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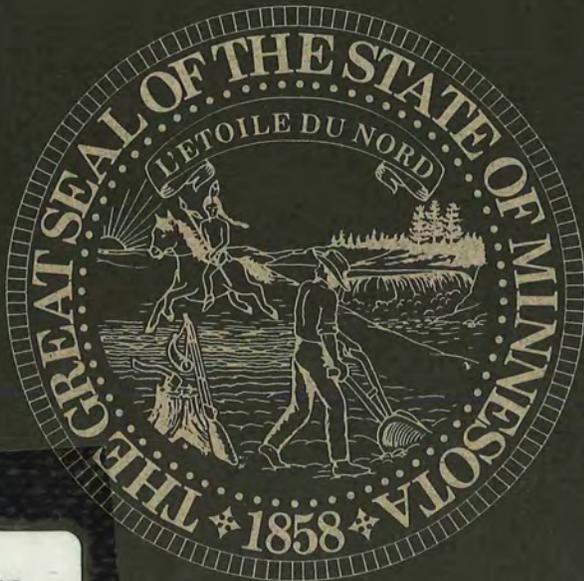


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STATE OF MINNESOTA

# Department of Administration

MANAGEMENT  
ANALYSIS DIVISION



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A Study of  
**Discrimination  
Against Women-  
and Minority-owned  
Businesses**

and of Other  
Small-business  
Topics

APPENDICES

Book 1 of 2

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STATE OF MINNESOTA

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Part 2 of 3 parts

A study of  
Discrimination Against  
Women- and Minority-owned Businesses  
and of Other Small-business Topics

Appendices

Book 1 of 2

Minnesota Department of Administration

Management Analysis Division

January 1990

203 Administration Building, 50 Sherburne Avenue, St. Paul, MN 55155

A study of  
Discrimination Against  
Women- and Minority-owned Businesses  
and of Other Small-business Topics

Appendices

This document accompanies the 1990 study of Discrimination Against Women- and Minority-owned Businesses and of Other Small-business Topics report prepared by the Minnesota Department of Administration's Management Analysis Division pursuant to Minn. Laws 1989, Chapter 352, Sec. 22. The appendices contain both supplementary and explanatory materials regarding the research conducted by Management Analysis and other involved parties.

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APPENDIX A.  
Data Collection Methods

## APPENDIX A. Data Collection Methods

Management Analysis incorporated several techniques in data collection. To be specific, standard methods were used in selecting agencies for examination, sampling, product/contract coding, and information and data management. Additional procedures were developed for dealing with data limitations.

### Selecting agencies for study

Management Analysis collected contracting and purchasing data from a cross section of state and metropolitan agencies: the Minnesota departments of Administration, Transportation and Finance, the Metropolitan Council, the Metropolitan Mosquito Control District, the Metropolitan Waste Control Commission, the Metropolitan Airports Commission, the Metropolitan Transit Commission and the University of Minnesota.

These agencies were selected on the basis of four criteria:

1. That agencies dominating total state contract and purchasing expenditures be included (i.e., the Departments of Administration and Transportation).
2. That both state and metropolitan jurisdictions be explored.
3. That agencies with varying statutory definitions and powers be studied.
4. That the data required from the agency be accessible in terms of the study's resources and time frame.

### Sample size

Management Analysis collected information from nine state and metropolitan agencies. Sample sizes were determined using the University of Minnesota Survey Research Center's EPISAT computer program. The following assumptions were used in the computation:

1. That the characteristic being sought in the population occurred approximately 10 percent of the time. The effect of this assumption is to assume that the number of women/minority business enterprises in the population being examined is approximately 10 percent. In several instances, the assumption was made that the proportion could be as high as 50 percent. This increased the sample size and in some cases made sampling unfeasible. After consultation with individuals at the center, it was concluded that, while a 50 percent assumption yielded the most conservative results, an assumption of 10 percent was reasonable, considering the knowledge of the population.

2. That the estimate of the population characteristic could be wrong by no more than 3 percent. This means that the estimate would be in the range of plus or minus 3 percent of the actual.

3. That Management Analysis could be 95 percent confident under typical statistical assumptions that the estimate would be within this range of plus or minus 3 percent.

It should be noted that random sampling assumes an independent binomial distribution. The assumption of randomness is necessary for sampling and such techniques have been accepted by the courts.

#### The use of Standard Industrial Classification (SIC) Codes

In this study, it was necessary to define markets in order to test disparity. Key to this was the definition and classification of various industry types. Standard Industrial Classification (SIC) Codes were used to categorize industries and standardize data within the study.

The SIC system was developed by the federal government as a data analysis tool for classifying establishments by activity type; for facilitating the collection, tabulation, presentation and analysis of data relating to establishments; and for promoting uniformity and comparability in the presentation of statistical data collected by various agencies of the United States Government, state agencies, trade associations and private research organizations. SIC codes cover entire fields of economic activity: agriculture, forestry, fishing, hunting and trapping; mining; construction; manufacturing; transportation; communications; electric, gas and sanitary services; wholesale trade; retail trade; finance, insurance and real estate; personal, business, professional, repair, recreation and other services; and public administration.

Businesses are categorized through the use of four-digit SIC codes. Industries are classified with increasing specificity with the addition of each number. For example:

- 15 = construction
- 152 = residential building construction
- 1521 = single-family housing construction

Ideally, four-digit SIC codes are used for industrial classification. In this study, however, market definition by four-digit code was impossible. In most cases, the sample sizes produced by four-digit SIC codes were too small and small numbers resulted in the identification of specific firms. To ensure adequate sample sizes and to avoid problems of confidentiality, this study utilized more general three-digit SIC codes.

Unless otherwise noted in the data collection outline (Appendix B), Management Analysis assigned the SIC codes. In some cases, SIC codes were determined on the basis of product descriptions and/or vendor

information. In other cases, such as the Department of Administration files, state object codes were used to classify contracts and purchase orders. Using information provided by the Department of Jobs and Training, Management Analysis reclassified state object codes into SIC codes.

In all cases, four-digit codes were initially assigned to the data. It was not until later in the study that these codes were collapsed into three digits.

#### Data management

In this study, dBase III Plus software was used for data management. Data bases were constructed for each agency using this program.

A spreadsheet program was necessary for some calculations. Lotus 123 software was used.

#### Data limitations

In some cases, required data was unavailable or not easily obtainable. A basic procedure was used to manage these situations. Simply put, the accessibility of the data was weighed against the study's resources and time line. Management Analysis strived to examine as great a variety of agencies as possible, obtaining diverse information in the most cost-efficient manner.

Each agency presented unique data collection challenges to Management Analysis. See Appendix B for more detailed agency-specific information.

APPENDIX B.  
Data Collection

## APPENDIX B. Data collection

Management Analysis collected contracting and purchasing data from a cross section of state and metropolitan government agencies: the Minnesota Departments of Administration, Transportation and Finance, the Metropolitan Council, the Metropolitan Mosquito Control District, the Metropolitan Waste Control Commission, the Metropolitan Airports Commission, the Metropolitan Transit Commission and the University of Minnesota. Information tended to vary for each agency in terms of availability, type, specificity, comprehensiveness and format. As a result, differences arose in the techniques used in preparing data. This appendix outlines these variations and notes the specific data problems associated with each agency.

### DEPARTMENT OF ADMINISTRATION

#### Commodity purchases

The Department of Administration conducts central purchasing of standard items for all state agencies through its Procurement Automated Logistics System (PALS). Only commodities are represented in PALS. Construction expenses, local purchases and contractual agreements are not included.

The Department of Administration's Materials Management Division provided Management Analysis with information regarding all commodity purchases made through PALS for Fiscal Years 1988 and 1989. In Fiscal Year 1988, 12,421 purchase orders were identified in 136 object codes. In Fiscal Year 1989, 10,149 purchase orders were identified in 131 object codes. Management Analysis specified a stratified sampling framework by object code for the 22,570 records. The Materials Management Division drew the random sample of 10,808 records.

Materials Management provided Management Analysis with sample data on computer disk. Each record contained a requisition identification number, the date of purchase, the object code associated with the purchase, the dollar value of the purchase and the race/gender of the vendor. To standardize the data, Management Analysis reclassified state object codes into SIC codes, using information provided by the Department of Jobs and Training.

PALS provided no information regarding set-aside or preference awards. To identify these records, it was necessary to consult handwritten 1988 and 1989 reports that contained requisition identification numbers for all set-aside or preference awards. A listing of these identification numbers was compiled on dBase III Plus and compared with the data base of sample information. If a requisition identification number appeared on both files, the record was marked as set-aside/preference in the sample data base.

It should be noted that this information is not specific to the Department of Administration. The data represents purchase orders

made through PALS. All state agencies, such as Transportation and Natural Resources, utilize materials purchased through the system.

#### Construction contracts

The Department of Administration provided Management Analysis with access to all nontransportation construction records. These files were not computerized, but were kept by contract number in drawers.

Management Analysis took a random sample of these records. First, each file dating from July 1987 to July 1989 was numbered and a total count was made. From that population, a sample of 274 was selected using a random number generator.

For each selected file, Management Analysis recorded the project type, the award dollar value, the name of the successful bidder, and the race/gender of that bidder. Information regarding the use of set-aside or preference was also obtained.

Using project-type information, Management Analysis assigned SIC codes to each contract. This standardized the data.

Names of women and minority subcontractors and the dollar values associated with their participation were secured from the Department of Administration's files. Since the total number of subcontractors used on a particular project was not known, a ratio of minority/women business enterprise opportunities for contracting could not be calculated. A ratio of minority/women business enterprise dollars, however, could be determined.

It is important to note that the Department of Administration does not conduct worksite checks to ensure that a prime contractor utilizes a specified minority/women business enterprise subcontractor. Statistical results based on this information should be considered in this light.

#### Commodity contracts

The Department of Administration maintains a file containing copies of all executed long-term requirement contracts. Management Analysis found this file of little use, since individual agencies purchase directly from the contracts and retain opportunity and dollar information within their own organizations.

Because of the difficulty in organizing a manual sampling of these agency files, it was decided not to attempt such an undertaking at this time. Commodity contracting data, however, is represented in the Department of Finance's Statewide Accounting System's (SWAS) report.

## DEPARTMENT OF TRANSPORTATION

### Architect and engineering agreements

The Department of Transportation provided Management Analysis with information from its computerized architect and engineering agreement data base. This base contained information on active projects that had not been completed. Both prime and subcontractors were represented. Agreement dates ranged from Sept. 13, 1979, to Aug. 31, 1989.

As of Oct. 25, 1989, the data base contained 161 records. Management Analysis drew a random sample of 115 from this population.

Award dollar amounts as well as race and gender information were provided for each prime and subcontractor. All activities were classified under the general heading of "architect and engineering services" (state object code 163). More detailed information regarding the nature of each agreement was not available from the Department of Transportation.

To standardize the data, Management Analysis reclassified agreement activities into SIC codes, using information provided by the Department of Jobs and Training. For the most part, codes 8711 (engineering services) and 8712 (architectural services) were used. In some cases, when a firm's name provided distinguishing information, more-specific SIC codes were assigned.

Set-aside or preference programs were not used in the selection of prime contractors. For agreements of more than \$200,000, however, the Department of Transportation utilized a special subcontracting goal -- at least 10 percent of the agreement's total dollar value was subcontracted to women- and minority-owned firms. Of the initial 161 records, 52 agreements had dollar amounts of more than \$200,000.

### Highway construction contracts

The Department of Transportation provided Management Analysis with information from its Bid Analyzing Managing System (BAMS). This data base holds information on prime highway construction contractors. BAMS was introduced in July 1988 and became fully functional in April 1989.

As of Oct. 18, 1989, the base contained 372 records, representing contracts started between 1987 and 1989. Using a series of randomly generated numbers and an enumerated listing of all BAMS entries, Management Analysis chose a random sample of 188 records for study.

The total contract dollar amount was provided for each record. In some cases, federal dollars were included. No special provisions were made for these contracts. Even though federal funds were involved, the Minnesota Department of Transportation managed their disbursement.

The Department of Transportation also supplied the race and gender of each prime contractor and state object code activity descriptions. To standardize the data, Management Analysis reclassified contract activities into SIC codes, using information furnished by the Department of Jobs and Training.

No prime highway construction contractors were selected under set-aside or preference programs.

Management Analysis relied on the Department of Transportation's Equal Employment Opportunity Contract Management Division for subcontracting information. A listing of all women and minority subcontractors utilized from July 1, 1988, to Sept. 30, 1989, was supplied. This listing represented all SED subcontractors who participated in construction projects funded in part by federal dollars. Race and gender information was provided as well as subcontract dollar amounts and work-type codes. Department of Transportation work-type codes were reclassified into SIC codes by Management Analysis.

Equal Employment Opportunity Contract Management reported to Management Analysis that all subcontracting jobs were regulated. That is, a check was made at the work site to ensure a subcontractor's participation.

There were limitations to the provided subcontracting information. First, data on all subcontractors was not readily available. In particular, information was not available on white male subcontractors. Second, subcontracting information for state-only funded projects was not given. Finally, subcontracting information after the dissolution of the SED program was not available.

#### DEPARTMENT OF FINANCE

##### Statewide Accounting System transactions

The Department of Finance provided Management Analysis with information regarding all transactions for Fiscal Year 1989 made through Minnesota's Statewide Accounting System (SWAS). Information was arranged by object code. For each, the number and value of vendor payments were supplied. In addition to an overall summary, separate reports were produced for payments made to black, Hispanic, Asian, Aleut, American Indian, female and disabled vendors.

To standardize the data, Management Analysis reclassified state object codes into SIC codes, using information provided by the Department of Jobs and Training.

The materials from the Department of Finance lacked true measures of opportunity, because the number of vendors associated with each object code was not provided. Rather, the SWAS reports supplied the number of associated payments. Testing disparity in opportunity was therefore impossible.

The SWAS information differed from much of the data utilized in this study. Only summary information was available (sets of object code totals). As a result, Management Analysis was unable to examine individual transactions. There was, however, adequate information to test disparity in the number of dollars awarded.

It is important to note that information from other sources may be duplicated in the SWAS reports (Departments of Administration and Transportation purchasing and contracting files).

#### METROPOLITAN COUNCIL

##### Contract agreement and purchasing data

The Metropolitan Council provided Management Analysis with computerized data on all contract agreements and purchases made in Calendar Years 1987 and 1988. This base included 2,752 records. Each record contained a description of the purchase or contract, the date of order, a project number; a purchasing code, the amount encumbered and the amount disbursed. No Metropolitan Council awards were based on set-aside or preference programs.

Additional information regarding SIC codes and the race/gender of vendors was provided by the Metropolitan Council on hard copies of the data base. Federally funded items and nonprocurement records were marked for deletion on these copies.

Once Management Analysis had eliminated all federally funded and nonprocurement records from the data base, and had entered all race, gender and purchasing code information, a stratified sample was taken by SIC code; 137 SIC codes were used to establish a total sample size of 2,026.

#### METROPOLITAN MOSQUITO CONTROL DISTRICT

##### Goods and services procurement

The Metropolitan Mosquito Control District staff provided Management Analysis with a report outlining 1988 goods and services procurement. The report included information on office expenditures, field supplies, field operations, automotive costs, research and lab supplies, travel expenses, control materials, helicopter costs, consultant fees and legal services. These general classifications were broken down into more specific categories by the district staff (e.g., furniture, computers, chemicals, repair and maintenance). Management Analysis assigned SIC codes to these categories in order to standardize data within the study.

For each specific category, the report summarized the total number of awards; the number of awards made to female-, black-, American Indian-, Asian- and Hispanic-owned businesses; the total dollars awarded; and the number of dollars awarded to female-, black-,

American Indian-, Asian- and Hispanic-owned businesses.

In the report, the number of awards was equal to the number of checks written. Checks were written in response to either invoices or monthly statements. Therefore, a check written in response to an invoice for a specific good or service was defined as one award. A check written in response to a monthly statement was also defined as one award, even though it may have included many separate monthly purchases.

One note of caution needs mention. Due to the manner in which the number of awards was calculated, it is difficult to statistically test disparity in opportunity. The number of checks written does not precisely represent the number of awards. A true measure of opportunity, therefore, is unavailable.

The information provided by the district staff differs from much of the data utilized in this study. Only summary information (sets of totals) was available. As a result, it was impossible to examine individual purchase orders or contracts. There was, however, adequate information to test disparity in the number of dollars awarded.

#### METROPOLITAN WASTE CONTROL COMMISSION

##### Purchase order payments

The Metropolitan Waste Control Commission supplied Management Analysis with Calendar Years 1988 and 1989 purchase order payment reports on computer disk. The reports represented 17,185 records, ranging in date from Jan. 1, 1988, to Oct. 13, 1989.

For each record, the reports provided the purchase order date, the vendor's name, a brief description of the purchase and the dollar amount of the order. SED vendors were designated, but their race and gender were not specified. To acquire this information, Management Analysis consulted listings of qualified SED vendors and added specific race/gender information to the reports.

Management Analysis drew a stratified sample from these reports. All 17,185 records were sorted by their purchase order descriptions and SIC codes were assigned. Thirty-five codes were used to categorize the data. Random samples were then taken from these SIC code groupings. In total, 4,457 records were selected for study.

Five contracts in the sample were awarded on the basis of set-aside or preference. In each case, the contract was for janitorial services. These records were identified by the commission.

## METROPOLITAN AIRPORTS COMMISSION

### Purchasing information

Information regarding purchasing was not collected from the Metropolitan Airports Commission because the applicable records were not computerized. This made it impossible to ensure the selection of sufficient samples by product type or SIC code, thus jeopardizing statistical validity.

Management Analysis felt that the hours necessary to organize and conduct a manual search seemed excessive in light of the need to gather a cross-section of data from state and metropolitan agencies.

### Federally assisted construction contracts

Federally funded construction projects were omitted from the data search, since federal minority/women business enterprise programs operate under different guidelines. Unlike Minnesota's program, federal policies were not affected by the U.S. Supreme Court's Croson decision.

### Nonfederally assisted construction contracts

The Metropolitan Airports Commission provided Management Analysis with information regarding all nonfederally funded construction contracts for Calendar Years 1987 and 1988. Twenty records were provided for 1987, and 62 for 1988. Activity descriptions and project dollar amounts were given for all records. The commission also identified the race and gender of each contractor. One prime contracting award was made based on set-aside or preference.

Using the activity descriptions provided by the commission, Management Analysis assigned SIC codes to each contractor. This standardized the data for study.

A sample of 67 records was taken from the total population of 82. Records were enumerated by Management Analysis and a sample was drawn using a table of random numbers.

## METROPOLITAN TRANSIT COMMISSION

### Contracting data

The Metropolitan Transit Commission furnished Management Analysis with contracting data ranging in date from 1967 to 1989.

Information was provided for contracts regarding leases, service agreements, interagency agreements, bus purchases, professional services, construction, consumables, equipment, architectural engineering, software maintenance, copier maintenance, equipment

maintenance, transit services, leased copiers, software leases, bus shelters, park and ride expenses, bus turnarounds, revenue generation, time and materials, cooperative agreements, real estate acquisitions and miscellaneous services. All material was on computer disk.

For each record, the data base provided a contract number, the vendor's name, whether the contract was active or retired, a contract code, a description of the contract, who initiated the contract, miscellaneous remarks concerning the contract, the dollar value of the contract, the contract's due date and a contract flag date.

Management Analysis chose to use 1987 and 1988 contracts for study. This provided two full years of data. Information on 1989 contracts was not yet complete.

Some contracts did not have years assigned to them and were not used. These were primarily service agreements. In addition to the ambiguous nature of their date, these records occasionally contained cumulative dollar values, rather than specific yearly totals.

There were 224 contracts dated 1987 or 1988. Of these, 125 were omitted because their dollar value was rate-variable and/or it was not provided. Interagency agreements, cooperative agreements and revenue-generating contracts were also excluded, leaving a total of 89 records. By numbering the 89 records and using a table of random numbers, Management Analysis drew a sample of 72.

Using contract description information, Management Analysis assigned SIC codes to the records. This standardized the data. To determine each vendor's race and gender, vendor names were checked against an SED certification listing provided by the Metropolitan Transit Commission. No contracts were awarded on the basis of set-aside or preference programs.

Only prime contractor information was provided to Management Analysis. Therefore, subcontracting awards to SED vendors were not included. Some indication of SED subcontracting may be gleaned from the Metropolitan Transit Commission's 1988 Report to the State Legislature on Procurement and Contract Awards to Socially and Economically Disadvantaged (SED) Businesses. Information from that report demonstrated that approximately 3 percent of all construction, consultant, professional and technical service contract dollars were awarded to SED prime and subcontractors.

#### Procurement data

Information regarding the Metropolitan Transit Commission's procurement from all vendors was not readily available to Management Analysis. Due to time and resource constraints and the necessity to collect a cross section of data from state and metropolitan agencies, a study of these records was not undertaken.

UNIVERSITY OF MINNESOTA

Purchasing information

The University of Minnesota purchasing records for the most recent fiscal years are not computerized. Records for purchasing transactions are executed in numerical order and when completed are filed in sequence. Certain types of files are kept in separate file drawers or on different floors of the building, even though they are all within the same numbering sequence.

Because of this arrangement, a stratified sample by type of service or product purchased was not possible. With the assistance of university personnel, the numbering sequence beginning in September 1987 and ending with August 1989 was identified. During this time, a series of 106,822 files, each representing one purchasing opportunity, was identified. A sample size of 1,077 was determined appropriate for this size population and random numbers were generated for file selection.

Using the data collection form (immediately following this section), each file identified from the random number list was identified and the information entered on the form. The files did not contain information about race or gender of the owner of the successful firm, but it did reflect whether the purchase was made using set-aside or preference.

Ownership characteristics of the firm were obtained by manually searching the alphabetical list of women and minority vendors maintained by the University Purchasing Office. If a firm did not appear in the book, it was assumed to be owned by a white male.

After this information was entered, the service or product was classified by SIC code using the 1987 SIC manual.

Because the files are neither computerized nor organized by product type, it was not possible to stratify the sample by product type to ensure more accurate representation of all purchasing. Knowing which files represent each product would allow both more complete information on the products involved and more precise results for each product.

The university was able to identify total expenditures for construction for a two-year period and their estimate of the total value of prime and subcontracts that went to women- or minority-owned vendors. From this, a proportion based on dollar value could be calculated for the construction expenditures. However, there was not sufficient information to calculate the proportion of opportunities going to women- or minority-owned businesses from this construction data (see Appendix H).

UNIVERSITY OF MINNESOTA  
PURCHASING FILES DATA COLLECTION FORM

TYPE OF FILE:

CIRCLE ONE:

BID  
PLAIN REQUISITION  
QUICK ORDER  
EMERGENCY QUICK ORDER  
CONSULTING  
CONSTRUCTION  
OTHER

TYPE OF PRODUCT OR SERVICE \_\_\_\_\_

NAME AND ADDRESS OF SUCCESSFUL VENDOR:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DOLLAR VALUE OF BID OR CONTRACT

\$ \_\_\_\_\_

LET ON SET-ASIDE OR PREFERENCE?

YES            NO

RACE OR GENDER OF OWNERSHIP OF VENDOR (Check books of ownership characteristics - if listed, identify race or gender). CIRCLE APPROPRIATE TITLES.

WOMAN OWNED  
BLACK  
HISPANIC  
NATIVE AMERICAN  
ALEUT  
ASIAN  
DISABLED  
MALE OWNED  
CAUCASIAN

APPENDIX C.

1989 Survey of Women- and Minority-owned Firms:  
A Study of Discrimination and Other  
Obstacles to Business Operation

## APPENDIX C. 1989 Survey of Women- and Minority-owned Firms: A Study of Discrimination and Other Obstacles to Business Operation

The University of Minnesota Survey Research Center contracted to conduct a survey of women- and minority-owned businesses in Minnesota to identify patterns of business experience that could be compared with the results of the 1987 Minnesota New Firms Study and to identify patterns of perceived discrimination among women- and minority-owned firms.

The 1982 Census of women- and minority-owned firms estimated the population of such firms in Minnesota to be 66,000. A sample of 1,067 firms from such a population would yield statistically valid results. It was estimated that 1,600 firms would be surveyed to achieve desired results.

Lists of women/minority business enterprises were compiled from each of the state and metropolitan agencies with vendor programs. In addition, lists were obtained from the Small Business Administration, the City of St. Paul and the City of Minneapolis. Lists were secured from private-membership organizations such as the Hispanic Chamber of Commerce and WEDCO (the Women's Economic Development Corporation). Each firm name was individually numbered and from that population a sample selection was made.

The random selection process was followed until it became clear that it would be impossible to reach the desired number without including all names on the lists (without duplication). After consultation with the Survey Research Center, it was decided to proceed on this basis.

Since no comprehensive listing existed of all minority/women business enterprises in Minnesota, it was not possible to draw a sample that would guarantee a testing population similar to the entire population. Recognizing this inherent limitation, a sample drawn from certification and membership lists allowed for a twofold identification of discrimination patterns: first, by comparing the types of responses against the sample of white-male-owned firms contained in the 1987 Minnesota New Firms Study and, second, by comparing differences found in the 1989 survey on the basis of race and gender.

### Survey questions

Questions were developed in three steps. First, the questionnaire developed for the 1987 Minnesota New Firms Study provided a base set of questions to be asked of women/minority business enterprises. This allowed comparison of the responses.

The second step was to work with the Minnesota Attorney General's Office and Department of Administration purchasing program personnel to develop other topics that would provide information

relevant either to meeting the test of the Croson case or to evaluating program effectiveness.

The third step was to forward these proposed questions and topics to the University Survey Research Center for its revisions. Center staff tested the survey questions with a small sample mailing and made additional changes to the questions based on the test results.

The final questionnaire is presented in the Survey Research Center's methodological outline that follows this section.

University of Minnesota Survey Research Center  
methodological outline

The University of Minnesota Survey Research Center provided Management Analysis with a technical report that outlined research goals, study management, survey design, sampling design, data collection procedures, data management, completion status and sampling error information for the 1989 Survey of Women- and Minority-owned Firms: A Study of Discrimination and Other Obstacles to Business Operation. Samples of the utilized questionnaire and cover letters were also included.

This methodological outline is presented in its entirety.

**TECHNICAL REPORT # 90-2**

**Submitted to Ken Nickolai  
Minnesota Department of Administration**

**January 8, 1990**

**FEMALE AND MINORITY BUSINESS OWNER SURVEY:  
RESULTS AND TECHNICAL REPORT**

**Prepared by: Nancy Davenport-Sis**

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## TECHNICAL REPORT

### FEMALE AND MINORITY BUSINESS OWNER SURVEY

#### OVERVIEW

This Female and Minority Business Owner Survey for the Minnesota Department of Administration was conducted as a mail survey by the Minnesota Center for Survey Research (MCSR), part of the University of Minnesota.

The goal of this survey research was two-fold: 1) to better understand the problems that business owners face in operating their business, and 2) to identify whether discrimination is occurring toward female and minority owned business owners.

During a ten week period beginning October 4, 1989, mailing and collection of female and minority business owner surveys was conducted. In an effort to increase the response rate on the project, approximately half of the nonresponding business owners were contacted by telephone. A total number of 687 surveys were completed for the Female and Minority Business Owner Survey. The projected response rate is 64%.

#### GOALS

The goal of this survey research was two-fold: 1) to better understand the problems that business owners face in operating their business, and 2) to identify whether discrimination is occurring toward female and minority owned business owners. This project is part of a much broader study intended to make recommendations to the legislature on legislation affecting businesses in Minnesota.

Respondents answered questions about the nature and size of their business, their past and current problems in running their business, the interest in existing or proposed business support programs, the amount and source of external financing, discrimination, and if their business has participated in set aside or purchasing preference programs. It is anticipated that the results of this study will provide useful information for legislators making decisions about policies that affect the Minnesota business owner.

**MANAGEMENT PLAN**

The overall coordination of the project was provided by the Survey Manager, Nancy Davenport-Sis. This included all phases of the research, from finalizing the survey instrument to the delivery of the data. The data collection and data processing were also coordinated by the Survey Manager, who was responsible for overseeing the project mailings, coding/editing, and writing the methodology report. The final computer file was prepared by the Data Manager, Lisa Peterson, who was responsible for converting the paper survey forms to a computer format ready for analysis.

**SURVEY DESIGN**

This Female and Minority Business Owner Survey for the Minnesota Department of Administration was conducted as a mail survey by the Minnesota Center for Survey Research (MCSR), part of the University of Minnesota. Questions to be included in the survey were specified by staff at the Department of Administration. The involvement of Ken Nickolai, Project Coordinator in the Management Analysis Division of the Department of Administration, in all aspects of this research project was critical to its success. Survey design began in August 1989 and revisions continued until the survey instrument was printed in October 1989.

The highest standards of quality survey research were employed in the conduct of this project. Ken Nickolai was informed of mailing procedures, consulted about difficulties encountered during data collection and coding, and informed of all procedural changes.

**SAMPLING DESIGN**

This mail survey was sent to a sample of 1,551 female and minority business owners in the state of Minnesota. The Department of Administration acquired sample listings from the Minority Business Enterprise Group of the Small Business Association, and the Women's Economic Development Association. A listing was also acquired of firms that have been considered for doing business with, or registered with the State for governmental business.

## DATA COLLECTION PROCEDURES

The procedures used by MCSR for this mail survey are based on Mail and Telephone Surveys, by Don A. Dillman. During a ten week period beginning October 4, 1989, mailing and collection of female and minority business owner surveys was conducted.

Mailing Procedures

The first mailing was sent out on October 4, 1989. This mailing consisted of: (1) a cover letter from MCSR inviting participation in the survey; (2) a survey instrument for the female or minority business owner; and (3) a self-addressed stamped envelope. (See Appendix C: Cover Letter #1)

The second mailing was a reminder postcard. This postcard was sent one week after the survey mailing. The postcard asked the business owners to complete and return the survey that had recently been sent to them, or thanked them if they had already returned the completed questionnaire. (See Appendix C: Post card)

The third mailing was sent ten days after the postcard was mailed, on October 10, 1989. This mailing was procedurally identical to the first mailing. Another copy of the survey was sent to all potential respondents who failed to return their survey by October 9 (See Appendix C: Cover Letter #2).

Telephone Follow-Up

An initial data collection goal of the project was to receive completed questionnaires from 60% of the female and minority business owners that were sent surveys. After returns from the third mailing slowed down, it became apparent that the overall response rate was substantially lower (47%) than the specified goal. In an effort to increase the response rate on the project, approximately half of the nonresponding business owners were contacted by telephone. This telephone effort was intended to do two things: (1) remind female and minority business owners about the importance of the survey project; and (2) to identify the proportion of business owners who were not eligible to participate in the study. Because of project time constraints, business owners who were contacted by telephone were encouraged to answer the survey questions while we had them on the phone.

The outcome of the telephone follow-up with nonrespondents revealed that 39% of the sample could be eliminated from the eligible category because: (1) there was no answer at their business number; (2) the female or minority business owner was unavailable to do the survey (i.e., they were out of the country); (3) the business was actually not owned by a female or a minority; (4) the designated owner no longer operated the business; or (5) it was not possible to locate a working telephone number for the business, or the phone number was disconnected. Table 1 shows the outcome of the follow-up telephone calls made to the sample of nonrespondents on the Female and Minority Business Owner Survey.

Table 1

SAMPLE STATUS OF FOLLOW-UP TELEPHONE CALLS TO NONRESPONDENTS

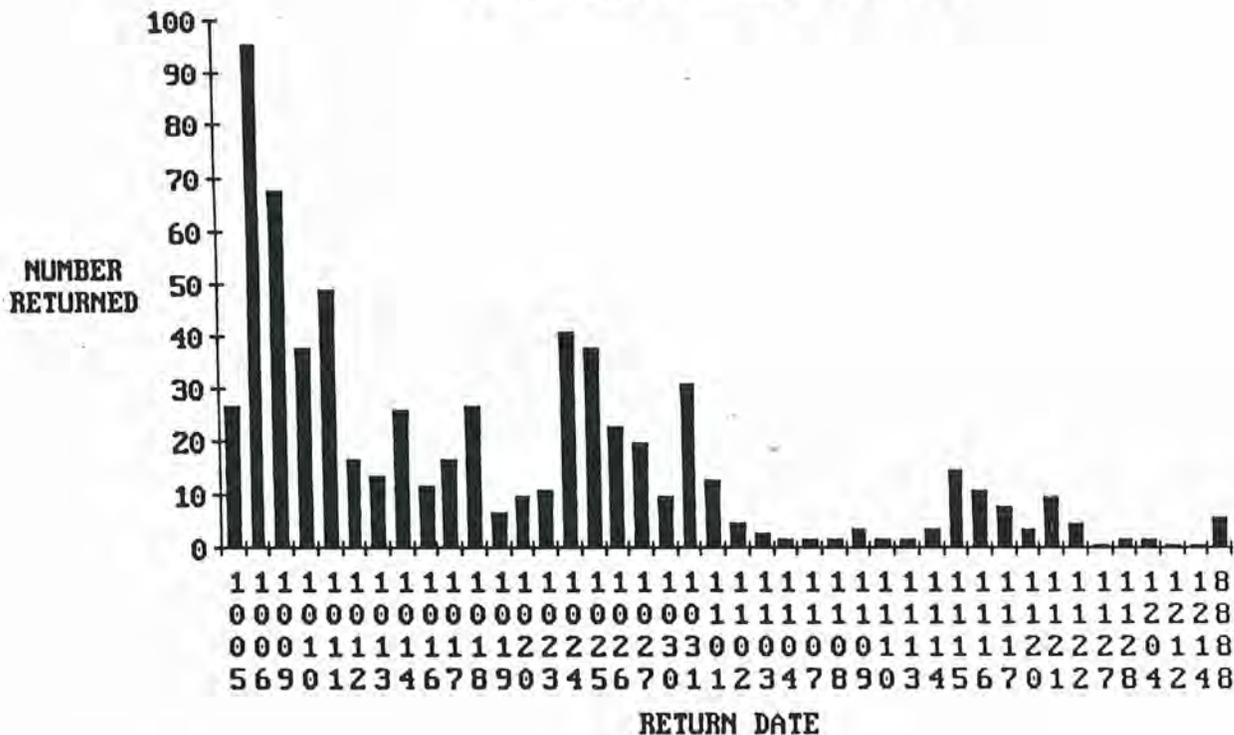
|                                       | <u>N</u> | <u>%</u> |
|---------------------------------------|----------|----------|
| Completions                           | 60       | (15%)    |
| Refusals                              | 22       | (6%)     |
| Callbacks/Active Sample               | 87       | (22%)    |
| Business Answering Machine            | 33       | (8%)     |
| Already Sent Through the Mail         | 17       | (4%)     |
| Promised to Send Completed Survey     | 15       | (4%)     |
| Please Send Another Survey            | 3        | (1%)     |
| Eliminated:                           |          |          |
| No Longer a Business Owner            | 31       | (8%)     |
| Respondent Unavailable/Out of Country | 1        | (0%)     |
| Not Female/Minority Owned Business    | 24       | (6%)     |
| Unable to Locate/Disconnected         | 70       | (18%)    |
| No Answer                             | 29       | (7%)     |
| -----                                 |          |          |
| TOTAL ATTEMPTED CONTACTS:             | 392      | (100%)   |

Survey Returns

Returned surveys were counted to track sample status and response rate. Peak survey returns occurred within a few days after each mailing (See Figure 1, below) and illustrate the importance of multiple mailings in achieving a high response rate.

Figure 1

FEMALE OWNED SURVEYS RETURNED



Supervision and Quality Control of Mailings

All three mailings were completed under the supervision of the Survey Manager. Each mailing was completed and delivered to the post office the same business day. Quality checks were made prior to envelope sealing to ensure: (1) survey packet completion and (2) address label and survey identification number match.

## MANAGEMENT OF THE DATA

Editing and Coding

Editing and coding included the completion of three major tasks. First, the surveys were checked for response clarity. Second, responses to "specify others" were recorded for all questions. Third, a code was assigned to four questions: (1) the type of business; (2) the expansion of the firm to city/state; (3) the relocation of the firm to city/state; and (4) the major problems in obtaining financial support.

All editing and coding was done by two coder/editors. Each coder/editor attended a training session familiarizing them with the issues in the instrument. In addition, quality control and review of coded/edited surveys was conducted throughout this phase by the Survey Manager.

Data Entry and Cleaning

When the completed questionnaires were coded, they were key entered onto a data tape and verified by a commercial data entry firm. Once a complete file was constructed for the survey, it was examined systematically to remove data entry errors. Data cleaning involved the use of a computer program to evaluate each case for variables with values out of range. In addition, the file was examined manually to identify cases with paradoxical or inappropriate responses.

## COMPLETION STATUS

A total of 1,551 surveys were mailed to females and minority business owners in the state of Minnesota for this project. The first column in Table 2 shows the sample status for the mail survey. A total of 627 of the mailed questionnaires were completed and returned. The response rate for the mail survey was 47%.

Column 2 in the table shows the sample outcome of the telephone follow-up for the sample of nonrespondents. Of the 392 nonrespondents that were contacted by telephone, sixty (15%) answered the survey questions over the phone, and 22 nonrespondents (6%) refused to participate in the study.

The third column in the table outlines the projected sample status for the study if inferences are drawn from the telephone follow-up. When making references to the response rate for this study, it would be more appropriate to use the projected response rate. A total number of 687 surveys were completed for the Female and Minority Business Owner Survey. The projected response rate is 64%. Projected sample status was calculated by using the figures from the mail survey and the distribution of categorical frequencies obtained in the telephone follow-up.

Table 2

FINAL SAMPLE STATUS FOR FEMALE AND MINORITY BUSINESS OWNER SURVEY

|                                     | <u>Mail</u>        | <u>Telephone</u>     |          | <u>Projected</u>             |
|-------------------------------------|--------------------|----------------------|----------|------------------------------|
|                                     | <u>Survey</u>      | <u>N</u>             | <u>%</u> | <u>N</u>                     |
| Completions                         | 627                | 60                   | (15%)    | 687                          |
| Refusals                            | 10                 | 22                   | (6%)     | 32                           |
| Surveys Not Returned                | 702                | -                    |          | 345                          |
| Callbk/Active Sample                | -                  | 87                   | (22%)    | -                            |
| Business Ans Mach                   | -                  | 33                   | (8%)     | -                            |
| Already Sent/Send Another           | -                  | 35                   | (9%)     | -                            |
| <b>Eliminated:</b>                  |                    |                      |          |                              |
| Bad Address                         | 59                 | -                    |          | 59                           |
| No Longer Business Owner            | 6                  | 31                   | (8%)     | 62                           |
| Duplicate in Sample                 | 16                 | -                    |          | 16                           |
| R out of Country                    | -                  | 1                    | (0%)     | 2                            |
| Not Female/Minority Owned Business  | 131                | 24                   | (6%)     | 173                          |
| Unable to Locate/<br># Disconnected | -                  | 70                   | (18%)    | 126                          |
| No Answer at Business               | -                  | 29                   | (7%)     | 49                           |
|                                     | -----              | -----                | -----    | -----                        |
|                                     | TOTAL SENT: 1,551  | TOTAL ATTEMPTED: 392 |          | TOTAL SENT: 1,551            |
|                                     | *RESPONSE RATE 47% |                      |          | *PROJECTED RESPONSE RATE 64% |

\*Response Rate calculated by the following formula:

$$\text{Response Rate} = \frac{\text{Completed Questionnaires}}{\text{Total Sent} - \text{Eliminated}}$$

**SAMPLING ERROR**

The margin of error for a sample of the size of the Female and Minority Business Owner Survey may be as high as plus or minus four percent, depending upon the distribution of sample responses. This sampling error presumes the conventional 95 percent confidence level, which is equivalent to a "significance level" of 0.05. This means that, in theory, in 95 cases out of 100, the results based on such a sample will differ by no more than four percentage points in either direction from what would have been obtained by surveying all female and minority owned businesses in the state of Minnesota.

In addition to sampling error, the practical difficulties of conducting any survey of public opinion may introduce other sources of error.

**READING THE QUESTIONNAIRE AND RESULTS SECTION**

The questionnaire and results section of this report is a replica of the survey form itself and contains the response frequencies and percentages for each question in the survey. The absolute responses of all respondents are shown for each question. Percentage distributions are also presented; "valid" percentages were computed after eliminating those who refused to answer, did not know, or were not required to answer a particular question.

The question numbers were used as variable labels in the computer data file. This information is provided as documentation for those who wish to use a computer for more detailed analysis.

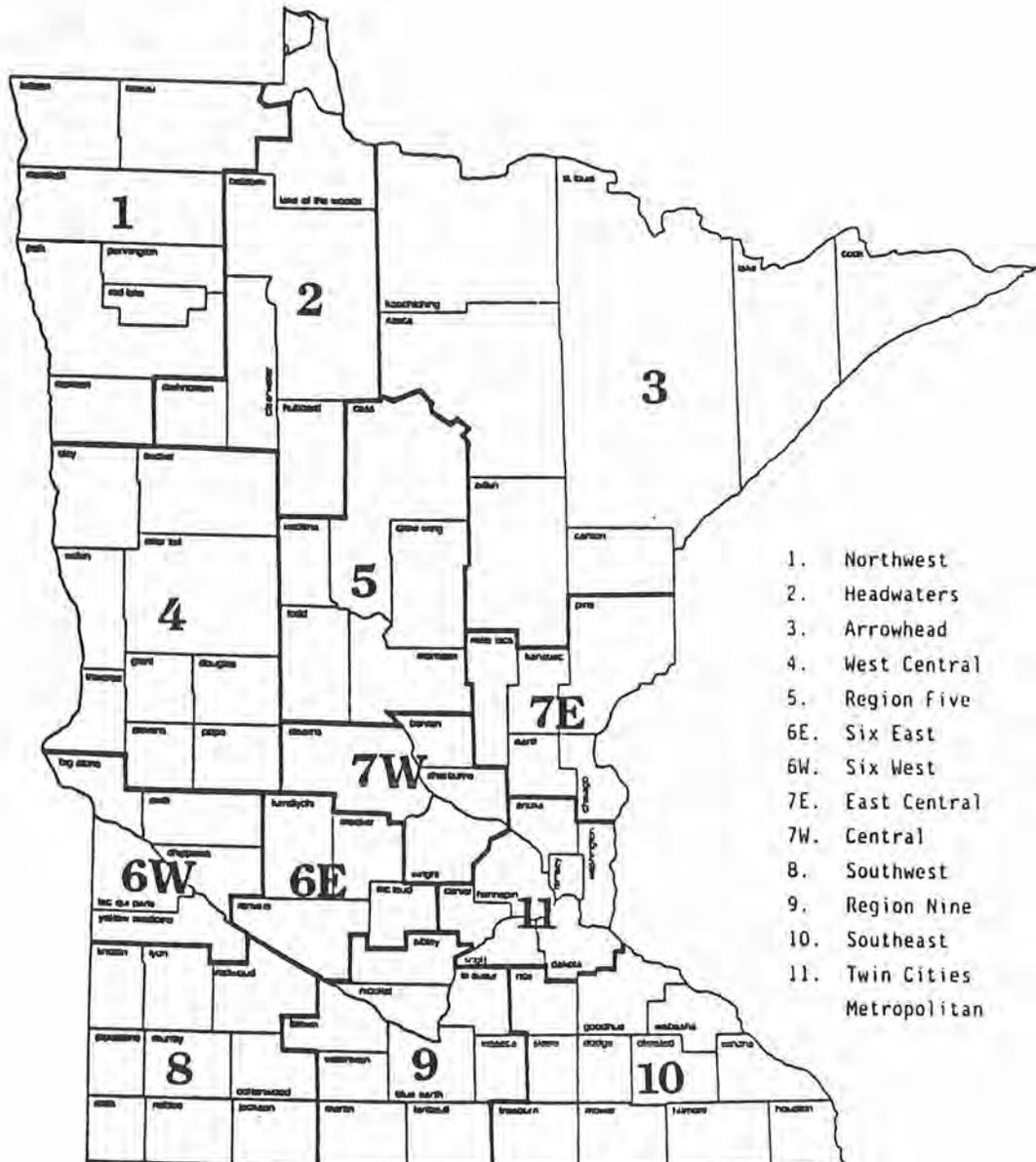
BUSINESS OWNER SURVEY

|             |          |   |                    |
|-------------|----------|---|--------------------|
|             |          | Q1. Do you own at least 51% of this firm?   |                    |
| <u>Freq</u> | <u>%</u> |   |                    |
| 636         | 94       | 1. Yes  |                    |
| 39          | 6        | 2. No (If no, please have the person who owns 51% of the firm complete this survey.)  |                    |
| 12          |          | BLANK   |                    |
|             |          | Q2. Do you consider yourself to be...? (Please circle all that apply)   |                    |
| 466         | 70       | a. Female   |                    |
| 138         | 21       | b. Male   | RESPONSES WILL NOT |
| 69          | 10       | c. Black  | EQUAL 100 PERCENT  |
| 43          | 6        | d. Hispanic   |                    |
| 85          | 13       | e. Native American  |                    |
| 1           | 0        | f. Aleut  |                    |
| 38          | 6        | g. Asian  |                    |
| 15          | 2        | h. Handicapped  |                    |
| 17          |          | BLANK   |                    |
|             |          | Q3. What type of business is your company? What does your company do?<br>Please be specific.                                  |                    |
|             |          | SEE APPENDIX<br>B, PAGE B-2   |                    |
|             |          | Q4. Referring to the map on the next page, please <u>circle</u> the area of the state that you primarily conduct business in. |                    |
| 78          | 12       | a. Northwest  |                    |
| 88          | 14       | b. Headwaters   |                    |
| 116         | 18       | c. Arrowhead  |                    |
| 91          | 14       | d. West Central   | RESPONSES WILL NOT |
| 106         | 17       | e. Region Five  | EQUAL 100 PERCENT  |
| 106         | 17       | f. Six East   |                    |
| 81          | 13       | g. Six West   |                    |
| 116         | 18       | h. East Central   |                    |
| 130         | 21       | i. Central  |                    |
| 81          | 13       | j. Southwest  |                    |
| 101         | 16       | k. Region Nine  |                    |
| 107         | 17       | l. Southeast  |                    |
| 519         | 83       | m. Twin Cities Metropolitan   |                    |
| 18          | 3        | n. Out - of - state   |                    |
| 60          |          | BLANK   |                    |

Q5. Also referring to the map on the next page, please X the area of the state that your headquarters is located in?

| Freq | %  |                             |
|------|----|-----------------------------|
| 1    | 0  | a. Northwest                |
| 8    | 1  | b. Headwaters               |
| 35   | 6  | c. Arrowhead                |
| 11   | 2  | d. West Central             |
| 11   | 2  | e. Region Five              |
| 2    | 0  | f. Six East                 |
| 2    | 0  | g. Six West                 |
| 11   | 2  | h. East Central             |
| 17   | 3  | i. Central                  |
| 7    | 1  | j. Southwest                |
| 15   | 2  | k. Region Nine              |
| 16   | 3  | l. Southeast                |
| 462  | 77 | m. Twin Cities Metropolitan |
| 89   |    | BLANK                       |

RESPONSES WILL NOT EQUAL 100 PERCENT



Q6. How many total people are employed by your business? (include yourself)

SEE APPENDIX  
A, A-2

Q7. What were the total annual revenues for 1988?

| <u>Freq</u> | <u>%</u> |                          |
|-------------|----------|--------------------------|
| 435         | 80       | 1. Less than \$1 million |
| 77          | 14       | 2. \$1 - \$3 million     |
| 11          | 2        | 3. \$3 - \$5 million     |
| 6           | 1        | 4. \$5 - \$7 million     |
| 3           | 1        | 5. \$7 - \$9 million     |
| 13          | 2        | 6. More than \$9 million |
| 142         |          | BLANK                    |

QUESTIONNAIRE AND RESULTS

Q8. For each type of problem, please indicate the initial severity and the current status (by circling the correct response).

|                      |   | INITIAL SEVERITY<br>(Status as the firm was,<br>or is, being established) |               |                |               | CURRENT STATUS<br>(Current situation with<br>regards to this problem) |              |                  |            |       |          |
|----------------------|---|---|---------------|----------------|---------------|---|--------------|------------------|------------|-------|----------|
|                      |   | Major Problem   | Minor Problem | Never Occurred | Did Not Apply | BLANK   | Fully Solved | Partially Solved | Not Solved | BLANK |          |
|                      |   | - - - - -   | - - - - -     | - - - - -      | - - - - -     |   | - - - - -    | - - - - -        | - - - - -  |       |          |
| Products and Markets |   |   | 0             | 1              | 2             | 3   | 1            | 2                | 3          |       |          |
| a.                   | Understanding industry trends               | 35  | 73            | 148            | 347           | 84  | 98           | 283              | 44         | 262   | Freq (%) |
|                      |   | -   | (11)          | (23)           | (53)          | (13)  | (23)         | (67)             | (10)       | -     |          |
| b.                   | Analyzing competition, competitors          | 37  | 35            | 102            | 397           | 116   | 88           | 330              | 84         | 185   |          |
|                      |   | -   | (5)           | (16)           | (61)          | (18)  | (18)         | (66)             | (17)       | -     |          |
| c.                   | Finding competitive advantages              | 41  | 31            | 97             | 322           | 196   | 74           | 295              | 138        | 180   |          |
|                      |   | -   | (5)           | (15)           | (50)          | (30)  | (15)         | (58)             | (27)       | -     |          |
| d.                   | Developing new, follow-on products/services | 35  | 129           | 133            | 295           | 95  | 58           | 249              | 76         | 304   |          |
|                      |   | -   | (20)          | (20)           | (45)          | (15)  | (15)         | (65)             | (20)       | -     |          |
| e.                   | Providing after-sale follow-up or service   | 51  | 134           | 179            | 276           | 47  | 103          | 191              | 33         | 360   |          |
|                      |   | -   | (21)          | (28)           | (43)          | (7)   | (32)         | (58)             | (10)       | -     |          |
| f.                   | Understanding and assessing customer needs  | 29  | 69            | 181            | 353           | 55  | 129          | 246              | 27         | 285   |          |
|                      |   | -   | (10)          | (28)           | (54)          | (8)   | (32)         | (61)             | (7)        | -     |          |
| g.                   | Effective selling techniques                | 28  | 70            | 112            | 308           | 169   | 79           | 300              | 91         | 217   |          |
|                      |   | -   | (11)          | (17)           | (47)          | (27)  | (17)         | (64)             | (19)       | -     |          |
| h.                   | Writing advertising copy, selecting media   | 32  | 189           | 147            | 209           | 110   | 87           | 154              | 77         | 369   |          |
|                      |   | -   | (29)          | (22)           | (32)          | (17)  | (27)         | (48)             | (24)       | -     |          |
| i.                   | Providing customer service/follow-up        | 48  | 108           | 186            | 308           | 37  | 112          | 203              | 27         | 345   |          |
|                      |   | -   | (17)          | (29)           | (48)          | (6)   | (33)         | (59)             | (8)        | -     |          |
| j.                   | Pricing products/services                   | 31  | 58            | 122            | 341           | 135   | 126          | 281              | 57         | 223   |          |
|                      |   | -   | (9)           | (19)           | (52)          | (21)  | (27)         | (61)             | (12)       | -     |          |
| k.                   | Delivering on time/within budget            | 32  | 88            | 185            | 301           | 81  | 107          | 226              | 45         | 309   |          |
|                      |   | -   | (13)          | (28)           | (46)          | (12)  | (28)         | (60)             | (12)       | -     |          |

Q9. For each type of problem, please indicate the initial severity and the current status (by circling the correct response).

|  | INITIAL SEVERITY<br>(Status as the firm was,<br>or is, being established) |               |                |               |       | CURRENT STATUS<br>(Current situation with<br>regards to this problem) |                  |            |       |  | Freq<br>(%) |
|--|---|---------------|----------------|---------------|-------|---|------------------|------------|-------|--|-------------|
|  | Major Problem   | Minor Problem | Never Occurred | Did Not Apply | BLANK | Fully Solved  | Partially Solved | Not Solved | BLANK |  |             |
| Financial  | 0   | 1             | 2              | 3             |       | 1   | 2                | 3          |       |  |             |
| a. Obtaining equity financing                          | 35  | 145           | 123            | 171           | 213   | 90  | 151              | 135        | 311   |  |             |
|  | -   | (22)          | (19)           | (26)          | (33)  | (24)  | (40)             | (36)       | -     |  |             |
| b. Obtaining debt financing                            | 42  | 148           | 134            | 159           | 204   | 86  | 138              | 134        | 329   |  |             |
|  | -   | (23)          | (21)           | (25)          | (32)  | (24)  | (38)             | (37)       | -     |  |             |
| c. Establishing a banking relationship                 | 32  | 64            | 191            | 265           | 135   | 165   | 154              | 82         | 286   |  |             |
|  | -   | (10)          | (29)           | (40)          | (21)  | (41)  | (38)             | (20)       | -     |  |             |
| d. Developing an accounting & control system           | 28  | 51            | 151            | 333           | 124   | 196   | 225              | 36         | 230   |  |             |
|  | -   | (8)           | (23)           | (50)          | (19)  | (43)  | (49)             | (8)        | -     |  |             |
| e. Managing capital                                    | 45  | 53            | 153            | 338           | 98    | 121   | 254              | 58         | 254   |  |             |
|  | -   | (8)           | (24)           | (53)          | (15)  | (28)  | (59)             | (13)       | -     |  |             |
| f. Managing cash flow                                  | 26  | 30            | 115            | 340           | 176   | 102   | 311              | 96         | 178   |  |             |
|  | -   | (4)           | (17)           | (51)          | (27)  | (20)  | (61)             | (19)       | -     |  |             |
| g. Collecting accounts receivable: bad checks          | 22  | 49            | 156            | 347           | 113   | 105   | 253              | 92         | 237   |  |             |
|  | -   | (7)           | (24)           | (52)          | (17)  | (23)  | (56)             | (20)       | -     |  |             |
| h. Securing adequate financing to operate the new firm | 26  | 125           | 136            | 176           | 224   | 97  | 153              | 139        | 298   |  |             |
|  | -   | (19)          | (21)           | (27)          | (34)  | (25)  | (39)             | (36)       | -     |  |             |
| i. Obtaining suitable real estate financing            | 26  | 363           | 141            | 92            | 65    | 54  | 46               | 56         | 531   |  |             |
|  | -   | (55)          | (21)           | (14)          | (10)  | (35)  | (30)             | (36)       | -     |  |             |
| j. Obtaining liability insurance                       | 34  | 125           | 224            | 222           | 82    | 160   | 89               | 50         | 388   |  |             |
|  | -   | (19)          | (34)           | (34)          | (13)  | (54)  | (30)             | (17)       | -     |  |             |
| k. Securing Bonding                                    | 22  | 309           | 139            | 106           | 111   | 62  | 76               | 76         | 473   |  |             |
|  | -   | (46)          | (21)           | (16)          | (17)  | (29)  | (36)             | (36)       | -     |  |             |

QUESTIONNAIRE AND RESULTS

Q10. For each type of problem, please indicate the initial severity and the current status (by circling the correct response).

|  | INITIAL SEVERITY<br>(Status as the firm was,<br>or is, being established)  |             |             |             |             | CURRENT STATUS<br>(Current situation with<br>regards to this problem) |             |             |          |  | Freq<br>(%) |
|--|--|-------------|-------------|-------------|-------------|---|-------------|-------------|----------|--|-------------|
|  | Major Problem<br>Minor Problem<br>Never Occurred<br>Did Not Apply<br>BLANK | 0           | 1           | 2           | 3           | 1   | 2           | 3           | BLANK    |  |             |
| Management/Organizational                            |  |             |             |             |             |   |             |             |          |  |             |
| a. Coping with government regulations                | 32<br>-  | 96<br>(15)  | 130<br>(20) | 257<br>(39) | 172<br>(26) | 93<br>(22)  | 201<br>(48) | 121<br>(29) | 272<br>- |  |             |
| b. Developing good relationship with union(s)        | 27<br>-  | 391<br>(59) | 136<br>(21) | 84<br>(13)  | 49<br>(7)   | 41<br>(32)  | 56<br>(44)  | 30<br>(24)  | 560<br>- |  |             |
| c. Selecting a lawyer or accountant                  | 36<br>-  | 83<br>(13)  | 227<br>(35) | 278<br>(43) | 63<br>(10)  | 196<br>(58)   | 114<br>(33) | 31<br>(9)   | 346<br>- |  |             |
| d. Motivating/compensating personnel                 | 36<br>-  | 126<br>(19) | 166<br>(26) | 286<br>(44) | 73<br>(11)  | 89<br>(25)  | 233<br>(65) | 35<br>(10)  | 330<br>- |  |             |
| e. Coordinating tasks among personnel/units          | 40<br>-  | 162<br>(25) | 184<br>(28) | 270<br>(42) | 31<br>(5)   | 81<br>(27)  | 210<br>(70) | 11<br>(4)   | 385<br>- |  |             |
| f. Preparing a business plan                         | 45<br>-  | 82<br>(13)  | 152<br>(24) | 292<br>(46) | 116<br>(19) | 119<br>(29)   | 204<br>(50) | 83<br>(20)  | 281<br>- |  |             |
| g. Using/updating a business plan                    | 40<br>-  | 84<br>(13)  | 175<br>(27) | 296<br>(46) | 92<br>(14)  | 80<br>(20)  | 219<br>(56) | 91<br>(23)  | 297<br>- |  |             |
| h. Setting goals/priorities for personnel            | 42<br>-  | 101<br>(16) | 158<br>(24) | 317<br>(49) | 69<br>(11)  | 92<br>(24)  | 246<br>(64) | 46<br>(12)  | 303<br>- |  |             |
| i. Measuring performance against plans               | 43<br>-  | 90<br>(14)  | 185<br>(29) | 294<br>(46) | 75<br>(12)  | 65<br>(18)  | 245<br>(66) | 62<br>(17)  | 315<br>- |  |             |
| j. Clarifying goals/objectives                       | 51<br>-  | 73<br>(12)  | 162<br>(26) | 329<br>(52) | 72<br>(11)  | 78<br>(19)  | 262<br>(65) | 62<br>(15)  | 285<br>- |  |             |
| k. Implementing plans, strategy                      | 47<br>-  | 62<br>(10)  | 160<br>(25) | 345<br>(54) | 73<br>(11)  | 70<br>(17)  | 286<br>(69) | 58<br>(14)  | 273<br>- |  |             |
| l. Finding qualified managers, executives            | 43<br>-  | 224<br>(35) | 165<br>(26) | 160<br>(25) | 95<br>(15)  | 70<br>(27)  | 127<br>(49) | 60<br>(23)  | 430<br>- |  |             |
| m. Finding qualified technical or professional staff | 36<br>-  | 167<br>(26) | 142<br>(22) | 219<br>(34) | 123<br>(19) | 65<br>(19)  | 193<br>(57) | 82<br>(24)  | 347<br>- |  |             |
| n. Finding qualified employees                       | 47<br>-  | 120<br>(19) | 103<br>(16) | 247<br>(39) | 170<br>(27) | 77<br>(19)  | 226<br>(55) | 106<br>(26) | 278<br>- |  |             |
| o. Minimizing startup team conflict                  | 39<br>-  | 261<br>(40) | 204<br>(32) | 144<br>(22) | 39<br>(6)   | 54<br>(30)  | 113<br>(62) | 14<br>(8)   | 506<br>- |  |             |

Q11. For each type of problem, please indicate the initial severity and the current status (by circling the correct response).

|   | INITIAL SEVERITY<br>(Status as the firm was,<br>or is, being established) |               |                |               | CURRENT STATUS<br>(Current situation with<br>regards to this problem) |                  |            |       | Freq<br>(%) |  |
|---|---|---------------|----------------|---------------|---|------------------|------------|-------|-------------|--|
|   | Major Problem   | Minor Problem | Never Occurred | Did Not Apply | Fully Solved  | Partially Solved | Not Solved | BLANK |             |  |
| Selecting/Developing a Location   | 0   | 1             | 2              | 3             | 1   | 2                | 3          |       |             |  |
| a. Identifying/selecting suitable site  | 32  | 240           | 182            | 177           | 56  | 135              | 78         | 19    | 455         |  |
|   | -   | (37)          | (28)           | (27)          | (8)   | (58)             | (34)       | (8)   | -           |  |
| b. Locating suitable rental space   | 34  | 236           | 170            | 189           | 58  | 144              | 73         | 26    | 444         |  |
|   | -   | (36)          | (26)           | (29)          | (9)   | (59)             | (30)       | (11)  | -           |  |
| c. Appropriate transportation structure (e.g. rail, highway, public transportation) | 35  | 340           | 201            | 86            | 25  | 61               | 43         | 11    | 572         |  |
|   | -   | (52)          | (31)           | (13)          | (4)   | (53)             | (37)       | (10)  | -           |  |
| d. Appropriate infrastructure (e.g. sewer, energy sources, water, roads, etc.)      | 38  | 366           | 202            | 52            | 29  | 38               | 30         | 13    | 606         |  |
|   | -   | (56)          | (31)           | (8)           | (4)   | (47)             | (37)       | (16)  | -           |  |
| e. Access to customers, clients   | 33  | 172           | 219            | 213           | 50  | 91               | 142        | 28    | 426         |  |
|   | -   | (26)          | (34)           | (33)          | (8)   | (35)             | (54)       | (11)  | -           |  |
| f. Access to suppliers, vendors   | 35  | 198           | 238            | 179           | 37  | 94               | 103        | 17    | 473         |  |
|   | -   | (30)          | (36)           | (28)          | (6)   | (44)             | (48)       | (8)   | -           |  |
| g. Access to employees  | 36  | 218           | 230            | 169           | 34  | 73               | 102        | 25    | 487         |  |
|   | -   | (34)          | (35)           | (26)          | (5)   | (36)             | (51)       | (12)  | -           |  |

Q12. What are your business plans for the next 2-3 years?  
(circle all that apply)

| Freq | %  |  |                          |
|------|----|--|--------------------------|
| 65   | 10 | a. Get out of the business.            |                          |
| 227  | 35 | b. Change mix of products or services. |                          |
| 181  | 28 | c. Significant increase in employees.  |                          |
| 13   | 2  | d. Significant decrease in employees.  |                          |
| 110  | 17 | e. Expansion of the firm.              | SEE APPENDIX B, PAGE B-5 |
|      |    | 12e-1. To - City___ State___           |                          |
| 42   | 6  | f. Relocation of the firm.             | SEE APPENDIX B, PAGE B-6 |
|      |    | 12f-1. To - City___ State___           |                          |
| 63   | 10 | g. Sell the firm.                      |                          |
| 299  | 46 | h. No major changes.                   |                          |
| 32   |    | BLANK                                  |                          |

RESPONSES WILL NOT EQUAL 100 PERCENT

QUESTIONNAIRE AND RESULTS

Q13. Please evaluate the interest in, or value of, the following existing and proposed services for your firm or business.

INTEREST IN/VALUE OF THE SERVICE

|   | High<br>3   | Moderate<br>2 | Low<br>1    | None<br>0   | BLANK   |             |
|---|-------------|---------------|-------------|-------------|---------|-------------|
| a. Federal procurement assistance. . . . .                        | 195<br>(30) | 144<br>(22)   | 130<br>(20) | 186<br>(28) | 32<br>- | Freq<br>(%) |
| b. Developing foreign export markets . . . .                      | 61<br>(9)   | 72<br>(11)    | 104<br>(16) | 418<br>(64) | 32<br>- |             |
| c. Tourism market development. . . . .                            | 35<br>(5)   | 43<br>(7)     | 96<br>(15)  | 477<br>(73) | 36<br>- |             |
| d. Energy development opportunities. . . . .                      | 43<br>(7)   | 75<br>(12)    | 96<br>(15)  | 433<br>(67) | 40<br>- |             |
| e. New site locations within a county. . . .                      | 56<br>(9)   | 80<br>(12)    | 95<br>(14)  | 422<br>(65) | 34<br>- |             |
| f. New site locations within Minnesota . . .                      | 45<br>(7)   | 68<br>(10)    | 100<br>(15) | 435<br>(67) | 39<br>- |             |
| g. Small business incubator sites. . . . .                        | 49<br>(8)   | 75<br>(12)    | 98<br>(15)  | 427<br>(66) | 38<br>- |             |
| h. Retraining of existing employees. . . . .                      | 88<br>(14)  | 112<br>(17)   | 114<br>(18) | 335<br>(52) | 38<br>- |             |
| i. Training new employees. . . . .                                | 145<br>(22) | 162<br>(25)   | 107<br>(16) | 236<br>(36) | 37<br>- |             |
| j. Land acquisition financing . . . . .                           | 82<br>(13)  | 71<br>(11)    | 93<br>(14)  | 407<br>(62) | 34<br>- |             |
| k. Building construction financing . . . . .                      | 116<br>(18) | 86<br>(13)    | 78<br>(12)  | 376<br>(57) | 31<br>- |             |
| l. Infrastructure (e.g. water, sewer,<br>road) financing. . . . . | 50<br>(8)   | 44<br>(7)     | 98<br>(16)  | 442<br>(70) | 53<br>- |             |
| m. Employee ownership financing. . . . .                          | 80<br>(12)  | 92<br>(14)    | 109<br>(17) | 376<br>(57) | 30<br>- |             |
| n. Machinery, equipment financing. . . . .                        | 151<br>(23) | 144<br>(22)   | 104<br>(16) | 260<br>(40) | 28<br>- |             |
| o. Working capital financing . . . . .                            | 239<br>(36) | 154<br>(23)   | 80<br>(12)  | 184<br>(28) | 30<br>- |             |
| p. Venture, seed capital financing . . . . .                      | 136<br>(21) | 103<br>(16)   | 84<br>(13)  | 324<br>(50) | 40<br>- |             |
| q. Joint R&D project development . . . . .                        | 79<br>(12)  | 72<br>(11)    | 90<br>(14)  | 397<br>(62) | 49<br>- |             |

Q13. Please evaluate the interest in, or value of, the following existing and proposed services for your firm or business.

|  | INTEREST IN/VALUE OF THE SERVICE |               |             |             |         | Freq<br>(%) |
|--|----------------------------------|---------------|-------------|-------------|---------|-------------|
|  | High<br>3                        | Moderate<br>2 | Low<br>1    | None<br>0   | BLANK   |             |
| r. Applying company R&D in new markets . .                 | 77<br>(12)                       | 97<br>(15)    | 91<br>(14)  | 371<br>(58) | 51<br>- |             |
| s. New technology for productivity gain. . .               | 127<br>(20)                      | 143<br>(22)   | 105<br>(16) | 270<br>(42) | 42<br>- |             |
| t. Energy audits/conservation projects . . .               | 47<br>(7)                        | 71<br>(11)    | 113<br>(18) | 414<br>(64) | 42<br>- |             |
| u. Entrepreneurial training. . . . .                       | 127<br>(20)                      | 168<br>(26)   | 129<br>(20) | 226<br>(35) | 37<br>- |             |
| v. General business management development                 | 179<br>(27)                      | 245<br>(38)   | 113<br>(17) | 116<br>(18) | 34<br>- |             |
| w. Marketing skills development. . . . .                   | 223<br>(34)                      | 237<br>(36)   | 87<br>(13)  | 103<br>(16) | 37<br>- |             |
| x. Engineering, scientific skill<br>Development. . . . .   | 74<br>(12)                       | 117<br>(18)   | 112<br>(17) | 339<br>(53) | 45<br>- |             |
| y. Finance skill development . . . . .                     | 184<br>(28)                      | 220<br>(34)   | 89<br>(14)  | 157<br>(24) | 37<br>- |             |
| z. Personnel management skill development.                 | 154<br>(24)                      | 217<br>(33)   | 107<br>(16) | 171<br>(26) | 38<br>- |             |
| aa. Knowledge of government regulations . .                | 161<br>(25)                      | 194<br>(30)   | 144<br>(22) | 152<br>(23) | 36<br>- |             |
| ab. Skills in labor-management relations. .                | 99<br>(15)                       | 136<br>(21)   | 129<br>(20) | 285<br>(44) | 38<br>- |             |
| ac. Small Business Development Centers. . .                | 130<br>(20)                      | 192<br>(29)   | 140<br>(21) | 193<br>(30) | 32<br>- |             |
| ad. AVTI Small Business Programs. . . . .                  | 106<br>(16)                      | 163<br>(25)   | 164<br>(25) | 216<br>(33) | 38<br>- |             |
| ae. Community College Small Business<br>Programs . . . . . | 100<br>(15)                      | 191<br>(29)   | 174<br>(26) | 193<br>(29) | 29<br>- |             |

The next questions are about outside financial support.

|             |          |   |
|-------------|----------|---|
|             |          | Q14. Have you requested external financing for your business (loans or equity)? |
| <u>Freq</u> | <u>%</u> |   |
| 398         | 60       | 1. Yes  |
| 267         | 40       | 2. No (If No, Go to Question 17)  |
| 22          |          | BLANK   |

|     |    |   |
|-----|----|---|
|     |    | Q15. Was your request for external financing...?                          |
| 242 | 62 | 1. Granted  |
| 73  | 19 | 2. Partially granted (IF GRANTED OR PARTIALLY GRANTED ANSWER QUESTION 16) |
| 72  | 19 | 3. Denied (IF DENIED, GO TO QUESTION 17)                                  |
| 300 |    | BLANK   |

Q16. Please estimate the total financial support from each source twice:  
a) when the first outside support was received and  
b) now.

(amounts in \$1,000's)

**VERY FIRST**                      **NOW**  
**OUTSIDE SUPPORT**              **(Sum 88)**

- |  |   |
|--|---|
| <p>a) <b>OUTSIDE</b> Loans of any type: (From banks, savings and loans, other regulated financial institutions) Working capital or line of credit, machinery &amp; equipment loans, inventory, or real estate loans.</p> | <p><b>SEE APPENDIX A, PAGE A-3; A-5</b></p>   |
| <p>b) <b>EXTERNAL</b> Equity Investments: Stock Placement or Offering, Venture Capital Firm(s), or other equity sources.</p>   | <p><b>SEE APPENDIX A, PAGE A-7</b></p>        |
| <p>c) Loans provided by state or local governments?<br/>         (Specify) _____</p>   | <p><b>SEE APPENDIX A, PAGE A-8</b></p>        |
| <p>d) Employment tax or other subsidies provided by the state or local governments<br/>         (Specify) _____</p>  | <p><b>SEE APPENDIX A, PAGE A-8; A-9</b></p>   |
| <p>e) Federal government assistance: SBA Loan, or Guarantee, or other Federal Assistance.</p>  | <p><b>SEE APPENDIX A, PAGE A-9; A-10</b></p>  |
| <p>f) Percentage of control/ownership retained by original founders of the firm?</p>   | <p><b>SEE APPENDIX A, PAGE A-11; A-12</b></p> |

Q17. What have been the major problems in obtaining financial support?

SEE APPENDIX  
B, PAGE B-6

Q18. During the most recent five year period, do you believe your business has been hampered by discrimination against you as a minority or female?

| <u>Freq</u> | <u>%</u> |                                  |
|-------------|----------|----------------------------------|
| 222         | 34       | 1. Yes                           |
| 440         | 66       | 2. No (IF NO, GO TO QUESTION 23) |
| 25          |          | BLANK                            |

Q19. What is or was the source of that discrimination? (Circle all that apply)

|     |    |                                 |   |
|-----|----|---------------------------------|---|
| 68  | 31 | a. Non-government purchasing    | RESPONSES WILL NOT<br>EQUAL 100 PERCENT |
| 68  | 31 | b. Government purchasing        |   |
| 37  | 17 | c. Sub-contractors              |   |
| 82  | 37 | d. Prime contractors            |   |
| 6   | 3  | e. Purchasing tools             |   |
| 28  | 13 | f. Trade associations           |   |
| 75  | 34 | g. Lending institutions         |   |
| 26  | 12 | h. Bonding agents               |   |
| 58  | 26 | i. Other (Please specify) _____ |   |
| 465 |    | BLANK                           |   |

Q20. What form did that discrimination take? (Circle all that apply)

|     |    |  |   |
|-----|----|--|---|
| 65  | 31 | a. Late notice of opportunities          | RESPONSES WILL NOT<br>EQUAL 100 PERCENT |
| 66  | 32 | b. Not accepting bids                    |   |
| 71  | 34 | c. Shopping our bid                      |   |
| 79  | 38 | d. Using other bids when ours was lowest |   |
| 81  | 39 | e. Other (Please specify) _____          |   |
| 479 |    | BLANK                                    |   |

Q21. What did you do about the incidents of discrimination? (Circle all that apply)

|     |    |   |   |
|-----|----|---|---|
| 193 | 94 | a. Nothing  | RESPONSES WILL NOT<br>EQUAL 100 PERCENT |
| 12  | 6  | b. File a complaint with a government human rights commission |   |
| 1   | 0  | c. File a complaint with a trade association                  |   |
| 9   | 4  | d. Suit that did or will be going to court                    |   |
| 481 |    | BLANK   |   |

| <u>Freq</u> | <u>%</u> |   |
|-------------|----------|---|
|             |          | Q22. The number of separate incidents of discrimination during this five year period have been. . . ?                               |
| 4           | 2        | a. 0  |
| 122         | 60       | b. 1 - 5  |
| 30          | 15       | c. 5 - 10   |
| 46          | 23       | d. More than 10   |
| 485         |          | BLANK   |
|             |          | Q23. Were you ever discouraged from owning the firm because of your race or gender?   |
| 126         | 19       | 1. Yes  |
| 531         | 81       | 2. No   |
| 30          |          | BLANK   |
|             |          | Q24. Do you or your firm belong to business or professional organizations for the purpose of enhancing your business opportunities? |
| 432         | 65       | 1. Yes  |
| 232         | 35       | 2. No (IF NO, GO TO 26)   |
| 23          |          | BLANK   |
|             |          | Q25. Do majority firms and their owners belong to these organizations as well as minority and women?                                |
| 377         | 90       | 1. Yes  |
| 43          | 10       | 2. No   |
| 267         |          | BLANK   |
|             |          | Q26. Has your firm participated in purchasing preference or set aside programs for businesses owned by minorities or women?         |
| 394         | 59       | 1. Yes  |
| 274         | 41       | 2. No (If No, Go to Question 31)  |
| 19          |          | BLANK   |
|             |          | Q27. Has your firm been awarded contracts or purchases because of the preference or set aside programs?                             |
| 241         | 62       | 1. Yes  |
| 150         | 38       | 2. No   |
| 296         |          | BLANK   |
|             |          | Q28. Would your firm be financially viable without these contracts or purchases?  |
| 229         | 60       | 1. Yes  |
| 107         | 28       | 2. Marginally   |
| 43          | 11       | 3. No   |
| 308         |          | BLANK   |

Q29. Have these contracts or purchases enhanced the profitability of your firm?

| <u>Freq</u> | <u>%</u> |                  |
|-------------|----------|------------------|
| 66          | 18       | 1. Yes, a lot    |
| 173         | 48       | 2. Yes, a little |
| 123         | 34       | 3. No            |
| 325         |          | BLANK            |

Q30. Have these contracts or purchases increased the ability for your firm to compete for non-governmental business?

|     |    |                  |
|-----|----|------------------|
| 55  | 15 | 1. Yes, a lot    |
| 111 | 31 | 2. Yes, a little |
| 190 | 53 | 3. No            |
| 331 |    | BLANK            |

Q31. Do you have any other comments you would like to make about this issue?

|     |    |                |
|-----|----|----------------|
| 248 | 36 | 1. COMMENTS    |
| 439 | 64 | 2. NO COMMENTS |

APPENDIX A:  
CONTINUOUS VARIABLES

| <u>VARIABLE</u> | <u>DESCRIPTION</u>                                 | <u>PAGE</u> |
|-----------------|--|-------------|
| Q6              | Number employed                                    | A-2         |
| Q16A            | Total first received outside loans                 | A-3         |
| Q16A1           | Total now outside loans                            | A-5         |
| Q16B            | Total first received external equity investment    | A-7         |
| Q16B1           | Total now external equity investments              | A-7         |
| Q16C            | Total first received government loans              | A-8         |
| Q16C1           | Total now government loans                         | A-8         |
| Q16D            | Total first received employment tax and other      | A-8         |
| Q16D1           | Total now employment tax and other                 | A-9         |
| Q16E            | Total first received federal government assistance | A-9         |
| Q16E1           | Total now federal government assistance            | A-10        |
| Q16F            | Percent control by founders of first support       | A-11        |
| Q16F1           | Percent control by founders now                    | A-12        |

## Q6 NUMBER EMPLOYED

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 1     | 117       | 17.0    | 17.3          | 17.3        |
|             | 2     | 83        | 12.1    | 12.3          | 29.6        |
|             | 3     | 76        | 11.1    | 11.3          | 40.9        |
|             | 4     | 61        | 8.9     | 9.0           | 49.9        |
|             | 5     | 44        | 6.4     | 6.5           | 56.4        |
|             | 6     | 43        | 6.3     | 6.4           | 62.8        |
|             | 7     | 20        | 2.9     | 3.0           | 65.8        |
|             | 8     | 24        | 3.5     | 3.6           | 69.3        |
|             | 9     | 17        | 2.5     | 2.5           | 71.9        |
|             | 10    | 20        | 2.9     | 3.0           | 74.8        |
|             | 11    | 8         | 1.2     | 1.2           | 76.0        |
|             | 12    | 18        | 2.6     | 2.7           | 78.7        |
|             | 13    | 7         | 1.0     | 1.0           | 79.7        |
|             | 14    | 10        | 1.5     | 1.5           | 81.2        |
|             | 15    | 13        | 1.9     | 1.9           | 83.1        |
|             | 16    | 5         | .7      | .7            | 83.9        |
|             | 17    | 6         | .9      | .9            | 84.7        |
|             | 18    | 9         | 1.3     | 1.3           | 86.1        |
|             | 19    | 4         | .6      | .6            | 86.7        |
|             | 20    | 15        | 2.2     | 2.2           | 88.9        |
|             | 21    | 1         | .1      | .1            | 89.0        |
|             | 22    | 3         | .4      | .4            | 89.5        |
|             | 23    | 3         | .4      | .4            | 89.9        |
|             | 24    | 2         | .3      | .3            | 90.2        |
|             | 25    | 4         | .6      | .6            | 90.8        |
|             | 26    | 3         | .4      | .4            | 91.3        |
|             | 27    | 2         | .3      | .3            | 91.6        |
|             | 28    | 3         | .4      | .4            | 92.0        |
|             | 29    | 2         | .3      | .3            | 92.3        |
|             | 30    | 4         | .6      | .6            | 92.9        |
|             | 31    | 1         | .1      | .1            | 93.0        |
|             | 32    | 4         | .6      | .6            | 93.6        |
|             | 35    | 6         | .9      | .9            | 94.5        |
|             | 37    | 1         | .1      | .1            | 94.7        |
|             | 38    | 2         | .3      | .3            | 95.0        |
|             | 39    | 1         | .1      | .1            | 95.1        |
|             | 40    | 2         | .3      | .3            | 95.4        |
|             | 41    | 1         | .1      | .1            | 95.6        |
|             | 45    | 1         | .1      | .1            | 95.7        |
|             | 46    | 1         | .1      | .1            | 95.9        |
|             | 50    | 2         | .3      | .3            | 96.1        |
|             | 52    | 1         | .1      | .1            | 96.3        |
|             | 55    | 2         | .3      | .3            | 96.6        |
|             | 58    | 1         | .1      | .1            | 96.7        |
|             | 60    | 1         | .1      | .1            | 96.9        |
|             | 70    | 2         | .3      | .3            | 97.2        |
|             | 78    | 1         | .1      | .1            | 97.3        |
|             | 85    | 2         | .3      | .3            | 97.6        |
|             | 87    | 1         | .1      | .1            | 97.8        |
|             | 90    | 1         | .1      | .1            | 97.9        |
|             | 100   | 1         | .1      | .1            | 98.1        |

## Q6 NUMBER EMPLOYED

| Value Label          | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|----------------------|-------|---------------|---------|---------------|-------------|
|                      | 112   | 1             | .1      | .1            | 98.2        |
|                      | 120   | 2             | .3      | .3            | 98.5        |
|                      | 125   | 2             | .3      | .3            | 98.8        |
|                      | 130   | 1             | .1      | .1            | 99.0        |
|                      | 140   | 1             | .1      | .1            | 99.1        |
|                      | 150   | 2             | .3      | .3            | 99.4        |
|                      | 157   | 1             | .1      | .1            | 99.6        |
|                      | 200   | 1             | .1      | .1            | 99.7        |
|                      | 281   | 1             | .1      | .1            | 99.9        |
| 999 OR MORE EMPLOYEE | 999   | 1             | .1      | .1            | 100.0       |
|                      | .     | 12            | 1.7     | MISSING       |             |
|                      | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases          | 675   | Missing Cases | 12      |               |             |

## Q16A TOTAL FIRST RECEIVED OUTSIDE LOANS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 23        | 3.3     | 8.1           | 8.1         |
|             | 1     | 2         | .3      | .7            | 8.8         |
|             | 2     | 13        | 1.9     | 4.6           | 13.4        |
|             | 3     | 8         | 1.2     | 2.8           | 16.2        |
|             | 4     | 6         | .9      | 2.1           | 18.3        |
|             | 5     | 20        | 2.9     | 7.0           | 25.4        |
|             | 6     | 1         | .1      | .4            | 25.7        |
|             | 7     | 1         | .1      | .4            | 26.1        |
|             | 8     | 5         | .7      | 1.8           | 27.8        |
|             | 10    | 29        | 4.2     | 10.2          | 38.0        |
|             | 12    | 2         | .3      | .7            | 38.7        |
|             | 13    | 2         | .3      | .7            | 39.4        |
|             | 15    | 12        | 1.7     | 4.2           | 43.7        |
|             | 17    | 3         | .4      | 1.1           | 44.7        |
|             | 18    | 1         | .1      | .4            | 45.1        |
|             | 20    | 22        | 3.2     | 7.7           | 52.8        |
|             | 22    | 1         | .1      | .4            | 53.2        |
|             | 25    | 21        | 3.1     | 7.4           | 60.6        |
|             | 26    | 1         | .1      | .4            | 60.9        |
|             | 30    | 7         | 1.0     | 2.5           | 63.4        |
|             | 35    | 7         | 1.0     | 2.5           | 65.8        |
|             | 38    | 1         | .1      | .4            | 66.2        |
|             | 40    | 10        | 1.5     | 3.5           | 69.7        |
|             | 45    | 1         | .1      | .4            | 70.1        |
|             | 50    | 17        | 2.5     | 6.0           | 76.1        |
|             | 57    | 1         | .1      | .4            | 76.4        |
|             | 60    | 6         | .9      | 2.1           | 78.5        |
|             | 70    | 1         | .1      | .4            | 78.9        |
|             | 75    | 6         | .9      | 2.1           | 81.0        |

## Q16A TOTAL FIRST RECEIVED OUTSIDE LOANS

| Value Label | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------|-------|---------------|---------|---------------|-------------|
|             | 80    | 5             | .7      | 1.8           | 82.7        |
|             | 83    | 1             | .1      | .4            | 83.1        |
|             | 90    | 3             | .4      | 1.1           | 84.2        |
|             | 100   | 10            | 1.5     | 3.5           | 87.7        |
|             | 115   | 1             | .1      | .4            | 88.0        |
|             | 120   | 1             | .1      | .4            | 88.4        |
|             | 130   | 2             | .3      | .7            | 89.1        |
|             | 150   | 5             | .7      | 1.8           | 90.8        |
|             | 151   | 1             | .1      | .4            | 91.2        |
|             | 180   | 1             | .1      | .4            | 91.5        |
|             | 200   | 3             | .4      | 1.1           | 92.6        |
|             | 250   | 1             | .1      | .4            | 93.0        |
|             | 300   | 1             | .1      | .4            | 93.3        |
|             | 350   | 1             | .1      | .4            | 93.7        |
|             | 380   | 1             | .1      | .4            | 94.0        |
|             | 450   | 2             | .3      | .7            | 94.7        |
|             | 500   | 4             | .6      | 1.4           | 96.1        |
|             | 600   | 1             | .1      | .4            | 96.5        |
|             | 700   | 1             | .1      | .4            | 96.8        |
|             | 1000  | 1             | .1      | .4            | 97.2        |
|             | 1100  | 1             | .1      | .4            | 97.5        |
|             | 1300  | 1             | .1      | .4            | 97.9        |
|             | 1400  | 1             | .1      | .4            | 98.2        |
|             | 3000  | 3             | .4      | 1.1           | 99.3        |
|             | 5000  | 2             | .3      | .7            | 100.0       |
|             | .     | 403           | 58.7    | MISSING       |             |
|             | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases | 284   | Missing Cases | 403     |               |             |

## Q16A1 TOTAL NOW OUTSIDE LOANS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 43        | 6.3     | 16.5          | 16.5        |
|             | 2     | 1         | .1      | .4            | 16.9        |
|             | 3     | 3         | .4      | 1.1           | 18.0        |
|             | 5     | 7         | 1.0     | 2.7           | 20.7        |
|             | 6     | 1         | .1      | .4            | 21.1        |
|             | 7     | 2         | .3      | .8            | 21.8        |
|             | 8     | 3         | .4      | 1.1           | 23.0        |
|             | 9     | 1         | .1      | .4            | 23.4        |
|             | 10    | 15        | 2.2     | 5.7           | 29.1        |
|             | 11    | 1         | .1      | .4            | 29.5        |
|             | 12    | 1         | .1      | .4            | 29.9        |
|             | 13    | 1         | .1      | .4            | 30.3        |
|             | 14    | 1         | .1      | .4            | 30.7        |
|             | 15    | 4         | .6      | 1.5           | 32.2        |
|             | 16    | 2         | .3      | .8            | 33.0        |
|             | 17    | 3         | .4      | 1.1           | 34.1        |
|             | 18    | 2         | .3      | .8            | 34.9        |
|             | 20    | 14        | 2.0     | 5.4           | 40.2        |
|             | 21    | 1         | .1      | .4            | 40.6        |
|             | 24    | 1         | .1      | .4            | 41.0        |
|             | 25    | 5         | .7      | 1.9           | 42.9        |
|             | 27    | 1         | .1      | .4            | 43.3        |
|             | 30    | 9         | 1.3     | 3.4           | 46.7        |
|             | 35    | 4         | .6      | 1.5           | 48.3        |
|             | 38    | 1         | .1      | .4            | 48.7        |
|             | 40    | 1         | .1      | .4            | 49.0        |
|             | 42    | 1         | .1      | .4            | 49.4        |
|             | 45    | 1         | .1      | .4            | 49.8        |
|             | 46    | 2         | .3      | .8            | 50.6        |
|             | 48    | 2         | .3      | .8            | 51.3        |
|             | 50    | 13        | 1.9     | 5.0           | 56.3        |
|             | 51    | 2         | .3      | .8            | 57.1        |
|             | 55    | 1         | .1      | .4            | 57.5        |
|             | 57    | 1         | .1      | .4            | 57.9        |
|             | 60    | 4         | .6      | 1.5           | 59.4        |
|             | 61    | 1         | .1      | .4            | 59.8        |
|             | 65    | 2         | .3      | .8            | 60.5        |
|             | 66    | 1         | .1      | .4            | 60.9        |
|             | 70    | 3         | .4      | 1.1           | 62.1        |
|             | 75    | 5         | .7      | 1.9           | 64.0        |
|             | 76    | 1         | .1      | .4            | 64.4        |
|             | 80    | 2         | .3      | .8            | 65.1        |
|             | 81    | 1         | .1      | .4            | 65.5        |
|             | 85    | 1         | .1      | .4            | 65.9        |
|             | 95    | 1         | .1      | .4            | 66.3        |
|             | 97    | 1         | .1      | .4            | 66.7        |
|             | 100   | 17        | 2.5     | 6.5           | 73.2        |
|             | 105   | 1         | .1      | .4            | 73.6        |
|             | 125   | 1         | .1      | .4            | 73.9        |
|             | 128   | 1         | .1      | .4            | 74.3        |
|             | 150   | 7         | 1.0     | 2.7           | 77.0        |

## Q16A1 TOTAL NOW OUTSIDE LOANS

| Value Label | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------|-------|---------------|---------|---------------|-------------|
|             | 151   | 1             | .1      | .4            | 77.4        |
|             | 160   | 2             | .3      | .8            | 78.2        |
|             | 168   | 1             | .1      | .4            | 78.5        |
|             | 170   | 1             | .1      | .4            | 78.9        |
|             | 175   | 3             | .4      | 1.1           | 80.1        |
|             | 180   | 1             | .1      | .4            | 80.5        |
|             | 200   | 7             | 1.0     | 2.7           | 83.1        |
|             | 210   | 1             | .1      | .4            | 83.5        |
|             | 250   | 4             | .6      | 1.5           | 85.1        |
|             | 300   | 6             | .9      | 2.3           | 87.4        |
|             | 330   | 1             | .1      | .4            | 87.7        |
|             | 345   | 1             | .1      | .4            | 88.1        |
|             | 390   | 2             | .3      | .8            | 88.9        |
|             | 400   | 3             | .4      | 1.1           | 90.0        |
|             | 430   | 1             | .1      | .4            | 90.4        |
|             | 500   | 5             | .7      | 1.9           | 92.3        |
|             | 600   | 2             | .3      | .8            | 93.1        |
|             | 750   | 1             | .1      | .4            | 93.5        |
|             | 825   | 1             | .1      | .4            | 93.9        |
|             | 1000  | 6             | .9      | 2.3           | 96.2        |
|             | 1250  | 1             | .1      | .4            | 96.6        |
|             | 1300  | 1             | .1      | .4            | 96.9        |
|             | 1400  | 2             | .3      | .8            | 97.7        |
|             | 1500  | 2             | .3      | .8            | 98.5        |
|             | 2000  | 2             | .3      | .8            | 99.2        |
|             | 4000  | 1             | .1      | .4            | 99.6        |
|             | 6000  | 1             | .1      | .4            | 100.0       |
|             | .     | 426           | 62.0    | MISSING       |             |
|             | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases | 261   | Missing Cases | 426     |               |             |

## Q16B TOTAL FIRST RECEIVED EXTERNAL EQUITY INVESTMENTS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 131       | 19.1    | 81.9          | 81.9        |
|             | 1     | 3         | .4      | 1.9           | 83.8        |
|             | 4     | 1         | .1      | .6            | 84.4        |
|             | 5     | 2         | .3      | 1.3           | 85.6        |
|             | 10    | 3         | .4      | 1.9           | 87.5        |
|             | 12    | 1         | .1      | .6            | 88.1        |
|             | 15    | 2         | .3      | 1.3           | 89.4        |
|             | 16    | 1         | .1      | .6            | 90.0        |
|             | 18    | 1         | .1      | .6            | 90.6        |
|             | 20    | 2         | .3      | 1.3           | 91.9        |
|             | 30    | 3         | .4      | 1.9           | 93.8        |
|             | 40    | 1         | .1      | .6            | 94.4        |
|             | 50    | 1         | .1      | .6            | 95.0        |
|             | 65    | 1         | .1      | .6            | 95.6        |
|             | 74    | 1         | .1      | .6            | 96.3        |
|             | 100   | 2         | .3      | 1.3           | 97.5        |
|             | 175   | 1         | .1      | .6            | 98.1        |
|             | 208   | 1         | .1      | .6            | 98.8        |
|             | 400   | 1         | .1      | .6            | 99.4        |
|             | 500   | 1         | .1      | .6            | 100.0       |
|             | .     | 527       | 76.7    | MISSING       |             |
|             | TOTAL | 687       | 100.0   | 100.0         |             |

Valid Cases 160 Missing Cases 527

## Q16B1 TOTAL NOW EXTERNAL EQUITY INVESTMENTS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 118       | 17.2    | 85.5          | 85.5        |
|             | 1     | 2         | .3      | 1.4           | 87.0        |
|             | 5     | 2         | .3      | 1.4           | 88.4        |
|             | 10    | 2         | .3      | 1.4           | 89.9        |
|             | 15    | 2         | .3      | 1.4           | 91.3        |
|             | 19    | 1         | .1      | .7            | 92.0        |
|             | 30    | 1         | .1      | .7            | 92.8        |
|             | 40    | 1         | .1      | .7            | 93.5        |
|             | 50    | 2         | .3      | 1.4           | 94.9        |
|             | 65    | 1         | .1      | .7            | 95.7        |
|             | 74    | 1         | .1      | .7            | 96.4        |
|             | 75    | 2         | .3      | 1.4           | 97.8        |
|             | 175   | 1         | .1      | .7            | 98.6        |
|             | 400   | 1         | .1      | .7            | 99.3        |
|             | 1000  | 1         | .1      | .7            | 100.0       |
|             | .     | 549       | 79.9    | MISSING       |             |
|             | TOTAL | 687       | 100.0   | 100.0         |             |

Valid Cases 138 Missing Cases 549

## Q16C TOTAL FIRST RECEIVED GOVERNMENT LOANS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 149       | 21.7    | 95.5          | 95.5        |
|             | 5     | 1         | .1      | .6            | 96.2        |
|             | 30    | 1         | .1      | .6            | 96.8        |
|             | 130   | 1         | .1      | .6            | 97.4        |
|             | 175   | 1         | .1      | .6            | 98.1        |
|             | 250   | 1         | .1      | .6            | 98.7        |
|             | 251   | 1         | .1      | .6            | 99.4        |
|             | 2500  | 1         | .1      | .6            | 100.0       |
|             | .     | 531       | 77.3    | MISSING       |             |
|             | TOTAL | 687       | 100.0   | 100.0         |             |

Valid Cases 156 Missing Cases 531

## Q16C1 TOTAL NOW GOVERNMENT LOANS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 130       | 18.9    | 94.2          | 94.2        |
|             | 5     | 1         | .1      | .7            | 94.9        |
|             | 12    | 1         | .1      | .7            | 95.7        |
|             | 30    | 1         | .1      | .7            | 96.4        |
|             | 40    | 1         | .1      | .7            | 97.1        |
|             | 100   | 1         | .1      | .7            | 97.8        |
|             | 110   | 1         | .1      | .7            | 98.6        |
|             | 150   | 1         | .1      | .7            | 99.3        |
|             | 180   | 1         | .1      | .7            | 100.0       |
|             | .     | 549       | 79.9    | MISSING       |             |
|             | TOTAL | 687       | 100.0   | 100.0         |             |

Valid Cases 138 Missing Cases 549

## Q16D TOTAL FIRST RECEIVED EMPLOYMENT TAX &amp; OTHER

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 0     | 146       | 21.3    | 98.6          | 98.6        |
|             | 5     | 1         | .1      | .7            | 99.3        |
|             | 1000  | 1         | .1      | .7            | 100.0       |
|             | .     | 539       | 78.5    | MISSING       |             |
|             | TOTAL | 687       | 100.0   | 100.0         |             |

Valid Cases 148 Missing Cases 539

## Q16D1 TOTAL NOW EMPLOYMENT TAX &amp; OTHER

| Value Label | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------|-------|---------------|---------|---------------|-------------|
|             | 0     | 129           | 18.8    | 99.2          | 99.2        |
|             | 3     | 1             | .1      | .8            | 100.0       |
|             | .     | 557           | 81.1    | MISSING       |             |
|             | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases | 130   | Missing Cases | 557     |               |             |

## Q16E TOTAL FIRST RECEIVED FEDERAL GOVERNMENT ASSISTANCE

| Value Label | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------|-------|---------------|---------|---------------|-------------|
|             | 0     | 130           | 18.9    | 78.8          | 78.8        |
|             | 8     | 1             | .1      | .6            | 79.4        |
|             | 15    | 2             | .3      | 1.2           | 80.6        |
|             | 17    | 1             | .1      | .6            | 81.2        |
|             | 20    | 2             | .3      | 1.2           | 82.4        |
|             | 30    | 1             | .1      | .6            | 83.0        |
|             | 32    | 1             | .1      | .6            | 83.6        |
|             | 47    | 1             | .1      | .6            | 84.2        |
|             | 50    | 1             | .1      | .6            | 84.8        |
|             | 55    | 1             | .1      | .6            | 85.5        |
|             | 57    | 1             | .1      | .6            | 86.1        |
|             | 60    | 1             | .1      | .6            | 86.7        |
|             | 62    | 1             | .1      | .6            | 87.3        |
|             | 64    | 1             | .1      | .6            | 87.9        |
|             | 65    | 1             | .1      | .6            | 88.5        |
|             | 75    | 3             | .4      | 1.8           | 90.3        |
|             | 80    | 3             | .4      | 1.8           | 92.1        |
|             | 107   | 1             | .1      | .6            | 92.7        |
|             | 110   | 1             | .1      | .6            | 93.3        |
|             | 125   | 2             | .3      | 1.2           | 94.5        |
|             | 150   | 1             | .1      | .6            | 95.2        |
|             | 180   | 1             | .1      | .6            | 95.8        |
|             | 200   | 1             | .1      | .6            | 96.4        |
|             | 315   | 1             | .1      | .6            | 97.0        |
|             | 415   | 1             | .1      | .6            | 97.6        |
|             | 500   | 2             | .3      | 1.2           | 98.8        |
|             | 570   | 1             | .1      | .6            | 99.4        |
|             | 1600  | 1             | .1      | .6            | 100.0       |
|             | .     | 522           | 76.0    | MISSING       |             |
|             | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases | 165   | Missing Cases | 522     |               |             |

## Q16E1 TOTAL NOW FEDERAL GOVERNMENT ASSISTANCE

| Value Label | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------|-------|---------------|---------|---------------|-------------|
|             | 0     | 121           | 17.6    | 87.1          | 87.1        |
|             | 5     | 1             | .1      | .7            | 87.8        |
|             | 13    | 1             | .1      | .7            | 88.5        |
|             | 15    | 2             | .3      | 1.4           | 89.9        |
|             | 28    | 1             | .1      | .7            | 90.6        |
|             | 30    | 2             | .3      | 1.4           | 92.1        |
|             | 32    | 1             | .1      | .7            | 92.8        |
|             | 35    | 1             | .1      | .7            | 93.5        |
|             | 43    | 1             | .1      | .7            | 94.2        |
|             | 55    | 2             | .3      | 1.4           | 95.7        |
|             | 100   | 1             | .1      | .7            | 96.4        |
|             | 150   | 1             | .1      | .7            | 97.1        |
|             | 300   | 1             | .1      | .7            | 97.8        |
|             | 360   | 1             | .1      | .7            | 98.6        |
|             | 390   | 1             | .1      | .7            | 99.3        |
|             | 1600  | 1             | .1      | .7            | 100.0       |
|             | .     | 548           | 79.8    | MISSING       |             |
|             | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases | 139   | Missing Cases | 548     |               |             |

## Q16F PERCENT CONTROL BY FOUNDERS OF FIRST SUPPORT

| Value Label | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------|-------|---------------|---------|---------------|-------------|
|             | 0     | 19            | 2.8     | 6.9           | 6.9         |
|             | 5     | 1             | .1      | .4            | 7.3         |
|             | 13    | 1             | .1      | .4            | 7.7         |
|             | 25    | 1             | .1      | .4            | 8.0         |
|             | 33    | 2             | .3      | .7            | 8.8         |
|             | 49    | 2             | .3      | .7            | 9.5         |
|             | 50    | 6             | .9      | 2.2           | 11.7        |
|             | 51    | 6             | .9      | 2.2           | 13.9        |
|             | 55    | 1             | .1      | .4            | 14.2        |
|             | 56    | 1             | .1      | .4            | 14.6        |
|             | 60    | 1             | .1      | .4            | 15.0        |
|             | 65    | 2             | .3      | .7            | 15.7        |
|             | 67    | 2             | .3      | .7            | 16.4        |
|             | 75    | 1             | .1      | .4            | 16.8        |
|             | 77    | 1             | .1      | .4            | 17.2        |
|             | 80    | 1             | .1      | .4            | 17.5        |
|             | 85    | 1             | .1      | .4            | 17.9        |
|             | 87    | 1             | .1      | .4            | 18.2        |
|             | 90    | 1             | .1      | .4            | 18.6        |
|             | 94    | 1             | .1      | .4            | 19.0        |
|             | 95    | 1             | .1      | .4            | 19.3        |
|             | 97    | 1             | .1      | .4            | 19.7        |
|             | 98    | 1             | .1      | .4            | 20.1        |
|             | 100   | 219           | 31.9    | 79.9          | 100.0       |
|             | .     | 413           | 60.1    | MISSING       |             |
|             |       | -----         | -----   | -----         |             |
|             | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases | 274   | Missing Cases | 413     |               |             |

## Q16F1 PERCENT CONTROL BY FOUNDERS NOW

| Value Label        | Value        | Frequency            | Percent      | Valid Percent | Cum Percent |
|--------------------|--------------|----------------------|--------------|---------------|-------------|
|                    | 0            | 22                   | 3.2          | 9.0           | 9.0         |
|                    | 5            | 1                    | .1           | .4            | 9.4         |
|                    | 33           | 1                    | .1           | .4            | 9.8         |
|                    | 49           | 5                    | .7           | 2.0           | 11.8        |
|                    | 50           | 2                    | .3           | .8            | 12.7        |
|                    | 51           | 6                    | .9           | 2.4           | 15.1        |
|                    | 52           | 1                    | .1           | .4            | 15.5        |
|                    | 55           | 2                    | .3           | .8            | 16.3        |
|                    | 56           | 1                    | .1           | .4            | 16.7        |
|                    | 65           | 2                    | .3           | .8            | 17.6        |
|                    | 67           | 2                    | .3           | .8            | 18.4        |
|                    | 70           | 2                    | .3           | .8            | 19.2        |
|                    | 71           | 1                    | .1           | .4            | 19.6        |
|                    | 75           | 2                    | .3           | .8            | 20.4        |
|                    | 77           | 1                    | .1           | .4            | 20.8        |
|                    | 80           | 2                    | .3           | .8            | 21.6        |
|                    | 82           | 1                    | .1           | .4            | 22.0        |
|                    | 84           | 1                    | .1           | .4            | 22.4        |
|                    | 85           | 2                    | .3           | .8            | 23.3        |
|                    | 90           | 2                    | .3           | .8            | 24.1        |
|                    | 94           | 1                    | .1           | .4            | 24.5        |
|                    | 97           | 1                    | .1           | .4            | 24.9        |
|                    | 98           | 3                    | .4           | 1.2           | 26.1        |
|                    | 100          | 181                  | 26.3         | 73.9          | 100.0       |
|                    | .            | 442                  | 64.3         | MISSING       |             |
|                    | <b>TOTAL</b> | <b>687</b>           | <b>100.0</b> | <b>100.0</b>  |             |
| <b>Valid Cases</b> | <b>245</b>   | <b>Missing Cases</b> | <b>442</b>   |               |             |

APPENDIX B:  
OPEN-ENDED RESPONSES

| <u>VARIABLE</u> | <u>DESCRIPTION</u>                            | <u>PAGE</u> |
|-----------------|---|-------------|
| Q3              | Type of business                              | B-2         |
| Q12E1           | Expansion to                                  | B-5         |
| Q12F1           | Relocation to                                 | B-6         |
| Q17             | Major problems in obtaining financial support | B-6         |

## Q3 TYPE OF BUSINESS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 21    | 1         | .1      | .2            | .2          |
|             | 71    | 1         | .1      | .2            | .3          |
|             | 78    | 10        | 1.5     | 1.6           | 1.9         |
|             | 150   | 17        | 2.5     | 2.7           | 4.7         |
|             | 151   | 1         | .1      | .2            | 4.8         |
|             | 152   | 3         | .4      | .5            | 5.3         |
|             | 154   | 1         | .1      | .2            | 5.5         |
|             | 161   | 7         | 1.0     | 1.1           | 6.6         |
|             | 162   | 5         | .7      | .8            | 7.4         |
|             | 171   | 13        | 1.9     | 2.1           | 9.5         |
|             | 172   | 16        | 2.3     | 2.6           | 12.1        |
|             | 173   | 19        | 2.8     | 3.1           | 15.2        |
|             | 174   | 9         | 1.3     | 1.5           | 16.6        |
|             | 175   | 7         | 1.0     | 1.1           | 17.8        |
|             | 176   | 2         | .3      | .3            | 18.1        |
|             | 177   | 9         | 1.3     | 1.5           | 19.5        |
|             | 179   | 38        | 5.5     | 6.1           | 25.7        |
|             | 204   | 1         | .1      | .2            | 25.8        |
|             | 209   | 2         | .3      | .3            | 26.2        |
|             | 226   | 2         | .3      | .3            | 26.5        |
|             | 238   | 3         | .4      | .5            | 27.0        |
|             | 239   | 1         | .1      | .2            | 27.1        |
|             | 241   | 1         | .1      | .2            | 27.3        |
|             | 249   | 1         | .1      | .2            | 27.5        |
|             | 251   | 1         | .1      | .2            | 27.6        |
|             | 259   | 3         | .4      | .5            | 28.1        |
|             | 271   | 1         | .1      | .2            | 28.3        |
|             | 272   | 1         | .1      | .2            | 28.4        |
|             | 273   | 1         | .1      | .2            | 28.6        |
|             | 275   | 10        | 1.5     | 1.6           | 30.2        |
|             | 276   | 1         | .1      | .2            | 30.4        |
|             | 277   | 1         | .1      | .2            | 30.5        |
|             | 279   | 5         | .7      | .8            | 31.3        |
|             | 284   | 2         | .3      | .3            | 31.7        |
|             | 286   | 1         | .1      | .2            | 31.8        |
|             | 289   | 2         | .3      | .3            | 32.1        |
|             | 308   | 2         | .3      | .3            | 32.5        |
|             | 321   | 1         | .1      | .2            | 32.6        |
|             | 331   | 1         | .1      | .2            | 32.8        |
|             | 336   | 1         | .1      | .2            | 33.0        |
|             | 339   | 1         | .1      | .2            | 33.1        |
|             | 342   | 1         | .1      | .2            | 33.3        |
|             | 344   | 3         | .4      | .5            | 33.8        |
|             | 347   | 1         | .1      | .2            | 33.9        |
|             | 349   | 3         | .4      | .5            | 34.4        |
|             | 350   | 1         | .1      | .2            | 34.6        |
|             | 353   | 1         | .1      | .2            | 34.7        |
|             | 354   | 5         | .7      | .8            | 35.5        |
|             | 357   | 2         | .3      | .3            | 35.9        |
|             | 358   | 1         | .1      | .2            | 36.0        |
|             | 359   | 3         | .4      | .5            | 36.5        |

## Q3 TYPE OF BUSINESS

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 362   | 1         | .1      | .2            | 36.7        |
|             | 364   | 1         | .1      | .2            | 36.8        |
|             | 366   | 1         | .1      | .2            | 37.0        |
|             | 367   | 5         | .7      | .8            | 37.8        |
|             | 369   | 2         | .3      | .3            | 38.1        |
|             | 371   | 1         | .1      | .2            | 38.3        |
|             | 372   | 1         | .1      | .2            | 38.4        |
|             | 379   | 1         | .1      | .2            | 38.6        |
|             | 382   | 1         | .1      | .2            | 38.8        |
|             | 384   | 1         | .1      | .2            | 38.9        |
|             | 391   | 1         | .1      | .2            | 39.1        |
|             | 395   | 1         | .1      | .2            | 39.3        |
|             | 399   | 4         | .6      | .6            | 39.9        |
|             | 421   | 15        | 2.2     | 2.4           | 42.3        |
|             | 422   | 1         | .1      | .2            | 42.5        |
|             | 472   | 8         | 1.2     | 1.3           | 43.8        |
|             | 473   | 1         | .1      | .2            | 43.9        |
|             | 478   | 1         | .1      | .2            | 44.1        |
|             | 484   | 1         | .1      | .2            | 44.3        |
|             | 489   | 2         | .3      | .3            | 44.6        |
|             | 491   | 1         | .1      | .2            | 44.7        |
|             | 501   | 2         | .3      | .3            | 45.1        |
|             | 502   | 7         | 1.0     | 1.1           | 46.2        |
|             | 503   | 4         | .6      | .6            | 46.8        |
|             | 504   | 19        | 2.8     | 3.1           | 49.9        |
|             | 505   | 2         | .3      | .3            | 50.2        |
|             | 506   | 5         | .7      | .8            | 51.1        |
|             | 507   | 2         | .3      | .3            | 51.4        |
|             | 508   | 5         | .7      | .8            | 52.2        |
|             | 509   | 1         | .1      | .2            | 52.3        |
|             | 511   | 5         | .7      | .8            | 53.2        |
|             | 513   | 1         | .1      | .2            | 53.3        |
|             | 514   | 5         | .7      | .8            | 54.1        |
|             | 516   | 3         | .4      | .5            | 54.6        |
|             | 517   | 2         | .3      | .3            | 54.9        |
|             | 519   | 7         | 1.0     | 1.1           | 56.1        |
|             | 521   | 4         | .6      | .6            | 56.7        |
|             | 523   | 1         | .1      | .2            | 56.9        |
|             | 525   | 4         | .6      | .6            | 57.5        |
|             | 544   | 1         | .1      | .2            | 57.7        |
|             | 551   | 1         | .1      | .2            | 57.8        |
|             | 553   | 1         | .1      | .2            | 58.0        |
|             | 554   | 3         | .4      | .5            | 58.5        |
|             | 561   | 1         | .1      | .2            | 58.6        |
|             | 566   | 1         | .1      | .2            | 58.8        |
|             | 569   | 1         | .1      | .2            | 59.0        |
|             | 571   | 8         | 1.2     | 1.3           | 60.3        |
|             | 573   | 8         | 1.2     | 1.3           | 61.6        |
|             | 581   | 3         | .4      | .5            | 62.0        |
|             | 594   | 6         | .9      | 1.0           | 63.0        |

## Q3 TYPE OF BUSINESS

| Value Label       | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|-------------------|-------|---------------|---------|---------------|-------------|
|                   | 599   | 2             | .3      | .3            | 63.3        |
|                   | 641   | 2             | .3      | .3            | 63.7        |
|                   | 701   | 1             | .1      | .2            | 63.8        |
|                   | 722   | 2             | .3      | .3            | 64.1        |
|                   | 723   | 1             | .1      | .2            | 64.3        |
|                   | 729   | 4             | .6      | .6            | 64.9        |
|                   | 731   | 12            | 1.7     | 1.9           | 66.9        |
|                   | 732   | 1             | .1      | .2            | 67.0        |
|                   | 733   | 25            | 3.6     | 4.0           | 71.1        |
|                   | 734   | 9             | 1.3     | 1.5           | 72.5        |
|                   | 735   | 4             | .6      | .6            | 73.2        |
|                   | 736   | 13            | 1.9     | 2.1           | 75.3        |
|                   | 737   | 22            | 3.2     | 3.6           | 78.8        |
|                   | 738   | 29            | 4.2     | 4.7           | 83.5        |
|                   | 753   | 4             | .6      | .6            | 84.2        |
|                   | 754   | 1             | .1      | .2            | 84.3        |
|                   | 762   | 1             | .1      | .2            | 84.5        |
|                   | 764   | 2             | .3      | .3            | 84.8        |
|                   | 769   | 1             | .1      | .2            | 85.0        |
|                   | 799   | 2             | .3      | .3            | 85.3        |
|                   | 802   | 1             | .1      | .2            | 85.5        |
|                   | 809   | 5             | .7      | .8            | 86.3        |
|                   | 811   | 3             | .4      | .5            | 86.8        |
|                   | 833   | 2             | .3      | .3            | 87.1        |
|                   | 835   | 1             | .1      | .2            | 87.2        |
|                   | 871   | 22            | 3.2     | 3.6           | 90.8        |
|                   | 872   | 2             | .3      | .3            | 91.1        |
|                   | 873   | 4             | .6      | .6            | 91.8        |
|                   | 874   | 41            | 6.0     | 6.6           | 98.4        |
|                   | 899   | 5             | .7      | .8            | 99.2        |
|                   | 951   | 1             | .1      | .2            | 99.4        |
| INSUFFICIENT INFO | 999   | 4             | .6      | .6            | 100.0       |
|                   | .     | 68            | 9.9     | MISSING       |             |
|                   | TOTAL | 687           | 100.0   | 100.0         |             |
| Valid Cases       | 619   | Missing Cases | 68      |               |             |

## Q12E1 EXPANSION TO

| Value Label         | Value | Frequency     | Percent | Valid Percent | Cum Percent |
|---------------------|-------|---------------|---------|---------------|-------------|
| ST. PAUL, MN        | 1     | 8             | 1.2     | 12.1          | 12.1        |
| MN                  | 2     | 3             | .4      | 4.5           | 16.7        |
| GENERAL TWIN CITIES | 3     | 6             | .9      | 9.1           | 25.8        |
| MINNEAPOLIS, MN     | 4     | 9             | 1.3     | 13.6          | 39.4        |
| COLORADO            | 5     | 1             | .1      | 1.5           | 40.9        |
| CHICAGO, IL         | 6     | 4             | .6      | 6.1           | 47.0        |
| MIDWEST             | 7     | 3             | .4      | 4.5           | 51.5        |
| OAKLAND, CA         | 8     | 1             | .1      | 1.5           | 53.0        |
| EAST & WEST COAST   | 9     | 1             | .1      | 1.5           | 54.5        |
| TORONTO, ONT        | 10    | 1             | .1      | 1.5           | 56.1        |
| BERKELEY, CA        | 11    | 1             | .1      | 1.5           | 57.6        |
| SW US               | 12    | 1             | .1      | 1.5           | 59.1        |
| OUT OF METRO, MN    | 13    | 1             | .1      | 1.5           | 60.6        |
| SAN FRANCISCO, CA   | 14    | 1             | .1      | 1.5           | 62.1        |
| BLANKET MN & WI     | 15    | 1             | .1      | 1.5           | 63.6        |
| DULUTH, MN          | 16    | 1             | .1      | 1.5           | 65.2        |
| EAST COAST          | 17    | 1             | .1      | 1.5           | 66.7        |
| USA                 | 18    | 1             | .1      | 1.5           | 68.2        |
| DALLAS              | 19    | 1             | .1      | 1.5           | 69.7        |
| LOS ANGELES, CA     | 20    | 1             | .1      | 1.5           | 71.2        |
| COLUMBUS, OH        | 21    | 1             | .1      | 1.5           | 72.7        |
| BALTIMORE, MD       | 22    | 1             | .1      | 1.5           | 74.2        |
| STATEWIDE-IA,WI,SD  | 23    | 1             | .1      | 1.5           | 75.8        |
| ATLANTA, GA         | 24    | 1             | .1      | 1.5           | 77.3        |
| BOSTON, MA          | 25    | 1             | .1      | 1.5           | 78.8        |
| AUSTIN, TX          | 26    | 1             | .1      | 1.5           | 80.3        |
| MILWAUKEE, WI       | 27    | 1             | .1      | 1.5           | 81.8        |
| DAYTON, OH          | 28    | 1             | .1      | 1.5           | 83.3        |
| EASTERN EUROPE      | 29    | 1             | .1      | 1.5           | 84.8        |
| NATIONWIDE          | 30    | 2             | .3      | 3.0           | 87.9        |
| VARIOUS             | 31    | 2             | .3      | 3.0           | 90.9        |
| MN/WI               | 32    | 1             | .1      | 1.5           | 92.4        |
| ELY, MN             | 33    | 1             | .1      | 1.5           | 93.9        |
| HOT LAKE, MN        | 34    | 1             | .1      | 1.5           | 95.5        |
| GRAND RAPIDS, MN    | 35    | 1             | .1      | 1.5           | 97.0        |
| CALIFORNIA          | 36    | 1             | .1      | 1.5           | 98.5        |
| PHOENIX, AZ         | 38    | 1             | .1      | 1.5           | 100.0       |
| .                   |       | 621           | 90.4    | MISSING       |             |
| TOTAL               |       | 687           | 100.0   | 100.0         |             |
| Valid Cases         | 66    | Missing Cases | 621     |               |             |

## Q12F1 RELOCATION TO

| Value Label          | Value | Frequency | Percent | Valid Percent | Cum Percent |
|----------------------|-------|-----------|---------|---------------|-------------|
| MINNEAPOLIS, MN      | 1     | 1         | .1      | 5.6           | 5.6         |
| DENVER, CO           | 2     | 1         | .1      | 5.6           | 11.1        |
| ST. PAUL             | 3     | 2         | .3      | 11.1          | 22.2        |
| MINNESOTA            | 4     | 3         | .4      | 16.7          | 38.9        |
| WARM CLIMATE/LOW TAX | 5     | 1         | .1      | 5.6           | 44.4        |
| CHICAGO, IL          | 6     | 2         | .3      | 11.1          | 55.6        |
| FT. LAUDERDALE, FL   | 7     | 1         | .1      | 5.6           | 61.1        |
| ORANGE COUNTY, CA    | 8     | 1         | .1      | 5.6           | 66.7        |
| SEATTLE, WA          | 9     | 1         | .1      | 5.6           | 72.2        |
| SOUTH DAKOTA         | 10    | 2         | .3      | 11.1          | 83.3        |
| OUT OF MN            | 11    | 1         | .1      | 5.6           | 88.9        |
| MN/WI                | 12    | 1         | .1      | 5.6           | 94.4        |
| METRO AREA           | 13    | 1         | .1      | 5.6           | 100.0       |
| .                    |       | 669       | 97.4    | MISSING       |             |
| TOTAL                |       | 687       | 100.0   | 100.0         |             |

Valid Cases 18 Missing Cases 669

## Q17 MAJOR PROBLEMS IN OBTAINING FINANCIAL SUPPORT

| Value Label          | Value | Frequency | Percent | Valid Percent | Cum Percent |
|----------------------|-------|-----------|---------|---------------|-------------|
| CREDIT RATING        | 1     | 22        | 3.2     | 7.4           | 7.4         |
| TOO SHORT TIME       | 2     | 39        | 5.7     | 13.1          | 20.5        |
| DISCRIMINATION ISSUE | 3     | 16        | 2.3     | 5.4           | 25.8        |
| CAPITAL PROBLEM      | 4     | 105       | 15.3    | 35.2          | 61.1        |
| LACK OF KNOWLEDGE    | 5     | 9         | 1.3     | 3.0           | 64.1        |
| NO RISK BANK         | 6     | 64        | 9.3     | 21.5          | 85.6        |
| RED TAPE             | 7     | 17        | 2.5     | 5.7           | 91.3        |
| INTEREST RATES       | 8     | 16        | 2.3     | 5.4           | 96.6        |
| BANKS INCOMPETENT    | 9     | 3         | .4      | 1.0           | 97.7        |
| OTHER                | 77    | 7         | 1.0     | 2.3           | 100.0       |
| .                    |       | 389       | 56.6    | MISSING       |             |
| TOTAL                |       | 687       | 100.0   | 100.0         |             |

Valid Cases 298 Missing Cases 389

**APPENDIX C:  
COVER LETTERS & POST CARD TEXT**

| <u>DESCRIPTION</u>                | <u>PAGE</u> |
|-----------------------------------|-------------|
| Cover letter #1: October 4, 1989  | C-2         |
| Post card: October 10, 1989       | C-3         |
| Cover letter #2: October 19, 1989 | C-4         |

October 4, 1989

Dear Business Owner,

To better understand the problems that owners face in operating their business, the Minnesota Department of Administration is gathering information from Minnesota business owners. We need the owner of the business to fill out the questionnaire so that the information gathered will represent this group.

Your business is one of a small number in Minnesota which is being asked to give its opinions on this matter. It was drawn from a listing of firms that have been registered to do governmental business, or from certain business association lists. In order that the results will truly represent the thinking and experiences of business owners in Minnesota, it is important that each questionnaire be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we may check the name of your business off of the mailing list when your questionnaire is returned. All data will be analyzed in group form, so you will not be able to be identified.

The results of this research will be made available to officials and representatives in our state government, and available to all interested citizens.

I would be most happy to answer any questions you might have. Please write or call collect. The telephone number is (612) 627-4282. Thank you for your assistance.

Sincerely,

William J. Craig  
Director

October 10, 1989

Last week a questionnaire seeking your opinion on problems that owners face in operating their business was mailed to you. Your name was selected from a list of firms that have been registered to do governmental business, or from certain business association lists. We need the owner of the business to fill out the questionnaire.

If you already completed and returned it to us, please accept our sincere thanks. If not, please do so today. Because the results need to truly reflect the opinions of business owners in Minnesota, it is extremely important that yours also be included in the study.

If by some chance you did not receive the questionnaire, or it got misplaced, please call me right now, collect at 612-627-4282, and I will get another one in the mail to you today.

Sincerely,

William J. Craig, Director  
Minnesota Center for Survey Research

October 19, 1989

Dear Business Owner,

About two weeks ago I wrote to you seeking your opinion on the problems that owners face in operating their business. As of today we have not yet received your completed questionnaire. We need the owner of the business to fill out the questionnaire.

Our research unit has undertaken this study because of the belief that your opinion should be taken into account in the formation of policies for Minnesota business owners.

I am writing to you again because of the significance each questionnaire has to the usefulness of this study. Your business was drawn from a listing of firms that have been registered to do governmental business, or from certain business association lists. In order that the results will truly represent the thinking and experiences of business owners in Minnesota, it is important that each questionnaire be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we may check the name of your business off of the mailing list when your questionnaire is returned. All data will be analyzed in group form, so you will not be able to be identified.

In the event that your questionnaire has been misplaced, a replacement is enclosed.

Your cooperation is greatly appreciated.

Sincerely,

William J. Craig  
Director

## Survey Results

The following tables present selected results from the 1989 survey of women- and minority-owned firms: A Study of Discrimination and Other Obstacles to Business Operation.

Tables 1 through 5 present findings for female, black, Hispanic, American Indian and Asian business owners for questions 8 through 11, 18 through 20, and 22.

Questions 8 through 11 asked respondents to indicate the initial severity and current status of potential business problems in four areas: products and markets; finances; management and organization; and selecting/developing a business location.

Questions 18 through 20 and 22 examined sources, forms and incidence of discrimination.

In Tables 1 through 5, all values are expressed in percent.

Table 6 presents alternative ("other") responses to question 19: What is or was the source of discrimination? The answers are presented in aggregate, and include all race/gender groups.

Table 7 presents alternative ("other") responses to question 20: What form did the discrimination take? The answers are presented in aggregate, and include all race/gender groups.

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8a. Understanding industry trends

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.5             | 20.2           | 51.1          | 13.1          | 5.2           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.7             | 43.8           | 5.2           | 37.3          | 100           |       |

Q8b. Analyzing competition, competitors

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.1              | 12.9           | 61.6          | 17            | 4.5           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.7             | 51.5           | 11.8          | 23            | 100           |       |

Q8c. Finding Competitive advantages

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 3.9              | 12.2           | 51.3          | 26.6          | 6             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.9             | 47.6           | 17.8          | 23.6          | 99.9          |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8d. Developing new, follow-on products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 19.3             | 16.7           | 44.2          | 14.6          | 5.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.6              | 38.2           | 11.6          | 41.6          | 100           |       |

Q8e. Providing after-sale follow-up or advice

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 18.7             | 25.3           | 43.1          | 6.2           | 6.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15               | 30.3           | 4.1           | 50.6          | 100           |       |

Q8f. Understanding and assessing customer needs

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.3             | 24.2           | 52.8          | 8.4           | 4.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.5             | 39.5           | 2.6           | 39.5          | 100.1         |       |

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8g. Effective selling techniques

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.3             | 13.9          | 45.5          | 26.6          | 3.6           | 99.9  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 11.4           | 47.4           | 12.4       | 28.8          | 100   |

Q8h. Writing advertising copy, selecting media

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 27.3             | 20.4          | 32.4          | 16.1          | 3.9           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 13.7           | 23.8           | 10.3       | 52.1          | 99.9  |

Q8i. Providing customer service/follow-up

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.4             | 27.5          | 48.5          | 4.1           | 5.6           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 17             | 32.2           | 2.6        | 48.3          | 100.1 |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8j. Pricing products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.2              | 15.5           | 50.4          | 21.7          | 4.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.5             | 43.6           | 8.6           | 29.4          | 100.1         |       |

Q8k. Delivering on time/within budget

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.8             | 27.7           | 46.1          | 10.5          | 3.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.9             | 34.3           | 4.9           | 44.8          | 99.9          |       |

Q9a. Obtaining equity financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 24               | 19.7           | 27.3          | 23.4          | 5.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.2             | 20.4           | 15            | 49.4          | 100           |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9b. Obtaining debt financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 24.7             | 20.8           | 23.8          | 25.8          | 4.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.9             | 19.3           | 16.5          | 50.2          | 99.9          |       |

Q9c. Establishing a banking relationship

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 9.9              | 29.6           | 39.9          | 16.3          | 4.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 26.4             | 21.7           | 9             | 42.9          | 100           |       |

Q9d. Developing an accounting and control system

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 6.9              | 20.4           | 52.4          | 17            | 3.4           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 31.3             | 33.5           | 4.5           | 30.7          | 100           |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9e. Managing capital

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.7              | 21.9           | 52.4          | 12.9          | 5.2           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 17.8             | 40.3           | 6.9           | 35            | 100           |       |

Q9f. Managing cash flow

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.1              | 15             | 53            | 24.7          | 3.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.6             | 49.8           | 12.2          | 23.4          | 100           |       |

Q9g. Collecting accounts receivable: bad checks

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 6.9              | 21.5           | 52.6          | 16.3          | 2.8           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 16.1             | 39.1           | 12.4          | 32.4          | 100           |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9h. Securing adequate financing to operate the new firm

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 21.7             | 22.5           | 25.3          | 27.3          | 3.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15               | 20.2           | 17            | 47.9          | 100.1         |       |

Q9i. Obtaining suitable real estate financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 58.4             | 19.5           | 12.9          | 6             | 3.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.8              | 5.4            | 5.2           | 80.7          | 100.1         |       |

Q9j. Obtaining liability insurance

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.2             | 31.8           | 33.3          | 11.6          | 3.2           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 25.3             | 12.2           | 5.8           | 56.7          | 100           |       |

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9k. Securing bonding

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 50               | 19.7           | 14.8          | 12.7          | 2.8           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.2              | 9.9            | 8.4           | 72.5          | 100           |       |

Q10a. Coping with government regulations

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 17               | 15.7           | 40.1          | 23            | 4.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.5             | 30.7           | 15            | 38.8          | 100           |       |

Q10b. Developing good relationship with union

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 60.3             | 18.5           | 10.7          | 6.9           | 3.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 4.9              | 8.4            | 3.6           | 83            | 99.9          |       |

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10c. Selecting a lawyer or accountant

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.6             | 31.8           | 41.8          | 9.9           | 4.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 31.1             | 17.4           | 4.1           | 47.4          | 100           |       |

Q10d. Motivating/compensating personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.4             | 20             | 44.4          | 10.7          | 4.5           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.7             | 35.6           | 5.6           | 45.1          | 100           |       |

Q10e. Coordinating tasks among personnel/units

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 24.5             | 24.5           | 41.2          | 4.9           | 4.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 12               | 32.4           | 1.9           | 53.6          | 99.9          |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10f. Preparing a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 12.9             | 21.2           | 43.1          | 17.2          | 5.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 17.2             | 30             | 12.7          | 40.1          | 100           |       |

Q10g. Using/updating a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13.7             | 24.5           | 42.5          | 13.9          | 5.4           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.5             | 32.8           | 13.5          | 43.1          | 99.9          |       |

Q10h. Setting goals/priorities for personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.9             | 19.7           | 48.5          | 10.9          | 4.9           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 12.2             | 39.5           | 7.1           | 41.2          | 100           |       |

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10i. Measuring performance against plans

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.2             | 25.1           | 44.4          | 10.7          | 5.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9                | 38             | 8.8           | 44.2          | 100           |       |

Q10j. Clarifying goals/objectives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 9.9              | 21             | 51.5          | 10.5          | 7.1           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.9             | 42.5           | 8.8           | 37.8          | 100           |       |

Q10k. Implementing plans, strategy

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.8              | 21.9           | 52.1          | 10.5          | 6.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.2              | 44.8           | 7.9           | 38            | 99.9          |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10l. Finding qualified managers, executives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 36.9             | 21.2           | 23.4          | 12.4          | 6             | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.2              | 19.7           | 7.3           | 63.7          | 99.9          |       |

Q10m. Finding qualified technical or professional staff

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 27.3             | 17.6           | 32            | 18.9          | 4.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.8              | 30.7           | 11.4          | 49.1          | 100           |       |

Q10n. Finding qualified employees

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.6             | 12.9           | 36.5          | 24.2          | 5.8           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.8             | 34.1           | 14.6          | 39.5          | 100           |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10o. Minimizing start-up team conflict

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 42.5             | 27             | 19.7          | 5.6           | 5.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.5              | 15.7           | 2.4           | 74.5          | 100.1         |       |

Q11a. Identifying/selecting suitable site

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 38.8             | 24.7           | 26.4          | 5.8           | 4.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20.6             | 9.7            | 1.9           | 67.8          | 100           |       |

Q11b. Locating suitable rental space

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 38               | 23             | 27.9          | 6.9           | 4.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 21.9             | 9.4            | 3.2           | 65.5          | 100           |       |

(continued on next page)

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11c. Appropriate transportation structure (e.g. rail, highway)

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 54.3             | 25.5           | 12.4          | 3             | 4.7           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.2              | 5.8            | 0.9           | 84.1          | 100           |       |

Q11d. Appropriate infrastructure (e.g. sewer, water, roads)

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 58.2             | 25.8           | 6.9           | 4.1           | 5.2           | 100.2 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 5.2              | 4.5            | 1.7           | 88.6          | 100           |       |

Q11e. Access to customers, clients

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 26.4             | 30.5           | 32.2          | 6.7           | 4.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.7             | 21.5           | 3.2           | 61.6          | 100           |       |

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11f. Access to suppliers, vendors

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 31.1             | 32                | 27               | 5.4              | 4.5              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 15.2             | 14.4              | 2.4              | 68               | 100              |       |

Q11g. Access to employees

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 34.1             | 30.9              | 26               | 4.1              | 4.9              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 11.8             | 15.7              | 2.6              | 70               | 100.1            |       |

TABLE 1. SELECTED SURVEY RESULTS FOR FEMALE BUSINESS OWNERS (continued)

Questions Q18 through Q20 dealt with sources and forms of discrimination. Respondents were asked about incidence levels in question Q22.

All values are expressed in percent

Q18. During the most recent five year period, do you believe your business has been hampered by discrimination against you as a minority or female?

| YES  | NO   | MISSING<br>CASES | TOTAL |
|------|------|------------------|-------|
| 29.6 | 67.8 | 2.6              | 100   |

Q19. What was the source of that discrimination?  
(circle all that apply)

|                           |     |
|---------------------------|-----|
| Non-government purchasing | 6.7 |
| Government purchasing     | 8.6 |
| Sub-contractors           | 5.2 |
| Prime contractors         | 9.4 |
| Purchasing tools          | 0.9 |
| Trade associations        | 3.9 |
| Lending institutions      | 9.7 |
| Bonding agents            | 1.5 |
| Other (see Table 6)       | 8.2 |

Q20. What form did that discrimination take?  
(circle all that apply)

|                            |     |
|----------------------------|-----|
| Late notice of opportunity | 7.1 |
| Not accepting bids         | 7.9 |
| Shopping our bid           | 7.7 |
| Using other higher bids    | 8.2 |
| Other (see Table 7)        | 12  |

Q22. The number of seperate incidents of discrimination during this five year period have been...?

| NONE | 1 TO 5 | 5 TO 10 | MORE<br>THAN 10 | MISSING<br>CASES | TOTAL |
|------|--------|---------|-----------------|------------------|-------|
| 0.4  | 18.2   | 3       | 4.9             | 73.4             | 99.9  |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8a. Understanding industry trends

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.8              | 23.2          | 47.8          | 15.9          | 7.2           | 99.9  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 23.2           | 33.3           | 7.2        | 36.2          | 99.9  |

Q8b. Analyzing competition, competitors

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.9              | 14.5          | 42            | 26.1          | 14.5          | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 14.5           | 43.5           | 10.1       | 31.9          | 100   |

Q8c. Finding Competitive advantages

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.3              | 13            | 40.6          | 34.8          | 7.2           | 99.9  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 11.6           | 34.8           | 24.6       | 29            | 100   |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8d. Developing new, follow-on products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 18.8             | 18.8           | 37.7          | 15.9          | 8.7           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.7              | 34.8           | 11.6          | 44.9          | 100           |       |

Q8e. Providing after-sale follow-up or advice

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.3             | 20.3           | 34.8          | 10.1          | 14.5          | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20.3             | 24.6           | 7.2           | 47.8          | 99.9          |       |

Q8f. Understanding and assessing customer needs

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.1             | 30.4           | 40.6          | 11.6          | 7.2           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 24.6             | 21.7           | 8.7           | 44.9          | 99.9          |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8g. Effective selling techniques

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.1             | 26.1           | 33.3          | 20.3          | 10.1          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.5             | 24.6           | 17.4          | 43.5          | 100           |       |

Q8h. Writing advertising copy, selecting media

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.2             | 26.1           | 27.5          | 10.1          | 13            | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.5             | 20.3           | 10.1          | 55.1          | 100           |       |

Q8i. Providing customer service/follow-up

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 17.4             | 23.2           | 24.6          | 15.9          | 18.8          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20.3             | 21.7           | 7.2           | 50.7          | 99.9          |       |

(continued on next page)

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8j. Pricing products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.5             | 20.3           | 37.7          | 17.4          | 10.1          | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20.3             | 33.3           | 5.8           | 40.6          | 100           |       |

Q8k. Delivering on time/within budget

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.5             | 24.6           | 33.3          | 15.9          | 11.6          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.9             | 36.2           | 5.8           | 42            | 99.9          |       |

Q9a. Obtaining equity financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.5             | 8.7            | 20.3          | 53.6          | 2.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 2.9              | 27.5           | 42            | 27.5          | 99.9          |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9b. Obtaining debt financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.5             | 15.9           | 15.9          | 44.9          | 8.7           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 1.4              | 20.3           | 36.2          | 42            | 99.9          |       |

Q9c. Establishing a banking relationship

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.2              | 13             | 39.1          | 34.8          | 5.8           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.8             | 30.4           | 26.1          | 24.6          | 99.9          |       |

Q9d. Developing an accounting and control system

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.1             | 24.6           | 37.7          | 20.3          | 7.2           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 23.2             | 29             | 8.7           | 39.1          | 100           |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9e. Managing capital

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.7              | 27.5           | 37.7          | 14.5          | 11.6          | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13               | 29             | 13            | 44.9          | 99.9          |       |

Q9f. Managing cash flow

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.7              | 24.6           | 30.4          | 30.4          | 5.8           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.1             | 31.9           | 21.7          | 36.2          | 99.9          |       |

Q9g. Collecting accounts receivable: bad checks

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13               | 27.5           | 36.2          | 17.4          | 5.8           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13               | 29             | 13            | 44.9          | 99.9          |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9h. Securing adequate financing to operate the new firm

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.6             | 7.2            | 27.5          | 46.4          | 7.2           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.2              | 36.2           | 27.5          | 29            | 99.9          |       |

Q9i. Obtaining suitable real estate financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 44.9             | 14.5           | 10.1          | 21.7          | 8.7           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 4.3              | 10.1           | 20.3          | 65.2          | 99.9          |       |

Q9j. Obtaining liability insurance

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.3             | 29             | 24.6          | 14.5          | 11.6          | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13               | 17.4           | 14.5          | 55.1          | 100           |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9k. Securing bonding

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 33.3             | 15.9           | 13            | 33.3          | 4.3           | 99.8  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 5.8              | 18.8           | 24.6          | 50.7          | 99.9          |       |

Q10a. Coping with government regulations

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.7              | 31.9           | 29            | 23.2          | 7.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 17.4           | 24.6          | 46.4          | 100           |       |

Q10b. Developing good relationship with union

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 47.8             | 29             | 10.1          | 8.7           | 4.3           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.2              | 1.4            | 8.7           | 82.6          | 99.9          |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10c. Selecting a lawyer or accountant

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.3             | 39.1           | 23.2          | 8.7           | 8.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.5             | 11.6           | 7.2           | 66.7          | 100           |       |

Q10d. Motivating/compensating personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13               | 40.6           | 26.1          | 10.1          | 10.1          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.7              | 33.3           | 0             | 58            | 100           |       |

Q10e. Coordinating tasks among personnel/units

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 26.1             | 33.3           | 27.5          | 1.4           | 11.6          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.5             | 20.3           | 0             | 65.2          | 100           |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10f. Preparing a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.8              | 26.1           | 39.1          | 15.9          | 13            | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 24.6             | 23.2           | 13            | 39.1          | 99.9          |       |

Q10g. Using/updating a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.1             | 30.4           | 36.2          | 13            | 10.1          | 99.8  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 17.4             | 26.1           | 11.6          | 44.9          | 100           |       |

Q10h. Setting goals/priorities for personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13               | 27.5           | 39.1          | 8.7           | 11.6          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20.3             | 27.5           | 5.8           | 46.4          | 100           |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10i. Measuring performance against plans

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.6             | 33.3           | 37.7          | 7.2           | 10.1          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.5             | 27.5           | 8.7           | 49.3          | 100           |       |

Q10j. Clarifying goals/objectives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.1             | 31.9           | 37.7          | 7.2           | 13            | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13               | 26.1           | 10.1          | 50.7          | 99.9          |       |

Q10k. Implementing plans, strategy

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.2              | 30.4           | 42            | 8.7           | 11.6          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.1             | 37.7           | 7.2           | 44.9          | 99.9          |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10l. Finding qualified managers, executives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.2             | 31.9           | 15.9          | 17.4          | 11.6          | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 11.6           | 13            | 63.8          | 100           |       |

Q10m. Finding qualified technical or professional staff

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 18.8             | 26.1           | 27.5          | 17.4          | 10.1          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 20.3           | 15.9          | 52.2          | 100           |       |

Q10n. Finding qualified employees

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13               | 15.9           | 30.4          | 30.4          | 10.1          | 99.8  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 29             | 20.3          | 39.1          | 100           |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10o. Minimizing start-up team conflict

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 26.1             | 33.3           | 23.2          | 10.1          | 7.2           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.7              | 18.8           | 2.9           | 69.6          | 100           |       |

Q11a. Identifying/selecting suitable site

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 26.1             | 31.9           | 23.2          | 11.6          | 7.2           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13               | 14.5           | 5.8           | 66.7          | 100           |       |

Q11b. Locating suitable rental space

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 26.1             | 26.1           | 27.5          | 11.6          | 8.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.9             | 14.5           | 5.8           | 63.8          | 100           |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11c. Appropriate transportation structure (e.g. rail, highway)

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 40.6             | 30.4          | 13            | 5.8           | 10.1          | 99.9  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 10.1           | 7.2            | 5.8        | 76.8          | 99.9  |

Q11d. Appropriate infrastructure (e.g. sewer, water, roads)

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 49.3             | 34.8          | 5.8           | 2.9           | 7.2           | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 4.3            | 0              | 2.9        | 92.8          | 100   |

Q11e. Access to customers, clients

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 21.7             | 33.3          | 24.6          | 10.1          | 10.1          | 99.8  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 7.2            | 27.5           | 4.3        | 60.9          | 99.9  |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11f. Access to suppliers, vendors

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 23.2             | 37.7              | 24.6             | 4.3              | 10.1             | 99.9  |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 8.7              | 20.3              | 2.9              | 68.1             | 100              |       |

Q11g. Access to employees

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 27.5             | 34.8              | 21.7             | 7.2              | 8.7              | 99.9  |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 5.8              | 15.9              | 7.2              | 71               | 99.9             |       |

TABLE 2. SELECTED SURVEY RESULTS FOR BLACK BUSINESS OWNERS (continued)

Questions Q18 through Q20 dealt with sources and forms of discrimination. Respondents were asked about incidence levels in question Q22.

All values are expressed in percent.

Q18. During the most recent five year period, do you believe your business has been hampered by discrimination against you as a minority or female?

| YES  | NO   | MISSING<br>CASES | TOTAL |
|------|------|------------------|-------|
| 56.5 | 37.7 | 5.8              | 100   |

Q19. What was the source of that discrimination?  
(circle all that apply)

|                           |      |
|---------------------------|------|
| Non-government purchasing | 23.2 |
| Government purchasing     | 17.4 |
| Sub-contractors           | 13   |
| Prime contractors         | 24.6 |
| Purchasing tools          | 2.9  |
| Trade associations        | 5.8  |
| Lending institutions      | 27.5 |
| Bonding agents            | 15.9 |
| Other (see Table 6)       | 14.5 |

Q20. What form did that discrimination take?  
(circle all that apply)

|                            |      |
|----------------------------|------|
| Late notice of opportunity | 26.1 |
| Not accepting bids         | 26.1 |
| Shopping our bid           | 31.9 |
| Using other higher bids    | 30.4 |
| Other (see Table 7)        | 17.4 |

Q22. The number of separate incidents of discrimination during this five year period have been...?

| NONE | 1 TO 5 | 5 TO 10 | MORE<br>THAN 10 | MISSING<br>CASES | TOTAL |
|------|--------|---------|-----------------|------------------|-------|
| 2.9  | 20.3   | 5.8     | 23.2            | 47.8             | 100   |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8a. Understanding industry trends

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.6             | 27.9          | 46.5          | 11.6          | 2.3           | 99.9  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 20.9           | 23.3           | 11.6       | 44.2          | 100   |

Q8b. Analyzing competition, competitors

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.3              | 30.2          | 51.2          | 9.3           | 7             | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 9.3            | 39.5           | 11.6       | 39.5          | 99.9  |

Q8c. Finding Competitive advantages

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7                | 27.9          | 25.6          | 27.9          | 11.6          | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 14             | 18.6           | 20.9       | 46.5          | 100   |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8d. Developing new, follow-on products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.6             | 39.5           | 37.2          | 7             | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7                | 23.3           | 9.3           | 60.5          | 100.1         |       |

Q8e. Providing after-sale follow-up or advice

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.3             | 34.9           | 20.9          | 11.6          | 9.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7                | 18.6           | 7             | 67.4          | 100           |       |

Q8f. Understanding and assessing customer needs

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.3              | 44.2           | 46.5          | 2.3           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20.9             | 20.9           | 7             | 51.2          | 100           |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8g. Effective selling techniques

| INITIAL SEVERITY |                  |                  |                  |                  |       |
|------------------|------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 4.7              | 23.3             | 44.2             | 23.3             | 4.7              | 100.2 |

| CURRENT STATUS  |                   |               |                  |       |
|-----------------|-------------------|---------------|------------------|-------|
| FULLY<br>SOLVED | SOLVED<br>IN PART | NOT<br>SOLVED | MISSING<br>CASES | TOTAL |
| 16.3            | 32.6              | 16.3          | 34.9             | 100.1 |

Q8h. Writing advertising copy, selecting media

| INITIAL SEVERITY |                  |                  |                  |                  |       |
|------------------|------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 20.9             | 27.9             | 25.6             | 20.9             | 4.7              | 100   |

| CURRENT STATUS  |                   |               |                  |       |
|-----------------|-------------------|---------------|------------------|-------|
| FULLY<br>SOLVED | SOLVED<br>IN PART | NOT<br>SOLVED | MISSING<br>CASES | TOTAL |
| 7               | 18.6              | 16.3          | 58.1             | 100   |

Q8i. Providing customer service/follow-up

| INITIAL SEVERITY |                  |                  |                  |                  |       |
|------------------|------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 7                | 46.5             | 37.2             | 4.7              | 4.7              | 100.1 |

| CURRENT STATUS  |                   |               |                  |       |
|-----------------|-------------------|---------------|------------------|-------|
| FULLY<br>SOLVED | SOLVED<br>IN PART | NOT<br>SOLVED | MISSING<br>CASES | TOTAL |
| 14              | 20.9              | 4.7           | 60.5             | 100.1 |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8j. Pricing products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.3              | 30.2           | 53.5          | 9.3           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 23.3             | 25.6           | 11.6          | 39.5          | 100           |       |

Q8k. Delivering on time/within budget

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14               | 34.9           | 37.2          | 9.3           | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 25.6           | 9.3           | 53.5          | 100           |       |

Q9a. Obtaining equity financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 16.3             | 18.6           | 23.3          | 37.2          | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 4.7              | 27.9           | 23.3          | 44.2          | 100.1         |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9b. Obtaining debt financing

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 9.3              | 23.3              | 30.2             | 34.9             | 2.3              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 9.3              | 39.5              | 16.3             | 34.9             | 100              |       |

Q9c. Establishing a banking relationship

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 9.3              | 37.2              | 32.6             | 18.6             | 2.3              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 16.3             | 14                | 18.6             | 51.2             | 100.1            |       |

Q9d. Developing an accounting and control system

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 7                | 32.6              | 32.6             | 25.6             | 2.3              | 100.1 |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 18.6             | 27.9              | 11.6             | 41.9             | 100              |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9e. Managing capital

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.7              | 30.2           | 39.5          | 18.6          | 7             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 16.3             | 30.2           | 11.6          | 41.9          | 100           |       |

Q9f. Managing cash flow

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.7              | 20.9           | 46.5          | 25.6          | 2.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 41.9           | 14            | 32.6          | 100.1         |       |

Q9g. Collecting accounts receivable: bad checks

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.7              | 39.5           | 44.2          | 9.3           | 2.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.6             | 27.9           | 14            | 46.5          | 100           |       |

(continued on next page)

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9h. Securing adequate financing to operate the new firm

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 7                | 20.9              | 25.6             | 41.9             | 4.7              | 100.1 |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 7                | 30.2              | 27.9             | 34.9             | 100              |       |

Q9i. Obtaining suitable real estate financing

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 51.2             | 20.9              | 9.3              | 16.3             | 2.3              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 4.7              | 4.7               | 16.3             | 74.4             | 100.1            |       |

Q9j. Obtaining liability insurance

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 20.9             | 48.8              | 16.3             | 7                | 7                | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 11.6             | 2.3               | 9.3              | 76.7             | 99.9             |       |

(continued on next page)

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9k. Securing bonding

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 41.9             | 34.9           | 7             | 14            | 2.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 2.3              | 9.3            | 9.3           | 79.1          | 100           |       |

Q10a. Coping with government regulations

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 9.3              | 32.6           | 32.6          | 20.9          | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7                | 32.6           | 11.6          | 48.8          | 100           |       |

Q10b. Developing good relationship with union

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 62.8             | 18.6           | 7             | 7             | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 0                | 2.3            | 9.3           | 88.4          | 100           |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10c. Selecting a lawyer or accountant

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7                | 51.2          | 30.2          | 7             | 4.7           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 18.6           | 11.6           | 4.7        | 65.1          | 100   |

Q10d. Motivating/compensating personnel

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 9.3              | 46.5          | 32.6          | 4.7           | 7             | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 7              | 27.9           | 0          | 65.1          | 100   |

Q10e. Coordinating tasks among personnel/units

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14               | 37.2          | 44.2          | 0             | 4.7           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 11.6           | 27.9           | 0          | 60.5          | 100   |

(continued on next page)

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10f. Preparing a business plan

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 9.3              | 23.3          | 44.2          | 14            | 9.3           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 20.9           | 18.6           | 14         | 46.5          | 100   |

Q10g. Using/updating a business plan

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 9.3              | 32.6          | 39.5          | 14            | 4.7           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 11.6           | 18.6           | 18.6       | 51.2          | 100   |

Q10h. Setting goals/priorities for personnel

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7                | 30.2          | 51.2          | 4.7           | 7             | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 16.3           | 30.2           | 7          | 46.5          | 100   |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10i. Measuring performance against plans

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.3              | 30.2           | 48.8          | 14            | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14               | 34.9           | 9.3           | 41.9          | 100.1         |       |

Q10j. Clarifying goals/objectives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.7              | 37.2           | 39.5          | 14            | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14               | 23.3           | 14            | 48.8          | 100.1         |       |

Q10k. Implementing plans, strategy

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.7              | 27.9           | 48.8          | 14            | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.6             | 25.6           | 16.3          | 39.5          | 100           |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10l. Finding qualified managers, executives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 27.9             | 30.2           | 25.6          | 11.6          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.3              | 16.3           | 9.3           | 65.1          | 100           |       |

Q10m. Finding qualified technical or professional staff

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 25.6             | 32.6           | 23.3          | 14            | 4.7           | 100.2 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 4.7              | 18.6           | 11.6          | 65.1          | 100           |       |

Q10n. Finding qualified employees

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.6             | 23.3           | 37.2          | 18.6          | 9.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 2.3              | 32.6           | 16.3          | 48.8          | 100           |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10o. Minimizing start-up team conflict

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.9             | 39.5           | 23.3          | 7             | 9.3           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7                | 16.3           | 4.7           | 72.1          | 100.1         |       |

Q11a. Identifying/selecting suitable site

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 18.6             | 37.2           | 20.9          | 18.6          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.3              | 18.6           | 9.3           | 62.8          | 100           |       |

Q11b. Locating suitable rental space

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 20.9             | 30.2           | 23.3          | 18.6          | 7             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14               | 16.3           | 9.3           | 60.5          | 100.1         |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11c. Appropriate transportation structure (e.g. rail, highway)

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 37.2             | 46.5          | 7             | 4.7           | 4.7           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 2.3            | 7              | 0          | 90.7          | 100   |

Q11d. Appropriate infrastructure (e.g. sewer, water, roads)

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 44.2             | 44.2          | 2.3           | 4.7           | 4.7           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 0              | 4.7            | 2.3        | 93            | 100   |

Q11e. Access to customers, clients

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.3             | 51.2          | 16.3          | 4.7           | 4.7           | 100.2 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 7              | 9.3            | 2.3        | 81.4          | 100   |

(continued on next page)

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11f. Access to suppliers, vendors

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 25.6             | 51.2              | 14               | 4.7              | 4.7              | 100.2 |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 4.7              | 9.3               | 2.3              | 83.7             | 100              |       |

Q11g. Access to employees

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 27.9             | 48.8              | 14               | 4.7              | 4.7              | 100.1 |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 2.3              | 9.3               | 4.7              | 83.7             | 100              |       |

TABLE 3. SELECTED SURVEY RESULTS FOR HISPANIC BUSINESS OWNERS (continued)

Questions Q18 through Q20 dealt with sources and forms of discrimination. Respondents were asked about incidence levels in question Q22.

All values are expressed in percent.

Q18. During the most recent five year period, do you believe your business has been hampered by discrimination against you as a minority or female?

| YES  | NO   | MISSING<br>CASES | TOTAL |
|------|------|------------------|-------|
| 39.5 | 58.1 | 2.3              | 99.9  |

Q19. What was the source of that discrimination?  
(circle all that apply)

|                           |      |
|---------------------------|------|
| Non-government purchasing | 18.6 |
| Government purchasing     | 16.3 |
| Sub-contractors           | 4.7  |
| Prime contractors         | 14   |
| Purchasing tools          | 0    |
| Trade associations        | 7    |
| Lending institutions      | 14   |
| Bonding agents            | 4.7  |
| Other (see Table 6)       | 14   |

Q20. What form did that discrimination take?  
(circle all that apply)

|                            |      |
|----------------------------|------|
| Late notice of opportunity | 7    |
| Not accepting bids         | 11.6 |
| Shopping our bid           | 9.3  |
| Using other higher bids    | 23.3 |
| Other (see Table 7)        | 9.3  |

Q22. The number of separate incidents of discrimination during this five year period have been...?

| NONE | 1 TO 5 | 5 TO 10 | MORE<br>THAN 10 | MISSING<br>CASES | TOTAL |
|------|--------|---------|-----------------|------------------|-------|
| 0    | 16.3   | 11.6    | 9.3             | 62.8             | 100   |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8a. Understanding industry trends

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 11.8             | 22.4              | 55.3             | 8.2              | 2.4              | 100.1 |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 8.2              | 42.4              | 10.6             | 38.8             | 100              |       |

Q8b. Analyzing competition, competitors

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 14.1             | 15.3              | 50.6             | 17.6             | 2.4              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 8.2              | 41.2              | 14.1             | 36.5             | 100              |       |

Q8c. Finding Competitive advantages

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 8.2              | 17.6              | 40               | 29.4             | 4.7              | 99.9  |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 10.6             | 31.8              | 25.9             | 31.8             | 100.1            |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8d. Developing new, follow-on products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 22.4             | 20             | 42.4          | 11.8          | 3.5           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 11.8             | 30.6           | 5.9           | 51.8          | 100.1         |       |

Q8e. Providing after-sale follow-up or advice

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 27.1             | 30.6           | 30.6          | 5.9           | 5.9           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.1             | 17.6           | 2.4           | 65.9          | 100           |       |

Q8f. Understanding and assessing customer needs

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.3             | 23.5           | 50.6          | 5.9           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 16.5             | 32.9           | 2.4           | 48.2          | 100           |       |

(continued on next page)

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8g. Effective selling techniques

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.3             | 14.1           | 50.6          | 16.5          | 3.5           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 12.9             | 37.6           | 12.9          | 36.5          | 99.9          |       |

Q8h. Writing advertising copy, selecting media

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 36.5             | 12.9           | 30.6          | 16.5          | 3.5           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.3             | 16.5           | 14.1          | 54.1          | 100           |       |

Q8i. Providing customer service/follow-up

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.5             | 22.4           | 44.7          | 3.5           | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.3             | 27.1           | 2.4           | 55.3          | 100.1         |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8j. Pricing products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.6             | 21.2           | 47.1          | 17.6          | 3.5           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.8             | 34.1           | 7.1           | 40            | 100           |       |

Q8k. Delivering on time/within budget

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 16.5             | 21.2           | 44.7          | 12.9          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.3             | 28.2           | 11.8          | 44.7          | 100           |       |

Q9a. Obtaining equity financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.1             | 11.8           | 28.2          | 42.4          | 3.5           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.3             | 27.1           | 22.4          | 35.3          | 100.1         |       |

(continued on next page)

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9b. Obtaining debt financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.3             | 16.5           | 30.6          | 30.6          | 7.1           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.1             | 17.6           | 24.7          | 43.5          | 99.9          |       |

Q9c. Establishing a banking relationship

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.6             | 24.7           | 37.6          | 22.4          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 17.6             | 23.5           | 14.1          | 44.7          | 99.9          |       |

Q9d. Developing an accounting and control system

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.2              | 24.7           | 48.2          | 14.1          | 4.7           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 20               | 31.8           | 7.1           | 41.2          | 100.1         |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9e. Managing capital

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.1              | 18.8           | 49.4          | 14.1          | 10.6          | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 21.2             | 30.6           | 8.2           | 40            | 100           |       |

Q9f. Managing cash flow

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 4.7              | 14.1           | 54.1          | 22.4          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.8             | 41.2           | 12.9          | 27.1          | 100           |       |

Q9g. Collecting accounts receivable: bad checks

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 8.2              | 15.3           | 54.1          | 16.5          | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 16.5             | 34.1           | 15.3          | 34.1          | 100           |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9h. Securing adequate financing to operate the new firm

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.3             | 14.1           | 28.2          | 38.8          | 3.5           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 17.6             | 17.6           | 25.9          | 38.8          | 99.9          |       |

Q9i. Obtaining suitable real estate financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 41.2             | 20             | 20            | 14.1          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.2              | 8.2            | 14.1          | 69.4          | 99.9          |       |

Q9j. Obtaining liability insurance

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.6             | 32.9           | 38.8          | 8.2           | 9.4           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 25.9             | 14.1           | 8.2           | 51.8          | 100           |       |

(continued on next page)

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9k. Securing bonding

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 38.8             | 15.3           | 21.2          | 20            | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 12.9             | 8.2            | 16.5          | 62.4          | 100           |       |

Q10a. Coping with government regulations

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.8             | 20             | 32.9          | 30.6          | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 12.9             | 25.9           | 21.2          | 40            | 100           |       |

Q10b. Developing good relationship with union

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 48.2             | 23.5           | 16.5          | 7.1           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 4.7              | 14.1           | 3.5           | 77.6          | 99.9          |       |

(continued on next page)

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10c. Selecting a lawyer or accountant

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.1             | 35.3           | 38.8          | 7.1           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 24.7             | 11.8           | 8.2           | 55.3          | 100           |       |

Q10d. Motivating/compensating personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.3             | 23.5           | 43.5          | 12.9          | 4.7           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.1             | 29.4           | 10.6          | 45.9          | 100           |       |

Q10e. Coordinating tasks among personnel/units

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.5             | 30.6           | 36.5          | 4.7           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.1              | 28.2           | 3.5           | 61.2          | 100           |       |

(continued on next page)

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10f. Preparing a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 12.9             | 30.6           | 40            | 10.6          | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.1             | 28.2           | 5.9           | 51.8          | 100           |       |

Q10g. Using/updating a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 11.8             | 25.9           | 48.2          | 9.4           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 14.1             | 32.9           | 8.2           | 44.7          | 99.9          |       |

Q10h. Setting goals/priorities for personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 17.6             | 30.6           | 38.8          | 7.1           | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 12.9             | 27.1           | 3.5           | 56.5          | 100           |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10i. Measuring performance against plans

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 16.5             | 31.8           | 35.3          | 10.6          | 5.9           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 5.9              | 27.1           | 10.6          | 56.5          | 100.1         |       |

Q10j. Clarifying goals/objectives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 18.8             | 25.9           | 38.8          | 9.4           | 7.1           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.4              | 30.6           | 5.9           | 54.1          | 100           |       |

Q10k. Implementing plans, strategy

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 14.1             | 29.4           | 38.8          | 11.8          | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.4              | 30.6           | 8.2           | 51.8          | 100           |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10l. Finding qualified managers, executives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 22.4             | 28.2           | 29.4          | 14.1          | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.6             | 21.2           | 9.4           | 58.8          | 100           |       |

Q10m. Finding qualified technical or professional staff

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 21.2             | 27.1           | 36.5          | 10.6          | 4.7           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 8.2              | 25.9           | 11.8          | 54.1          | 100           |       |

Q10n. Finding qualified employees

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 12.9             | 23.5           | 37.6          | 18.8          | 7.1           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 9.4              | 25.9           | 16.5          | 48.2          | 100           |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10o. Minimizing start-up team conflict

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 36.5             | 24.7           | 28.2          | 4.7           | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.1              | 23.5           | 0             | 69.4          | 100           |       |

Q11a. Identifying/selecting suitable site

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 36.5             | 23.5           | 23.5          | 12.9          | 3.5           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.8             | 11.8           | 3.5           | 65.9          | 100           |       |

Q11b. Locating suitable rental space

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 38.8             | 28.2           | 21.2          | 8.2           | 3.5           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.3             | 8.2            | 4.7           | 71.8          | 100           |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11c. Appropriate transportation structure (e.g. rail, highway)

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 44.7             | 35.3           | 9.4           | 4.7           | 5.9           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 5.9              | 5.9            | 3.5           | 84.7          | 100           |       |

Q11d. Appropriate infrastructure (e.g. sewer, water, roads)

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 47.1             | 29.4           | 14.1          | 4.7           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 4.7              | 9.4            | 3.5           | 82.4          | 100           |       |

Q11e. Access to customers, clients

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 29.4             | 29.4           | 27.1          | 9.4           | 4.7           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.6             | 16.5           | 8.2           | 64.7          | 100           |       |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11f. Access to suppliers, vendors

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 30.6             | 41.2          | 14.1          | 8.2           | 5.9           | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 5.9            | 14.1           | 3.5        | 76.5          | 100   |

Q11g. Access to employees

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 32.9             | 38.8          | 15.3          | 8.2           | 4.7           | 99.9  |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 5.9            | 9.4            | 7.1        | 77.6          | 100   |

TABLE 4. SELECTED SURVEY RESULTS FOR AMERICAN INDIAN BUSINESS OWNERS (continued)

Questions Q18 through Q20 dealt with sources and forms of discrimination. Respondents were asked about incidence levels in question Q22.

All values are expressed in percent.

Q18. During the most recent five year period, do you believe your business has been hampered by discrimination against you as a minority or female?

| YES  | NO   | MISSING<br>CASES | TOTAL |
|------|------|------------------|-------|
| 27.1 | 67.1 | 5.9              | 100.1 |

Q19. What was the source of that discrimination?  
(circle all that apply)

|                           |      |
|---------------------------|------|
| Non-government purchasing | 10.6 |
| Government purchasing     | 12.9 |
| Sub-contractors           | 3.5  |
| Prime contractors         | 10.6 |
| Purchasing tools          | 0    |
| Trade associations        | 3.5  |
| Lending institutions      | 5.9  |
| Bonding agents            | 2.4  |
| Other (see Table 6)       | 4.7  |

Q20. What form did that discrimination take?  
(circle all that apply)

|                            |      |
|----------------------------|------|
| Late notice of opportunity | 10.6 |
| Not accepting bids         | 8.2  |
| Shopping our bid           | 7.1  |
| Using other higher bids    | 12.9 |
| Other (see Table 7)        | 5.9  |

Q22. The number of separate incidents of discrimination during this five year period have been...?

| NONE | 1 TO 5 | 5 TO 10 | MORE<br>THAN 10 | MISSING<br>CASES | TOTAL |
|------|--------|---------|-----------------|------------------|-------|
| 0    | 17.6   | 4.7     | 2.4             | 75.3             | 100   |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8a. Understanding industry trends

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.8             | 23.7           | 47.4          | 5.3           | 7.9           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 21.1             | 36.8           | 0             | 42.1          | 100           |       |

Q8b. Analyzing competition, competitors

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.9              | 23.7           | 52.6          | 13.2          | 2.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.5             | 39.5           | 13.2          | 36.8          | 100           |       |

Q8c. Finding Competitive advantages

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.9              | 18.4           | 31.6          | 42.1          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 5.3              | 47.4           | 21.1          | 26.3          | 100.1         |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8d. Developing new, follow-on products/services

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.8             | 21.1          | 42.1          | 18.4          | 2.6           | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 10.5           | 36.8           | 10.5       | 42.1          | 99.9  |

Q8e. Providing after-sale follow-up or advice

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13.2             | 23.7          | 55.3          | 5.3           | 2.6           | 100.1 |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 18.4           | 31.6           | 7.9        | 42.1          | 100   |

Q8f. Understanding and assessing customer needs

| INITIAL SEVERITY |               |               |               |               |       |
|------------------|---------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.3              | 34.2          | 52.6          | 7.9           | 0             | 100   |

| CURRENT STATUS |                |            |               |       |
|----------------|----------------|------------|---------------|-------|
| FULLY SOLVED   | SOLVED IN PART | NOT SOLVED | MISSING CASES | TOTAL |
| 13.2           | 36.8           | 7.9        | 42.1          | 100   |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8g. Effective selling techniques

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 13.2             | 18.4              | 34.2             | 34.2             | 0                | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 2.6              | 44.7              | 18.4             | 34.2             | 99.9             |       |

Q8h. Writing advertising copy, selecting media

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 21.1             | 34.2              | 28.9             | 13.2             | 2.6              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 5.3              | 23.7              | 13.2             | 57.9             | 100.1            |       |

Q8i. Providing customer service/follow-up

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 13.2             | 26.3              | 55.3             | 0                | 5.3              | 100.1 |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 10.5             | 34.2              | 7.9              | 47.4             | 100              |       |

(continued on next page)

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q8j. Pricing products/services

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.6              | 31.6           | 44.7          | 18.4          | 2.6           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 34.2           | 10.5          | 42.1          | 100           |       |

Q8k. Delivering on time/within budget

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.6              | 39.5           | 42.1          | 15.8          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.8             | 26.3           | 10.5          | 47.4          | 100           |       |

Q9a. Obtaining equity financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.8             | 15.8           | 21.1          | 42.1          | 5.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.8             | 31.6           | 15.8          | 36.8          | 100           |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9b. Obtaining debt financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 18.4             | 10.5           | 26.3          | 34.2          | 10.5          | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.8             | 21.1           | 21.1          | 42.1          | 100.1         |       |

Q9c. Establishing a banking relationship

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.6              | 28.9           | 36.8          | 28.9          | 2.6           | 99.8  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 31.6             | 23.7           | 10.5          | 34.2          | 100           |       |

Q9d. Developing an accounting and control system

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.3              | 18.4           | 55.3          | 21.1          | 0             | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 28.9             | 44.7           | 0             | 26.3          | 99.9          |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9e. Managing capital

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.3              | 13.2           | 55.3          | 23.7          | 2.6           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.4             | 39.5           | 18.4          | 23.7          | 100           |       |

Q9f. Managing cash flow

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 0                | 21.1           | 47.4          | 31.6          | 0             | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.4             | 42.1           | 15.8          | 23.7          | 100           |       |

Q9g. Collecting accounts receivable: bad checks

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 2.6              | 31.6           | 44.7          | 21.1          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 36.8           | 15.8          | 34.2          | 100           |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9h. Securing adequate financing to operate the new firm

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.3              | 23.7           | 36.8          | 34.2          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.9              | 42.1           | 15.8          | 34.2          | 100           |       |

Q9i. Obtaining suitable real estate financing

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 39.5             | 28.9           | 18.4          | 13.2          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 2.6              | 10.5           | 13.2          | 73.7          | 100           |       |

Q9j. Obtaining liability insurance

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.9              | 21.1           | 50            | 18.4          | 2.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 28.9             | 23.7           | 13.2          | 34.2          | 100           |       |

(continued on next page)

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q9k. Securing bonding

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 39.5             | 15.8           | 23.7          | 21.1          | 0             | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.4             | 10.5           | 13.2          | 57.9          | 100           |       |

Q10a. Coping with government regulations

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13.2             | 15.8           | 36.8          | 34.2          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 7.9              | 28.9           | 28.9          | 34.2          | 99.9          |       |

Q10b. Developing good relationship with union

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 60.5             | 15.8           | 13.2          | 10.5          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 5.3            | 5.3           | 76.3          | 100.1         |       |

(continued on next page)

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10c. Selecting a lawyer or accountant

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.5             | 26.3           | 55.3          | 7.9           | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 28.9             | 26.3           | 0             | 44.7          | 99.9          |       |

Q10d. Motivating/compensating personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.9              | 34.2           | 44.7          | 13.2          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.5             | 26.3           | 13.2          | 50            | 100           |       |

Q10e. Coordinating tasks among personnel/units

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.9              | 44.7           | 39.5          | 7.9           | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 31.6           | 0             | 55.3          | 100.1         |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10f. Preparing a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 13.2             | 10.5           | 34.2          | 42.1          | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 23.7             | 31.6           | 18.4          | 26.3          | 100           |       |

Q10g. Using/updating a business plan

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 5.3              | 21.1           | 50            | 18.4          | 5.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.5             | 39.5           | 18.4          | 31.6          | 100           |       |

Q10h. Setting goals/priorities for personnel

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.5             | 28.9           | 42.1          | 10.5          | 7.9           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 28.9           | 10.5          | 47.4          | 100           |       |

(continued on next page)

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10i. Measuring performance against plans

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 7.9              | 23.7              | 39.5             | 26.3             | 2.6              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 5.3              | 42.1              | 18.4             | 34.2             | 100              |       |

Q10j. Clarifying goals/objectives

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 7.9              | 21.1              | 52.6             | 15.8             | 2.6              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 10.5             | 36.8              | 21.1             | 31.6             | 100              |       |

Q10k. Implementing plans, strategy

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 7.9              | 23.7              | 50               | 15.8             | 2.6              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 7.9              | 44.7              | 13.2             | 34.2             | 100              |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10l. Finding qualified managers, executives

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.7             | 18.4           | 23.7          | 31.6          | 2.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 18.4           | 23.7          | 44.7          | 100           |       |

Q10m. Finding qualified technical or professional staff

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 10.5             | 15.8           | 42.1          | 28.9          | 2.6           | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.4             | 26.3           | 23.7          | 31.6          | 100           |       |

Q10n. Finding qualified employees

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 7.9              | 13.2           | 39.5          | 36.8          | 2.6           | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 13.2             | 42.1           | 18.4          | 26.3          | 100           |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q10o. Minimizing start-up team conflict

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 26.3             | 36.8              | 31.6             | 5.3              | 0                | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 13.2             | 23.7              | 0                | 63.2             | 100.1            |       |

Q11a. Identifying/selecting suitable site

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 23.7             | 31.6              | 26.3             | 15.8             | 2.6              | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 23.7             | 18.4              | 0                | 57.9             | 100              |       |

Q11b. Locating suitable rental space

| INITIAL SEVERITY |                   |                  |                  |                  |       |
|------------------|-------------------|------------------|------------------|------------------|-------|
| DID NOT<br>APPLY | NEVER<br>OCCURED  | MINOR<br>PROBLEM | MAJOR<br>PROBLEM | MISSING<br>CASES | TOTAL |
| 23.7             | 26.3              | 34.2             | 15.8             | 0                | 100   |
| CURRENT STATUS   |                   |                  |                  |                  |       |
| FULLY<br>SOLVED  | SOLVED<br>IN PART | NOT<br>SOLVED    | MISSING<br>CASES | TOTAL            |       |
| 28.9             | 15.8              | 2.6              | 52.6             | 99.9             |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11c. Appropriate transportation structure (e.g. rail, highway)

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 44.7             | 34.2           | 18.4          | 2.6           | 0             | 99.9  |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.5             | 10.5           | 0             | 78.9          | 99.9          |       |

Q11d. Appropriate infrastructure (e.g. sewer, water, roads)

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 39.5             | 34.2           | 15.8          | 5.3           | 5.3           | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 10.5             | 7.9            | 0             | 81.6          | 100           |       |

Q11e. Access to customers, clients

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 15.8             | 34.2           | 42.1          | 7.9           | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.4             | 21.1           | 7.9           | 52.6          | 100           |       |

(continued on next page)

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

In questions Q8 through Q11, respondents were asked to indicate the initial severity and current status of particular business problems.

All values are expressed in percent.

Q11f. Access to suppliers, vendors

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 23.7             | 31.6           | 39.5          | 5.3           | 0             | 100.1 |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 18.4             | 21.1           | 2.6           | 57.9          | 100           |       |

Q11g. Access to employees

| INITIAL SEVERITY |                |               |               |               |       |
|------------------|----------------|---------------|---------------|---------------|-------|
| DID NOT APPLY    | NEVER OCCURED  | MINOR PROBLEM | MAJOR PROBLEM | MISSING CASES | TOTAL |
| 21.1             | 34.2           | 36.8          | 7.9           | 0             | 100   |
| CURRENT STATUS   |                |               |               |               |       |
| FULLY SOLVED     | SOLVED IN PART | NOT SOLVED    | MISSING CASES | TOTAL         |       |
| 15.8             | 21.1           | 5.3           | 57.9          | 100.1         |       |

TABLE 5. SELECTED SURVEY RESULTS FOR ASIAN BUSINESS OWNERS (continued)

Questions Q18 through Q20 dealt with sources and forms of discrimination. Respondents were asked about incidence levels in question Q22.

All values are expressed in percent.

Q18. During the most recent five year period, do you believe your business has been hampered by discrimination against you as a minority or female?

| YES  | NO   | MISSING<br>CASES | TOTAL |
|------|------|------------------|-------|
| 44.7 | 47.4 | 7.9              | 100   |

Q19. What was the source of that discrimination?  
(circle all that apply)

|                           |      |
|---------------------------|------|
| Non-government purchasing | 26.3 |
| Government purchasing     | 10.5 |
| Sub-contractors           | 5.3  |
| Prime contractors         | 21.1 |
| Purchasing tools          | 2.6  |
| Trade associations        | 2.6  |
| Lending institutions      | 7.9  |
| Bonding agents            | 5.3  |
| Other (see Table 6)       | 10.5 |

Q20. What form did that discrimination take?  
(circle all that apply)

|                            |      |
|----------------------------|------|
| Late notice of opportunity | 15.8 |
| Not accepting bids         | 7.9  |
| Shopping our bid           | 10.5 |
| Using other higher bids    | 15.8 |
| Other (see Table 7)        | 15.8 |

Q22. The number of separate incidents of discrimination during this five year period have been...?

| NONE | 1 TO 5 | 5 TO 10 | MORE<br>THAN 10 | MISSING<br>CASES | TOTAL |
|------|--------|---------|-----------------|------------------|-------|
| 0    | 28.9   | 7.9     | 5.3             | 57.9             | 100   |

TABLE 6. ALTERNATIVE RESPONSES TO QUESTION 19:  
WHAT WAS THE SOURCE OF DISCRIMINATION?

Answers are presented in aggregate.  
All race/gender groups' responses are included.

1. City of St. Paul.
2. Private clients.
3. General attitudes.
4. Potential customers calling my business.
5. Business climate doesn't want small minority businesses to succeed. They want to make a nice show helping the struggling business, but they don't want it to become competition.
6. Owner wanted black subcontractor, not women.
7. Because they think that I will never work hard to pay their money back or not trust with the system.
8. General lack of access.
9. Other vendors.
10. General bad image for minority-owned business.
11. Fortune 500 Corporation in TC area.
12. Suppliers.
13. Clients and companies.
14. Lack of training to me.
15. Society and government attitudes.
16. City of Minneapolis.
17. Not enough effort is made to support the radio show.
18. Equipment sales didn't want a woman auctioneer.
19. Almost everyone just goes through the motions.
20. Accountant.
21. Getting paid after job is completed.

(continued on next page)

22. Training and division managers and company president.
23. Competitors.
24. General clients — particularly commercial.
25. People who discount expertise on the part of a female - happens at all levels.
26. Obtaining certification as a WBF through the city of Minneapolis/St. Paul.
27. Customers not paying for landscaping.
28. Government hiring against hiring.
29. MN district Court.
30. State and Corporation.
31. The ability to be recognized for the expertise necessary to perform job.
32. Subtle determination.
33. One major competitor.
34. Another minority.
35. Sexist attitudes by business people.
36. Suppliers.
37. Customers, associates.
- 38 Shows favoritism to large established companies.
39. Got run-around.
40. Competitors in state of Iowa.
41. Insurance companies.
42. Unions.
43. Special program red tape — not based on race.
44. Was not believed as a minority/female owned.
45. Landlords.
46. The feeling given was that if you weren't white you weren't right!

(continued on next page)

47. Insurance costs.
48. Client.
49. State of MN.
50. Clients and potential clients.
51. Major companies.
52. A general need to under the business women — seriousness.
53. Elec. eng./architects.
54. Old boys network still applies.
55. They don't care to do business with a handicapped person.
56. Not receiving more bids.
57. Let's be honest, the set aside has cost me jobs I've been low on but tax money was used to pay my competition to do my work for more money! Why not train them, give them low interest loans, make sure they hire there own race and let them compete in a free market.
58. Retail stores.
59. SBA.
60. Sections inserted in US 1986 tax act by non-elected Senate staffers which are unconstitutional.

TABLE 7. ALTERNATIVE RESPONSES TO QUESTION 20:  
WHAT FORM DID THE DISCRIMINATION TAKE?

Answers are presented in aggregate.  
All race/gender groups' responses are included.

1. Used our bid to get job then replaced us -- Minkota Construction of Fulda.
2. Trust issues -- Client lets you go even if you are performing well.
3. Not being taken seriously. Selection of bidders who would "fit in" better.
4. Didn't believe I was the owner because I was a woman.
5. Not taking our firm seriously as a contender.
6. We have a superior product at a 1 cent per dozen more but was refused by school board.
7. Never get any reply from a bid with state.
8. General non-acceptance of the woman control role in the business.
9. Men don't respect women form of unequal distribution of services to women.
10. We have to work extra hard to show we are qualified.
11. Not believing I am in control of company.
12. Unable to acquire adequate financing because husband wouldn't release financial information.
13. Both appear to place more confidence initially in male owned business.
14. Cancelled program.
15. A dismissal without analyzing presentation.
16. Qualifying.
17. Refusing to allow my full participation on project tasks; verbal harassment.
18. Misapplication of rules in Government programs.

(continued on next page)

19. Calls were made during the show and call me names.
20. Had a contract with Minneapolis convention center maintenance for purchases, but they never purchased any supplies.
21. Didn't hire me because they wanted a guy.
22. Tending to discount experience and capabilities.
23. Preconceived opinion of low or no performance.
24. Too little respect.
25. Use our time and knowledge then give jobs to their own race.
26. Not taking bids seriously.
27. Incorrect information.
28. No notices of opportunities to bid.
29. Untrue rumors and claims against us.
30. Didn't get opportunity to bid.
31. No notice.
32. Do not want to do business with small firms.
33. Certification — weeks of several calls that were unanswered.
34. Prime contractor using our information then not using our firm.
35. Using our name on W/MBE utilization forms without bids coming from us.
36. Not willing to take calculated risks. Plus the high percent of failure of minority businesses makes to tough for all of us.
37. Non-cooperative P. Agents "Set Aside".
38. Saying not on preferred vendor list.
39. Denial of small (\$4,500) loans.
40. Excessive bond charges.
41. Not using us or considering us unless there was a SED or DBE requirement.
42. Never get any bids from the government.

(continued on next page)

43. Self service, they bend rules for own benefit.
44. Verbal discrimination.
45. Arrogance, ignored, not taken seriously.
46. Personnel -- person did not believe the business is woman owned.
47. Inability to get small loan (under \$10,000) to finance cash flow and expansion -- even after 10 years in business.
48. Used only one large vendor in \*\*\*all supplies.
49. Competing against wholesalers.
50. Bureaucracy in getting approval as WOB (Woman owned business).
51. Do not let us participate in their programs and lost our file once.
52. Patronizing behavior.
53. The big companies get the jobs.
54. Not giving the opportunity to participate.
55. Never given the opportunity.
56. Bidding process.
57. Financial.
58. Certification.
59. No opportunity to bid.
60. Denying or making home loans difficult because I'm self employed.
61. Inappropriate questions.
62. Would not recognized as a women owned business.
63. Lack of credit.
64. Never get bids.
65. No notice of opportunities.
66. Company not large enough for their contract they decided.

(continued on next page)

67. Minnesota law ties in a spouse even when spouse is not connected with the business.
68. Not taken seriously.
69. On boiler repairs.
70. Under financed.
71. Couldn't raise money for marketing and cash flow problems.
72. Denial of support/funding.
73. Attitudes.
74. They don't care to do business with a handicapped person.
75. Staying with the old boys network.
76. We could create more jobs in our depressed area by obtaining a grant/loan for expansion.
77. Received small bids that could be purchased at local hardware.
78. They did not have to be low bidder to get the job.

APPENDIX D.

1989 Survey of Women- and Minority-owned Firms:  
Estimating the Population of Women- and Minority-owned Firms

**TECHNICAL REPORT # 90-1**

**Submitted to Ken Nicolai  
Minnesota Department of Administration**

**January 8, 1990**

**BUSINESS OWNERSHIP SURVEY:  
RESULTS AND TECHNICAL REPORT**

**Prepared by: Timothy Beebe**

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## **BUSINESS OWNERSHIP SURVEY**

### **OVERVIEW**

This Business Ownership Survey for the Minnesota Department of Administration was conducted as a mail survey by the Minnesota Center for Survey Research.

Respondents answered questions about the gender and race of the business owner, whether the business owner was handicapped, and the firm's gross revenues for the last full year. During a seven week period beginning November 3, 1989, mailing and collection of Business Ownership Surveys was conducted. A total of 8611 questionnaires were returned completed and useable for the Business Ownership Survey, with an overall response rate of 58 percent.

### **GOALS**

The goals of this survey research were two fold: 1) to better understand the ownership and capabilities of businesses in Minnesota, and 2) to find out the proportion of minority owned businesses in Minnesota. The results will be used by the legislature when looking at policies affecting business.

Respondents answered questions about the gender and race of the business owner, whether the business owner was handicapped, and the firm's gross revenues for the last full year.

### **MANAGEMENT PLAN**

The overall coordination of the project was provided by the Survey Manager, Nancy Davenport-Sis. This included all phases of the research, from finalizing the survey instrument to the delivery of the data. The data collection was coordinated by the Project Manager, Timothy Beebe, who was responsible for overseeing the project mailings and writing the methodology report. The final computer file was prepared by the Project Manager, Timothy Beebe, and the Data Manager, Thomas Pechman, who were responsible for converting the paper survey forms to a computer format ready for analysis.

### SURVEY DESIGN

This Business Ownership Survey for the Minnesota Department of Administration was conducted as a mail survey by the Minnesota Center for Survey Research (MCSR).

Questions to be included in the questionnaire were specified by staff at the Minnesota Department of Administration. The involvement of Ken Nicolai and Jeff Rathermel of the Management Analysis Division of the Minnesota Department of Administration in all aspects of this research project was critical to its success. Survey design began in October 1989 and revisions continued until the survey instrument was printed in November 1989.

The highest standards of quality survey research were employed in the conduct of this project.

### SAMPLING

This mail survey was sent to a random sample of 15,365 small businesses located in Minnesota. The random sample of businesses was obtained from the Minnesota Department of Jobs and Training.

### DATA COLLECTION PROCEDURES

During a seven week period beginning November 3, 1989, mailing and collection of Business Ownership Surveys was conducted.

#### Mailing Procedures

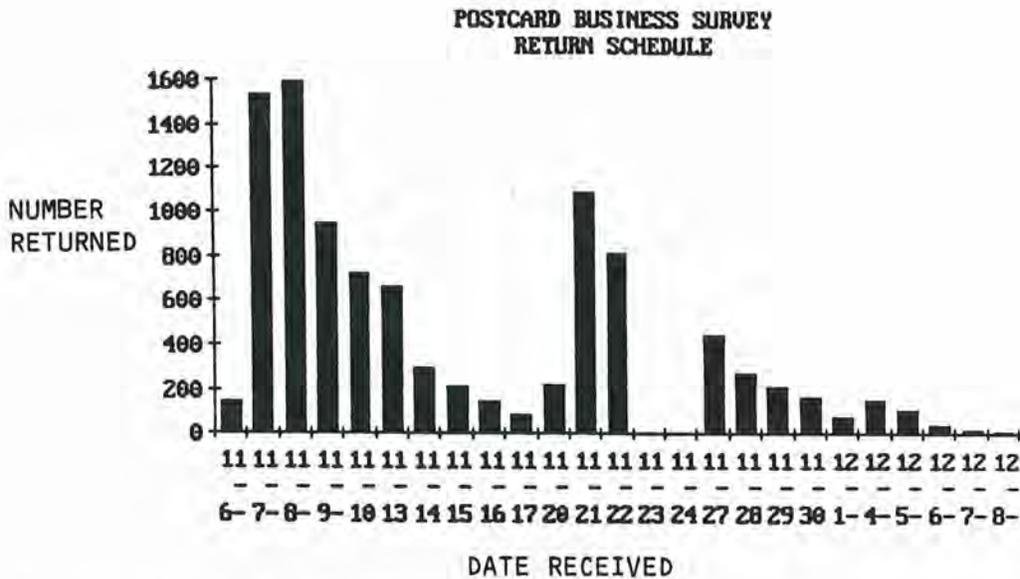
Mailing procedures consisted of two steps. The first mailing was sent on November 3, 1989. This mailing consisted of a perforated double postcard with the questionnaire and return address on one half of the perforation, and the cover letter (See Appendix B: Cover Letter #1) and business address on the other. This format was selected because of the small number of questions in the questionnaire, the large number of surveys, and the need to minimize postage costs. All the respondent would have to do was fill out the questionnaire, remove the cover letter via the perforation, and drop the postage paid post card into the mail.

The second mailing was sent November 17, 1989, two weeks after the initial mailing. It was similar to the first mailing except that the second cover letter reminded potential respondents to return the completed survey and thanked them if they had already returned the completed questionnaire (See Appendix B: Cover Letter #2).

Survey Returns

Returned surveys were counted to track sample status and response rate. Peak survey returns occurred within a few days after each mailing (See Figure 1, below) and illustrate the importance of multiple mailings in achieving a high response rate.

Figure 1



Supervision and Quality Control of Mailings

The Business Ownership Surveys were printed at a local printing company, sent to the University of Minnesota's printing and graphics department for sequential numbering, addressed and folded at the University's addressing and mailing department, and tabbed by a local bindery. Quality checks were made prior to mailing to ensure address label and survey identification match.

**MANAGEMENT OF THE DATA**

Data Entry and Cleaning

When the completed questionnaires were returned, they were key entered onto a data tape by a commercial data entry firm. Once a complete data file was constructed for the survey, it was examined systematically to remove data entry errors and duplicate returns. Data cleaning involved the use of a computer program to evaluate each case for variables with values out of range. In addition, the file was examined manually to identify cases with paradoxical or inappropriate responses.

COMPLETION STATUS

A total of 15365 businesses were mailed questionnaires for this project. Of these, a total of 8611 questionnaires were returned completed and useable for the Business Ownership Survey, with an overall response rate of 58 percent. An additional 132 were returned not useable, 9 were refusals, 6225 surveys were not returned, 368 were not deliverable, 6 were no longer in business, 3 were not Minnesota businesses, and 11 did not consider themselves a small business.

Table 1

FINAL SAMPLE STATUS FOR THE SURVEY ABOUT HUMANE SOCIETY ISSUES

|                         | <u>N</u> | <u>%</u> |
|-------------------------|----------|----------|
| Completions             | 8611     | 56%      |
| Returned Not Useable    | 132      | 1%       |
| Refusals                | 9        | 0%       |
| Surveys Not Returned    | 6225     | 41%      |
| Eliminated              |          |          |
| Bad Addresses           | 368      | 2%       |
| Out of Business         | 6        | 0%       |
| Not a Minnesota Company | 3        | 0%       |
| Not a Small Business    | 11       | 0%       |
|                         | <hr/>    | <hr/>    |
| Total Sent              | 15365    | 100%     |
| Response Rate*          | 58%      |          |

-----  
 \*Response rate calculated by the following formula:

$$\text{response rate} = \frac{\text{Completed questionnaires}}{\text{Total sent - Eliminated}}$$

### SAMPLING ERROR

The margin of error for a random sample of the size of the Business Ownership Survey may be as high as plus or minus two percent, depending upon the distribution of sample responses. This sampling error presumes the conventional 95 percent confidence level, which is equivalent to a "significance level" of 0.05. This means that, in theory, in 95 cases out of 100, the results based on such a sample will differ by no more than two percentage points in either direction from what would have been obtained by surveying all Minnesota businesses.

In addition to sampling error, the practical difficulties of conducting any survey of public opinion may introduce other sources of error.

### WEIGHTING OF VARIABLES

One question in the survey elicited frequencies incongruent with U.S. Census data. It seems the ambiguity of the term "Native American" falsely inflated the relative frequency with which this response was selected in the Minnesota business owners population. To correct for this anomaly, the "Native American" variable was weighted by a factor of .19, which was obtained from 1982 U.S. Census tract data. All other variables in the survey remained unweighted.

The reader must keep in mind that ethnicity information was collected differently by the U.S. Census than it was collected by the present study. The U.S. Census invokes a "forced choice" method that, in essence, requires the respondent to indicate the one response that best describes his or her ethnicity. The present study utilized a "Circle all that apply" method that allowed the respondent to answer in more than one category. Although the U.S. Census data was the only source for calculation of a weighting factor, and because of the differences in data collection methods, the factor with which the data was weighted may be in error.

### READING THE QUESTIONNAIRE AND RESULTS SECTION

The questionnaire and results section of this report is a replica of the survey form. It contains the response frequencies and percentages for each question in the survey. Percentage distributions are also presented; "valid" percentages were computed after eliminating those who refused to answer, did not know, or were not required to answer a particular question.

The question numbers were used as variable labels in the computer data file. This information is provided as documentation for those who wish to use a computer for more detailed analysis.

QUESTIONNAIRE AND RESULTS

OWNERSHIP STUDY

| <u>Freq</u> | <u>%</u> |   |   |
|-------------|----------|---|---|
|             |          | Q1. Is 50% or more of this firm owned by a woman or a minority?   |   |
| 2298        | 27       | 1. Yes  |   |
| 6242        | 73       | 2. No   |   |
| 71          |          | BLANK   |   |
|             |          | Q2. Is the owner...? (Circle all that apply)                      |   |
| 2534        | 29       | a. Female   | YES RESPONSES ONLY<br>PERCENT WILL NOT<br>EQUAL 100 |
| 6994        | 81       | b. Male   |   |
| 53          | 1        | c. Black  |   |
| 42          | 1        | d. Hispanic   |   |
| 27          | 0        | e. Native American  |   |
| 5           | 0        | f. Aleut  |   |
| 88          | 1        | g. Asian  |   |
| 7183        | 83       | h. White  |   |
| 133         | 2        | i. Handicapped  |   |
|             |          | Q3. What were your firm's gross revenues for your last full year? |   |
| 6359        | 75       | 1. Less than 1 million  |   |
| 1111        | 13       | 2. Between 1 and 3 million  |   |
| 266         | 3        | 3. Between 3 and 5 million  |   |
| 153         | 2        | 4. Between 5 and 7 million  |   |
| 65          | 1        | 5. Between 7 and 9 million  |   |
| 536         | 6        | 6. Over 9 million   |   |
| 121         |          | BLANK   |   |

PLEASE DROP THIS POSTCARD IN THE MAIL TO US.

THANK YOU FOR ANSWERING THESE QUESTIONS.

APPENDIX A  
CONSTRUCTED VARIABLE

| <u>DESCRIPTION</u> | <u>PAGE</u> |
|--------------------|-------------|
| SIC CODES          | A-1         |

## SIC CODES

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | 154   | 271       | 3.1     | 3.1           | 3.1         |
|             | 161   | 134       | 1.6     | 1.6           | 4.7         |
|             | 162   | 234       | 2.7     | 2.7           | 7.4         |
|             | 171   | 390       | 4.5     | 4.5           | 12.0        |
|             | 172   | 224       | 2.6     | 2.6           | 14.6        |
|             | 173   | 361       | 4.2     | 4.2           | 18.8        |
|             | 174   | 311       | 3.6     | 3.6           | 22.4        |
|             | 175   | 191       | 2.2     | 2.2           | 24.6        |
|             | 176   | 155       | 1.8     | 1.8           | 26.4        |
|             | 177   | 193       | 2.2     | 2.2           | 28.6        |
|             | 178   | 65        | .8      | .8            | 29.4        |
|             | 179   | 277       | 3.2     | 3.2           | 32.6        |
|             | 279   | 69        | .8      | .8            | 33.4        |
|             | 384   | 50        | .6      | .6            | 34.0        |
|             | 421   | 375       | 4.4     | 4.4           | 38.3        |
|             | 472   | 185       | 2.2     | 2.2           | 40.5        |
|             | 473   | 68        | .8      | .8            | 41.3        |
|             | 481   | 70        | .8      | .8            | 42.1        |
|             | 501   | 244       | 2.8     | 2.8           | 44.9        |
|             | 502   | 167       | 1.9     | 1.9           | 46.9        |
|             | 504   | 303       | 3.5     | 3.5           | 50.4        |
|             | 506   | 267       | 3.1     | 3.1           | 53.5        |
|             | 507   | 224       | 2.6     | 2.6           | 56.1        |
|             | 509   | 87        | 1.0     | 1.0           | 57.1        |
|             | 511   | 146       | 1.7     | 1.7           | 58.8        |
|             | 514   | 229       | 2.7     | 2.7           | 61.5        |
|             | 701   | 282       | 3.3     | 3.3           | 64.7        |
|             | 721   | 208       | 2.4     | 2.4           | 67.2        |
|             | 726   | 159       | 1.8     | 1.8           | 69.0        |
|             | 733   | 203       | 2.4     | 2.4           | 71.4        |
|             | 734   | 235       | 2.7     | 2.7           | 74.1        |
|             | 735   | 118       | 1.4     | 1.4           | 75.5        |
|             | 737   | 293       | 3.4     | 3.4           | 78.9        |
|             | 753   | 339       | 3.9     | 3.9           | 82.8        |
|             | 754   | 116       | 1.3     | 1.3           | 84.2        |
|             | 764   | 52        | .6      | .6            | 84.8        |
|             | 807   | 93        | 1.1     | 1.1           | 85.8        |
|             | 871   | 342       | 4.0     | 4.0           | 89.8        |
|             | 872   | 404       | 4.7     | 4.7           | 94.5        |
|             | 873   | 163       | 1.9     | 1.9           | 96.4        |
|             | 874   | 309       | 3.6     | 3.6           | 100.0       |
|             | .     | 1         | .0      | MISSING       |             |
|             | TOTAL | 8611      | 100.0   | 100.0         |             |

APPENDIX B  
COVER LETTER TEXT

| <u>DESCRIPTION</u> | <u>PAGE</u> |
|--------------------|-------------|
| COVER LETTER #1    | B-1         |
| COVER LETTER #2    | B-2         |

November 3, 1989

To better understand the ownership and capabilities of small business, the Minnesota Department of Administration is gathering information from Minnesota business owners. The results will be used by the legislature when looking at policies affecting small business.

The name of your business was drawn from a list that is maintained by the State of Minnesota. In order that the results will truly represent business owners in various industries in Minnesota, it is important that the questions on each postcard be completed and the postcard returned to us.

You may be assured of complete confidentiality. The postcard has an identification number for mailing purposes only. All responses will be analyzed in group form, so you will not be able to be identified.

If you have questions, call Tim Beebe collect at (612) 627-4282. Thank you for your assistance.

Minnesota Center for Survey Research  
University of Minnesota

Last week a postcard with three questions about ownership and capabilities of small business was sent to you. As of today, we have not yet received your completed postcard survey. If you already completed and returned the postcard survey, please accept our sincere thanks.

The postcard survey is being sent to you again because of the significance each survey has to the usefulness of the study. The name of your business was drawn from a list maintained by the State of Minnesota. In order that the results will truly represent business owners in various industries in Minnesota, it is important that the questions on each postcard be completed and returned to us.

Again, you may be assured of complete confidentiality. The postcard has an identification number for mailing purposes only. All responses will be analyzed in group form, so you will not be able to be identified.

If you have questions, call Tim Beebe collect at (612) 627-4282. Your cooperation is greatly appreciated.

Minnesota Center for Survey Research  
University of Minnesota

APPENDIX D.

1989 Survey of Women- and Minority-owned Firms: Estimating the Population of Women- and Minority-owned Firms

A necessary component of this study's statistical work was the estimation of the number of business firms available for work and owned by women or minorities. Several sources of information were examined.

The 1982 Census of Minority-owned and Women-owned Business Enterprises conducted by the U.S. Census Bureau contained the most current version of the data. It indicated that Minnesota had 66,162 businesses owned by either women or minorities. The breakdown was as follows:

|                       |              |
|-----------------------|--------------|
| Women-owned           | 63,098       |
| Black-owned           | 1,238        |
| Hispanic-owned        | 503          |
| American Indian-owned | 257          |
| Asian-owned           | <u>1,066</u> |
| Total                 | 66,162       |

There were several problems with this data. First, the classification of these firms by type of business provided minimal information concerning the availability of these firms for specific types of work. The categories used by the Census Bureau included: Agricultural Services, Forestry, Fishing and Mining; Construction; Manufacturing; Transportation and Public Utilities; Wholesale Trade; Retail Trade; Finance, Insurance and Real Estate; Selected Services; and Industries Not Classified. The Census Bureau retained backup tapes of these summaries, but further breakdowns of the information were not possible. The bureau was working on the 1987 Census and resources could not be committed to a re-analysis of 1982 data. More significantly, problems existed with the 1982 data that cast doubt on the reliability of more specific analyses. In particular, the method used to calculate the number of women-owned firms overestimated the number. Any jointly owned business in which a female name appeared first was counted as a female-owned business, thus inflating the estimate of those firms.

Another considered data source was the 1987 Census of Minority-owned and Women-owned Business Enterprises. First results from that census, however, will not be available until summer 1990. Complete information will not be published until 1991. Even when published, detail by line of business will not significantly increase.

A third data source for estimating the population of women- and minority-owned firms was a listing of businesses certified under prior programs administered by state, city and metropolitan agencies. While this list reflected firms offering specific services, there was no evidence that it represented the total

population of such firms.

The method chosen to estimate the population of women- and minority-owned businesses was a random sample of current business firms listed by the Minnesota Department of Jobs and Training. This listing was maintained by SIC code, based on a business's primary line. Forty-one SIC codes were selected with the assistance of Materials Management Division personnel, who identified types of firms most likely to conduct business with government. Samples were drawn from each code. In total, more than 15,000 Minnesota businesses were surveyed to identify firm owners' race and gender and firm size based on gross revenue.

Questions sought to identify ownership characteristics based on 50 percent ownership, rather than 51 percent. This change was made because the use of a 51 percent figure created confusion in the survey of 1,600 firms (see Appendix C) and because the 1987 Minnesota New Firms Study indicated that many firms were owned by teams of individuals. Thus, a 50 percent ownership test more completely captured minority and female participation in ownership.

An effort was made to further identify firms by geographic location. An examination was made of available Jobs and Training data to determine if firms could be selected by SIC code and economic development region, in an attempt to identify submarkets within the state. This was impossible because the number of firms within many of the SIC codes was insufficient to allow sound sampling procedures. In addition, there was little evidence to prove that businesses confined their operations to a geographic base premised on the location of their headquarters. In sum, capturing accurate information on possible submarkets within the state for a variety of firm types proved to be elusive.

It is important to note that the Minnesota Department of Jobs and Training's listing contained records of establishments having one or more employees. This does introduce the bias that sole proprietorships will not be reflected in the population estimate. However, to the extent that statistical disparities in utilization are shown based on this estimate, it may be safely assumed that the disparity is actually somewhat larger than the statistics reveal, since many women- and minority-owned businesses are sole proprietorships.

University of Minnesota Survey Research Center  
methodological outline

The University of Minnesota Survey Research Center provided Management Analysis with a technical report that outlined research goals, study management, survey design, sampling design, data collection procedures, data management, completion status and sampling error information for the 1989 Survey of Women- and Minority-owned Firms: Estimating the Population of Women- and Minority-owned Firms. Samples of the utilized questionnaire and cover letters were also included.

This methodological outline is presented in its entirety.

## Survey Results

Results from the University of Minnesota Survey Research Center's 1989 Survey of Women- and Minority-owned Firms: Estimating the Population of Women- and Minority-owned Firms are presented in Tables 1 through 18.

Table 1 outlines the 41 SIC codes used in the study.

Table 2 presents Minnesota business ownership by race/gender.

Table 3 outlines the distribution of Minnesota businesses by gross revenue and SIC code.

Table 4 presents the share of businesses in each gross revenue category by SIC code.

Tables 5 through 18 present similar information for specific race/gender groups. Information is presented for female-, black-, Hispanic-, American Indian-, Aleut-, Asian- and disabled-owned businesses.

TABLE 1. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES USED IN THE 1989 BUSINESS OWNERSHIP STUDY CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | DESCRIPTION OF ACTIVITY                            |
|----------|--|
| 154      | Non-residential building construction              |
| 161      | Highway and street construction                    |
| 162      | Heavy construction, except highway                 |
| 171      | Plumbing, heating and air-conditioning contractors |
| 172      | Painting and paper hanging contractors             |
| 173      | Electrical work                                    |
| 174      | Masonry, stonework, and plastering contractors     |
| 175      | Carpentry and floor work                           |
| 176      | Roofing, siding, and sheet metal work              |
| 177      | Concrete work                                      |
| 178      | Water well drilling                                |
| 179      | Miscellaneous special trade contractors            |
| 279      | Printing trade services                            |
| 384      | Medical instruments and supplies                   |
| 421      | Trucking and courier services                      |
| 472      | Passenger transportation arrangement               |
| 473      | Freight transportation arrangement                 |
| 481      | Telephone communications                           |
| 501      | Motor vehicle parts and supplies (wholesale)       |
| 502      | Furniture and homefurnishings (wholesale)          |
| 504      | Professional and commercial equipment (wholesale)  |
| 506      | Electrical goods (wholesale)                       |

TABLE 1. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES USED IN  
 THE 1989 BUSINESS OWNERSHIP STUDY CONDUCTED BY  
 THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER (continued)

| SIC<br>CODE | DESCRIPTION OF ACTIVITY                               |
|-------------|---|
| 507         | Hardware, plumbing, and heating equipment (wholesale) |
| 509         | Miscellaneous durable goods (wholesale)               |
| 511         | Paper and paper products (wholesale)                  |
| 514         | Groceries and related products (wholesale)            |
| 701         | Hotels and motels                                     |
| 721         | Laundry, cleaning, and garment services               |
| 726         | Funeral service and crematories                       |
| 733         | Mailing, reproduction, and stenographic services      |
| 734         | Services to buildings                                 |
| 735         | Miscellaneous equipment rental and leasing            |
| 737         | Computer and data processing services                 |
| 753         | Automobile repair                                     |
| 754         | Automobile services, except repair                    |
| 764         | Reupholstery and furniture repair                     |
| 807         | Medical and dental labs                               |
| 871         | Engineering and architectural services                |
| 872         | Accounting services                                   |
| 873         | Research and testing services                         |
| 874         | Management and public relations services              |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 154      | Female                        | 55              | 19.16%         |
|          | Black                         | 2               | 0.70%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 3               | 1.05%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 5               | 1.74%          |
|          | Disabled                      | 6               | 2.09%          |
|          | Other (including white male)  | 216             | 75.26%         |
|          | Total                         | 287             | 100.00%        |
| 161      | Female                        | 33              | 23.57%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 1               | 0.71%          |
|          | American Indian               | 1               | 0.71%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 6               | 4.29%          |
|          | Other (including white male)  | 99              | 70.71%         |
|          | Total                         | 140             | 100.00%        |
| 162      | Female                        | 62              | 25.73%         |
|          | Black                         | 4               | 1.66%          |
|          | Hispanic                      | 2               | 0.83%          |
|          | American Indian               | 1               | 0.41%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 5               | 2.07%          |
|          | Other (including white male)  | 167             | 69.29%         |
|          | Total                         | 241             | 100.00%        |
| 171      | Female                        | 94              | 23.50%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 3               | 0.75%          |
|          | American Indian               | 4               | 1.00%          |
|          | Aleut                         | 2               | 0.50%          |
|          | Asian                         | 1               | 0.25%          |
|          | Disabled                      | 6               | 1.50%          |
|          | Other (including white male)  | 290             | 72.50%         |
|          | Total                         | 400             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 172      | Female                        | 47              | 20.98%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 1               | 0.45%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 1               | 0.45%          |
|          | Disabled                      | 1               | 0.45%          |
|          | Other (including white male)  | 174             | 77.68%         |
|          | Total                         | 224             | 100.00%        |
| 173      | Female                        | 110             | 30.47%         |
|          | Black                         | 1               | 0.28%          |
|          | Hispanic                      | 1               | 0.28%          |
|          | American Indian               | 1               | 0.28%          |
|          | Aleut                         | 1               | 0.28%          |
|          | Asian                         | 1               | 0.28%          |
|          | Disabled                      | 3               | 0.83%          |
|          | Other (including white male)  | 243             | 67.31%         |
|          | Total                         | 361             | 100.00%        |
| 174      | Female                        | 72              | 23.08%         |
|          | Black                         | 2               | 0.64%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 1               | 0.32%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 3               | 0.96%          |
|          | Disabled                      | 5               | 1.60%          |
|          | Other (including white male)  | 229             | 73.40%         |
|          | Total                         | 312             | 100.00%        |
| 175      | Female                        | 58              | 30.37%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 2               | 1.05%          |
|          | American Indian               | 1               | 0.52%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 3               | 1.57%          |
|          | Other (including white male)  | 127             | 66.49%         |
|          | Total                         | 191             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 176      | Female                        | 32              | 20.78%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 2               | 1.30%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 0               | 0.00%          |
|          | Other (including white male)  | 120             | 77.92%         |
|          | Total                         | 154             | 100.00%        |
| 177      | Female                        | 51              | 26.02%         |
|          | Black                         | 1               | 0.51%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 1               | 0.51%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 0               | 0.00%          |
|          | Other (including white male)  | 143             | 72.96%         |
|          | Total                         | 196             | 100.00%        |
| 178      | Female                        | 13              | 21.31%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 1               | 1.64%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 1               | 1.64%          |
|          | Other (including white male)  | 46              | 75.41%         |
|          | Total                         | 61              | 100.00%        |
| 179      | Female                        | 78              | 27.46%         |
|          | Black                         | 2               | 0.70%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 2               | 0.70%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 1               | 0.35%          |
|          | Disabled                      | 4               | 1.41%          |
|          | Other (including white male)  | 197             | 69.37%         |
|          | Total                         | 284             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 279      | Female                        | 32              | 45.71%         |
|          | Black                         | 1               | 1.43%          |
|          | Hispanic                      | 1               | 1.43%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 0               | 0.00%          |
|          | Other (including white male)  | 36              | 51.43%         |
|          | Total                         | 70              | 100.00%        |
| 384      | Female                        | 10              | 19.23%         |
|          | Black                         | 1               | 1.92%          |
|          | Hispanic                      | 1               | 1.92%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 2               | 3.85%          |
|          | Disabled                      | 2               | 3.85%          |
|          | Other (including white male)  | 36              | 69.23%         |
|          | Total                         | 52              | 100.00%        |
| 421      | Female                        | 135             | 35.34%         |
|          | Black                         | 1               | 0.26%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 1               | 0.26%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 3               | 0.79%          |
|          | Other (including white male)  | 242             | 63.35%         |
|          | Total                         | 382             | 100.00%        |
| 472      | Female                        | 124             | 65.96%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 1               | 0.53%          |
|          | Disabled                      | 3               | 1.60%          |
|          | Other (including white male)  | 60              | 31.91%         |
|          | Total                         | 188             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 473      | Female                        | 21              | 29.58%         |
|          | Black                         | 1               | 1.41%          |
|          | Hispanic                      | 2               | 2.82%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 4               | 5.63%          |
|          | Disabled                      | 0               | 0.00%          |
|          | Other (including white male)  | 43              | 60.56%         |
|          | Total                         | 71              | 100.00%        |
| 481      | Female                        | 22              | 28.57%         |
|          | Black                         | 2               | 2.60%          |
|          | Hispanic                      | 1               | 1.30%          |
|          | American Indian               | 1               | 1.30%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 3               | 3.90%          |
|          | Other (including white male)  | 48              | 62.34%         |
|          | Total                         | 77              | 100.00%        |
| 501      | Female                        | 42              | 16.73%         |
|          | Black                         | 1               | 0.40%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 1               | 0.40%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 2               | 0.80%          |
|          | Disabled                      | 2               | 0.80%          |
|          | Other (including white male)  | 203             | 80.88%         |
|          | Total                         | 251             | 100.00%        |
| 502      | Female                        | 43              | 25.60%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 1               | 0.60%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 1               | 0.60%          |
|          | Disabled                      | 3               | 1.79%          |
|          | Other (including white male)  | 120             | 71.43%         |
|          | Total                         | 168             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 504      | Female                        | 46              | 15.18%         |
|          | Black                         | 2               | 0.66%          |
|          | Hispanic                      | 2               | 0.66%          |
|          | American Indian               | 1               | 0.33%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 6               | 1.98%          |
|          | Disabled                      | 4               | 1.32%          |
|          | Other (including white male)  | 242             | 79.87%         |
|          | Total                         | 303             | 100.00%        |
| 506      | Female                        | 61              | 22.02%         |
|          | Black                         | 3               | 1.08%          |
|          | Hispanic                      | 1               | 0.36%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 5               | 1.81%          |
|          | Disabled                      | 4               | 1.44%          |
|          | Other (including white male)  | 203             | 73.29%         |
|          | Total                         | 277             | 100.00%        |
| 507      | Female                        | 52              | 23.21%         |
|          | Black                         | 2               | 0.89%          |
|          | Hispanic                      | 2               | 0.89%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 1               | 0.45%          |
|          | Disabled                      | 5               | 2.23%          |
|          | Other (including white male)  | 162             | 72.32%         |
|          | Total                         | 224             | 100.00%        |
| 509      | Female                        | 23              | 25.84%         |
|          | Black                         | 1               | 1.12%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 2               | 2.25%          |
|          | Disabled                      | 1               | 1.12%          |
|          | Other (including white male)  | 62              | 69.66%         |
|          | Total                         | 89              | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 511      | Female                        | 42              | 28.38%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 4               | 2.70%          |
|          | Disabled                      | 3               | 2.03%          |
|          | Other (including white male)  | 99              | 66.89%         |
|          | Total                         | 148             | 100.00%        |
| 514      | Female                        | 55              | 23.81%         |
|          | Black                         | 2               | 0.87%          |
|          | Hispanic                      | 1               | 0.43%          |
|          | American Indian               | 1               | 0.43%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 6               | 2.60%          |
|          | Other (including white male)  | 166             | 71.86%         |
|          | Total                         | 231             | 100.00%        |
| 701      | Female                        | 177             | 62.99%         |
|          | Black                         | 1               | 0.36%          |
|          | Hispanic                      | 2               | 0.71%          |
|          | American Indian               | 1               | 0.36%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 1               | 0.36%          |
|          | Disabled                      | 6               | 2.14%          |
|          | Other (including white male)  | 93              | 33.10%         |
|          | Total                         | 281             | 100.00%        |
| 721      | Female                        | 114             | 55.07%         |
|          | Black                         | 2               | 0.97%          |
|          | Hispanic                      | 1               | 0.48%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 2               | 0.97%          |
|          | Disabled                      | 2               | 0.97%          |
|          | Other (including white male)  | 86              | 41.55%         |
|          | Total                         | 207             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 726      | Female                        | 42              | 26.25%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 4               | 2.50%          |
|          | Other (including white male)  | 114             | 71.25%         |
|          | Total                         | 160             | 100.00%        |
| 733      | Female                        | 80              | 39.22%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 1               | 0.49%          |
|          | American Indian               | 1               | 0.49%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 4               | 1.96%          |
|          | Disabled                      | 1               | 0.49%          |
|          | Other (including white male)  | 117             | 57.35%         |
|          | Total                         | 204             | 100.00%        |
| 734      | Female                        | 113             | 47.28%         |
|          | Black                         | 4               | 1.67%          |
|          | Hispanic                      | 2               | 0.84%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 5               | 2.09%          |
|          | Disabled                      | 5               | 2.09%          |
|          | Other (including white male)  | 110             | 46.03%         |
|          | Total                         | 239             | 100.00%        |
| 735      | Female                        | 45              | 37.50%         |
|          | Black                         | 1               | 0.83%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 1               | 0.83%          |
|          | Other (including white male)  | 73              | 60.83%         |
|          | Total                         | 120             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 737      | Female                        | 72              | 24.32%         |
|          | Black                         | 4               | 1.35%          |
|          | Hispanic                      | 5               | 1.69%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 6               | 2.03%          |
|          | Disabled                      | 5               | 1.69%          |
|          | Other (including white male)  | 204             | 68.92%         |
|          | Total                         | 296             | 100.00%        |
| 753      | Female                        | 83              | 24.41%         |
|          | Black                         | 2               | 0.59%          |
|          | Hispanic                      | 1               | 0.29%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 1               | 0.29%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 3               | 0.88%          |
|          | Other (including white male)  | 250             | 73.53%         |
|          | Total                         | 340             | 100.00%        |
| 754      | Female                        | 39              | 32.50%         |
|          | Black                         | 3               | 2.50%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 3               | 2.50%          |
|          | Other (including white male)  | 75              | 62.50%         |
|          | Total                         | 120             | 100.00%        |
| 764      | Female                        | 27              | 50.00%         |
|          | Black                         | 1               | 1.85%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 1               | 1.85%          |
|          | Other (including white male)  | 25              | 46.30%         |
|          | Total                         | 54              | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | RACE/GENDER OF BUSINESS OWNER | NUMBER REPORTED | SHARE OF TOTAL |
|----------|-------------------------------|-----------------|----------------|
| 807      | Female                        | 16              | 17.20%         |
|          | Black                         | 1               | 1.08%          |
|          | Hispanic                      | 2               | 2.15%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 2               | 2.15%          |
|          | Disabled                      | 1               | 1.08%          |
|          | Other (including white male)  | 71              | 76.34%         |
|          | Total                         | 93              | 100.00%        |
| 871      | Female                        | 49              | 14.29%         |
|          | Black                         | 1               | 0.29%          |
|          | Hispanic                      | 4               | 1.17%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 16              | 4.66%          |
|          | Disabled                      | 4               | 1.17%          |
|          | Other (including white male)  | 269             | 78.43%         |
|          | Total                         | 343             | 100.00%        |
| 872      | Female                        | 81              | 19.90%         |
|          | Black                         | 1               | 0.25%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 1               | 0.25%          |
|          | Aleut                         | 0               | 0.00%          |
|          | Asian                         | 0               | 0.00%          |
|          | Disabled                      | 9               | 2.21%          |
|          | Other (including white male)  | 315             | 77.40%         |
|          | Total                         | 407             | 100.00%        |
| 873      | Female                        | 53              | 31.55%         |
|          | Black                         | 0               | 0.00%          |
|          | Hispanic                      | 0               | 0.00%          |
|          | American Indian               | 0               | 0.00%          |
|          | Aleut                         | 1               | 0.60%          |
|          | Asian                         | 2               | 1.19%          |
|          | Disabled                      | 3               | 1.79%          |
|          | Other (including white male)  | 109             | 64.88%         |
|          | Total                         | 168             | 100.00%        |

TABLE 2. MINNESOTA BUSINESS OWNERSHIP BY RACE/GENDER (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
 CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | RACE/GENDER<br>OF BUSINESS OWNER | NUMBER<br>REPORTED | SHARE OF<br>TOTAL |
|-------------|----------------------------------|--------------------|-------------------|
| 874         | Female                           | 90                 | 28.57%            |
|             | Black                            | 4                  | 1.27%             |
|             | Hispanic                         | 1                  | 0.32%             |
|             | American Indian                  | 0                  | 0.00%             |
|             | Aleut                            | 0                  | 0.00%             |
|             | Asian                            | 6                  | 1.90%             |
|             | Disabled                         | 2                  | 0.63%             |
|             | Other (including white male)     | 212                | 67.30%            |
|             | Total                            | 315                | 100.00%           |

TABLE 3. DISTRIBUTION OF BUSINESSES, BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 151                      | 63                | 21                | 9                 | 8                 | 30                | 282               |
| 161         | 86                       | 13                | 15                | 10                | 2                 | 14                | 140               |
| 162         | 151                      | 43                | 15                | 4                 | 3                 | 17                | 233               |
| 171         | 330                      | 45                | 6                 | 3                 | 1                 | 7                 | 392               |
| 172         | 214                      | 5                 | 0                 | 1                 | 0                 | 3                 | 223               |
| 173         | 304                      | 34                | 6                 | 3                 | 0                 | 9                 | 356               |
| 174         | 262                      | 35                | 6                 | 2                 | 0                 | 5                 | 310               |
| 175         | 170                      | 11                | 6                 | 0                 | 0                 | 0                 | 187               |
| 176         | 122                      | 19                | 7                 | 3                 | 1                 | 1                 | 153               |
| 177         | 164                      | 21                | 3                 | 3                 | 1                 | 1                 | 193               |
| 178         | 54                       | 5                 | 2                 | 0                 | 0                 | 0                 | 61                |
| 179         | 220                      | 38                | 12                | 3                 | 1                 | 5                 | 279               |
| 279         | 49                       | 13                | 2                 | 0                 | 1                 | 4                 | 69                |
| 384         | 24                       | 16                | 0                 | 0                 | 1                 | 8                 | 49                |
| 421         | 296                      | 40                | 10                | 3                 | 1                 | 24                | 374               |
| 472         | 77                       | 86                | 9                 | 3                 | 3                 | 5                 | 183               |
| 473         | 34                       | 20                | 4                 | 0                 | 0                 | 9                 | 67                |
| 481         | 29                       | 18                | 3                 | 2                 | 0                 | 16                | 68                |
| 501         | 135                      | 48                | 13                | 14                | 2                 | 26                | 238               |
| 502         | 100                      | 30                | 6                 | 1                 | 1                 | 23                | 161               |
| 504         | 138                      | 48                | 12                | 16                | 10                | 59                | 283               |

TABLE 3. DISTRIBUTION OF BUSINESSES, BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 506         | 136                      | 47                | 17                | 6                 | 3                 | 52                | 261               |
| 507         | 115                      | 49                | 12                | 8                 | 5                 | 31                | 220               |
| 509         | 55                       | 16                | 3                 | 1                 | 0                 | 8                 | 83                |
| 511         | 66                       | 30                | 6                 | 5                 | 3                 | 27                | 137               |
| 514         | 99                       | 42                | 15                | 14                | 2                 | 50                | 222               |
| 701         | 236                      | 25                | 3                 | 3                 | 3                 | 5                 | 275               |
| 721         | 181                      | 12                | 4                 | 0                 | 0                 | 7                 | 204               |
| 726         | 152                      | 5                 | 2                 | 0                 | 0                 | 0                 | 159               |
| 733         | 175                      | 15                | 5                 | 1                 | 1                 | 2                 | 199               |
| 734         | 222                      | 7                 | 2                 | 0                 | 0                 | 1                 | 232               |
| 735         | 92                       | 11                | 0                 | 0                 | 1                 | 11                | 115               |
| 737         | 219                      | 37                | 9                 | 7                 | 0                 | 14                | 286               |
| 753         | 306                      | 18                | 3                 | 0                 | 2                 | 2                 | 331               |
| 754         | 106                      | 7                 | 3                 | 0                 | 0                 | 0                 | 116               |
| 764         | 50                       | 3                 | 0                 | 1                 | 0                 | 0                 | 54                |
| 807         | 77                       | 5                 | 2                 | 2                 | 1                 | 3                 | 90                |
| 871         | 241                      | 58                | 10                | 8                 | 2                 | 15                | 334               |
| 872         | 378                      | 15                | 2                 | 0                 | 1                 | 5                 | 401               |
| 873         | 112                      | 25                | 4                 | 1                 | 1                 | 18                | 161               |
| 874         | 250                      | 31                | 9                 | 7                 | 0                 | 9                 | 306               |
| TOTAL       | 6378                     | 1109              | 269               | 144               | 61                | 526               | 8487              |

TABLE 4. SHARE OF BUSINESSES, BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 53.55%                   | 22.34%            | 7.45%             | 3.19%             | 2.84%             | 10.64%            | 100.00%           |
| 161         | 61.43%                   | 9.29%             | 10.71%            | 7.14%             | 1.43%             | 10.00%            | 100.00%           |
| 162         | 64.81%                   | 18.45%            | 6.44%             | 1.72%             | 1.29%             | 7.30%             | 100.00%           |
| 171         | 84.18%                   | 11.48%            | 1.53%             | 0.77%             | 0.26%             | 1.79%             | 100.00%           |
| 172         | 95.96%                   | 2.24%             | 0.00%             | 0.45%             | 0.00%             | 1.35%             | 100.00%           |
| 173         | 85.39%                   | 9.55%             | 1.69%             | 0.84%             | 0.00%             | 2.53%             | 100.00%           |
| 174         | 84.52%                   | 11.29%            | 1.94%             | 0.65%             | 0.00%             | 1.61%             | 100.00%           |
| 175         | 90.91%                   | 5.88%             | 3.21%             | 0.00%             | 0.00%             | 0.00%             | 100.00%           |
| 176         | 79.74%                   | 12.42%            | 4.58%             | 1.96%             | 0.65%             | 0.65%             | 100.00%           |
| 177         | 84.97%                   | 10.88%            | 1.55%             | 1.55%             | 0.52%             | 0.52%             | 100.00%           |
| 178         | 88.52%                   | 8.20%             | 3.28%             | 0.00%             | 0.00%             | 0.00%             | 100.00%           |
| 179         | 78.85%                   | 13.62%            | 4.30%             | 1.08%             | 0.36%             | 1.79%             | 100.00%           |
| 279         | 71.01%                   | 18.84%            | 2.90%             | 0.00%             | 1.45%             | 5.80%             | 100.00%           |
| 384         | 48.98%                   | 32.65%            | 0.00%             | 0.00%             | 2.04%             | 16.33%            | 100.00%           |
| 421         | 79.14%                   | 10.70%            | 2.67%             | 0.80%             | 0.27%             | 6.42%             | 100.00%           |
| 472         | 42.08%                   | 46.99%            | 4.92%             | 1.64%             | 1.64%             | 2.73%             | 100.00%           |
| 473         | 50.75%                   | 29.85%            | 5.97%             | 0.00%             | 0.00%             | 13.43%            | 100.00%           |
| 481         | 42.65%                   | 26.47%            | 4.41%             | 2.94%             | 0.00%             | 23.53%            | 100.00%           |
| 501         | 56.72%                   | 20.17%            | 5.46%             | 5.88%             | 0.84%             | 10.92%            | 100.00%           |
| 502         | 62.11%                   | 18.63%            | 3.73%             | 0.62%             | 0.62%             | 14.29%            | 100.00%           |
| 504         | 48.76%                   | 16.96%            | 4.24%             | 5.65%             | 3.53%             | 20.85%            | 100.00%           |

TABLE 4. SHARE OF BUSINESSES, BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 506         | 52.11%                   | 18.01%            | 6.51%             | 2.30%             | 1.15%             | 19.92%            | 100.00%           |
| 507         | 52.27%                   | 22.27%            | 5.45%             | 3.64%             | 2.27%             | 14.09%            | 100.00%           |
| 509         | 66.27%                   | 19.28%            | 3.61%             | 1.20%             | 0.00%             | 9.64%             | 100.00%           |
| 511         | 48.18%                   | 21.90%            | 4.38%             | 3.65%             | 2.19%             | 19.71%            | 100.00%           |
| 514         | 44.59%                   | 18.92%            | 6.76%             | 6.31%             | 0.90%             | 22.52%            | 100.00%           |
| 701         | 85.82%                   | 9.09%             | 1.09%             | 1.09%             | 1.09%             | 1.82%             | 100.00%           |
| 721         | 88.73%                   | 5.88%             | 1.96%             | 0.00%             | 0.00%             | 3.43%             | 100.00%           |
| 726         | 95.60%                   | 3.14%             | 1.26%             | 0.00%             | 0.00%             | 0.00%             | 100.00%           |
| 733         | 87.94%                   | 7.54%             | 2.51%             | 0.50%             | 0.50%             | 1.01%             | 100.00%           |
| 734         | 95.69%                   | 3.02%             | 0.86%             | 0.00%             | 0.00%             | 0.43%             | 100.00%           |
| 735         | 80.00%                   | 9.57%             | 0.00%             | 0.00%             | 0.87%             | 9.57%             | 100.00%           |
| 737         | 76.57%                   | 12.94%            | 3.15%             | 2.45%             | 0.00%             | 4.90%             | 100.00%           |
| 753         | 92.45%                   | 5.44%             | 0.91%             | 0.00%             | 0.60%             | 0.60%             | 100.00%           |
| 754         | 91.38%                   | 6.03%             | 2.59%             | 0.00%             | 0.00%             | 0.00%             | 100.00%           |
| 764         | 92.59%                   | 5.56%             | 0.00%             | 1.85%             | 0.00%             | 0.00%             | 100.00%           |
| 807         | 85.56%                   | 5.56%             | 2.22%             | 2.22%             | 1.11%             | 3.33%             | 100.00%           |
| 871         | 72.16%                   | 17.37%            | 2.99%             | 2.40%             | 0.60%             | 4.49%             | 100.00%           |
| 872         | 94.26%                   | 3.74%             | 0.50%             | 0.00%             | 0.25%             | 1.25%             | 100.00%           |
| 873         | 69.57%                   | 15.53%            | 2.48%             | 0.62%             | 0.62%             | 11.18%            | 100.00%           |
| 874         | 81.70%                   | 10.13%            | 2.94%             | 2.29%             | 0.00%             | 2.94%             | 100.00%           |

TABLE 5. DISTRIBUTION OF FEMALE-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 34                       | 10                | 3                 | 2                 | 1                 | 4                 | 54                |
| 161         | 24                       | 3                 | 5                 | 0                 | 2                 | 1                 | 35                |
| 162         | 46                       | 11                | 6                 | 1                 | 0                 | 0                 | 64                |
| 171         | 86                       | 4                 | 0                 | 1                 | 0                 | 2                 | 93                |
| 172         | 45                       | 1                 | 0                 | 0                 | 0                 | 1                 | 47                |
| 173         | 102                      | 7                 | 2                 | 1                 | 0                 | 2                 | 114               |
| 174         | 65                       | 7                 | 0                 | 0                 | 0                 | 1                 | 73                |
| 175         | 53                       | 4                 | 1                 | 0                 | 0                 | 0                 | 58                |
| 176         | 26                       | 2                 | 2                 | 1                 | 0                 | 0                 | 31                |
| 177         | 49                       | 2                 | 1                 | 0                 | 0                 | 0                 | 52                |
| 178         | 13                       | 0                 | 0                 | 0                 | 0                 | 0                 | 13                |
| 179         | 68                       | 6                 | 0                 | 1                 | 0                 | 0                 | 75                |
| 279         | 27                       | 3                 | 0                 | 0                 | 0                 | 1                 | 31                |
| 384         | 6                        | 3                 | 0                 | 0                 | 0                 | 0                 | 9                 |
| 421         | 109                      | 17                | 4                 | 1                 | 1                 | 4                 | 136               |
| 472         | 56                       | 64                | 5                 | 0                 | 1                 | 1                 | 127               |
| 473         | 13                       | 4                 | 3                 | 0                 | 0                 | 1                 | 21                |
| 481         | 10                       | 9                 | 1                 | 2                 | 0                 | 2                 | 24                |
| 501         | 25                       | 9                 | 5                 | 1                 | 0                 | 0                 | 40                |
| 502         | 25                       | 8                 | 1                 | 0                 | 1                 | 6                 | 41                |
| 504         | 38                       | 7                 | 2                 | 0                 | 1                 | 1                 | 49                |

TABLE 5. DISTRIBUTION OF FEMALE-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                |                |                |                |                | SIC CODE TOTAL |
|----------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | LESS THAN 1 MILLION      | 1 TO 3 MILLION | 3 TO 5 MILLION | 5 TO 7 MILLION | 7 TO 9 MILLION | OVER 9 MILLION |                |
| 506      | 44                       | 11             | 3              | 1              | 2              | 3              | 64             |
| 507      | 34                       | 3              | 4              | 2              | 0              | 10             | 53             |
| 509      | 18                       | 6              | 0              | 0              | 0              | 0              | 24             |
| 511      | 30                       | 6              | 2              | 0              | 2              | 2              | 42             |
| 514      | 30                       | 8              | 5              | 5              | 1              | 9              | 58             |
| 701      | 172                      | 7              | 1              | 0              | 0              | 0              | 180            |
| 721      | 108                      | 2              | 1              | 0              | 0              | 2              | 113            |
| 726      | 41                       | 3              | 0              | 0              | 0              | 0              | 44             |
| 733      | 75                       | 4              | 0              | 0              | 0              | 0              | 79             |
| 734      | 116                      | 2              | 0              | 0              | 0              | 0              | 118            |
| 735      | 40                       | 3              | 0              | 0              | 0              | 0              | 43             |
| 737      | 60                       | 5              | 3              | 0              | 0              | 2              | 70             |
| 753      | 83                       | 3              | 0              | 0              | 0              | 1              | 87             |
| 754      | 36                       | 1              | 1              | 0              | 0              | 0              | 38             |
| 764      | 26                       | 1              | 0              | 0              | 0              | 0              | 27             |
| 807      | 13                       | 1              | 1              | 2              | 0              | 0              | 17             |
| 871      | 39                       | 5              | 2              | 2              | 0              | 2              | 50             |
| 872      | 80                       | 0              | 0              | 0              | 0              | 1              | 81             |
| 873      | 47                       | 6              | 0              | 0              | 0              | 2              | 55             |
| 874      | 77                       | 8              | 1              | 1              | 0              | 3              | 90             |
| TOTAL    | 2089                     | 266            | 65             | 24             | 12             | 64             | 2520           |

TABLE 6. FEMALE-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154         | 22.52%                   | 15.87%            | 14.29%            | 22.22%            | 12.50%            | 13.33%            |
| 161         | 27.91%                   | 23.08%            | 33.33%            | 0.00%             | 100.00%           | 7.14%             |
| 162         | 30.46%                   | 25.58%            | 40.00%            | 25.00%            | 0.00%             | 0.00%             |
| 171         | 26.06%                   | 8.89%             | 0.00%             | 33.33%            | 0.00%             | 28.57%            |
| 172         | 21.03%                   | 20.00%            | 0.00%             | 0.00%             | 0.00%             | 33.33%            |
| 173         | 33.55%                   | 20.59%            | 33.33%            | 33.33%            | 0.00%             | 22.22%            |
| 174         | 24.81%                   | 20.00%            | 0.00%             | 0.00%             | 0.00%             | 20.00%            |
| 175         | 31.18%                   | 36.36%            | 16.67%            | 0.00%             | 0.00%             | 0.00%             |
| 176         | 21.31%                   | 10.53%            | 28.57%            | 33.33%            | 0.00%             | 0.00%             |
| 177         | 29.88%                   | 9.52%             | 33.33%            | 0.00%             | 0.00%             | 0.00%             |
| 178         | 24.07%                   | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179         | 30.91%                   | 15.79%            | 0.00%             | 33.33%            | 0.00%             | 0.00%             |
| 279         | 55.10%                   | 23.08%            | 0.00%             | 0.00%             | 0.00%             | 25.00%            |
| 384         | 25.00%                   | 18.75%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421         | 36.82%                   | 42.50%            | 40.00%            | 33.33%            | 100.00%           | 16.67%            |
| 472         | 72.73%                   | 74.42%            | 55.56%            | 0.00%             | 33.33%            | 20.00%            |
| 473         | 38.24%                   | 20.00%            | 75.00%            | 0.00%             | 0.00%             | 11.11%            |
| 481         | 34.48%                   | 50.00%            | 33.33%            | 100.00%           | 0.00%             | 12.50%            |
| 501         | 18.52%                   | 18.75%            | 38.46%            | 7.14%             | 0.00%             | 0.00%             |
| 502         | 25.00%                   | 26.67%            | 16.67%            | 0.00%             | 100.00%           | 26.09%            |
| 504         | 27.54%                   | 14.58%            | 16.67%            | 0.00%             | 10.00%            | 1.69%             |

TABLE 6. FEMALE-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 32.35%                   | 23.40%            | 17.65%            | 16.67%            | 66.67%            | 5.77%             |
| 507         | 29.57%                   | 6.12%             | 33.33%            | 25.00%            | 0.00%             | 32.26%            |
| 509         | 32.73%                   | 37.50%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 45.45%                   | 20.00%            | 33.33%            | 0.00%             | 66.67%            | 7.41%             |
| 514         | 30.30%                   | 19.05%            | 33.33%            | 35.71%            | 50.00%            | 18.00%            |
| 701         | 72.88%                   | 28.00%            | 33.33%            | 0.00%             | 0.00%             | 0.00%             |
| 721         | 59.67%                   | 16.67%            | 25.00%            | 0.00%             | 0.00%             | 28.57%            |
| 726         | 26.97%                   | 60.00%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 42.86%                   | 26.67%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 52.25%                   | 28.57%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 43.48%                   | 27.27%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 27.40%                   | 13.51%            | 33.33%            | 0.00%             | 0.00%             | 14.29%            |
| 753         | 27.12%                   | 16.67%            | 0.00%             | 0.00%             | 0.00%             | 50.00%            |
| 754         | 33.96%                   | 14.29%            | 33.33%            | 0.00%             | 0.00%             | 0.00%             |
| 764         | 52.00%                   | 33.33%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 16.88%                   | 20.00%            | 50.00%            | 100.00%           | 0.00%             | 0.00%             |
| 871         | 16.18%                   | 8.62%             | 20.00%            | 25.00%            | 0.00%             | 13.33%            |
| 872         | 21.16%                   | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 20.00%            |
| 873         | 41.96%                   | 24.00%            | 0.00%             | 0.00%             | 0.00%             | 11.11%            |
| 874         | 30.80%                   | 25.81%            | 11.11%            | 14.29%            | 0.00%             | 33.33%            |

TABLE 7. DISTRIBUTION OF BLACK-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE TOTAL |
|----------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------|
|          | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                |
| 154      | 0                        | 0                 | 0                 | 0                 | 0                 | 1                 | 1              |
| 161      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 162      | 1                        | 2                 | 0                 | 0                 | 0                 | 1                 | 4              |
| 171      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 172      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 173      | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1              |
| 174      | 1                        | 0                 | 0                 | 0                 | 0                 | 1                 | 2              |
| 175      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 176      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 177      | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1              |
| 178      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 179      | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2              |
| 279      | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1              |
| 384      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 421      | 0                        | 0                 | 0                 | 0                 | 0                 | 1                 | 1              |
| 472      | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0              |
| 473      | 0                        | 1                 | 0                 | 0                 | 0                 | 1                 | 2              |
| 481      | 1                        | 0                 | 0                 | 1                 | 0                 | 2                 | 4              |
| 501      | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1              |
| 502      | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1              |
| 504      | 1                        | 1                 | 0                 | 0                 | 0                 | 0                 | 2              |

TABLE 7. DISTRIBUTION OF BLACK-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                |                |                |                |                | SIC CODE TOTAL |
|----------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | LESS THAN 1 MILLION      | 1 TO 3 MILLION | 3 TO 5 MILLION | 5 TO 7 MILLION | 7 TO 9 MILLION | OVER 9 MILLION |                |
| 506      | 2                        | 0              | 0              | 0              | 0              | 1              | 3              |
| 507      | 0                        | 0              | 0              | 0              | 0              | 2              | 2              |
| 509      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 511      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 514      | 1                        | 0              | 0              | 0              | 0              | 1              | 2              |
| 701      | 0                        | 0              | 0              | 1              | 0              | 0              | 1              |
| 721      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 726      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 733      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 734      | 4                        | 0              | 0              | 0              | 0              | 0              | 4              |
| 735      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 737      | 2                        | 0              | 0              | 0              | 0              | 1              | 3              |
| 753      | 0                        | 0              | 0              | 0              | 1              | 1              | 2              |
| 754      | 1                        | 0              | 2              | 0              | 0              | 0              | 3              |
| 764      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 807      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 871      | 0                        | 1              | 0              | 0              | 0              | 0              | 1              |
| 872      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 873      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 874      | 4                        | 0              | 0              | 0              | 0              | 0              | 4              |
| TOTAL    | 29                       | 7              | 2              | 2              | 1              | 13             | 54             |

TABLE 8. BLACK-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 3.33%             |
| 161         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 162         | 0.66%                    | 4.65%             | 0.00%             | 0.00%             | 0.00%             | 5.88%             |
| 171         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 172         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 173         | 0.00%                    | 2.94%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 174         | 0.38%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 20.00%            |
| 175         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 176         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 177         | 0.61%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 178         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179         | 0.91%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 279         | 0.00%                    | 7.69%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 384         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 4.17%             |
| 472         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 473         | 0.00%                    | 5.00%             | 0.00%             | 0.00%             | 0.00%             | 11.11%            |
| 481         | 3.45%                    | 0.00%             | 0.00%             | 50.00%            | 0.00%             | 12.50%            |
| 501         | 0.74%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 502         | 1.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 504         | 0.72%                    | 2.08%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 8. BLACK-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 1.47%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 1.92%             |
| 507         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 6.45%             |
| 509         | 1.82%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 514         | 1.01%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 2.00%             |
| 701         | 0.00%                    | 0.00%             | 0.00%             | 33.33%            | 0.00%             | 0.00%             |
| 721         | 0.55%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 726         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 1.80%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 1.09%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 0.91%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 7.14%             |
| 753         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 50.00%            | 50.00%            |
| 754         | 0.94%                    | 0.00%             | 66.67%            | 0.00%             | 0.00%             | 0.00%             |
| 764         | 2.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 1.30%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 871         | 0.00%                    | 1.72%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 872         | 0.26%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 873         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 874         | 1.60%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 9. DISTRIBUTION OF HISPANIC-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 161         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 162         | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| 171         | 3                        | 0                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 172         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 173         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 174         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 175         | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| 176         | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| 177         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 178         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 179         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 279         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 384         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 421         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 472         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 473         | 1                        | 1                 | 0                 | 0                 | 0                 | 1                 | 3                 |
| 481         | 0                        | 0                 | 0                 | 1                 | 0                 | 2                 | 3                 |
| 501         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 502         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 504         | 0                        | 2                 | 0                 | 0                 | 0                 | 0                 | 2                 |

TABLE 9. DISTRIBUTION OF HISPANIC-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                |                |                |                |                | SIC CODE TOTAL |
|----------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | LESS THAN 1 MILLION      | 1 TO 3 MILLION | 3 TO 5 MILLION | 5 TO 7 MILLION | 7 TO 9 MILLION | OVER 9 MILLION |                |
| 506      | 0                        | 0              | 0              | 0              | 0              | 1              | 1              |
| 507      | 0                        | 0              | 0              | 0              | 0              | 2              | 2              |
| 509      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 511      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 514      | 0                        | 0              | 0              | 0              | 0              | 1              | 1              |
| 701      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 721      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 726      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 733      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 734      | 2                        | 0              | 0              | 0              | 0              | 0              | 2              |
| 735      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 737      | 1                        | 1              | 0              | 1              | 0              | 1              | 4              |
| 753      | 0                        | 0              | 0              | 0              | 0              | 1              | 1              |
| 754      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 764      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 807      | 1                        | 1              | 0              | 0              | 0              | 0              | 2              |
| 871      | 2                        | 2              | 0              | 0              | 0              | 0              | 4              |
| 872      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 873      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 874      | 0                        | 0              | 0              | 0              | 0              | 1              | 1              |
| TOTAL    | 23                       | 9              | 0              | 2              | 0              | 10             | 44             |

TABLE 10. HISPANIC-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 161         | 0.00%                    | 7.69%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 162         | 1.32%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 171         | 0.91%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 172         | 0.47%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 173         | 0.33%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 174         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 175         | 1.18%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 176         | 1.64%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 177         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 178         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 279         | 2.04%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 384         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 472         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 473         | 2.94%                    | 5.00%             | 0.00%             | 0.00%             | 0.00%             | 11.11%            |
| 481         | 0.00%                    | 0.00%             | 0.00%             | 50.00%            | 0.00%             | 12.50%            |
| 501         | 0.00%                    | 2.08%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 502         | 1.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 504         | 0.00%                    | 4.17%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 10. HISPANIC-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 1.92%             |
| 507         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 6.45%             |
| 509         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 514         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 2.00%             |
| 701         | 0.42%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 721         | 0.55%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 726         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 0.57%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 0.90%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 0.46%                    | 2.70%             | 0.00%             | 14.29%            | 0.00%             | 7.14%             |
| 753         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 50.00%            |
| 754         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 764         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 1.30%                    | 20.00%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 871         | 0.83%                    | 3.45%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 872         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 873         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 874         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 11.11%            |

TABLE 11. DISTRIBUTION OF AMERICAN INDIAN-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 2                        | 1                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 161         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 162         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 171         | 4                        | 0                 | 0                 | 0                 | 0                 | 0                 | 4                 |
| 172         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 173         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 174         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 175         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 176         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 177         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 178         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 179         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 279         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 384         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 421         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 472         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 473         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 481         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 501         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 502         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 504         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |

(continued on next page)

TABLE 11. DISTRIBUTION OF AMERICAN INDIAN-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                |                |                |                |                | SIC CODE TOTAL |
|----------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | LESS THAN 1 MILLION      | 1 TO 3 MILLION | 3 TO 5 MILLION | 5 TO 7 MILLION | 7 TO 9 MILLION | OVER 9 MILLION |                |
| 506      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 507      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 509      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 511      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 514      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 701      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 721      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 726      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 733      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 734      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 735      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 737      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 753      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 754      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 764      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 807      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 871      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 872      | 1                        | 0              | 0              | 0              | 0              | 0              | 1              |
| 873      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 874      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| TOTAL    | 16                       | 1              | 0              | 0              | 0              | 0              | 17             |

TABLE 12. AMERICAN INDIAN-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|----------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|          | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154      | 1.32%                    | 1.59%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 161      | 1.16%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 162      | 0.66%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 171      | 1.21%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 172      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 173      | 0.33%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 174      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 175      | 0.59%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 176      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 177      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 178      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179      | 0.45%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 279      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 384      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421      | 0.34%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 472      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 473      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 481      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 501      | 0.74%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 502      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 504      | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 12. AMERICAN INDIAN-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 507         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 509         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 514         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 701         | 0.42%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 721         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 726         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 0.57%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 753         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 754         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 764         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 871         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 872         | 0.26%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 873         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 874         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 13. DISTRIBUTION OF ALEUT-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 161         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 162         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 171         | 1                        | 0                 | 1                 | 0                 | 0                 | 0                 | 2                 |
| 172         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 173         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 174         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 175         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 176         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 177         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 178         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 179         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 279         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 384         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 421         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 472         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 473         | 0                        | 0                 | 1                 | 0                 | 0                 | 0                 | 1                 |
| 481         | 0                        | 0                 | 2                 | 0                 | 0                 | 0                 | 2                 |
| 501         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 502         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 504         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |

(continued on next page)

TABLE 13. DISTRIBUTION OF ALEUT-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 506         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 507         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 509         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 511         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 514         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 701         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 721         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 726         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 733         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 734         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 735         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 737         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 753         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 754         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 764         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 807         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 871         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 872         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 873         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 874         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| TOTAL       | 2                        | 2                 | 4                 | 0                 | 0                 | 0                 | 8                 |

TABLE 14. ALEUT-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 161         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 162         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 171         | 0.30%                    | 0.00%             | 16.67%            | 0.00%             | 0.00%             | 0.00%             |
| 172         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 173         | 0.00%                    | 2.94%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 174         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 175         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 176         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 177         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 178         | 1.85%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 279         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 384         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 472         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 473         | 0.00%                    | 0.00%             | 25.00%            | 0.00%             | 0.00%             | 0.00%             |
| 481         | 0.00%                    | 0.00%             | 66.67%            | 0.00%             | 0.00%             | 0.00%             |
| 501         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 502         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 504         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 14. ALEUT-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 507         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 509         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 514         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 701         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 721         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 726         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 753         | 0.00%                    | 5.56%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 754         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 764         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 871         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 872         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 873         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 874         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

TABLE 15. DISTRIBUTION OF ASIAN-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 1                        | 0                 | 0                 | 0                 | 1                 | 2                 | 4                 |
| 161         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 162         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 171         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 172         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 173         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 174         | 1                        | 1                 | 0                 | 0                 | 0                 | 1                 | 3                 |
| 175         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 176         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 177         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 178         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 179         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 279         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 384         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 421         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 472         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 473         | 1                        | 0                 | 0                 | 0                 | 0                 | 3                 | 4                 |
| 481         | 0                        | 0                 | 0                 | 1                 | 0                 | 2                 | 3                 |
| 501         | 1                        | 0                 | 0                 | 0                 | 0                 | 1                 | 2                 |
| 502         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 504         | 3                        | 1                 | 0                 | 0                 | 0                 | 1                 | 5                 |

(continued on next page)

TABLE 15. DISTRIBUTION OF ASIAN-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC CODE | GROSS REVENUE IN DOLLARS |                |                |                |                |                | SIC CODE TOTAL |
|----------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|          | LESS THAN 1 MILLION      | 1 TO 3 MILLION | 3 TO 5 MILLION | 5 TO 7 MILLION | 7 TO 9 MILLION | OVER 9 MILLION |                |
| 506      | 3                        | 0              | 0              | 0              | 0              | 2              | 5              |
| 507      | 0                        | 0              | 0              | 0              | 0              | 1              | 1              |
| 509      | 2                        | 0              | 0              | 0              | 0              | 0              | 2              |
| 511      | 1                        | 0              | 0              | 1              | 0              | 3              | 5              |
| 514      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 701      | 0                        | 1              | 0              | 0              | 0              | 0              | 1              |
| 721      | 2                        | 0              | 0              | 0              | 0              | 0              | 2              |
| 726      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 733      | 4                        | 0              | 0              | 0              | 0              | 0              | 4              |
| 734      | 5                        | 0              | 0              | 0              | 0              | 0              | 5              |
| 735      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 737      | 3                        | 2              | 0              | 0              | 0              | 0              | 5              |
| 753      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 754      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 764      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 807      | 1                        | 0              | 0              | 1              | 0              | 0              | 2              |
| 871      | 11                       | 3              | 0              | 0              | 0              | 1              | 15             |
| 872      | 0                        | 0              | 0              | 0              | 0              | 0              | 0              |
| 873      | 3                        | 0              | 0              | 0              | 0              | 0              | 3              |
| 874      | 4                        | 1              | 0              | 0              | 0              | 1              | 6              |
| TOTAL    | 50                       | 12             | 0              | 3              | 1              | 18             | 84             |

TABLE 16. ASIAN-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154         | 0.66%                    | 0.00%             | 0.00%             | 0.00%             | 12.50%            | 6.67%             |
| 161         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 162         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 171         | 0.30%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 172         | 0.47%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 173         | 0.33%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 174         | 0.38%                    | 2.86%             | 0.00%             | 0.00%             | 0.00%             | 20.00%            |
| 175         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 176         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 177         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 178         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179         | 0.45%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 279         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 384         | 0.00%                    | 6.25%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 472         | 0.00%                    | 1.16%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 473         | 2.94%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 33.33%            |
| 481         | 0.00%                    | 0.00%             | 0.00%             | 50.00%            | 0.00%             | 12.50%            |
| 501         | 0.74%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 3.85%             |
| 502         | 0.00%                    | 3.33%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 504         | 2.17%                    | 2.08%             | 0.00%             | 0.00%             | 0.00%             | 1.69%             |

TABLE 16. ASIAN-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 2.21%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 3.85%             |
| 507         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 3.23%             |
| 509         | 3.64%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 1.52%                    | 0.00%             | 0.00%             | 20.00%            | 0.00%             | 11.11%            |
| 514         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 701         | 0.00%                    | 4.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 721         | 1.10%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 726         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 2.29%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 2.25%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 1.37%                    | 5.41%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 753         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 754         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 764         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 1.30%                    | 0.00%             | 0.00%             | 50.00%            | 0.00%             | 0.00%             |
| 871         | 4.56%                    | 5.17%             | 0.00%             | 0.00%             | 0.00%             | 6.67%             |
| 872         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 873         | 2.68%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 874         | 1.60%                    | 3.23%             | 0.00%             | 0.00%             | 0.00%             | 11.11%            |

TABLE 17. DISTRIBUTION OF DISABLED-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 154         | 3                        | 3                 | 0                 | 0                 | 0                 | 0                 | 6                 |
| 161         | 4                        | 0                 | 0                 | 0                 | 0                 | 2                 | 6                 |
| 162         | 6                        | 0                 | 0                 | 0                 | 0                 | 0                 | 6                 |
| 171         | 4                        | 1                 | 0                 | 0                 | 0                 | 0                 | 5                 |
| 172         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 173         | 3                        | 0                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 174         | 4                        | 0                 | 0                 | 0                 | 0                 | 1                 | 5                 |
| 175         | 3                        | 0                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 176         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 177         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 178         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 179         | 3                        | 1                 | 0                 | 0                 | 0                 | 0                 | 4                 |
| 279         | 0                        | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |
| 384         | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| 421         | 3                        | 2                 | 0                 | 0                 | 0                 | 0                 | 5                 |
| 472         | 3                        | 0                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 473         | 0                        | 0                 | 0                 | 0                 | 0                 | 1                 | 1                 |
| 481         | 2                        | 0                 | 0                 | 1                 | 0                 | 2                 | 5                 |
| 501         | 1                        | 1                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| 502         | 2                        | 0                 | 0                 | 0                 | 0                 | 1                 | 3                 |
| 504         | 1                        | 0                 | 0                 | 0                 | 0                 | 2                 | 3                 |

TABLE 17. DISTRIBUTION OF DISABLED-OWNED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   | SIC CODE<br>TOTAL |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |                   |
| 506         | 1                        | 1                 | 0                 | 0                 | 0                 | 2                 | 4                 |
| 507         | 2                        | 1                 | 0                 | 1                 | 0                 | 1                 | 5                 |
| 509         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 511         | 1                        | 2                 | 1                 | 0                 | 0                 | 0                 | 4                 |
| 514         | 2                        | 1                 | 0                 | 0                 | 0                 | 3                 | 6                 |
| 701         | 5                        | 0                 | 0                 | 0                 | 0                 | 1                 | 6                 |
| 721         | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| 726         | 5                        | 0                 | 0                 | 0                 | 0                 | 0                 | 5                 |
| 733         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 734         | 6                        | 0                 | 0                 | 0                 | 0                 | 0                 | 6                 |
| 735         | 2                        | 1                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 737         | 0                        | 0                 | 0                 | 1                 | 0                 | 1                 | 2                 |
| 753         | 2                        | 0                 | 0                 | 0                 | 0                 | 1                 | 3                 |
| 754         | 2                        | 0                 | 1                 | 0                 | 0                 | 0                 | 3                 |
| 764         | 1                        | 0                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 807         | 0                        | 1                 | 0                 | 0                 | 0                 | 0                 | 1                 |
| 871         | 3                        | 1                 | 0                 | 0                 | 0                 | 0                 | 4                 |
| 872         | 8                        | 1                 | 0                 | 0                 | 0                 | 0                 | 9                 |
| 873         | 2                        | 1                 | 0                 | 0                 | 0                 | 0                 | 3                 |
| 874         | 2                        | 0                 | 0                 | 0                 | 0                 | 0                 | 2                 |
| TOTAL       | 93                       | 19                | 2                 | 3                 | 0                 | 18                | 135               |

TABLE 18. DISABLED-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 154         | 1.99%                    | 4.76%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 161         | 4.65%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 14.29%            |
| 162         | 3.97%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 171         | 1.21%                    | 2.22%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 172         | 0.47%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 173         | 0.99%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 174         | 1.53%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 20.00%            |
| 175         | 1.76%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 176         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 177         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 178         | 1.85%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 179         | 1.36%                    | 2.63%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 279         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 384         | 8.33%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 421         | 1.01%                    | 5.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 472         | 3.90%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 473         | 0.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 11.11%            |
| 481         | 6.90%                    | 0.00%             | 0.00%             | 50.00%            | 0.00%             | 12.50%            |
| 501         | 0.74%                    | 2.08%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 502         | 2.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 4.35%             |
| 504         | 0.72%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 3.39%             |

TABLE 18. DISABLED-OWNED FIRMS AS A SHARE OF ALL REPORTED FIRMS,  
BY GROSS REVENUE AND SIC CODE (continued)

RESULTS FROM THE 1989 BUSINESS OWNERSHIP STUDY  
CONDUCTED BY THE UNIVERSITY OF MINNESOTA SURVEY RESEARCH CENTER

| SIC<br>CODE | GROSS REVENUE IN DOLLARS |                   |                   |                   |                   |                   |
|-------------|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | LESS THAN<br>1 MILLION   | 1 TO 3<br>MILLION | 3 TO 5<br>MILLION | 5 TO 7<br>MILLION | 7 TO 9<br>MILLION | OVER 9<br>MILLION |
| 506         | 0.74%                    | 2.13%             | 0.00%             | 0.00%             | 0.00%             | 3.85%             |
| 507         | 1.74%                    | 2.04%             | 0.00%             | 12.50%            | 0.00%             | 3.23%             |
| 509         | 0.00%                    | 6.25%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 511         | 1.52%                    | 6.67%             | 16.67%            | 0.00%             | 0.00%             | 0.00%             |
| 514         | 2.02%                    | 2.38%             | 0.00%             | 0.00%             | 0.00%             | 6.00%             |
| 701         | 2.12%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 20.00%            |
| 721         | 1.10%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 726         | 3.29%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 733         | 0.57%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 734         | 2.70%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 735         | 2.17%                    | 9.09%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 737         | 0.00%                    | 0.00%             | 0.00%             | 14.29%            | 0.00%             | 7.14%             |
| 753         | 0.65%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 50.00%            |
| 754         | 1.89%                    | 0.00%             | 33.33%            | 0.00%             | 0.00%             | 0.00%             |
| 764         | 2.00%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 807         | 0.00%                    | 20.00%            | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 871         | 1.24%                    | 1.72%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 872         | 2.12%                    | 6.67%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 873         | 1.79%                    | 4.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |
| 874         | 0.80%                    | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%             |

APPENDIX E.  
Statistical Methods

## APPENDIX E. Statistical methods

The U.S. Supreme Court, in Richmond v. Croson, ruled that government agencies must justify any program targeting women- or minority-owned business enterprises (wbe/mbes) by demonstrating that it is meant to remedy past patterns of discrimination. The Court has outlined a statistical test for use in such demonstrations: the proportions of dollars awarded to wbe/mbes should be compared against the proportions of wbe/mbe firms available to provide the services or products.

### Goals of statistical analysis

In any study, an ideal target question exists that would be answered if all the needed data was available. In this study, the ideal target question was:

Was there evidence of discrimination against businesses owned by women and minorities in awarding contracts in any market area? That is, are such businesses significantly underrepresented in contract awards compared to their presence and ability in the market?

The information required to fully answer this question was not available. First, there were no sources of data on sole proprietorships. In addition, data provided by Jobs and Training did not list race/gender characteristics of business owners. Until recently, this information had not been needed, so it had not been maintained. Further, it was impossible to break out data by state economic development regions because it was impossible to identify where firms did their business (including exports outside of their development regions). Without this information, the study had to rely on statewide data. This changed the target question to:

Is there evidence of discrimination by selected state and metropolitan government agencies against firms (excluding sole proprietorships) owned by women and minorities in awarding contracts for selected products and services compared to the presence of such firms in the state? That is, does it appear the agencies awarded significantly less to wbe/mbes compared to these firms' presence in the state?

### General statistical approach

Statistical tests are often used when there appear to be differences between groups. Statistics deal with correlations and not cause and effect.

Statistical approaches hypothesize what is happening and then test the likelihood of results under that hypothesis. If the test results look unusual, it may be decided that the original hypothesis was

probably wrong. In this case, a previously set-up alternative hypothesis is accepted.

For example, it may be hypothesized that a coin is unbiased (the probabilities of it coming up heads or tails are equal). If tossing the coin 10 times yielded 10 heads, suspicions may arise. It is still possible that the coin is unbiased, but the results are enough that the initial hypothesis is rejected. A thorough analysis would then require further investigation.

It is common to judge a result as unusual when a test statistic falls into the range where fewer than 5 percent of the test statistics reside (the critical region). If a test statistic does not fall into the critical region, it may be stated, assuming there is no discrimination, that there is less than a 5 percent chance of more unusual results suggesting there is discrimination.

In addition to hypotheses, statistical tests require a set of assumptions characterizing an ideal environment. For this study, these main assumptions were:

Each contract award was a random selection from all firms available.

Each award was independent of all previous and future awards.

The probability of selecting a wbe/mbe firm was the same for each award.

It is important to note that these are ideal assumptions. As with most statistical endeavors, a set of reservations was developed for this study:

It is not reasonable to expect that contract awards are totally random. It is more likely that decision-makers scrutinize candidates before making a decision. To the extent that the selection is non-random for reasons other than race/gender, a statistical test may give false impressions. For example, if a small number of firms produced excellent products, they would likely be chosen more often. If these firms were owned by white males, charges of discrimination may arise. However, charging discrimination just because a firm produces a better product may be unfair. To eliminate this problem, an analysis must account for all legitimate differences and then determine if statistical differences remain.

The assumption of independence is also questionable. It is possible that decision-makers award contracts to the same vendors repeatedly because they are not interested in shopping for new ones. If so, statistical test trials are not

independent. This can lead to false conclusions. For example, if a decision-maker used one minority contractor over and over, it may appear there is no discrimination for that industry. This issue is difficult to attack with ordinary statistical methods. To somewhat resolve this issue, this study conducted statistical tests in conjunction with qualitative data reviews.

The third assumption pertains to the population of available vendors. In this study, it was assumed that the proportions of wbe/mbe firms stayed relatively constant. If this were not the case, it would have been necessary to use separate Bernoulli trials (statistical experiments that have two mutually exclusive outcomes, each of which having constant probabilities of occurrence) that would not consider the contract awards together to incorporate patterns.

#### Statistical tests in the study

The tests used for this report reflect the Court's decision and provide the necessary preliminary analysis of the problem. Both weighted and unweighted tests were used.

The unweighted test refers to the number of contracts awarded and the proportions of available wbe/mbes. Comparing the proportion of awards to the proportion of businesses available assessed how often wbe/mbes participated in comparison to their market presence.

The weighted test assessed the value of participation compared to presence. The weighted test went beyond the assumption that each award was an equal opportunity. By weighting each award by the dollar value, the weights accounted for differences in economic participation in contract awards.

Between these two tests (and familiarity with the data), the study assessed how often wbe/mbes participated, along with the value of the participation. For example, if only one wbe/mbe was awarded a large contract, the unweighted test detected a difference. If many wbes/mbes were awarded contracts but all of much lower value than comparable majority firms, the weighted test showed significance.

#### Methodology

Two study populations existed:

- [1] Firms owned by women and those owned by each minority, separately, providing selected primary products or services in the state. "Primary" refers to SIC code classification by primary product. (See Appendix D for a listing of selected SIC code categories.)

- [2] Firms owned by women and each minority, separately, and awarded contracts for selected products by state and metropolitan government agencies. Selections were based on an attempt to represent broad classes of products and services (see Appendix B for a more detailed discussion of data collection).

#### Values to compare

(The following accounts use the wbe group for explanatory purposes. In the study, the procedures were done for each mbe group as well.)

#### For the unweighted tests:

- [1] Estimated proportion of wbes in the state (information provided by the survey presented in Appendix D). The number of reported women-owned businesses in a specific SIC code was divided by the total number of businesses reported in that SIC code.
- [2] Estimated proportion of wbes awarded contracts by selected government agencies for certain products (using samples from agencies, as outlined in Appendix B). The number of awards made to wbes in a specific SIC code was divided by all awards in the sample for that SIC code.

#### For the weighted tests:

- [1] Estimated proportion of wbes in the state (information provided by the survey presented in Appendix D). The number of reported women-owned businesses in a specific SIC code was divided by the total number of businesses reported in that SIC code.
- [2] Estimated proportion of awards, weighted by dollars, given to wbes by selected government agencies for certain products (using samples from agencies, as presented in Appendix B). The total dollars awarded to wbes in a specific SIC code were divided by all dollars in the sample for that SIC code.

Detailed procedure

To test disparity, a t test statistic was used in the study:

$$t = \frac{(p_{ijkl} - p_{2ij}) - (U_1 - U_2)}{s(p_{ijkl} - p_{2ij})}$$

Where:

$U_1$  = the population proportion which  $p_{ijkl}$  estimated;

$U_2$  = the population proportion which  $p_{2ij}$  estimated.

Since the hypothesis that was tested (the null hypothesis) assumed no discrimination existed, the proportion of available firms was the same as the proportion of firms awarded contracts. Therefore,  $U_1 - U_2 = 0$  and the test was simplified to:

$$t = \frac{(p_{ijkl} - p_{2ij})}{s(p_{ijkl} - p_{2ij})}$$

Where:

$p_1$  = the estimated proportion of firms awarded contracts,

and

$p_{ijkl}$  = the estimated proportion of firms awarded contracts, by wbe/mbe group (i), SIC code (j), agency (k), and whether the award was made on set-aside/preference (l) (these proportions are presented in Appendix F);

$p_2$  = the estimated proportion of wbe/mbe firms available,

and

$p_{2ij}$  = the estimated proportion of wbe/mbe firms available, by type of wbe/mbe (i), and SIC code (j). The variables "k" and "l" were not used (these proportions are presented in Appendix D);

$s(p_{ijkl} - p_{2ij})$  = the pooled estimated sample standard error for the test. A pooled estimate was used because the hypothesis assumed that decision-makers considered the entire population of available firms when making contract awards.

The pooled sample standard error was calculated:

$$s(p_{1ijkl} - p_{2ij}) = \left( \frac{(p_{1ijkl} * q_{1ijkl} + p_{2ij} * q_{2ij})}{n_1 + n_2 - 2} \right)^{1/2}$$

Where:

$$q_{1ijkl} = 1 - p_{1ijkl};$$

$$q_{2ij} = 1 - p_{2ij};$$

$n_1$  = the size of the sample used to estimate  $p_{1ijkl}$ ;

$n_2$  = the size of the sample used to estimate  $p_{2ij}$ .

Values were then used to estimate the t test statistic. Results were compared to the t distribution using the proper degrees of freedom ( $n_1 + n_2 - 2$ ), the standard 95 percent confidence assumption and a two-tailed test.

Most samples were large enough (more than 120) to use the normal distribution via the central limit theorem. For these, if t was greater than 1.96, the probability of observing a larger test statistic under the null hypothesis was smaller than 2.5 percent. Under the usual rules, the study rejected the hypothesis that discrimination did not exist.

If a difference was found, its direction was noted. Statistical results may be found in Appendix G.

#### Basic data needs for future studies

In general, two types of data are necessary to any future study in this area:

- [1] Census data should be available on the number of businesses, including sole proprietorships, owned by women and minorities for each SIC code in each market area in Minnesota. Businesses should be counted in each SIC code in which they offer a product. The state should keep an updated "master" list of all businesses with the name, address and SED classification.

Establishments, which include sole proprietors, would better represent the number of wbe/mbes available. If more women and minorities than white males are sole proprietors, using firms in itself discriminates against wbe/mbes by underrepresenting their availability to provide products and services.

- [2] State and metropolitan government agencies should keep data, preferably on computer, for all contracts and awards given to businesses. At a minimum, the data should include the name and address of the business awarded the contract, the relevant SIC code, the amount of the award and the SED classification. If subcontractors are used, this information should be kept for them as well.