Know	[4] Did Not Receive

42. How satisfied are you with the terms and conditions of your most recent business loan or credit product?
[1] Very satisfied [2] Satisfied [3] Neutral [4] Dissatisfied [5] Very dissatisfied

43. Please indicate whether your firm has used each of the following business support services in applying for business loans or credit products within the last three years?

	Use	Do Not Use
Accounting Firm	[U]	[N]
Chamber of Commerce	[U]	[N]
College Programs	[U]	[N]
Financial Consultant	[U]	[N]
Legal Firms	[U]	[N]
Local Development Company	[U]	[N]
Service Corps of Retired Executives (SCORE)	[U]	[N]
Small Business Administration	[U]	[N]
Small Business Development Center (SBDC)	[U]	[N]

44. At the present time, what is the total amount of your firm's liabilities to financial institutions?
[1] $9,999 or less
[2] $10,000 to $49,999
[3] $50,000 to $99,999
[4] $100,000 to $249,999
[5] $250,000 to $499,999
[6] $500,000 to $999,999
[7] $1,000,000 to $4,999,999
[8] $5,000,000 or more

45. At the present time, what is the total amount of your firm's liabilities to all creditors?
[1] $9,999 or less
[2] $10,000 to $49,999
[3] $50,000 to $99,999
[5] $250,000 to $499,999
[6] $500,000 to $999,999
[7] $1,000,000 to $4,999,999

(Nonagricultural)

[4] $100,000 to $249,999 [8] $5,000,000 or more

46. Have you ever noticed a discrepancy in your firm's credit reporting history? [1] Yes [2] No

47. Have you ever filed a credit reporting dispute claim in regard to an inappropriate entry in your firm's credit history?
[1] Yes [2] No [3] Don't Know

48. If your firm has experienced a credit-reporting dispute, describe the relative ease with which the credit-reporting dispute claim was resolved.
[1] Very easy [2] Easy [3] Neutral [4] Difficult [5] Quite difficult

49. Was the dispute resolved in a timely manner? [1] Yes [2] No [3] Still Pending

50. Has your firm ever been delinquent on a financial obligation? [1] Yes [2] No

51. If your firm has been delinquent on a financial obligation, which of the following describes the collection procedures that the institution used in their collection practice. (*Mark all that apply*.)
[1] Reminder notice
[2] Phone call
[3] Visit by a representative of the institution
[4] Certified or registered letter
[5] Repossession of property
[6] Legal action

52. If your firm has been delinquent on a financial obligation, how would you describe the institution's collection practices?
[1] Too lenient [2] Lenient [3] Appropriate [4] Severe [5] Extremely severe

53. Please indicate if your firm uses the following financial services at the present time?

	Use	Do Not Use
Personal Checking Account (for business purposes)	[U]	[N]
Personal Credit Card (for business purposes)	[U]	[N]
Business Checking Account	[U]	[N]
Savings Account	[U]	[N]
Certificates of Deposit	[U]	[N]
Personal Loans	[U]	[N]
Commercial Real Estate Loan	[U]	[N]
Short-term Business Loan	[U]	[N]
Line of Credit	[U]	[N]
Inventory Floor Plan	[U]	[N]
Home Equity Loan (for business purposes)	[U]	[N]
Equipment Loan	[U]	[N]
Vehicle Loan	[U]	[N]
Equipment/Vehicle Leasing	[U]	[N]
Lease/Purchase Agreement	[U]	[N]
Factoring of Receivables	[U]	[N]
Trade Credit	[U]	[N]

54. Please indicate if your firm has ever used the following internet- or web-based financial services?

	Use	Do Not Use
Electronic Funds Transfer	[U]	[N]
Automatic Payment Services	[U]	[N]
Payroll Direct Deposit	[U]	[N]
On-line Loan Application	[U]	[N]
On-line Loan Comparisons	[U]	[N]
Credit Verification Services	[U]	[N]
On-line Account Consolidation	[U]	[N]
On-line Loan Bidding	[U]	[N]

(Nonagricultural)		
On-line Accounting Services	[U]	[N]
Insurance Quotes and Coverage	[U]	[N]

55. Please rank the relative importance of each of the following possible "barriers" to obtaining financing from institutional sources. Given your experience, use the five point scale ranging from 1 = "No problem" to 5 = "Serious Problem" to rate these issues. Please review the entire list before assigning your ratings. *(Mark your ratings.)*

	No Problem				Serious Problem
Rigorous lending requirements	[1]	[2]	[3]	[4]	[5]
Little or no understanding of lending requirements	[1]	[2]	[3]	[4]	[5]
Lack of competitive lending environment	[1]	[2]	[3]	[4]	[5]
No central source of financing information	[1]	[2]	[3]	[4]	[5]
Lack of sufficient time with lending party	[1]	[2]	[3]	[4]	[5]
Only conventional and SBA loans available to small businesses	[1]	[2]	[3]	[4]	[5]
Cost of obtaining financing	[1]	[2]	[3]	[4]	[5]
Reporting requirements required by lenders	[1]	[2]	[3]	[4]	[5]

56. Please rate the impact of each of the following issues to your firm at the present time. Given your experience, use the five point scale ranging from 1 = "Unimportant" to 5 = "Very Important" to rate these issues. Please review the entire list before assigning your ratings. *(Mark your ratings)*

	Unimportant				Very Important
Taxes - Franchise	[1]	[2]	[3]	[4]	[5]
Taxes - Income	[1]	[2]	[3]	[4]	[5]
Taxes - Property	[1]	[2]	[3]	[4]	[5]
Inflation	[1]	[2]	[3]	[4]	[5]
Declining or poor sales	[1]	[2]	[3]	[4]	[5]
Financing and interest rates	[1]	[2]	[3]	[4]	[5]
Cost of labor	[1]	[2]	[3]	[4]	[5]
Quality of labor pool (education & experience)	[1]	[2]	[3]	[4]	[5]
Government regulations and red tape	[1]	[2]	[3]	[4]	[5]
Competition from larger firms	[1]	[2]	[3]	[4]	[5]

57. The items listed below are possible strategies to improve small business access to capital. Given your experience, use the five point scale ranging from 1 = "not at all helpful" to 5 = "extremely helpful" to rate the value of these strategies to your business. Please review the entire list before assigning your ratings. *(Mark your ratings.)*

	Not at all helpful				Extremely Helpful
Educational outreach efforts by banking/financial industry	[1]	[2]	[3]	[4]	[5]
Greater sensitivity to minority/women-owned lending needs	[1]	[2]	[3]	[4]	[5]
Small business support programs (e.g., business planning, start-up counseling)	[1]	[2]	[3]	[4]	[5]
Access to information on bank lending criteria	[1]	[2]	[3]	[4]	[5]
More conveniently located financial institutions	[1]	[2]	[3]	[4]	[5]
Outside evaluation of my business for potential access to alternative capital sources	[1]	[2]	[3]	[4]	[5]
Knowledge of paid consultants in my area	[1]	[2]	[3]	[4]	[5]
Training for myself and key employees about capital access	[1]	[2]	[3]	[4]	[5]

WE APPRECIATE YOUR PARTICIPATION IN THIS PROJECT