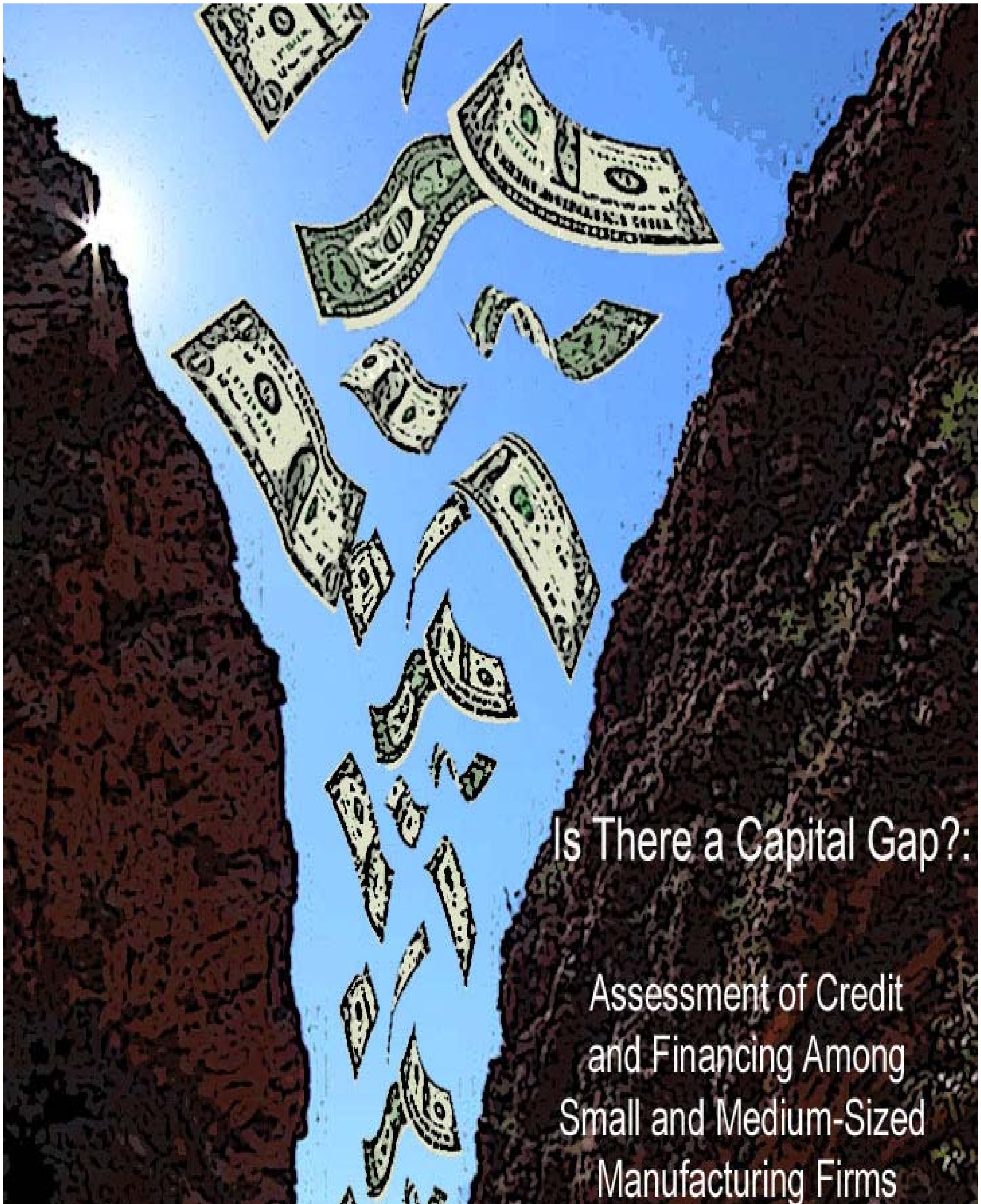
Is There a Capital Gap?:
Assessment of Credit
and Financing Among
Small and Medium-Sized
Manufacturing Firms
In
Northeast Ohio

Is There a Capital Gap?:

An Assessment of Credit and Financing Among Small and Medium-Sized Manufacturing Firms in Northeast Ohio

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Executive Summary

Are small- and medium-sized manufacturing firms in northeast Ohio experiencing a gap in the capital they need to operate and expand? To answer the question, in May 2004 we surveyed manufacturing firms in the region with less than 250 employees. The results from the survey include the following.

I. FIRMS BELIEVE THE AVAILABILITY OF CREDIT AND FINANCING ARE AMONG THE MOST IMPORTANT FACTORS FOR EXPANSION AND GROWTH

- Half of all small- and medium sized manufacturing firms in the region see the availability of financing as a top factor determining whether they will grow or expand in the future.
- Twice as many firms placed the availability of credit and financing in their top three factors as compared to those who chose government regulation and state and local tax incentive programs.

II. Firms are experiencing credit "red-flags"[1[1]]

- Almost one third of manufacturers in NE Ohio with between 25-250 employees reported a credit "red-flag"
- More than half of firms with less than 25 employees reported a credit red-flag.
- Close to 15 percent of firms have been turned down for credit in the past three years; and
- 16 percent of firms who needed credit did not apply because they assumed they would be turned down by a financial institution.

III. AS THEY STRUGGLE FOR TRADITIONAL CREDIT, FIRMS ARE TURNING TO MORE COSTLY SOURCES OF FINANCING.

- Of the firms which failed to apply for loans because they believed they would be turned down, more than half used a personal credit card for their business and a third carried a monthly balance on their personal credit card.
- Of the firms which said they'd been turned down for a loan in the past three years, half used a personal credit card to pay business bills, and 25 percent carried a monthly balance.

In conclusion, firms ranked the availability of credit and financing as the third most important factor (just below labor costs and quality) in determining whether their

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[1[1]] A red flag means the owner experienced at least one of the following: 1) Denied a loan during the past three years; 2) Did not apply for a loan because they expected to be turned down; 3) Financed their business on a personal credit card and carried a monthly balance; 4) Financed their business on a business credit card and carried a monthly balance; 5) Borrowed against their personal home equity; or 6) Used a high interest finance company.

firm would grow and expand. Credit and financing were viewed as more important than government regulation, taxes, the value of the dollar, and infrastructure. Among smaller and younger firms, those with regional markets, and those that participate in a government program the percentage that ranked the availability of credit and finance as a top priority is even higher. At time when interest rates were at historic lows and the availability of credit was at an historic high, one in three firms report an experience associated with credit and financing problems. The findings provide preliminary support for increasing the attention devoted to the credit and financing needs of Ohio firms.

INTRODUCTION

In the absence of a crisis such as the collapse of the savings and loan industry in the 1980s, credit and finance policies rarely receive much public attention. Lawmakers in search of economic development ideas often eschew credit and finance initiatives in favor of tax cuts or new training and education programs. Yet, particularly for small- and medium-sized firms without access to equity markets, the availability and terms of credit matter. When the supply of money becomes more costly and less flexible, small- and medium-sized firms are the first to feel the effects. Money, in other words, really does matter.

This research analyzes the extent to which small- and medium-sized manufacturing firms[2[2]] in the region are experiencing a gap in the capital they believe is necessary to survive and grow. Do CEOs believe their firms are vulnerable to shortages in credit? Does the financing behavior of firms raise red flags concerning their ability to access capital? The report also examines the characteristics of firms whose CEOs expressed particular concern about the availability of credit and financing. What sets these firms apart from companies whose CEOs did not identify credit and financing as a problem for growth?

How important small- and medium-sized firms are to economic growth is subject to debate. Reports by the Small Business Association's Office of Advocacy and work by some scholars (Birch, 1987; Gilder 1984) characterize firms with less than 500 employees as "the engines of job growth" in the United States. Careful analysis suggests, however, that the notion of small firms as the predominant job generators in the economy is more myth than reality (Harrison 1994; White and Osterman, 1991). Much of the growth in small firms is not primarily the result of the entrepreneurialism or competitive superiority of small firms. Instead, the decline in the average size of firms during the past two decades is primarily the result of larger companies downsizing to escape unions and high wages; strategic downsizing of conglomerates in effort to focus on its "core competencies"; and a shift from manufacturing (with larger facilities) to services (with generally small facilities). Furthermore, the largest businesses in the United States employ the most people, pay the highest wages and benefits, and foster the adoption and implementation of new technologies and workplace innovation (Levine 1997). This is particularly the case in the manufacturing sector. Table 1 shows the number of firms, payroll, and employment by firm size and region in 2001.

Firms with more than 500 employees make up 1 percent of all manufacturing firms nationally, and 6 percent of firms in Ohio and the northeast Ohio region. Yet, the largest firms employ 58 percent of all manufacturing workers nationally and 57 percent of those in Ohio. This accounts for roughly two-thirds of the manufacturing payroll.

Yet, even if they are not engines driving job growth, small- and medium-size firms remain an important element of our economy. In the northeast Ohio region, small- and medium-size firms play a larger role in the manufacturing sector than in the state as a whole. Payroll and employment are spread out more evenly among small-and medium-size firms in the region than they are at the state and national level.

Policy makers have focused attention on attracting firms by reducing tax rates, expanding place-based tax abatement programs, increasing training and education, and

[2[2]] The analysis focuses on firms with fewer than 250 employees.

improving the public infrastructure such as transportation systems and wireless broadband services. Without denying the importance of such programs in attracting small business, this research investigates a policy area that has received less consideration: namely, policies focused on the credit and finance challenges confronted by small firms in the northeast Ohio region.

Table 1. Comparisons of manufacturing firms by number, employment, and payroll in the United States, Ohio, and the Cleveland area									
			Employment Size of the Enterprise (Percentages)						
AREA	**DATA TYPE**	**TOTAL**	**0**	**1-4**	**5-9**	**10-19**	**20-99**	**100-499**	**500+**
Firms	United States	305,160	7%	31%	19%	16%	21%	5%	1%
	Ohio	15,749	5%	25%	18%	16%	23%	8%	6%
	Cleveland-Lorain-Elyria MSA	4,151	4%	27%	19%	16%	21%	7%	6%
Employment	United States	15,950,424	0%	1%	2%	4%	16%	17%	58%
	Ohio	936,161	0%	1%	2%	4%	16%	19%	59%
	Cleveland-Lorain-Elyria MSA	190,384	0%	1%	3%	5%	19%	22%	51%
Annual Payroll ($1,000)	United States	617,699,378	0%	1%	2%	3%	14%	16%	64%
	Ohio	37,462,633	0%	1%	1%	3%	13%	16%	66%
	Cleveland-Lorain-Elyria MSA	7,921,492	1%	1%	2%	4%	16%	19%	58%

SOURCE: 2001 U.S. Census. http://www.census.gov/csd/susb/susb01.htm

What does the term “capital gap” mean? A capital gap results from inefficiencies in the financial markets linked to information asymmetries which occur when one party to the exchange, either the buyer or the seller, has more information about the investment. Smaller enterprises that seek capital are unable to secure affordable financing because sellers or owners know far more about the investment than the buyers (i.e., external investors). Due to this imbalance of knowledge, buyers are cautious and will either withdraw from the exchange or demand a higher risk premium for the investment to offset uncertainty. Furthermore the cost to a lender of assessing the risk of a small loan is close to the same as the cost of making a loan 5 to 10 times as large. Hence, lenders may be less interested. Since the cost of capital impacts whether the firm is productive, a capital gap has the potential to reduce the ability of smaller firms to compete and expand. When investment capital dries up, many otherwise productive firms in the economy may fail.

Surveys of small businesses find that small businesses rely overwhelmingly on banks and on the firms’ owners for credit (Small Business Administration, 2003). In contrast to their larger counterparts, few smaller firms use external equity (Ou and Haynes, 2003). During prosperous times when interest rates are low and banks are eager to make business loans, the dependence of small firms on bank credit is unproblematic. During recessions or periods when credit is tight and expensive, however, scholars have demonstrated that small businesses are likely to suffer far more than larger companies due to dependence on bank credit.[3[3]]

This problem of dependency is not new. Since the 19th century small businesses and small farms have insisted that their dependence on banks placed them at a particular disadvantage. The recent consolidation of the banking industry, however, adds a new wrinkle to the vulnerability problem for small businesses (Hebb *et al.*, 2001). While there are currently approximately 8,000 banks, this number represents a decline of 40 percent since the peak of about 14,500 in 1984 and this downward trend has continued (FDIC, 2003). In Ohio, the number of banks has declined from 261 in 1995 to 195 in 2003 (http://www.sba.gov/advo/stats/profiles/04oh.pdf). Actors in the financial policy network argue that concentration creates higher costs and fewer options for small firms that rely disproportionately on small banks for their credit (Wells and Jackson, 1999). The jury is still out, however, on the consequences of banking concentration for small businesses in the United States.[4[4]] Craig and Hardee (2004) find that credit access has been significantly reduced for small businesses as a result of bank mergers. In addition, they note that small businesses increasingly turn to non-bank sources of financing to make up the shortfall, especially for credit other than credit lines. At the same time, other studies have found that mergers have actually increased the supply of credit for small businesses (Avery and Samolyk, 2003). Yet, a consensus exists among experts that losing small local banks is problematic in rural areas (Hoffmann and Cassell, 2005; Drabenstott and Meeker, 1997; and RUPRI, 1997).

Governments have historically recognized the lack of credit for particular groups as public problems and lawmakers have designed successful institutional remedies. Banks, credit unions, and savings and loans are all institutions created through public policy and designed to solve the credit challenges of specific groups including firms, farmers, and homeowners (Hoffmann 2000). Governments have designed institutions to solve the credit needs of small businesses, community development groups, Native Americans, and veterans. In short, governments have a well-established and successful tradition of treating the credit problems of particular groups as a matter of public concern and have consistently created institutions to address them.

This paper does not weigh in on the debate over whether the consolidation of the banking industry hurts or helps smaller firms. Instead, this research draws upon the views of executives of smaller manufacturing firms in the region to gauge whether small and medium-sized manufacturing firms are experiencing a capital gap and to assess how important firms believe financing is to their future.

Case Selection and Methodology. This research is based on a survey conducted in May, 2004 of 490 small and medium-sized manufacturing firms located northeast Ohio with workforces of no more than 250 employees. Firms in the dataset are all members of the Council of Small Enterprises (COSE), the small business division of the Greater

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3[3] A recent study by the firm PM KeyPoint LLC (2003) titled, *Impact of Tight Money and/or Recessions on Small Business* published by the Small Business Association, finds that while all firms suffer under adverse economic conditions and tighter monetary policy, capital pressures at small banks are particularly detrimental to the performance of small businesses.

4[4] For a review of the scholarship on the connection between bank mergers and acquisition, and lending to small firms, see Ou (2005).

Cleveland Partnerships.[5[5]] The questions focused on the credit structure and credit needs of firms and were addressed to the Chief Executive Officer or Chief Financial Officers of the firms. The response rate was approximately 23 percent which represented 112 returned and completed surveys. A copy of the survey instruments is reproduced in Appendix A.

Before presenting the findings, several limitations of the data should be acknowledged. First, the survey was conducted at a single point in time and thus the data do not allow one to assess the credit structures or needs of firms over time. Second, the survey was conducted at a unique point in time when interest rates were at historic lows and the supply of available credit was at an historic high. As a result, the credit environment was favorable for firms. Third, this research centers on manufacturing firms. While I believe these findings can be extrapolated to other sectors, manufacturing firms typically have much higher capital costs and have been particularly hard hit economically during the past twenty years. Future research should thus expand data collection to other sectors and other regions of Ohio. Finally, the findings presented here are based on self-reported data. Although respondents were promised anonymity, officers at firms suffering credit problems might have been more reluctant than the average firm to complete a survey that sought details about the firm's credit structure. As a result, the sample may be biased toward healthy firms in the area.

Results of the study are presented below. Demographic information about the types of firms sampled is presented in the first section. A second section describes the credit structures of small manufacturing firms in the region. The question of whether firms are experiencing gaps in their credit is taken up in a third section. A final section summarizes the findings and discusses relevant policy implications.

A SNAPSHOT OF FIRMS

This section describes small manufacturing firms in the region. Particular attention is given to their size (i.e., number of employees and amount of receipts), where they do business, and the age of the firms and their management.

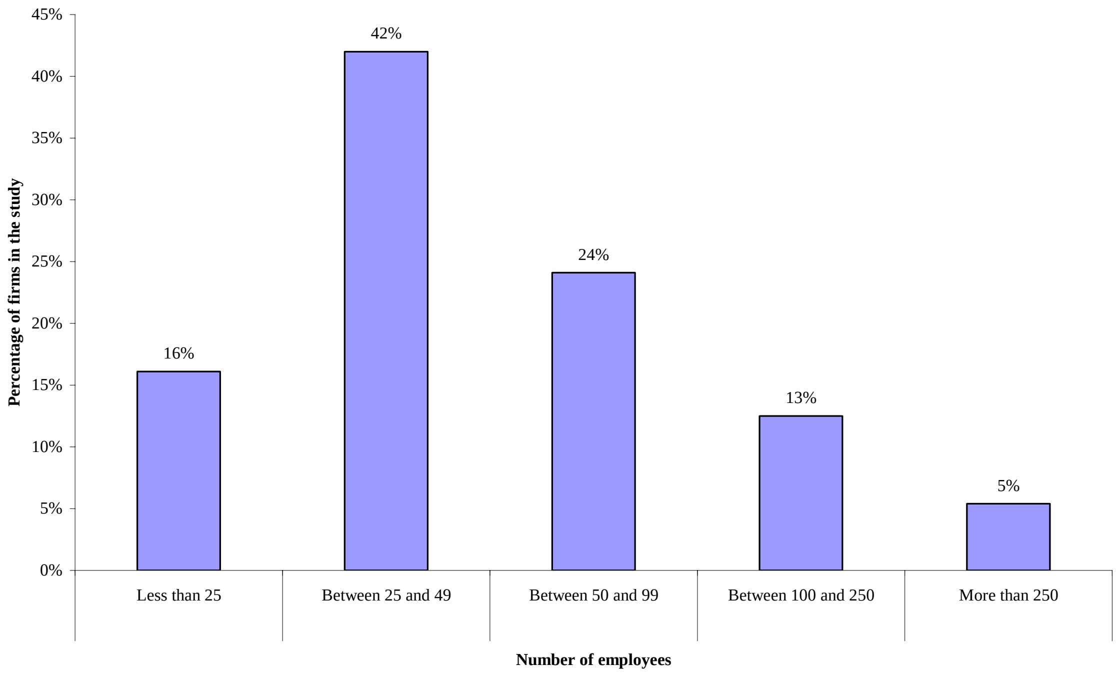
How large are the firms in this study?

It is important to know how large the firms are in the sample. A sample that draws disproportionately from firms with less than 5 employees, for example, may yield findings that are not valid for larger firms. The goal in this study was, therefore, to include a wide representation of firms of different sizes. Firm size is measured in two ways: by the number of employees and the total amount of annual receipts.

As Figures 1 and 2 illustrate, the sample includes a wide representation of firms of differing sizes. Nearly a fifth have less than 25 employees and a small number (5 percent) have more than 250 employees. However, the plurality of firms (42 percent) in the sample have between 25 and 49 employees. The second largest group includes firms with between 55 and 99 employees which make up nearly a quarter of the sample.

[5[5]] The selection of firms was based on the information in COSE's database. In their self-reporting of the number of employees, several firms noted that they had more than 250 employees.

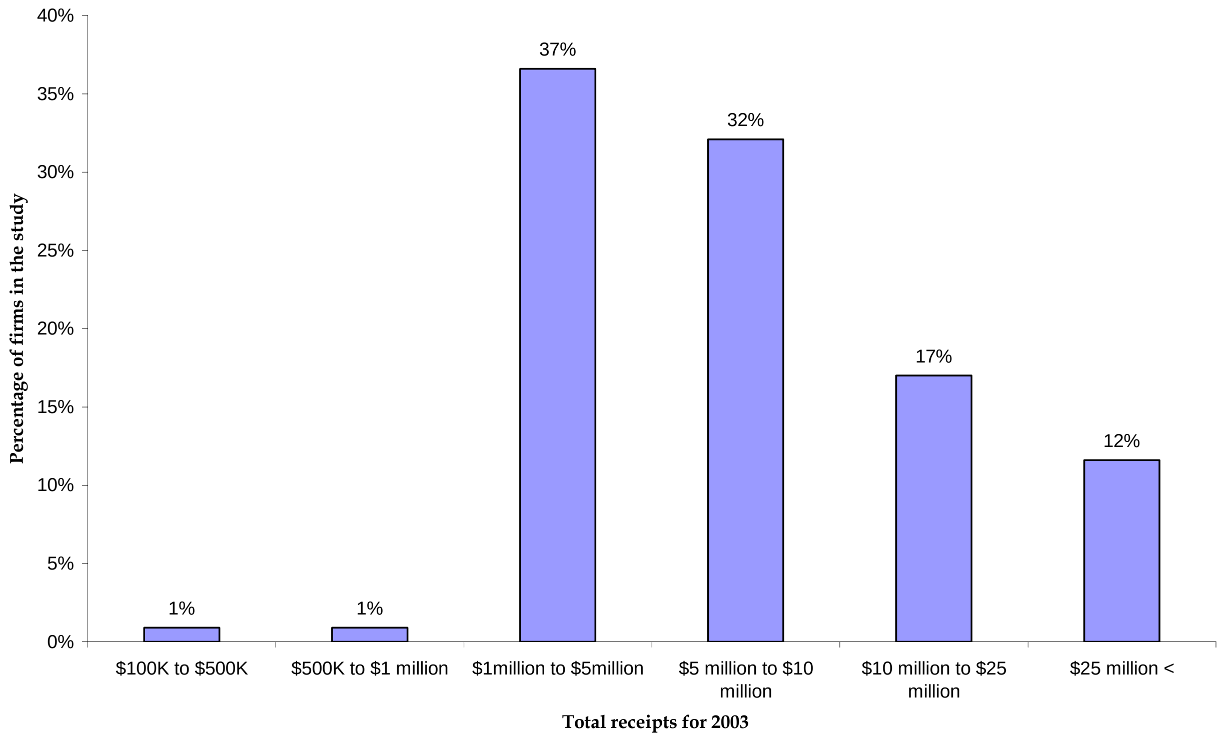
Figure 1: A breakdown of firm size by labor force



Source: Author's calculations, N=112

Firms fall into three broad categories in terms of their amount of receipts generated in 2003. Most (37 percent) reported receipts between $1 and $5 million. The second largest group (32 percent) is comprised of firms who report receipts between $5 and $10 million. A third group that makes up 17 percent of the sample reports receipts between $10 and $25 million. Finally, roughly 11 percent of the population of firms did more than $25 million in business in 2003.

Figure 2. Breakdown of firm size by annual reciepts



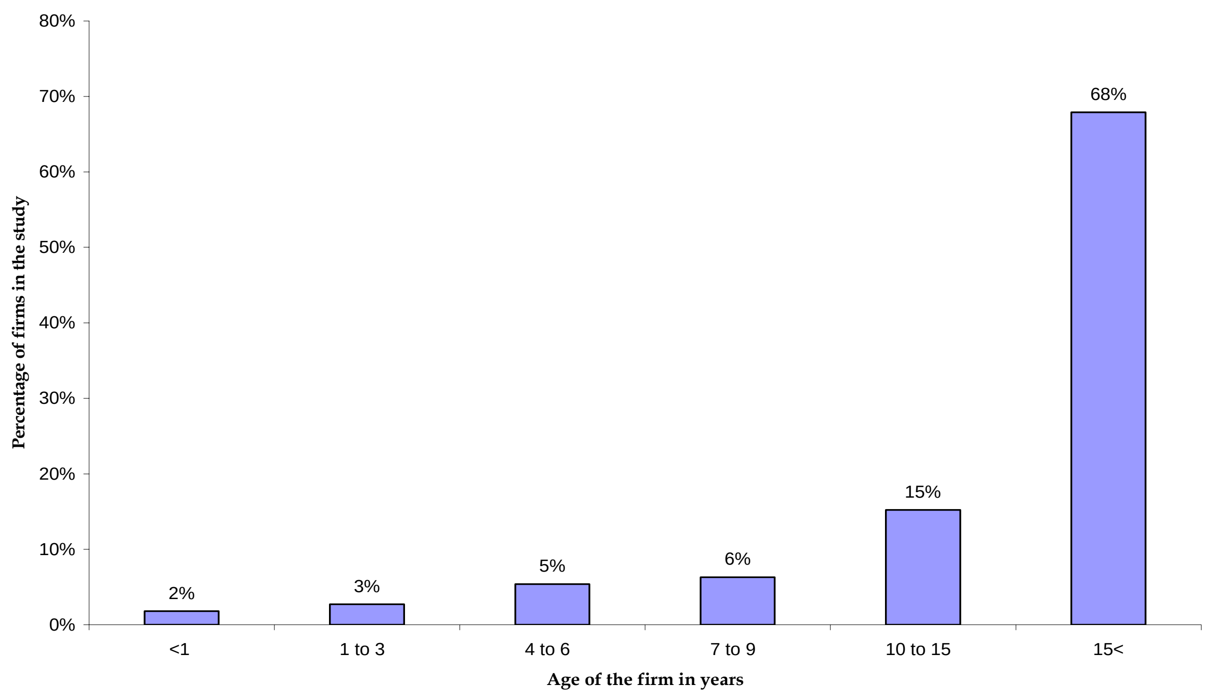
Source: Author's calculations based on COSE data, N=111

In short, in terms of their size the firms in this study represent a wide cross-section of firms in the area. Firms most represented in the sample are those that employ between 25 and 100 employees and do between $1 and $25 million in business annually.

How old are the firms and their management?

Attention among policymakers has focused on attracting new start-ups (particularly in biotechnology) and the importance of venture capital. While new firms receive a good deal of attention, most of the small manufacturing firms who completed this survey are mature (See Figure 3). Most (70 percent) are at least 15 years old, only a small number of firms (16 percent) that are less than 10 years old, and a handful (4.5 percent) are less than 3 years old. An implication of this finding is that public policies that target subsidies directed toward newer manufacturing firms will impact only a very small share of the manufacturing sector in the region.

Figure 3. Breakdown of the age of firms



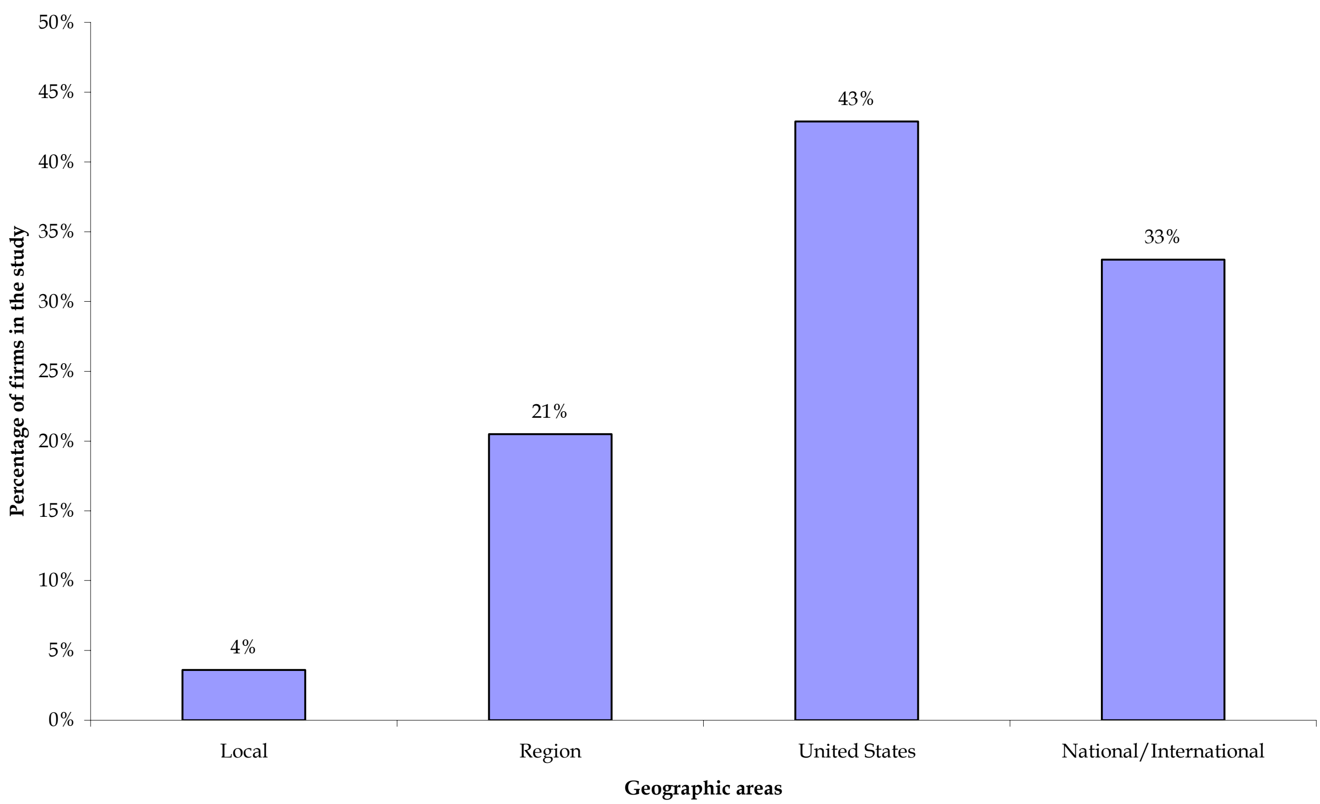
Source: Author's calculations based on COSE data, N=112

The age of the firms is also reflected in the experience of their executives. Owners and executives of small manufacturing firms in the region have on average, nearly 26 years of experience and are between 55 and 60 years old. Thus, firms are not only highly mature, but are also run by executives with significant experience.

Where are the primary markets for small manufacturing firms?

Small manufacturing firms in northeast Ohio sell their products primarily within the region and/or within the United States (Figure 4). A small fraction of firms (less than 4 percent) sell primarily to the area in which their main office is located and 20 percent of the firms sell their products to consumers or firms based in the region. However, the largest share of business (42 percent) among local small manufacturing firms is conducted outside the region in other parts of the United States. At the same time, close to 33 percent of small manufacturing firms report selling their products and services nationally and internationally.

Figure 4. Location of markets



Source: Author's calculations based on COSE data, N=112

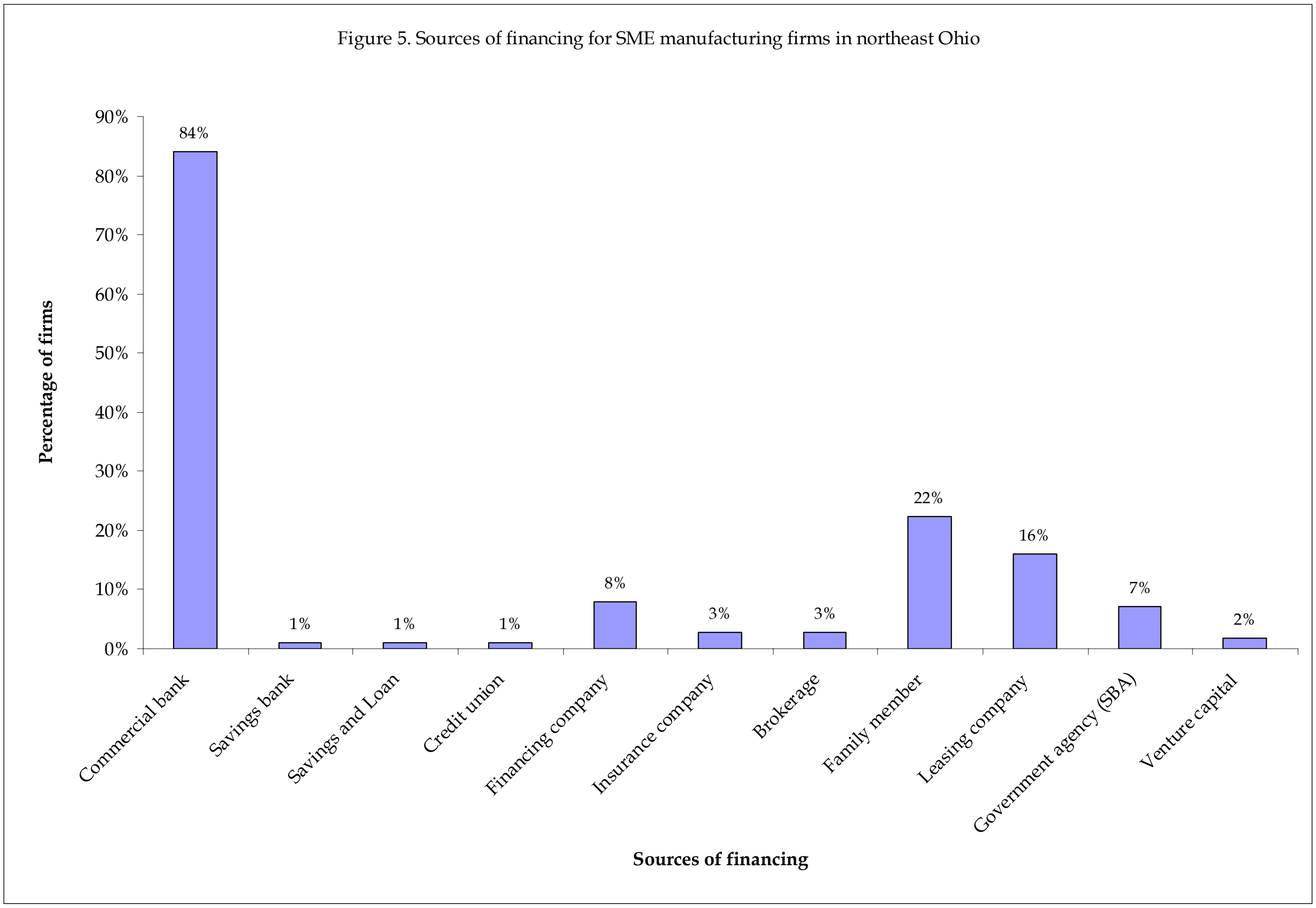
THE CREDIT STRUCTURE OF FIRMS

This section describes the major sources of financing for small manufacturing firms where financing comes from, the types of loans firms apply for, and the purpose of those loans.

What are the sources of firm credit?

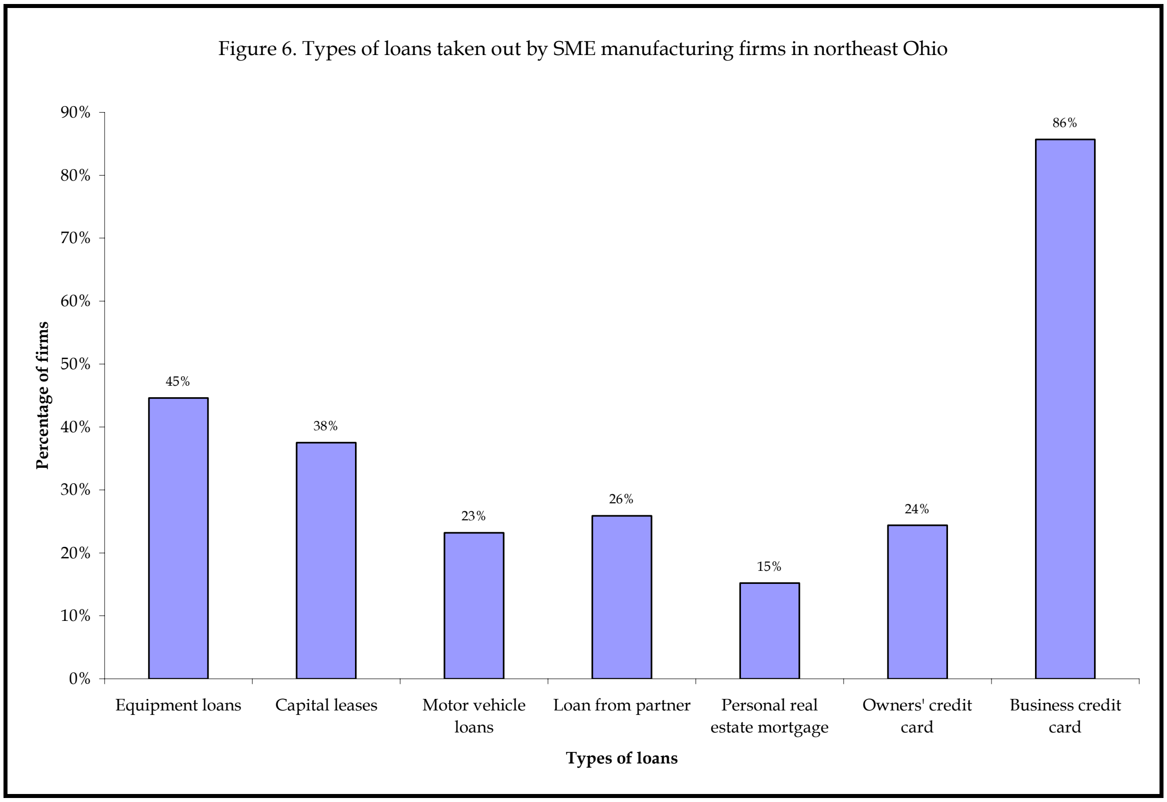
The scholarly research on small firm financing finds that small firms do not use external equity. In national surveys, observations of venture capital usage in small firms are so limited as to make statistical analysis impossible (Ou and Haynes, 2003). Instead, small firms in the United States rely primarily on two sources of financing: external borrowing from financial institutions and internal sources of equity (owner's capital and owner's loans). This pattern is reflected in the present study of SME manufacturing firms in northeast Ohio.

Figures 5 and 6 report the sources and uses of credit. Specifically, the figures compare the percentages of firms that receive financing through different sources. Firms can and often do receive financing from more than one source.



Source: Author's calculations based on COSE data, N=111

The majority (85 percent) of firms receive financing through a bank. Savings and Loans and Credit Unions provide almost no financing to small manufacturing firms. The second most important source of financing is family members. Nearly a quarter of firms indicated receiving some financing from a family member. In a separate question, we ask about loans from partners and 26 percent of firms indicated have some type of loan from a partner (See Figure 5). Leasing companies, financing companies, and government agencies were also important sources of financing. The fact that 7 percent of the sampled firms rely on loans from the Small Business Association is particularly noteworthy. Finally, venture capital appears to play almost no role in the financing for small manufacturing firms in the region.



Source: Author's calculations based on COSE data, N=111

Nearly 45 percent of firms reported that they had equipment loans in 2003. More than a third relied on capital leases, 25 percent reported taking out vehicle loans. Finally, 15 percent of firms reported mortgages on personal real estate to fund business activities.

In short, the pattern in the region parallels the national pattern. Small manufacturing firms rely primarily on banks to finance loans for a variety of business purposes. At the same time, they also make significant use of internal loans including internal sources of equity from partners and/or family members. Little use is made of external sources of equity including venture capital.

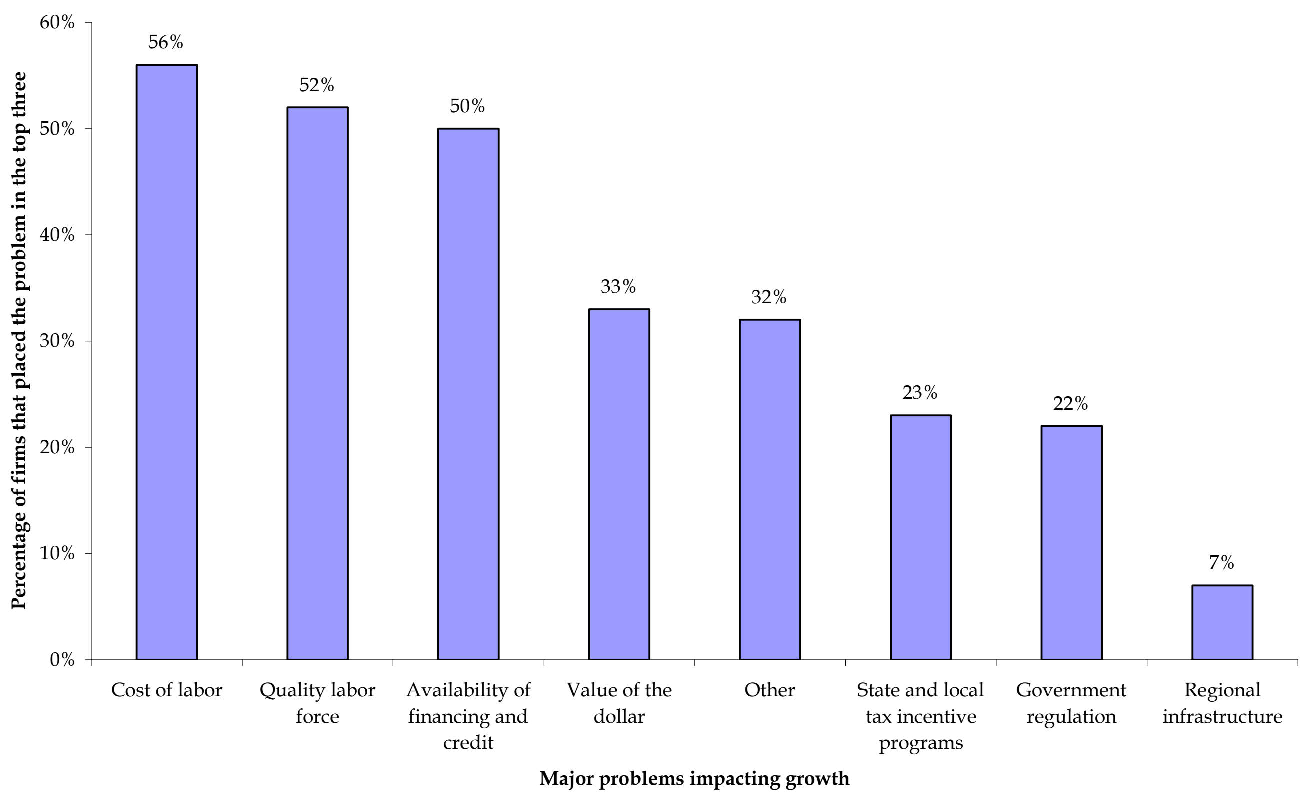
CAPITAL GAP – AN ASSESSMENT

The following section explores two questions in order to assess whether small- and medium-size manufacturing firms in the region are experiencing capital gaps. First, what do firms need to do in order to grow and expand? Second, what is the current credit situation that firms face?

Expansion and Growth. How important is the availability of credit and finance for the growth and expansion of small- and medium-size manufacturing firms in the region? Likewise, what factors (if any) distinguish those firms whose CEOs and owners say that credit and finance is among the three most important factors that will influence their ability to grow and expand?

The survey question sought to evaluate the importance of the availability of credit and finance in comparison to other factors. Firms were asked to rank from a set of factors the top three problems that they believe will contribute to whether their firm will grow or expand including: cost of labor, labor quality, government regulation, regional infrastructure, value of the dollar, and state and local tax incentive programs. Figure 7 presents the findings. Table 2 presents a ranking of what firms believed is their most important challenge.

Figure 7. Factors affecting firm growth and expansion



Source: Author's own calculation based on COSE data, N=111

Table 2. Ranking of the top three factors that executives identified as contributing to firms' ability to grow and expand.	
Challenges to growth	**Percentage of firms that identified the problem in their top three.**
Cost of labor	56%
Quality labor force	52%
Availability of financing and credit	50%
Value of the dollar	33%
Other	32%
State and local tax incentive programs	23%
Government regulation	22%
Regional infrastructure	7%

Source: Author's own calculations based on COSE data N=111

While labor costs and quality were identified as the most important, 50 percent of firms responded that the availability of credit and financing was one of the top three factors contributing to firms' ability to grow. The findings suggest that many small- and medium-size manufacturing firms in the region are particularly vulnerable to changes in the credit market. Twice as many firms ranked the availability of credit and financing in their top three factors as compared to those who chose government regulation and state and local tax incentive programs. Less than 25 percent of firms identified government regulation as a factor, and only 7 percent of firms pointed to regional infrastructure as a factor in future growth.

The survey shows that 50 percent of small- and medium-sized manufacturing firms in the region are very concerned about the availability of credit and finance. Yet, the question remains whether certain types of firms are particularly vulnerable to shortages of credit. Table 3 summarizes a set of cross-tabulations that demonstrate what types of firms expressed particular concern about credit markets.

Table 3. Financing and Credit is one of the top three most important factors that contribute to whether my firm will grow or expand.				
	RESPONSES	**TOP THREE CONCERNS**	**NOT IN TOP THREE**	**TOTAL (Ns)**
Firm Size	Less than 25 employees	61%	39%	18
	25-49 employees	48%	52%	46
	50-99 employees	52%	48%	27
	100-250 employees	50%	50%	14
	More than 250 employees	33%	67%	6
Primary Markets	Same area as the firm's main office	75%	25%	4
	Within geographic region	56%	44%	23
	Throughout US	48%	52%	48
	National and International	47%	53%	36
Age of the Business	Less than 1 year	50%	50%	2
	1-3 years	67%	33%	3
	4-6 years	55%	50%	6
	7-9 years	86%	14%	7
	10-15 years	53%	47%	17
	More than 15 years	45%	55%	75
Sources of Financing*	Commercial bank	55%	45%	95
	No commercial bank financing	75%	25%	16
	Financing company	44%	56%	9
	No financing company	51%	49%	102
	Mutual fund/brokerage	67%	33%	3
	No mutual fund/brokerage	50%	50%	108
	Leasing company	56%	44%	18
	No leasing company	50%	50%	93
	Families	44%	56%	25
	No family financing	52%	48%	86
	Government agency (SBA)	75%	25%	8
	No Government agency (SBA	49%	51%	103
Recent Experience Applying for Credit	Always approved	50%	50%	74
	Mixed approval/denial	77%	23%	13
	Always denied	100%	0%	3
	Yes, my firm needed credit but did not apply because it would be turned down.	78%	22%	18
	No, my firm needed credit but did not apply because it would be turned down.	47%	53%	88

Source: Author's own calculation based on COSE data.

First, smaller firms ranked credit and finance as a top concern more often than larger firms. Among those with less 25 employees, nearly 66 percent ranked credit and finance in the in the top three factors determining growth and expansion. By contrast, 50 percent of firms with between 100 and 250 employees and 33 percent of firms with more than 250 employees ranked credit and finance as a top three concern. Although they are not presented, the figures are similar if one analyzes firms based on annual receipts. Second, firms that do business locally or in the geographic region are also more concerned about the availability of credit than other firms whose markets are national or international. Among firms who do most of their business locally, 75 percent indicated that credit and finance were a top concern. Third, younger firms are also more concerned about the availability of credit and finance than older more established firms. More than 50 percent of firms operating less than 15 years identified credit and finance as a top concern. More than 85 percent of firms operating between 7 and 9 years ranked credit and finance a top concern. In contrast, 45 percent of firms with more than 15 years in operation indicated credit and finance as important.

Firms also differed in terms of their sources of financing. While 55 percent of firms with financing from commercial banks placed credit and finance at the top of their concerns, 75 percent of firms without financing from commercial banks ranked credit and financing as one of three important factors affected firm growth. Two additional findings are also of note. First, firms that receive lending assistance through a government program like the Small Business Association were much more likely than firms without government assistance (75 to 49 percent) to specify credit and financing as a top concern for their growth. Second, firms that rely on family credit were *less* likely than firms without family credit (44 to 52 percent) to indicate that credit and finance were a top concern for growth.

Finally, the survey reported on firms' recent experience applying for credit. 50 percent of firms whose credit requests were always approved indicated that credit and financing was a top three concern. However, among firms who had been denied credit once or always, the percentages increases to 77 percent and 100 percent respectively. Not surprisingly, 78 percent of firms who needed credit but did not apply because they knew they would be denied ranked credit and finance as a top concern for growth.

In sum, half of all manufacturing firms indicated that credit and finance were one of the top three factors determining their ability to grow and expand. Beyond that, who are those firms most vulnerable to a rise in interest rates or a decrease in the supply of credit? They are smaller and younger firms whose primary market is in the region. They are firms whose financing comes from government programs and/or alternatives to commercial banks and family sources. Finally, these are firms that have struggled to get credit in the past even when they felt it was needed.

Firms' Current Situation. In addition to asking about the factors important to growth and expansion, the survey also included a series of questions that sought to measure the current state of firms' credit situation. Two approaches are used to map firms' current credit situation. First, a trend variable is created from six factors that serve as proxies for potential credit and financing problems. And second, firms are asked to indicate the importance of financing and interest rates in comparison to other challenges faced by the firm. The results from both approaches follow.

Six different factors in the survey were identified as proxies for whether a firm currently faces a potential credit and financing problem. The factors include the following:

- The firm was denied a loan during the past three years;
- The firm owner did not apply for a loan during the past three years because they expected to be turned down;
- The firm owner financed the business on a personal credit card and carried a monthly balance;
- The firm owner financed the business on a business credit card and carried a monthly balance;
- The firm owner borrowed against home equity; and
- The firm owner used a high interest finance company.

The indicators are not, by themselves, evidence of a firm experiencing a credit problem. Instead, each factor is widely understood to be a "red flag" suggesting a potential credit or finance problem. A new trend variable ("1" if the firm meets any of the criteria, and "0" if it does not) was created to assess how many small- and medium-sized manufacturing firms are experiencing a potential credit and finance problem. The advantage of this variable is that it allows one to develop a picture based on the experiences of firms rather than the self-reporting of the owner/manager. Table 4 summarizes the results.

Table 4. Report at least one of the six factors that indicate a potential credit or financing problem.				
	RESPONSES	CREDIT CONCERNS	NO CREDIT CONCERNS	TOTAL (Ns)
Firms	All Small and medium-size manufacturing firms	33%	67%	112
	<25 Employees	56%	44%	18
	25-49 Employees	30%	70%	47
	50-99 Employees	33%	67%	27
	100-250 Employees	29%	61%	14
	250> Employees	0%	100%	6
Primary Markets	Same area as the firm's main office	25%	75%	4
	Within geographic region	48%	52%	23
	Throughout US	31%	69%	48
	National and international	27%	73%	36
Age of the Business	Less than 1 year	100%	0%	2
	1-3 years	33%	67%	3
	4-6 years	67%	33%	6
	7-9 years	43%	57%	7
	10-15 years	18%	82%	17
	More than 15 years	32%	68%	75

Source: Author's own calculation based on COSE data.

At least one in three firms report a credit experience that raises a red flag. Some firms were turned down for credit in the past three years (15 percent), and others failed to apply for credit because they assumed they would be turned down (16 percent). Owners borrowed against the equity in their personal home to finance their company (15 percent) and some carried monthly credit card balances (7 percent). Individually these indicators are not especially worrisome. However, taken together they raise concern particularly since the survey was conducted at a time when interest rates were at generational low and the availability of credit was at an historic high.

For smaller firms, those firms whose primary markets are in the geographic region, and younger firms, the potential credit and finance problems are especially high. Fifty-six percent of firms with less than 25 employees report at least one of the indicators associated with credit and financing problems. In contrast, roughly 30 percent of firms with more than 25 employees experienced at least one of the indicators. Nearly half of firms (47%) whose primary markets are in the geographic region report experiencing at least one of the indicators associated with credit and financing concerns. In contrast, 26 percent of firms whose markets are primarily national and global report experiencing at least one indicator associated with credit and financing problems. Finally, more than half of firms established or acquired by the owner within the past 9 years, report at least one indicator associated with a credit or financing problems, whereas 32 percent of firms older than 15 years report one of the indicators.

Firms that struggle to get loans from commercial banks are forced to turn to costlier sources of credit. Thus, one finds that among firms who failed to apply for loans because they believed they would be turned down, more than half used a personal credit card for their business and a third carried a monthly balance on their personal credit card. Similarly, among firms who said they had been turned down for a loan in the past three years, half used a personal credit card to pay business bills, and 25 percent carried a monthly balance on their personal credit card.

Another approach used to assess the current state of a firm's credit situation was to query firms about how important they view the availability of financing and interest rates. Had the question been posed alone, however, all firms would have likely indicated that financing was important. Therefore, the question was asked in a way that solicited views on the importance of finance relative to other factors. Firms were asked to rank the top three problems facing their firm today from a set of factors including: inflation, "off-shore competition," "poor sales," "cost of insurance," "financing and interest rates," "competition from other firms," "cost of labor," "labor quality," "taxation," "government regulation," and "other." Table 5 presents a ranking of what firms believed to be their most important challenge.

Table 5. Ranking of the top three problems identified by small manufacturing firms in northeast Ohio.

Current problems	**Percentage of firms that identified the problem in their top three.**
Off shore competition	53%
Cost of labor	35%
Cost of insurance	34%
Poor sales	33%
Labor quality	30%
Competition from other firms	29%
Government regulation	21%
Taxes	20%
Other	17%
Financing and interest rates	13%
Inflation	7%

Sources: Author's own calculations based on COSE data.

First, given the strength of the dollar relative to the Chinese Yuan coupled with inexpensive labor costs in countries that import parts and machinery, it is not surprising that firms ranked off-shore competition most often as among the top three problems they currently face. In addition, given that interest rates and inflation were at historic lows and the availability of credit was in record supply, it was not surprising that financing, interest rates, and inflation were judged least important among the current problems facing manufacturing firms in the region. Third, roughly one in three firms identified the cost of insurance and quality of labor as among the top three problems they faced. Neither finding is remarkable since both issues have received a great deal of attention in the regional and national press. News reports and policy makers have highlighted the uncontrollable cost of health insurance. In the same vein, local news coverage such as the *Cleveland Plain-Dealer's* "Quiet Crisis Series" has shed considerable light on the lack of college graduates and the flight of talent from the area.

The findings also generated several unexpected results. Perhaps most significant is the fact that only one in five firms identified taxes and government regulation as among the three most important problems facing their firms. This is noteworthy since Ohio lawmakers and Governor Bob Taft have advocated cutting corporate taxes as the primary solution for fostering economic development. Firms in this survey identified taxes and government regulation as significantly less important than off-shore competition, quality and cost of labor, cost of insurance, and competition from other firms. An additional unexpected discovery was the significant number of firms that identified labor costs as one of their top three problems considering that the wages of most Ohioans have declined during the past decade. Indeed, a recent study found that the median hourly wage in 2003 was not only at its lowest in the past four years, but lower in real value than in 1979 (Hanauer, 2004). Thus, it was interesting to find that firms identified the cost of wages as important as the cost of insurance which has risen dramatically faster than inflation by all accounts.[6[6]]

The two approaches that assess firms' current credit situation present a mixed picture. The subjective view of owners and managers suggests that financing and credit are less important than a number of other problems. At the same time, the trend variable measuring the credit behavior of firms suggests that credit and financing are potentially more serious. When interest rates are low and credit supply is high, it is not surprising that relatively few firms rank financing as top problem. Yet, the credit behavior picked up by the trend variable may explain why, when ask about factors affecting future growth and expansion, owners ranked credit and financing in the top three.

[6[6]] The Henry Kaiser Foundation reported that health care costs had risen 11 percent in 2003 (Kaiser Foundation, 2004)

CONCLUSION

This study surveyed small- and medium-size manufacturing firms in northeast Ohio regarding vulnerability to changes in credit and financing markets. The picture that emerges is mixed. Manufacturing firms rank a number of current challenges such as competition from foreign competitors as more important than their credit environment. But when asked about factors that will determine whether their firms grow and expand, firms ranked availability of credit and financing as the third most important factor (just below labor costs and quality). Credit and financing were viewed as more important than government regulation, taxes, the value of the dollar, and infrastructure. Smaller and younger firms, those with regional markets, and those that participate in a government program are even more likely to rank availability of credit and finance as a top priority for determining future growth and expansion. Moreover, at a time when interest rates were at historic lows and credit availability was at a historic high, one in three firms report an experience associated with credit and financing problems. The findings provide preliminary support for increasing the attention devoted to the credit and financing issues. Federal, state and local policy makers should place higher priority on credit and financing needs of Ohio firms.

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Appendix

NORTHEAST OHIO BUSINESS FINANCE STUDY

Thank you for taking the time to complete the survey. This survey should only take between 10 and 15 minutes. In most cases you need only circle the number corresponding to the appropriate answer.

GENERAL INFORMATION ABOUT YOUR FIRM

Q1. How many individuals, including owners, worked for your firm during a typical pay period in 2003? Was it …

1. Less than 25
2. Between 25 and 49
3. Between 50 and 99
4. Between 100 and 250
5. More than 250
6. Don't know

Q2. For 2003, is your firm:

1. A sole proprietorship
2. A partnership
3. An S-Corporation
4. A C-Corporation
5. A limit liability company
6. Don't know

Q3. Where does the business primarily sell or deliver its products or services?

1. In the same area as the firm's main office
2. Within the geographic region
3. Throughout the nation
4. Outside the United States
5. Globally/National & International
6. Don't know

Q4. Could you indicate whether total sales or total receipts for 2003 were:

1. less than $100,000
2. More than $100,000 but less than or equal to $500,000
3. More than $500,000 but less than or equal to $1 million
4. More than $1 million but less than or equal to $5 million
5. More than $5 million but less than or equal to $10 million
6. More than $10 million but less than or equal to $25 million
7. More than $25 million
8. Was not in business last year
9. Don't know

Q5. Please rank the ***top three most*** important problems facing your business today (1=most important)?

Competition from larger firms	________
Cost and Availability of Insurance	________
Cost of labor	________
Financing and interest rates	________
Government regulation	________
Inflation	________
Off-shore competition	________
Poor sales	________
Quality of labor	________
Taxes	________
Other ______________________	________

Q6. Please rank the ***top three most*** important factors that contribute to whether your firm will grow or expand (1=most important)?

Availability of financing and credit	________
Cost of labor	________
Government regulation	________
Quality labor force	________
Regional infrastructure (roads, schools, housing, etc.)	________
State or local tax incentive programs	________
Value of the dollar relative to foreign currencies	________
Other _______________________________________	________

OWNER/CEO INFORMATION

Q7. Can you tell me the approximate age of the owner or CEO?

1. 20 to 30
2. 31 to 40
3. 41 to 45
4. 46 to 50
5. 51 to 55
6. 56 to 65
7. 66 to 75
8. 76 or more
9. Don’t know

Q8. How many years of experience has the owner had managing or owning a business, including this business Years __________

Q9. When was the business (established/purchased/acquired) by the current owner(s)? Was it …

1. Less than 1 year ago
2. 1 to 3 years ago
3. 4 to 6 years ago
4. 7 to 9 years ago
5. 10 to 15 years ago
6. More than 15 years ago
7. Don't know

FINANCING AND USE OF CREDIT

The following questions ask about debt capital. Debt investments are loans from banks, savings institutions, finance companies, and sometimes friends and individuals. Equity investments provide the investor with an ownership interest in the firm while providing the firm with cash or some other asset.

Q10. What types of institutions or sources of financing are used by your firm? (Circle each that apply). Also, please indicate what percentage of the firm's financing comes from each source (0% to 100%).

	Percentage
1. Commercial bank	___________
2. Savings bank	___________
3. Savings and loan association	___________
4. Credit union	___________
5. Finance company (American Express is included)	__________
6. Insurance company	___________
7. Brokerage or mutual fund	___________
8. Leasing company	___________
9. Mortgage bank	
10. Venture capital firm or SBIC (Small Business Investment Company)	___________
11. Other business firm	___________
12. Family or other individuals	___________
13. Government agency (includes Small Business Administration)	___________
14. Other type ______________	___________

Q11. Did the firm use an owners' personal credit card to pay business expenses during 2003?

1. Yes
2. No
3. Don't know

Q12. Were the business expenses charged to owner's personal credit cards generally paid in-full or were balances typically owed after monthly payments were made?

1. Paid in full
2. Owed balances
3. Not applicable since personal credit card was not used.
4. Don't know

Q13. Did the firm use a business/corporate credit card to pay business expenses during 2003?

1. Yes
2. No
3. Don't know

Q14. Were the business expenses charged on the firm's business or corporate cards generally paid in-full or were balances typically owed after monthly payments were made?

1. Paid in full
2. Owed balances
3. No applicable since business/corporate credit card was not used.
4. Don't know

Q15. Lines of credit are arrangement with a financial institution that allow a firm to borrow funds during a specific period up to a specific credit limit. Include home equity lines of credit used for business purposes. As of 2003, did your firm have any lines of credit used for business purposes?

1. Yes
2. No
3. Don't know

Q16. How many lines of credit did the firm have?

Number _________

Q17. As of 2003, which of the following types of loans were used for business purposes (select all that apply)?

1. Capital leases from financial institutions or other sources.
2. Mortgage on personal real estate
3. Motor vehicle loans
4. Equipment loans
5. Loans from [partners/stockholders]
6. Any other loans from financial institutions (including friends, relatives, and other sources)

Q18. How many times did the firm apply for <u>new</u> loans in the last three years?

Number ________

Q19. (Were any of these/Was this) recent loan application(s) a renewal of an existing line of credit?

1. Yes
2. No
3. Don't know

Q20. Were these recent applications always approved, always denied, or sometimes approved and sometimes denied?

1. Always approved
2. Always denied
3. Sometimes approved/sometimes denied
4. Don't know

Q21. In the case of your most recent denial, why type of credit was applied for?

1. New line of credit
2. Capital lease
3. Mortgage for business purposes
4. Vehicle loan for business purposes
5. Equipment loan
6. Other loan (Specify) _________________
7. Don't know
8. Have never been denied a loan.

Q22. What factors influenced the firm's decision to apply for credit?

____

____

____

____

Q23. What was the official reason for denying the application?

Q24. During the last three years, were there times when the firm needed credit, but did not apply because it thought the application would be turned down?

1. Yes
2. No
3. Don’t know

Q25. Why do you think the firm would have been turned down?

FINANCING AND USE OF EQUITY CAPITAL

The following questions ask about equity capital. Equity investments provide the investor with an ownership interest in the firm while providing the firm with cash or some other asset.

Q26. During 2003 did the firm obtain additional equity capital from existing owners, new or existing partners, or existing shareholders?

1. Yes
2. No
3. Don’t know

Q27. What was the <u>primary</u> use of this additional equity capital?

1. Working capital
2. Motor vehicle
3. Other equipment or machinery
4. Leasehold improvements
5. Land and buildings
6. Other specify: ________________________________
7. Don’t know
8. Did not obtain equity from existing owners.

Q28. During 2003 did the firm obtain additional equity capital from sources other than existing owners, new or existing partners, or existing shareholders (excluding retained earnings)?

1. Yes
2. No
3. Don't know

Q29. What was the <u>primary</u> use of this additional equity capital?

1. Working capital
2. Motor vehicle
3. Other equipment or machinery
4. Leasehold improvements
4. Land and buildings
5. Other specify: ______________________________
6. Don't know
7. Did not obtain equity capital from outside sources.

Q31. Did the firm raise equity from:

1. Informal investors not related to management
2. A venture capital firm
3. Public equity
4. Another source? Please specify: ________________
5. Did not obtain equity capital from outside sources.

Q32. If you had access to equity capital on favorable terms, how would you use it?

____

____

____

____

Q33. While surveys help map trends they are often ill-suited to understanding the complexities of a firm's decision. Would you be willing to participate in a 15 minute phone interview?

1. Yes
2. No

Thank you very much for agreeing to complete this survey.   As a token of our appreciation we would like to enter you in a drawing for a movie and dinner for two at Lopez' in Cleveland Heights, Ohio. If you would like to be included in the survey, please provide your contact information.

Name:

Firm name:

Contact phone number: