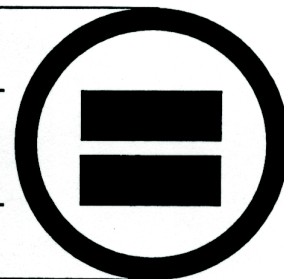

CHICAGO URBAN LEAGUE



Building Minority Businesses

Part One

The Structure of Corporate Purchasing

James H. Lewis

Department of Research and Planning
Chicago Urban League

This research was supported by grants from
AT&T and the Polk Bros. Foundation

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James H. Lewis

Department of Research and Planning

Chicago Urban League

4510 South Michigan Avenue

Chicago, Illinois 60653

773.285.5800

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Executive Summary

In the Chicago area, only a small percentage of manufacturing and wholesaling firms are owned by African Americans. These firms tend to be substantially smaller on average than white-owned firms. Both the small size of firms and lack of African-American ownership of firms in these industries contribute to the lack of wealth and high levels of unemployment in many Chicago neighborhoods. Manufacturers and wholesalers engage primarily in business-to-business transactions. Their sales bring money into a community through profits and wages, rather than recirculating money within a community, which is the product of small retail firms that primarily rely on local markets.

During the past two decades there has been a growing presence of African Americans in the construction industry and in services, but the relative absence of minority-owned firms in manufacturing and wholesaling means that African Americans are largely outside a major portion of the U.S. and local economies that consist of business-to-business transactions.

There are many reasons for the relative lack of minority-owned firms, their small number of employees, and relatively low levels of sales.

1 Large firms are reducing the number of their suppliers.

A survey conducted by the Chicago Urban League shows that:

85 percent of minority vendors in the Chicago area feel that supplier reduction has made securing or maintaining sales relationships more difficult.

National studies, corroborated through evidence from Chicago, show that most large firms are currently seeking to reduce their number of suppliers as they seek to strengthen quality assurance, reduce inventories, utilize electronic communication, and receive supplies and materials flexible to their needs.

2 Corporations increasingly rely on preferred suppliers.

84 percent of minority vendors reported that lack of access to contract opportunities or specifications sometimes or often makes securing and maintaining sales difficult.

As corporations seek to reduce the number of firms with which they contract, they rely more heavily on relatively few firms with which they develop close relationships. Use of preferred suppliers reduces quality assurance costs, particularly when purchased items require certification or have narrow specifications. Only 21 percent of minority vendors reported a perception of increasing corporate openness to buying from new firms.

3 The size of contracts is increasing.

As corporations purchase more from fewer firms, average contract size increases.

Over 50 percent of minority vendors surveyed in the Chicago area have experienced difficulty securing contracts because of the volume of product or services required.

4 Corporations are demanding just-in-time delivery.

A major new trend in manufacturing is toward highly coordinated production processes that require inventory to arrive for processing "just-in-time" (JIT).

54 percent of minority vendors surveyed reported having to take greater responsibility for holding inventory.

Suppliers also report greater responsibility for shipping. Increased use of JIT, with its requisite high level of communications and flexibility, reinforces the trend toward preferred suppliers and reduced numbers of vendors.

5 Use of electronic data interchange is increasing.

Increasingly, corporate buyers are requiring suppliers to communicate with them by computer for bidding, ordering, inventory control, shipping, invoicing and payment. These developments favor well-capitalized firms that can invest in computer-based communications. They require that the small vendor have expertise not only in his/her product line, but also in managerial systems.

6 The importance of quality is increasing.

For many purchased items, quality has supplanted price in determining which supplier will receive a contract. Increased insistence on quality by buyers can mean intensive product certification processes and expensive measures to comply with buyers' standards, not only for the quality of the product itself, but with regulations for how it should be produced. While quality in itself is not a barrier for minority-owned firms, extensive certification requirements can make it harder for many smaller minority-owned firms to compete.

42 percent of minority vendors surveyed reported that changing quality standards have created difficulty in securing sales at least some of the time.

65 percent of minority vendors surveyed reported that buyers' wanting a longer track record has created difficulty in securing sales.

7 "Old boy" networks are important.

Because of the importance of personal relationships in doing business, minority-owned firms surveyed report difficulty entering established supplier networks, thereby losing opportunities for which they may be qualified.

74 percent of minority vendors surveyed believed that a corporate "old boy" network continues to operate in purchasing.

71 percent of minority vendors surveyed believed that overly narrow bid specifications had cost them business.

8 Size has an effect.

The small average size of minority-owned firms makes it difficult for some to accommodate the supplier reduction programs that result in larger contracts to fewer firms.

Larger minority vendors surveyed had greater management, production, and sales capability, reported less difficulty communicating with corporate buyers, and were less likely to consider discrimination to have hurt them.

9 Financing is a problem.

Lack of financing continues to be a major problem.

73 percent of surveyed minority vendors reported that cash flow problems had cost them business.

45 percent reported difficulty obtaining financing for cash flow.

33 percent reported difficulty obtaining financing for expansion.

47 percent reported dissatisfaction with their bank.

As with production, problems with financing were correlated with firm size.

10 Affirmative action programs remain essential.

National surveys show that large corporations place from 2 percent to 5 percent of their purchases with minority-owned firms. While minority vendors clearly benefit from both public- and private-sector affirmative action programs, many are skeptical of corporate commitment to these programs. Corporations purchase relatively little of their raw or manufactured materials from minority vendors.

Introduction

The relationship of minority-owned businesses to the process of corporate procurement is rarely the subject of discussion when the topic is how to grow and expand minority-owned businesses. However, a large volume of economic transactions occurs not between individual consumers and sellers, but between businesses that sell large volumes of products or services to one another. Because of the limited purchasing power of consumers in low-income neighborhoods, the best strategy for economic revitalization of those neighborhoods is not investment in small retailers serving local markets, but development of firms that "export" goods and services from those neighborhoods through manufacturers and services that will be purchased by others. Because minority firms have so little presence among the nation's manufacturers, wholesalers, and producers of raw materials, they tend not to exploit markets outside their neighborhoods. The lack of minority firms in manufacturing, which has historically provided many of the living-wage, entry-level jobs in central cities, has been one of the root causes of the high levels of inner-city unemployment.

While the Chicago Urban League fully expects policies that result in minority business development such as affirmative action, neighborhood-level business development, and government loan programs to continue, two things are clear to us: (1) there is a vital need to stimulate minority business development in industrial sec-

tors where the business-to-business transaction is dominant, and (2) both the private sector and the general public would welcome strategies to accomplish this that are based in the private sector.

The research described in this report examines major impediments facing minority firms as they pursue business-to-business transactions and the extent to which these impediments are a product of long-term, structural changes in the way corporations organize their procurement functions.

The research tends to describe the relationship of relatively small minority businesses to large corporate buyers. This is because, for the most part, minority businesses can be classified as "small" businesses, because scholarly research on purchasing has focused on large corporations, and because large corporations track their purchasing records with minority firms. The three major sources of information for this study are a survey conducted by the Chicago Urban League of 128 minority firms operating in the Chicago area, in-depth interviews with managers in seven large corporations, and a review of other studies that analyze corporate procurement practices that helps us place the Chicago experience within a national context. This range of data sources provides ample evidence with which to document major changes taking place in the structure of corporate procurement and its impact on minority businesses.

Underdevelopment of Minority-Owned Manufacturing and Wholesaling

Minority individuals own disproportionately few businesses in the United States. Recently released figures from the U.S. Census show that, while African Americans comprise 12 percent of the U.S. population, they represent only 2 percent of the owners of businesses with paid employees.¹ The bureau's report excludes Subchapter C corporations, which tend to be larger companies.

Minority firms are also on average much smaller than firms not owned by minorities. Nationally, non-publicly owned, black-owned firms with employees average only 5.4 employees per firm while non-black-owned firms average 8.9 employees.² In the Chicago area, black-owned firms average fewer than eight employees per firm. In some major industry areas, the disparity in number of employees exceeds two to one (see Table 1). Non-black manufacturing firms average more than three times as many employees as black-owned firms. Non-black mining and transportation firms average twice as many employees as black-owned firms in those sectors.

Black-owned firms are found dispropor-

tionately in service industries and are highly underrepresented in manufacturing; wholesale trade; and finance, insurance, and real estate. Table 2 illustrates the distribution of black-owned and non-black-owned firms across nine industrial categories.

The problem of the shortage of black-owned firms in manufacturing and wholesaling also exists in Chicago. Excluding Subchapter C corporations, the Bureau of the Census counted only 43 black-owned manufacturing firms and 53 black-owned wholesale trade firms in the Chicago area in 1992 (see Table 3). Those firms that were reported are small. Manufacturers averaged about 25 employees and wholesalers averaged about ten.³

The list of businesses certified with the Chicago Minority Business Development Council also indicates the scope of the minority business community in the Chicago area. The council's 1996 list for all minority groups included more than 300 manufacturers, over 100 transportation firms, over 200 wholesale trade firms, and almost 550 firms in service industries.

Certification lists include only business-

Table 1
Employees Per Firm Nationally*

industry	employees per firm	
	black-owned	non-black owned
agriculture, forestry, fishing	2.6	4.7
mining	5.7	12.5
construction	3.2	4.8
manufacturing	6.6	22.7
transportation and public utilities	5.0	10.7
wholesale trade	5.7	10.1
retail trade	6.9	9.7
finance, insurance, real estate	5.5	7.3
services	5.6	8.4

*Sole proprietorships, partnerships, and Subchapter S corporations.

es that voluntarily requested certification of minority ownership so that purchases from them could be counted towards minority contracting goals established by units

of government and some corporations. These statistics are, therefore, conservative counts of the total firms in an industrial category.

Table 2
Distribution of Black-Owned and Non-Black-Owned Firms by Industry Nationally*

industry	proportion	
	black-owned firms	non-black-owned firms
agriculture, forestry, fishing	2.4%	2.6%
mining	0.1%	0.4%
construction	13.9%	15.6%
manufacturing	3.1%	5.3%
transportation and public utilities	6.4%	3.7%
wholesale trade	2.4%	5.6%
retail trade	19.1%	23.3%
finance, insurance, real estate	5.0%	7.8%
services	47.6%	35.8%

*Sole proprietorships, partnerships and Subchapter S corporations.

Table 3
Black-Owned Businesses in the Chicago MSA, 1992*

industry	number of black-owned firms with employees	number of employees, black-owned firms
agriculture, forestry, fishing, mining	43	N/A
construction	166	551
manufacturing	43	1,092
transportation and public utilities	149	1,516
wholesale trade	53	572
retail trade	537	4,784
finance, insurance, real estate	209	1,705
services	968	5,909

*Sole proprietorships, partnerships and Subchapter S corporations.

Structural Change and Procurement from Minority-Owned Businesses

Change is constant. Some changes are race-neutral in intent, but most changes impact black MBEs because of the structure of things such as size, insurance, and inventory.

— Black Business Owner

Minority-owned firms that wish to sell and corporations that want to buy meet in the procurement process. We believe that a major transformation is taking place in the structure of procurement in major corporations and that this transformation is reducing the ability of minority firms to sell to corporations undergoing these organizational changes.

In their pursuit of greater efficiency in the production process, lower prices, and greater assurance of quality, corporations are undertaking new organizational procurement strategies.⁴ These include (1) reducing the number of vendors, (2) forming longer-term relationships with vendors, (3) certifying vendors for quality, (4) demanding increasingly precise delivery schedules for materials, and (5) utilizing computer-based communications with suppliers.

According to a recent study, during the 1980s the most important supplier information for purchasing professionals became the supplier's quality and delivery

performance, lead time to the purchasing company, past prices, and service capabilities. Supplier quality and delivery performance moved from rankings of thirteenth and eighth most important respectively in 1981, to first and second in 1989.⁵ When firms conduct capability surveys of their suppliers, they now focus on the supplier's in-process quality control, production scheduling, subcontracting policies, and manufacturing processes.⁶

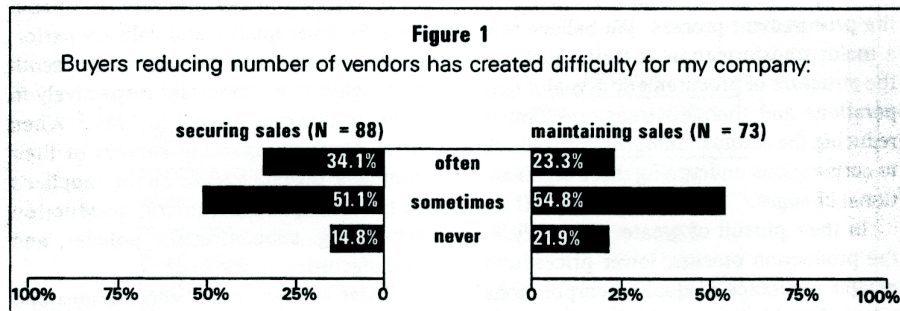
These changes affect corporations and minority-owned firms in different ways, sometimes making it harder for corporations to work with minority-owned firms. Smaller and less well-financed on average than majority-owned firms, many minority-owned businesses find it hard to adapt to these changes in the structure of corporate procurement.

The following sections detail how these major structural changes make expansion of the minority business community increasingly difficult.

Large Firms Are Reducing the Number of Their Suppliers

Sometimes we have been told that even though a manager wants to use our company, we cannot get a contract because they are reducing the number of vendors. Companies are closing the opportunities that existed for new companies, especially minority businesses, to get new contracts.

— Minority Firm



As Figure 1 shows, most minority-owned firms surveyed believe that corporations reducing their number of suppliers may have cost them business. (The source for this and all subsequent figures is the 1995 Chicago Urban League survey of minority-owned businesses.) Evidence from interviews with firms and other research studies suggests that this problem may grow worse rather than better.

Large Chicago-area corporations interviewed by the Chicago Urban League reported implementation of strategies to reduce their number of suppliers. One major pharmaceutical firm claimed to have reduced by 50 percent its number of suppliers over about three years. Another major firm reduced its suppliers from approximately 5,500 in 1990 to about 1,800 in 1994. A Chicago-area food producer reported that it had reduced the total number of its suppliers and the number of its minority suppliers in recent years but that the dollar value of business with its current suppliers had risen.

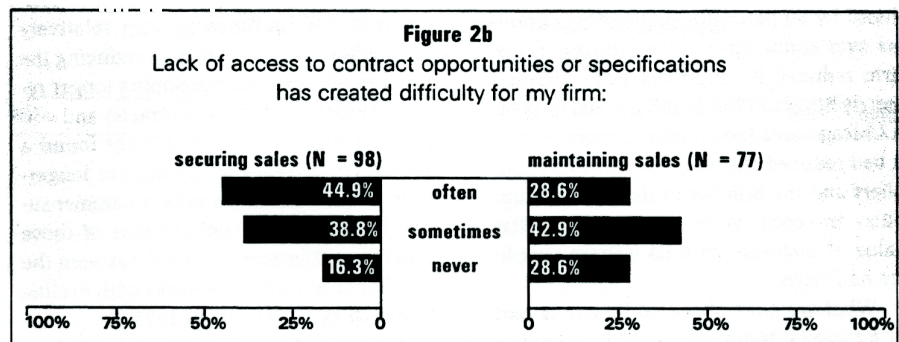
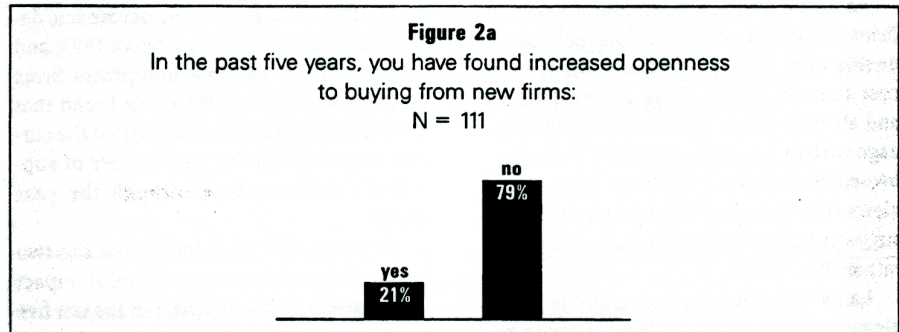
What we have observed locally is part of a national trend. An analysis of studies of 27 different industries conducted by the Center for Advanced Purchasing Studies found that in almost every instance, the average firms responding to the studies had reduced the number of suppliers from the previous year.⁷ In 46 of the 54 industries looked at, firms surveyed reported averaging fewer vendors than in the previous year. Many of these reductions were substantial: 37 percent in the number of suppliers by aerospace/defense equipment firms report-

ed in 1995; 20.5 percent by aerospace/defense contractor firms reported in 1993; and 18.3 percent in electrical equipment firms reported in 1993. A 1993 study found that purchasing managers predicted that the current trend of reducing the number of suppliers would continue through the year 2000.⁸

Monczka and Trent found that the two purchasing strategies with the most impact on procurement effectiveness in the last five years were the continued interest in cost reduction and the pursuit of quality improvements.⁹ However, the next four items all reflected efforts by corporations to concentrate their purchasing with relatively few, high-quality suppliers — reducing the number of suppliers, developing longer relationships with longer contracts, and single sourcing. Monczka and Trent found a 35 percent increase in the ratio of longer-term to total contracts with a commensurate increase in the dollar value of those purchases. The average buyer has seen the number of firms he/she works with decline from 126 in 1990 to 46 in 1993.

Purchasing agents can be heavily burdened, and firms are continually under pressure to reduce overhead and administration such as purchasing. They therefore will take paths of least resistance that still yield price and quality. This will mean greater contracting opportunities for suppliers with whom buyers are familiar, increased use of electronic communications, and reliance on suppliers that buyers have certified.

Corporations Increasingly Rely on Preferred Suppliers



Corporations are increasingly utilizing "preferred suppliers" in an effort to guarantee quality materials while cutting down on their own inspection costs, to secure flows of materials that will be responsive to production needs, and to limit the administrative costs of dealing with multiple suppliers. This trend tends to close contracting opportunities to new and smaller firms, a problem experienced by minority firms that have had difficulty accessing business opportunities or contract specifications.

Typically, preferred suppliers provide a large proportion of a corporation's inputs in a particular category of material and undergo an extensive certification process in order for the purchasing corporation to be able to rely on their quality. One major corporation interviewed noted that it is not uncommon for it to conduct on-site inspections of vendors in order to verify the processes they utilize. However, surveillance of preferred suppliers is less, which is one of the reasons they use a preferred supplier system.

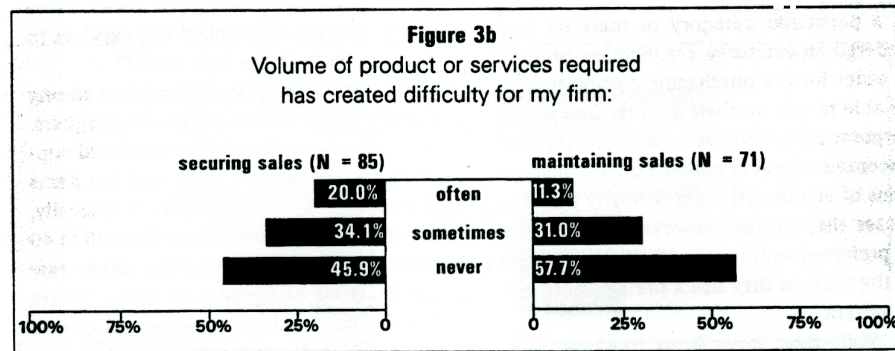
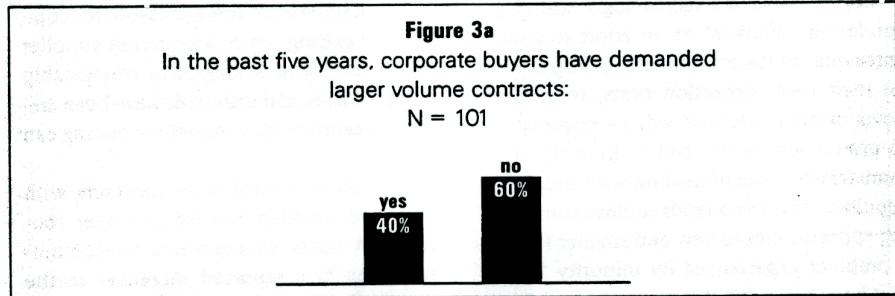
While most large firms routinely seek competitive bids for purchased items, preferred suppliers may not have to bid. Some firms will rely heavily on a preferred supplier for a high volume commodity or material, but also purchase occasionally from smaller suppliers as a form of security and

to maintain at least some pressure for competitive pricing. Once a preferred supplier is "locked" into a long-term relationship and processes and standards have been created, incentives for competitive pricing can be lost.

The move toward more contracts with preferred suppliers has led to longer contracts. A major Chicago-area telecommunications firm reported increases in the average length of contracts from one year in 1992 to three years in 1994. Kolchin and Giunipero found that purchasing managers expected the current trend toward single sourcing of supplies and services to increase through the year 2000.¹⁰

It is rare to find minority vendors among a major corporation's preferred suppliers. Corporations tend to utilize preferred suppliers for production items and for items that tend to be most complex.¹¹ Typically, a large corporation will have from 20 to 40 such suppliers. They provide either raw materials or equipment in areas where large-volume orders are expected over a period of years, and the firm does not want to be burdened with ongoing monitoring of quality. The overall lack of large minority-owned firms in industries such as raw materials, manufacturing, and wholesaling has limited the number of minority vendors who are preferred suppliers.

The Size of Contracts Is Increasing

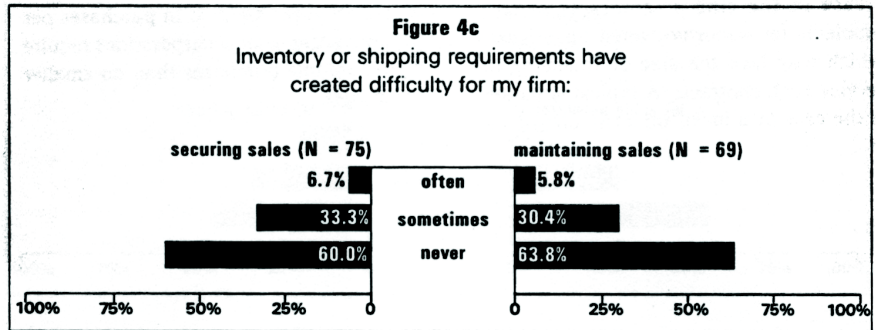
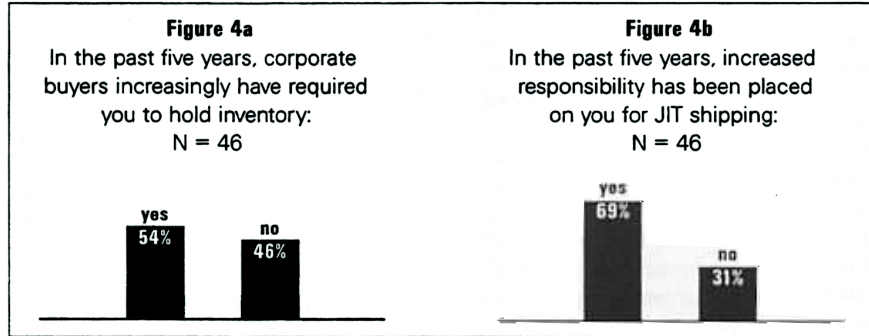


The corporate trend toward preferred relationships with fewer suppliers has increased the size of contracts. Many minority firms have observed this trend and have found it difficult to secure or maintain business relationships. One major Chicago-area corporation reported that over a recent four-year period, the number of African American suppliers it utilized had decreased by approximately 30 percent. At the same time, total purchases from remaining suppliers increased by almost 50 percent. Thus, the average contract per African American supplier approximately doubled over the period. Generally, however, a substantial increase in the size of contracts causes problems for minority-owned businesses, which may lack the size or financing to service such contracts. A typical situation is the case of a local, minority-owned of-

fice supply company that loses business because corporations choose to utilize a single national, full-service, catalogue firm.

While small contracts do continue to be let in most industries, the average amount of purchase per supplier can be quite large for major corporations.¹² Large food manufacturing firms average over \$2 million per year in purchases from individual packaging suppliers and over \$1 million per year in purchases from providers of food ingredients. Automobile makers average more than \$1.5 million in purchases from each of their suppliers. Others are smaller. In 1993, textile/apparel manufacturers averaged only about \$95,000 in purchases per supplier. Clearly, large corporations require higher volume purchases than do smaller companies.

Corporations Are Demanding Just-in-Time Delivery of Materials



To keep production costs down, corporations are increasingly pressuring suppliers to warehouse inventory in anticipation of future purchases. Minority-owned businesses surveyed report increased pressure to hold inventory and to provide just-in-time (JIT) shipping. As Figure 4c shows, approximately one-third of the firms surveyed report that these demands have caused problems for them.

Through JIT sourcing systems, buyers attempt to coordinate the arrival of a production input at the factory closely with its processing. Kolchin and Giunipero found that nationally, purchasing managers expected the current trend toward shorter cycle times to continue through the year 2000.¹³ This trend puts an increasing burden on suppliers to either maintain larger inventory themselves or better anticipate the product needs of their buyers. Chicago-area firms interviewed indicated consistency with this trend. One firm noted that it expected to turn over its inventory on a monthly basis. Another noted that it increasingly expected suppliers to be responsible for holding materials until the firm was ready to process them.

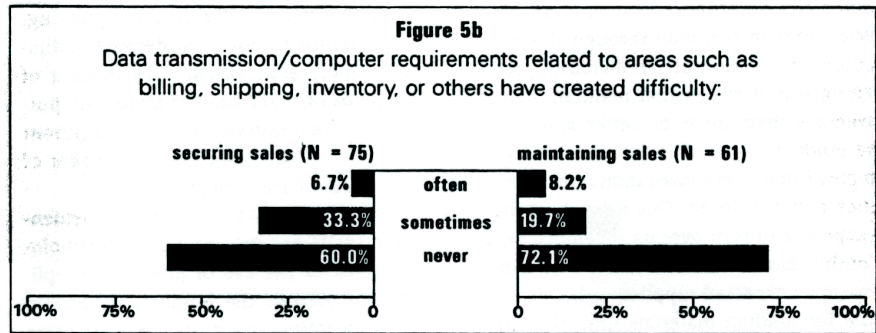
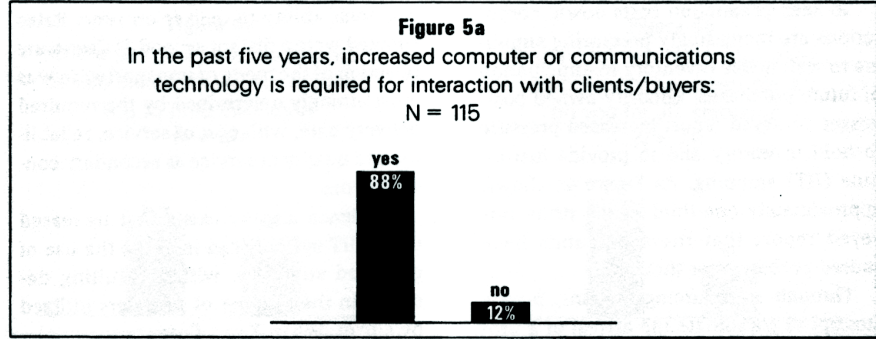
Gentry found that the most influential factor for U.S. firms in selecting carriers

was their ability to deliver on time. Rates charged were a distant second.¹⁴ Corporate selection of the mode of transportation was most strongly determined by the required delivery date, with cost of service, reliability, and quality of service as secondary considerations.

Evidence already exists that increased use of JIT systems can increase the use of preferred suppliers, with a resulting decrease in the number of suppliers utilized by a firm. When Xerox Corporation implemented a JIT system, it reduced its suppliers from around 5,000 to only 300.¹⁵ While it is hard to say exactly how fast, it is fair to say that use of JIT systems is growing. The combined aerospace/defense industries handle approximately 15 percent of line items on a JIT basis.¹⁶ Major computer and telecommunications equipment firms report managing over 30 percent of their supply base with JIT systems.

To the extent that corporate implementation of JIT requires expensive technology, increases the use of preferred suppliers, and reduces the number of vendors while awarding larger contracts to those who remain, JIT could make it harder for small firms to do business with large corporations.

Use of Electronic Data Interchange Is Increasing Slowly but Surely



- Only 20 percent of minority firms surveyed are directly linked to corporations by computer for invoicing.
- About one in four (23 percent) minority firms is linked directly by computer to a buyer for the purpose of receiving orders.

In order to reduce administrative overhead and to facilitate speedier turnaround of supplier transactions, corporations are increasingly favoring suppliers who can communicate with them electronically. Increasing requirements for electronic data interchange can be a burden on smaller, less-capitalized firms. About one in three minority-owned firms surveyed found computer requirements problematic for either securing or maintaining sales.

Electronic data interchange (EDI) involves the utilization of computer-based communications systems to transfer business information. Information can include specifications, requests for bids, bids, purchase orders, inventory information, shipping information, invoices, and payments. Increasingly, firms are relying on a standardized set of document formats developed by the American National Standards Institute through the Accredited Standards Committee in 1979. These standards are referred to as the ANSI X12 standards and were first published in 1983. They are reviewed, updated, and supplemented regularly. Computer software available from a number of different manufacturers carries and communicates these formats. It is helpful if two parties trying to communicate

through EDI use the same software system; however, differences can be surmounted by using a value-added network, which translates messages from one system to another. It has been estimated that by the year 2000, 70 percent of U.S. companies will be participating in EDI.¹⁷

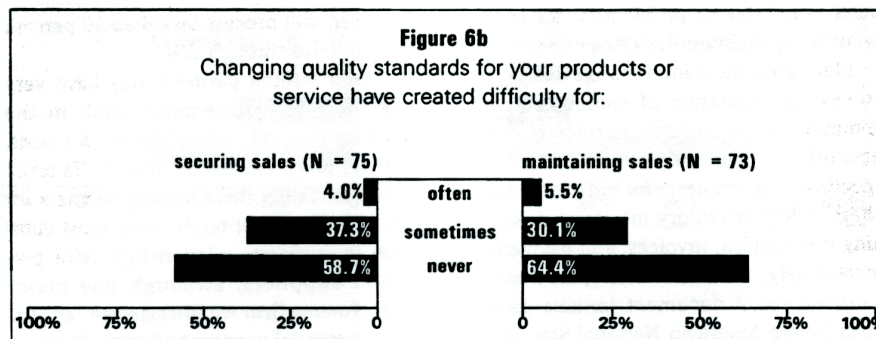
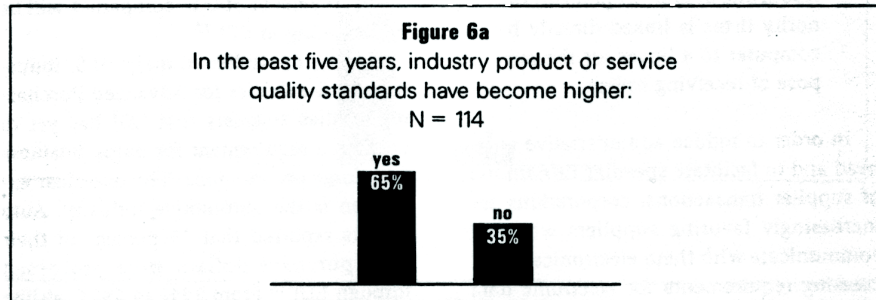
Review of studies of major U.S. industries by the Center for Advanced Purchasing Studies suggests that EDI has yet to become a requirement for doing business with large corporations. The one clear exception is the automotive industry. Auto makers reported that 79 percent of their total purchase dollars were processed through EDI.¹⁸ From 1991 to 1993, airline use of EDI increased from 12.4 percent to 25 percent, and motor carrier use from .6 percent to 33.7 percent.¹⁹ Most industries, however, still process less than 10 percent of purchases through EDI.

Major trading partners may have very specific EDI requirements, and, in the words of Richard Bort and Gerald Bielfeldt, authors of the *Handbook of EDI*, "To resist accommodating these trading partners often is folly."²⁰ EDI tends to be most common in corporate relationships with preferred suppliers, although one major Chicago-area firm we interviewed felt that some potential vendors had been eliminated from bidding processes because they couldn't work with the firm's EDI system, particularly in the areas of order entry and fund transfer. Another major firm sought EDI for purchase orders, invoicing, and payment and would accept a potential supplier who could interact electronically on one of the three and was willing to work on implementing the other two.

The Importance of Quality Is Increasing

Because of the nature of business, the client will choose quality first and foremost, regardless of any mandates.

— Minority Firm



Minority-owned firms have observed higher quality standards and about one in three has found changing quality standards a barrier to securing or maintaining sales.

As with the other trends observed, quality promises to become increasingly important in the future. In a national study of capability requirements for suppliers of large corporations, Monczka and Trent found that quality was no longer a major determinant of which supplier would receive an order, for the simple reason that it was now assumed. High quality is now essential merely to compete and other supplier capabilities determine who receives orders.²¹ Monczka and Trent also found increases in the utilization of systems to measure supplier performance. Businesses also expressed increased willingness to undertake activities directed at developing the capability of suppliers.

The search for quality, as well as for lower costs, has led many corporations to adopt global sourcing strategies. The willingness of corporations to purchase and produce materials internationally has led to a significant reordering of supplier relationships in many industries and has resulted in loss of vending opportunities for many domestic firms.

Quality Systems

Corporations utilize a variety of techniques to assure supplier quality. Quality becomes of increasing importance as market competition expands worldwide, as product liability becomes an increasing concern, as products such as computer technology and chemicals are made with greater complexity requiring higher standards of tolerance, and as buyers from corporations require quality from one another in turn.

Certification Systems

Companies operating in fields with extremely low tolerance for error operate sophisticated certification systems designed to establish the quality of a supplier's product to their buyer's standard and often to the U.S. government's. The chemical indus-

try requires perhaps the most stringent adherence to quality and certification as new drugs and their component chemicals can require years of testing and approval by the U.S. Food and Drug Administration.

Supplier Rating Systems

Formal supplier rating systems have become extremely common among the nation's large corporations. For instance, approximately four-fifths of large food manufacturers, nearly all major semiconductor producers, nearly three-quarters of large computer and telecommunications equipment manufacturers, and almost two-thirds of electrical equipment manufacturers utilize formal supplier rating systems.

ISO 9000

While it is not yet the norm across industries for a company to require ISO 9000 certification of a supplier, this quality standard is being used increasingly (as are similar systems such as QS9000 in the automotive industry). Approximately 11 percent of suppliers to large transportation firms and 48 percent of direct materials suppliers to semiconductor firms are certified.²² Eighteen percent of computer and telecommunications companies require their suppliers to have ISO 9000 certification.²³ As major corporations increasingly choose to certify themselves, it becomes a growing requirement of their suppliers.

On-Site Review of Suppliers

By 1995 major firms producing semiconductors commonly conducted on-site audits of their suppliers. In a 1995 survey of major semiconductor producers, 100 percent of companies conducted on-site audits of their direct material suppliers, 67 percent audited their capital equipment suppliers, and 71 percent audited their indirect materials suppliers.²⁴

The proliferation of these systems requires new firms to take extensive measures to guarantee the quality of their products, as well as be prepared for potential intrusion into the operations of their firm by

buyers. Corporate evaluation of suppliers can be quite detailed. Suppliers may be asked to explain their own internal management systems and provide detail on their production processes, quality assurance processes, financing, records retention, and processing and storage facilities. One corporate quality assurance questionnaire seeks information regarding the adequacy of a supplier company's bathroom facilities. Corporate specifications tend to be much more rigid for direct than indirect purchases.

Increasingly, too, purchasing corporations expect suppliers to engage in engineering and research and development related to the product. Many expect suppliers to be making continuous improvement to materials that will be integrated into the purchasing firm's production process.

These expectations can become a problem for minority firms. Those firms surveyed were convinced that many corporate buyers did not sufficiently understand their capabilities, thereby underestimating their potential for performing quality work. Almost two-thirds (62 percent) of minority firms stated that corporate buyers believed that minority businesses in general have inefficient production processes. Black-owned firms were particularly likely to feel that corporate buyers considered them inefficient.

Yet the majority of minority-owned firms believe that they have adequate capability. Sixty-eight percent consider themselves to have highly trained managerial personnel, 75 percent are satisfied with their capacity

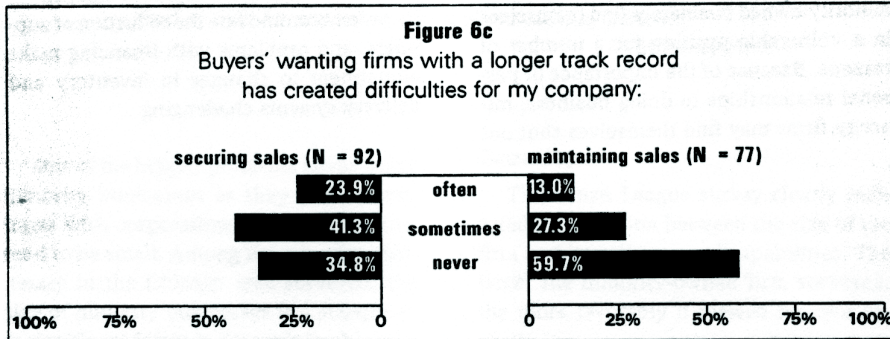
to process documents, and 81 percent are confident of their ability to handle large orders.

For the most part, minority firms in the survey believe that they, and minority firms in general, are qualified to make additional sales to corporations. In some cases, these perceptions are contrary to impressions held by major corporations, many of which feel that lack of minority firms in key areas inhibits their ability to identify minority firms.

- 65 percent of surveyed minority firms feel that it is not difficult to match their skills with a purchasing corporation's needs.
- 66 percent of surveyed minority firms feel that their track record should satisfy corporate buyers.
- 80 percent of minority firms do not feel that they need particularly long lead times to make adjustments to their products that might be desired by corporate buyers, although 40 percent expressed some reservations about their ability to alter their products or services to meet changing corporate needs.

While minority firms may consider themselves to have adequate track records in their fields, corporations are more and more locked into relatively fewer contracts with companies with which they have long-standing relationships.

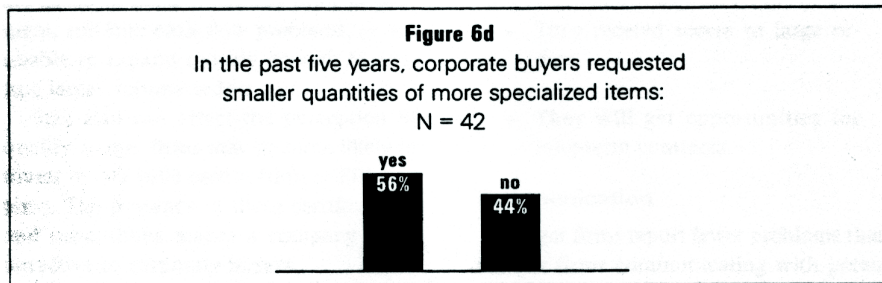
Track Record



Track record is important because it may serve in part as an indicator of potential quality in the mind of the purchasing corporation. The survey indicated that for minority firms, one of the major determinants of the ability to secure sales is the age of the firm.

- Firms reporting that they had difficulty securing sales *often* because of track record averaged seven years in business.
- Firms reporting difficulty *sometimes* or *never* averaged over 14 years in business.

Corporate Demand for Quality Creates Specialty Opportunities



The trend toward greater outsourcing of supplies and services does have some potential benefits for small, minority firms. Small firms specializing in a particular

product or service will have greater opportunities to exploit niche markets and, in those cases, may not have to compete with larger companies.

Why Strategic Changes Can Cause Problems for Minority-Owned Businesses

Introduction

As the strategic changes in corporate procurement described above take place, minority-owned businesses find themselves in a vulnerable position for a number of reasons. Because of the importance of personal relationships to doing business, minority firms may find themselves shut out

of many opportunities. The small average size of minority firms makes it difficult for them to accommodate the reduction of suppliers, and problems with financing make adjustment to changes in inventory and delivery systems challenging.

The Problem of Size

Very often, because we are not large enough to carry a number of new employees, potential sales are lost to larger companies that can afford to wait for payments over a 90- to 120-day period.

— Minority Firm

One of the biggest problems facing many minority businesses as they pursue contracts with corporations is that such firms tend to be small. Among the minority businesses in the Chicago area surveyed, the size of minority businesses is a statistically significant factor in determining how the firm will view its opportunities to secure contracts with corporations and what impediments it will face.

Size is the biggest obstacle to being able to deliver high-volume orders and provide a wide array of products or services that the buyer increasingly demands of a "full-service" supplier. In search of administrative efficiency, buyers seek to establish long-term relationships with relatively few suppliers who can provide them with a wide range of services. Smaller firms also tend to be less well-capitalized and report less access to financing. Financial limitations can be a serious problem when firms are asked to deliver services prior to payment, run into cash-flow problems, or are unable to expand quickly enough to capture larger volume orders.

Size also can affect the perception of quality. Larger firms may be more likely to invest in ISO 9000 certification or EDI systems. The presence of these certifications and capabilities makes a company more attractive to corporate buyers.

Capacity

The Urban League survey clearly indicated a correlation between the size of the firm and its self-assessed capabilities. The larger the minority-owned firm surveyed, the more favorably it viewed its own capacity.

Larger minority firms are more likely than smaller firms to believe:

- They are sufficiently capitalized.
- They have sufficient management systems.
- They have sufficient production capability.
- They have adequate ability to advertise.
- They have a strong track record.
- They receive access to large orders.
- They will get opportunities for long-term contracts.

Communication

Larger firms report fewer problems than smaller firms communicating with poten-

tial buyers. This was reflected in better understanding of quality standards, better perceived ability to bid and negotiate, and greater perceived knowledge of bidding opportunities.

Larger minority-owned firms are significantly more likely than smaller firms to believe that:

- Corporations advertised bidding opportunities sufficiently.
- Corporations communicated their quality standards adequately.

Corporations provided sufficient lead times for bid response.

- Minority-owned firms could negotiate favorable contract terms.

Size, Race, and Contracting

Larger and presumably more successful businesses are less likely than small busi-

nesses to express cynicism on contracting issues that potentially concern race.

Larger minority-owned firms are more likely than smaller firms to believe that:

- Discrimination does not limit their business opportunities.

Cultural misunderstandings had cost them business opportunities.

- Corporate buyers apply regulations inconsistently.

Minority-owned firms often believe that the inconsistent application of regulations or standards is either indicative of or a cover for favoritism based upon race. Owners of minority businesses of all sizes believe that racial barriers continue to exist in the procurement process. It should not be surprising that the more successful (i.e., larger) a business is, the less it is likely to consider race a barrier to success.

Financing

Access to SBA or bank financing of receivables is next to impossible to get without mortgaging your life.

— *Minority Business*

One of the major factors that affects the ability of minority businesses to secure contracts and to expand is access to financing. Financing is important not only for starting a new business, but also for developing the capacity to meet up-front costs on new contracts, to expand to meet volume requests, and to address a host of other business needs related to expansion.

Minority-owned firms surveyed reported significant problems with financing that had an impact on their ability to secure new contracts.

Cash flow requirements have kept 73 percent of minority firms surveyed from securing business.

- Cash flow requirements have kept 64 percent of firms surveyed from maintaining existing sales relationships.

Money for cash flow is important because contracts often require work to begin prior to payment. In some cases, particularly in construction, subcontractors must begin work and receive payment before the general contractor receives the first payment.

Beyond the problems of start-up, receiving payment for orders can be problematic.

- 62 percent of minority firms surveyed reported difficulty receiving payment for orders or work in a timely manner.

Nearly half of minority firms surveyed (44 percent) felt that they were undercapitalized. Of the 128 firms surveyed:

- 14.1 percent reported difficulty receiving financing for **filling orders**.
- 33.6 percent reported difficulty receiving financing for **expansion**.
- 45.3 percent reported difficulty receiving financing for **cash flow**.

Only 41 percent of firms reported having what they considered to be sufficient lines of credit. Forty-seven percent were dissatisfied with the relationship of their firm with the bank.

Firms across all industries indicated problems with financing, but problems ap-

peared most severe for service firms. Fifty-two percent of business service firms and 62 percent of professional service firms felt that they are undercapitalized. The problem may be a result of lack of fixed assets available for collateral.

Firm satisfaction with financing varied significantly across different racial groups. Black-owned firms surveyed were significantly less satisfied with their relationship with their bank than were firms owned by members of other minority groups. Only 43 percent of black-owned firms expressed satisfaction, against 69 percent of other minority-owned firms. On the other hand, Hispanic-owned firms expressed significantly greater satisfaction; 75 percent of Hispanic-owned firms reported satisfaction with their current relationship with their bank.

Hispanic-owned firms have the most difficulty getting paid on time. Fully 80

percent reported difficulty getting paid in contrast with 63 percent of other minority firms.

The size of the firm also contributed to whether it experienced problems with financing (Table 4). Large firms had significantly less difficulty obtaining financing for filling orders and for expansion. However, they reported less satisfaction with their relationships with their banks, and were less likely to have what they considered sufficient lines of credit.

Major corporations in the Chicago area interviewed for the study routinely consider the financial condition of potential supplier firms. Financial condition is important, particularly in consideration of long-term contracts, because buyers want assurance that the firm will be able to deliver key materials or services both immediately and over the long term.

Table 4
Percent of Minority-Owned Firms Experiencing Difficulty by Size of Firm

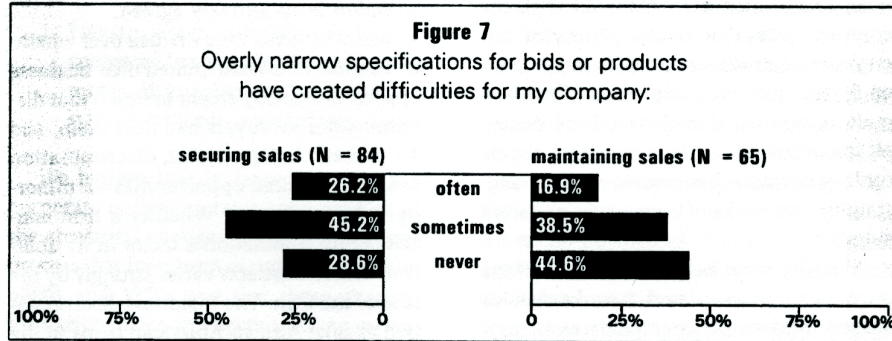
	small	large
filling orders	18%	3%
expansion	40%	19%
cash flow	47%	47%
timely payment	66%	53%
relationship with bank	47%	72%
lines of credit	31%	66%

Source: 1995 Chicago Urban League Survey of Minority-Owned Businesses.

Access to the Inside Game

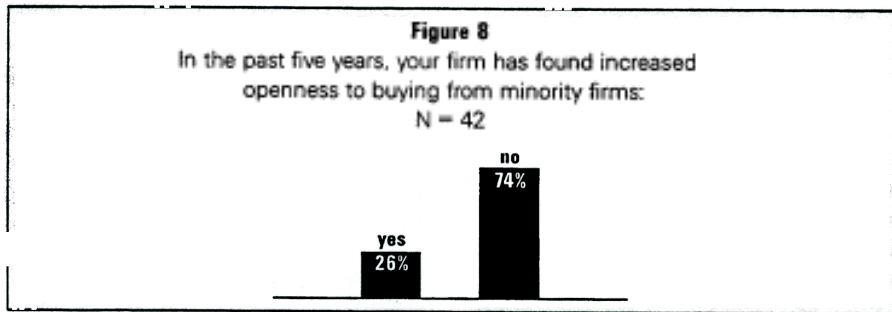
Often contracts are intentionally narrowly defined so as to exclude all but preferred bidders, who may have helped write the specification. Several clients told us that this is a regular practice and that knowledge of such practices rarely gets out into the world.

— Minority Consulting Firm



It is next to impossible to make inroads into any company unless you have personal contact.

— Minority Firm



One of the historical complaints of many minority businesses that have felt excluded from the "old boy" network was that buyers and suppliers would collaborate to create contract specifications to fit the capabilities of a preselected business partner who already had a relationship with the contractor. Because of the history of discrimination against minorities in the United States, many minority-owned firms remain concerned that they will be denied all-important access to contracting opportunities because they remain outside long-standing networks of buyers and preferred suppliers.

Minority firms believe that much of the purchasing process continues to revolve around insider relationships between buyers and suppliers, to which they do not have access.

74 percent of minority-owned firms believe that corporate buyers continue to rely on the "old boy" network.

- 62 percent of minority-owned firms do not think corporations provide enough information about business opportunities.

The insider network is perceived differently in different industries. Professional service firms, in particular, felt that it was hard to get their foot in the door with corporate buyers (71 percent strongly agreed) as opposed to wholesale and retail trade firms, which were ambivalent. Likewise,

both professional and business service firms felt that corporations were not good about circulating word of bidding opportunities (77.8 percent and 70.4 percent, respectively, strongly agreed) while only about one-third of manufacturers and construction firms strongly agreed.

Minority firms were divided over whether discrimination had limited their business opportunities: 40 percent believed that discrimination by buyers had hurt them, and 46 percent believed that discrimination continued to limit opportunities for minority firms in general. Whether a firm considered discrimination a factor in its ability to secure contracts varies strongly by the race of the firm. The historical discrimination against African-American firms in the construction industry by local government has been extensively documented and many African-American-owned firms think they continue to experience discrimination in the private sector.

Indeed black-owned firms surveyed were significantly more likely than other minority-owned firms to believe that discrimination had hurt them and other minority-owned firms in general. Black-owned firms were also significantly more likely to believe that cultural misunderstandings had hurt their own firm.

Longevity and success seem to moderate the fear of discrimination. Firms that reported increased openness to buying from minority vendors had been in business longer than those that reported less openness, averaging 17.4 years, against 12.6 years.

What Is the Impact of These Conditions?

Two major observations can be made about the utilization of minority businesses as suppliers in the private sector:

1. Evidence suggests that utilization is increasing.
2. Private-sector utilization is low compared to utilization by governments of jurisdictions with substantial minority populations.

We believe that in large measure, the corporate utilization rates are a product of the structural changes in the procurement process that have been occurring during the 1980s and 1990s and that these changes threaten to place an effective ceiling on levels of minority business utilization.

Minority Business Enterprise Programs

Among the nation's largest companies, it is now unusual not to operate a formal program for minority business utilization. A formal program includes dedicated professional management, corporate policies, tracking of purchasing, and accountability systems. Highly developed programs include a director of minority purchasing who reports to the vice president of purchasing. Purchasing agents or division heads have goals for using minority vendors that are monitored in their annual performance evaluation. Companies may utilize cross-departmental teams to develop strategies, as well as advisory committees consisting of representatives of minority vendors. All of the major corporations with which we conducted interviews operated a formal program.

Clearly defined minority business procurement programs are far less prevalent among mid-sized and small businesses. Membership in the Chicago Minority Business Development Council, which assists corporations in locating minority-owned firms with which to do business, includes only a few of the Chicago area's mid-sized firms. None of the three mid-sized business-

es that this project studied or solicited for study operated a formal program, dedicated staff for minority procurement, or kept minority utilization statistics.

Our interviews with corporate managers indicated that in some cases there is a sense that the effectiveness of the corporation's minority business development program depends more on the initiative of a lead staff person than on institutional commitment, which is probably weaker in this area than in most others of the business's functions. Development of minority businesses is clearly not the priority of most American businesses. Across the range of a corporation's many core functions such as research and development, production or service provision, marketing, and finance, targeting purchases to minority vendors is a low priority.

Goals for Minority Business Utilization

One of the strategies that business and governments utilize is to set goals for the percentage of their total purchases that come from minority or women vendors. It is not unusual for a local government such as the city of Chicago to have goals of 25 percent or higher for minority contracting. Current contracting goals for the city of Chicago are 25 percent for minority-owned firms and 5 percent for women. Cook County has goals of 30 percent for minorities and 10 percent for women.

Major corporations interviewed for this study would not, for the most part, reveal their specific goals. In some cases the corporation's goal was for the company as a whole and for individual managers to increase their minority firm utilization from one year to the next. One firm interviewed expressed a goal of 6 percent each for minorities and women. Another firm reported 5 percent.

A major Chicago area manufacturer/distributor has set as a goal to go from \$175 million to \$250 million in minority purchases by 1998, a goal that requires a 20 percent annual growth rate in purchasing from

minority firms. Over the past five years this firm had averaged growth in minority-firm-utilization of 16.6 percent.

Utilization of minority firms by government tends to be higher for two reasons. First, governments are far more vulnerable to political pressure from racially diverse constituencies that advocate utilization of businesses owned by members of their racial or ethnic group. Second, governments procure large volumes of construction, an area that has proved conducive to minority business development.

Private-Sector Utilization Rates

Large corporations generally report minority-firm utilization rates of 5 percent or less. The Center for Advanced Purchasing Studies observed 48 utilization percentages for 27 different industries in studies of large firms in major industries conducted from 1989 through 1995. The largest firms in 32 industries benchmarked between

1989 and 1995 averaged between 2 percent and 5 percent minority business utilization (see Table 5).²⁵

Large corporations understand the procurement function as consisting of direct and indirect purchases. Direct purchases include the materials utilized in the production of the product sold by the firm. Indirect purchases include the equipment and services needed to operate the firm or for production.

One of the major problems with corporate minority business development programs is that the bulk of procurement from minority-owned firms consists of indirect rather than direct purchases. More minority firms operate in the indirect areas. Quality certification seems generally to be less rigorous for indirect purchases, meaning that there are more open contracting opportunities than in direct materials. The overall record of one Chicago-area firm is instructive in this regard (see Table 6).

Table 5
Average Utilization of Minority-Owned Firms*

utilization rate	number of industries
less than 2 percent utilization	8
2 percent to 5 percent utilization	32
5 percent to 13 percent utilization	8

*Selected large firms from meta analysis of CAPS studies.

Table 6
Purchases from Minority- and Woman-Owned Firms for a Major Corporation in the Chicago Area

purchase category	percentage of purchases
real estate	20.0%
automobile	14.3%
construction	9.8%
temporary services	9.1%
outsourced: plant	8.0%
materials	7.8%
training and consultants	4.4%
equipment	0.2%
computer	0.2%

In six of the nine purchase categories the participation of minorities and women exceeds 7 percent. However, the two areas, equipment and computers, where participation is less than 1 percent, account for approximately half of the firm's total purchases.

One large chemical manufacturer in the area utilizes a certification process that is extensive and expensive, and the firm has a strong interest in maintaining relatively few suppliers over long periods of time. Although this firm did have two preferred minority suppliers, nonetheless one manager termed its direct purchases as "untouchable" in order to underscore the difficulty of becoming a preferred supplier.

Another major corporation interviewed, which reported an overall utilization rate of 1.3 percent, had a rate of over 10 percent in utilizing minority firms in its purchase of marketing services and over 30 percent in adhesives. Relatively few minority firms produce or sell the raw materials that make up the bulk of the firm's direct purchases.

Firms vary in their approaches to purchasing direct materials. One Chicago-area food processing firm distinguishes between materials that are highly sensitive to consumer taste and those that are not. For commodities that will be used in large quantity and whose quality is unlikely to vary significantly between suppliers, the firm makes purchases almost solely on the basis of price. However, in instances where a relatively unique ingredient is required for the production process, price becomes far less important. The firm will purchase from whoever can deliver the particular product with high quality on a timely basis.

Government requirements are important for generating the utilization of minority businesses. Major construction firms track minority-firm utilization on a project-by-project basis, adopting those goals set by the client. It is also clear that affirmative action requirements for firms doing business with the federal government influence corporations to contract with minority-

owned firms. However, such corporations may have overall minority-firm utilization rates below 5 percent.

There is an interest in buying from minority firms but the standards, specifications, and cost all have a glass ceiling effect.

— Minority Vendor

Many minority firms surveyed questioned the effectiveness of minority business development programs run by corporations and the corporate commitment to those programs.

- 66 percent of minority-owned firms surveyed believed that corporate buyers do not have sufficient incentives to make minority business programs work.
- 57 percent of minority-owned firms did not think corporations were committed to making minority business programs work.

The extent to which minority firms took seriously corporate commitment to minority business enterprise programs varied with the industry they were in. Construction firms, which tended to trust the corporate commitment, differed significantly from minority service firms, which did not believe in a corporate commitment. More than 70 percent of service firms surveyed strongly agreed that corporations lacked commitment to minority business development programs. Only 11 percent of construction firms strongly agreed.

Consistent with their cynicism regarding the motivations behind minority business programs, minority firms expressed ambivalence about their effectiveness. Service firms were significantly less likely to believe that minority business programs had assisted them in securing contracts than were wholesale and retail firms. Over 50 percent of service firms strongly disagreed that minority business enterprise

programs had helped them secure contracts. Service firms, therefore, tended to doubt both corporate commitment to and effectiveness of these programs.

Major corporations interviewed support increased utilization of minority businesses but will not compromise efficiency to do so. Progressive companies require documentation of minority bid solicitation on large contract amounts and require statements from buyers explaining why minority firms were not included if none were

considered in the bidding process. Corporations may request major contractors to include minority subcontractors among their suppliers. Unless the corporation has a government client, however, these strategies are generally voluntary. In general, corporations were interested in helping minority-owned firms develop into stronger companies but did not consider minority status sufficient reason to direct business to a firm.

Developing Minority-Owned Firms in Supplier Bases

Purchasing from minority-owned businesses helps build a stronger Chicago community. Minority-owned firms are an important source of jobs for people living in inner-city neighborhoods. Private-sector purchasing utilizes the competitive marketplace to diversify wealth across all types of communities.

In order to accommodate the many changes taking place in the procurement environment, corporations can do a number of things that will lead to expansion of minority business while developing high-quality, cost-efficient suppliers:

- Utilize organizations such as the Chicago Urban League, the Chicago Minority Business Development Council, and the Cosmopolitan Chamber of Commerce to fill available contracting opportunities.
- Develop small but growing firms through utilization of mentor/pro-tégé contracting arrangements to expand their capability.
- Encourage small firms with complementary attributes to enter into supplier contracts as partners, thereby expanding their capacity.
- Assist qualified firms to develop any required EDI capacity and certifications as well as to obtain financing.
- Encourage or require major suppliers to utilize minority businesses.
- Look beyond established supplier relationships for highly motivated, new entrepreneurs.

Data Sources

Survey

The Chicago Urban League utilized a mail survey sent to approximately 800 firms identified as minority owned through certification with the Chicago Minority Business Development Council in the fall of 1995. Distribution of the survey was limited to companies that would be expected to engage in large volumes of business-to-business transactions. Therefore, most retail firms were excluded. The distribution also excluded most of the area's minority firms engaged in construction because the League has extensive experience with the construction industry and wished to focus this research on firms in other industries. The League received 128 usable surveys. The survey was developed by staff of the Chicago Urban League, the Executive Service Corps, and the Chicago Minority Business Development Council. One section of the survey is comparable to a survey utilized by Dollinger and Daily in a study of the problems corporations encounter when they purchase from minority business enterprises.²⁶

Businesses responding to the survey had the following characteristics:

Race

African American	60.2%
Latino	19.5%
Asian	18.8%
Other	1.6%

Number of Employees

1 to 10	56.5%
11 to 20	17.7%
21 to 40	12.1%
41 and over	13.7%

Industry

agricultural services	1
construction	9
manufacturing	25
transportation	8
retail trade	26
real estate	1
services	58

Year Started

1948 to 1969	10.4%
1970 to 1979	19.2%
1980 to 1989	47.2%
1990 to Present	23.2%

Corporate Interviews

Project staff conducted formal interviews with purchasing department management and buyers in seven national corporations operating in the Chicago area. Corporations selected represent major industries such as technologies, chemicals, manufacturing, food, and professional services. Because several of these companies shared proprietary information with interviewers, the Urban League agreed to in no way reveal the identity of corporations providing information. Nonproprietary information obtained from informal interviews with staff of three additional companies that chose not to participate formally in the study is also utilized in this report.

Project staff also conducted two focus groups with managers and owners of minority firms to discuss issues related to minority business growth and development.

Notes

¹ 1992 *Survey of Minority-Owned Business Enterprises: Black-Owned Businesses* (Washington D.C.: Bureau of the Census, 1996).

² The census survey excludes Subchapter C corporations.

³ 1992 *Economic Census, Survey of Minority-Owned Business Enterprises, Black* (Washington, D.C.: Bureau of the Census, 1996), p. 23.

⁴ Thomas Klier, "The Impact of Lean Manufacturing on Sourcing Relationships," *Economic Perspectives* (July/August 1994), pp. 8-17.

⁵ Robert M. Monczka, Ernest L. Nichols, Jr., and Thomas J. Callahan, "Value of Supplier Information in the Decision Process," *International Journal of Purchasing and Materials Management* (Spring 1992), p. 28.

⁶ William D. Presutti, "Technology Management: An Important Element in the Supplier Capability Survey," *International Journal of Purchasing and Materials Management* (Winter 1991), p. 14.

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⁸ Michael G. Kolchin and Larry Giunipero, *Purchasing Education and Training Requirements and Resources* (Tempe, Ariz.: Center for Advanced Purchasing Studies, 1993), p. 41.

⁹ Robert M. Monczka and Robert J. Trent, *Purchasing and Sourcing Strategy: Trends and Implications* (Tempe, Ariz.: Center for Advanced Purchasing Studies, 1995), pp. 12, 66.

¹⁰ Kolchin, p. 41.

¹¹ Richard E. Plank and Valerie Kijewski, "The Use of Approved Supplier Lists," *International Journal of Purchasing and Materials Management* (Spring 1991), pp. 39, 40.

¹² *Purchasing Performance Benchmarks: Food Manufacturing*, 1991 and 1993; *Automotive Industry*, 1993; *Textiles Apparel Industry*, 1993 (Tempe, Ariz.: Center for Advanced Purchasing Studies).

¹³ Kolchin, p. 41.

¹⁴ Julie J. Gentry, *Purchasing's Involvement in Transportation Decision Making* (Tempe, Ariz.: Center for Advanced Purchasing Studies, 1991), pp. 26, 27.

¹⁵ H. St. John Caron and Krik C. Heriot, "Small Suppliers and JIT Purchasing," *International Journal of Purchasing and Materials Management* (Winter 1993), p. 12.

¹⁶ Debra Seaman, et al., *U.S. Aerospace/Defense Contracting Industry 1995* (Tempe, Ariz.: Center for Advanced Purchasing Studies, 1995), p. 11.

¹⁷ Robert J. Thierauf, *Electronic Data Interchange in Finance and Accounting* (New York: Quorum Books, 1990), p. 4.

¹⁸ Thierauf, p. 13.

¹⁹ *Automotive Industry*, 1993; *Transportation Industry*, 1993, 1991 (Tempe, Ariz.: Center for Advanced Purchasing Studies).

²⁰ Richard Bort and Gerald R. Bielfeldt, *Handbook of EDI* (Boston Mass.: Warren, Gorham & Lamont, 1994), pp. B4-23.

²¹ Monczka, pp. 10, 68.

²² *Transportation Industry*, 1993; *Semiconductor Industry*, 1995 (Tempe, Ariz.: Center for Advanced Purchasing Studies).

²³ *U.S. Computer and Telecommunications Equipment Industry*, 1993 (Tempe, Ariz.: Center for Advanced Purchasing Studies).

²⁴ *U.S. Semiconductor Industry*, 1995 (Tempe, Ariz.: Center for Advanced Purchasing Studies).

²⁵ *Purchasing Performance Benchmarks*. Reports utilized were the following: Debra Seaman, Amelia Carr, Kimberly Lillesand, Janet Rohrback, *U.S. Aerospace/Defense Contracting Industry*, 1995; Seaman, Laura Ogden, Brett Hopkins, Michael D. Braun, *U.S. Aerospace/Defense Contracting Industry*, 1993; Jeffrey McGuire and Michael Haskell, *U.S. Appliance Industry*, 1992; Seaman, Ogden, Hopkins, Suzanne Lemmens, *Automotive Industry*, 1993; Seaman and Rodney Doerr, *Carbon Steel Industry*, 1991; Seaman, Hopkins, Ogden, *Chemical Industry*, 1993; Seaman, Carr, Carrie Davis, *Chemical Industry*, 1995; *U.S. Computer and Telecommunications Equipment Industry*, 1993; Seaman and Hopkins, *U.S. Construction/Engineering Industry*, 1994; Seaman, Braun, Ogden, 1993; Seaman, Ogden, Hopkins, *U.S. Electrical Equipment Industry*, 1993; Seaman, Hopkins, Ogden, *Electronics Industry*, 1993; Seaman and Haskell, *U.S. Food Manufacturing Industry*, 1993; Julie Gentry and Linda Stanley, *U.S. Food Manufacturing Industry*, 1991; Rich-

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²⁶ Marc J. Dollinger and Catherine M. Dally, *Purchasing From Small Minority-Owned Firms: Corporate Problems* (Tempe, Ariz.: Center for Advanced Purchasing Studies, 1989), pp. 37, 38.

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