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The Characteristics of Business Owners (CBO) Database

by

Al Nucci

CES 89-9 October 1989
Abstract

The Bureau of the Census conducted the Characteristics of Business Owners (CBO) survey for the Small Business Administration and the Minority Business Development Agency in 1986. The CBO collected information from a national sample of 126,000 business owners, surveying the demographic and economic characteristics of owners and the economic performance of their firms. A major feature of the CBO is the large numbers of Hispanic, Asian and Other, Black, and Women businesses, in addition to nonminority, male-owned businesses. The CBO data series also serves the broader purpose of providing data on characteristics of owners and firms in the small business population. This paper provides a report of the purpose, content, and basic procedures used for the survey and presents a preliminary discussion of the coverage and overall response.

*I would like to thank Robert McGuckin and Robert Bechtold for helpful advice and Christina Palumbo for skillful typing.*
A. Introduction

In 1986, the Census Bureau conducted a survey of small minority owned business owners with financial support from the Minority Business Development Administration (MBDA) and the Small Business Administration (SBA). This survey, named the 1982 Characteristics of Business Owners Survey (CBO), included a disproportionately large number of minority-owned businesses and for comparison purposes, a sample of non-minority businesses. The prime objective of this paper is to illustrate the nature and the types of information contained in the database derived from the CBO Survey.

The CBO database contains information on approximately 100,000 owners of more than 90,000 small business firms. The 100,000 owners are split, roughly equally, among 5 race-ethnicity groupings or panels; Hispanic, Black, other minorities, woman, and nonminority males. Three types of information are available from the survey: 1) personal data about owners such as age, marital status, education, veteran status, work experience; 2) information reflecting an owner's involvement in their business such as number of hours worked and capital investment in the business; and 3) information on the business itself, its activities, location, employment and receipts, and legal form of organization.

Thus, the CBO database is a principal source of data for the study of small minority owned businesses and their owners. It is
derived from a survey with a relatively complicated stratified sample design. Providing researchers with an introduction to this sample design is also an objective of the paper.

The paper is organized along the following lines. It begins with a section designed to clarify the nature of the survey design. A brief description of the variables included in the database follows and the concluding section discusses procedures for accessing the database. The discussion throughout is brief, but various Appendices provide detailed information on the structure of the database, information collected, survey response rates, and sample counts for various categorizations of the data.

B. The Sample Design

The CBO survey is part of the Census Bureau minority business program. This program traces its origins to a minority business survey (SMOBE) for Black, Hispanic, Asian, and women-owned businesses introduced in the late 1960s. In the late 1970s, demographic data on the business owner's education, marital status, and previous work experience, were added to the minority business program for a sample of women-owned businesses (WOB). The CBO survey expanded the coverage in WOB to the other minority groups. Samples of Black; Hispanic; Asian; and white, male, non-Hispanic business owners were added to the sample of women-owned business owners. These five groupings of business owners, called panels in the CBO
The CBO Survey expanded the survey content through questions regarding the source(s) and quantity of financial capital used in starting businesses. These questions were added to questions on previous business experience and standard demographic data collected in the WOB program (U.S. Bureau of the Census, 1980). The 1982 CBO data will be supplemented by matching surveyed businesses to 1987 information. This will provide an explicit longitudinal component to the data series, and widen the range of research topics that can be addressed. A 1987 version of the survey is planned for 1990.


Information from the IRS and SMOBE/WOB portions of the Census Bureau's minority program are the source of this information.
categories. For each selected business, all owners of the business are mailed a CBO questionnaire. The sample mailout comprises 125,000 individuals, 25,000 for each panel. Approximately 80 percent of all business owners responded to the CBO questionnaire. Thus, the CBO database contains information on about 100,000 individuals. Appendix A, Table 1 shows that owner response rates differ modestly across the panels with white, non-Hispanic males showing the highest response rate (84%) and Blacks and Hispanics having the lowest (74% for each). Appendix A, Table 2 gives the response rates by legal form of organization.

Some respondents did not answer all questions on the survey instrument. This item nonresponse is under 5 percent for most items. But, in a few cases, business net income for example, response rates were low. Appendix B provides information on the extent and the pattern of item response rates for each survey category.

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4 The Sample design in survey terminology is stratified-cluster. The survey literature treats designs such as this as 'complex.' See Wolter (1985).

5 The CBO sample is restricted to survey respondents from the SMOBE/WOB survey program on grounds that nonresponse in one survey implies nonresponse in the other.

6 Population estimates of firm and owner characteristics are calculated from responding cases with weights adjusted to account for this nonresponse. No imputations are prepared for item non-responses from responding owners. This procedure is different from that employed by many establishment surveys at the Census Bureau where non-responding establishment data items are often imputed.
question.

The "Small Business Universe"

It is important for users to understand that the CBO sampling frame excluded three important classes of small business from the IRS records, businesses with sales less than $500, non-resident U.S. business owners, and businesses with more than nine partners or shareholders. Thus, small business population estimates obtained from the CBO database are not equal to those reported in IRS publications. As shown in Appendix C the effect of these exclusions is small for proprietors and subchapter S corporations. However, there are substantial differences between the IRS and CBO population estimates of the number of partnerships.

Businesses and Their Owners

The CBO survey asks questions of business owners and the CBO database structure reflects this, i.e. each record is a business owner. But, this complicates analysis of minority "businesses" since many CBO businesses have more than one owner. For multiple owner firms, information about the business is usually duplicated across owners for items such as sales and industry

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7 Subchapter S corporations are corporations with an Internal Revenue Service specified limit to the number of owners (25 in 1982) and distribution of net income to owners.

8 Approximately 7,780 sampled partnerships and corporations have 18,721 owners. Approximately 3,810 of these owners did not respond to the CBO questionnaire.
classification obtained from IRS and WOB/SMOBE data. But, the CBO questionnaire responses of each owner are often distinct. Moreover, ownership is sometimes shared by individuals from different race-ethnic groupings. No single procedure for attributing owner responses and traits to a business is likely to satisfy the requirements of all researchers. Three procedures have been adopted by users of the CBO database.

One procedure is to follow Bates (1989a) who randomly selects a single owner from responding owners of multiowner firms and assigns the selected owner's characteristics to the firm. A second procedure is to limit demographic analysis to proprietorships. This is adopted by Ando (1988). A third possibility is to adopt the rules followed in the SMOBE and WOB surveys. Firms with more than one owner are assigned the majority trait. Ties and non-minority situations are resolved using precedence rules for race and sex. The ranking from high to low for race is Black, Asian, Hispanic white and non-Hispanic white; and for sex, female and male. For example, if a business has two Black owners and two white owners, the business is classified as Black. This third procedure is used in Tables 1 and 2 of Appendix D that provide business sample counts and universe estimates by race-ethnicity and legal form of organization.

C. The CBO Database

The CBO survey collects demographic information on individual
business owners, including traditional measures of age, sex, marital status, veteran status, and education. (See Table 1.) Information on the entrepreneurial experience of the owner is developed from questions about business training; and previous labor force, managerial, and ownership experience. Questions requesting the amount and source of capital and debt at business startup provide data on financial capital. Finally, several questions seek information on business age and survival. Appendix E, Part 1 provides a complete list of CBO questions and response possibilities.

In addition, to the information obtained directly from the CBO Survey, as outlined in Table 1, the CBO database contains data derived from IRS administrative records and sample responses to SMOBE and WOB. Data from the IRS business tax filings are the source of information on a CBO business's industry and geographic classifications as well as its sales, employment, and payroll. The SMOBE and WOB surveys supplement the tax administrative records data by identifying the race, sex, and Hispanic ethnicity of business owners. These variables and response possibilities are listed in Appendix E, Part 2.

D. Accessing The CBO Database

The Bureau of the Census collects CBO survey data under Title 13 U.S.C. Access to the microdata is restricted in order to protect the confidentiality of survey respondents. The Center
for Economic Studies (CES) at the Census Bureau maintains the 1982 Characteristics of Business Owners database.

The procedure for obtaining access to this database begins with a proposal outlining the research plan, including the model and data to be used, hypothesis tests, and proposed timing. This allows the Center to ascertain the feasibility of the research and the type of data analysis required.
Table 1. **The Characteristics of Business Owners Database: Variables and Data Sources**

<table>
<thead>
<tr>
<th>SOURCE OF DATA</th>
<th>IRS/Business</th>
<th>SMOBE/WOB Survey</th>
<th>CBO Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VARIABLES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characteristics</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OWNER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VARIABLES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>X</td>
<td></td>
<td></td>
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<td>Demographic</td>
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<td>Characteristics</td>
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<td></td>
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<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characteristics</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There are two principal ways of accessing the CBO dataset. One involves a contract with the Center for tabulations.\footnote{The 1982 CBO dataset is stored as a SAS dataset at the Center for Economic Studies (Center) on a VAX mini-computer and on a high performance, 80386-based microcomputer. The Center distributes 'dummy' test files mirroring those at the Center to reduce the cost of tabulation for researchers able to produce their own SAS programs.} The other requires a visit to the Center's research laboratory in Washington. In the latter case the research plan must include some demonstrable benefits to the Census Bureau's data programs. In either case, interested parties should direct correspondence to Chief, Center for Economic Studies, Census Bureau, Room 1587, FB-3, Washington, D.C. 20233.
References


U.S. Bureau of the Census, 1986c, 1982 Economic Censuses, Women-


Appendix A

Table 1. Owners for Hispanic, Asian, Black, Women, and Non-Hispanic White Male Businesses

<table>
<thead>
<tr>
<th></th>
<th>Sample</th>
<th>Response</th>
<th>Response Rate</th>
<th>Universe Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>25,454</td>
<td>19,081</td>
<td>74.96</td>
<td>262,808</td>
</tr>
<tr>
<td>Asian</td>
<td>25,439</td>
<td>20,163</td>
<td>79.26</td>
<td>281,489</td>
</tr>
<tr>
<td>Black</td>
<td>25,235</td>
<td>18,868</td>
<td>74.77</td>
<td>325,461</td>
</tr>
<tr>
<td>Women</td>
<td>25,076</td>
<td>20,806</td>
<td>82.97</td>
<td>3,160,031</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Male</td>
<td>25,044</td>
<td>21,127</td>
<td>84.36</td>
<td>7,582,910</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>126,248</td>
<td>100,045</td>
<td>79.24</td>
<td>11,260,739*</td>
</tr>
</tbody>
</table>


Table 2. Owners by Business Legal Form of Business Organization

<table>
<thead>
<tr>
<th></th>
<th>Sample</th>
<th>Response</th>
<th>Response Rate</th>
<th>Universe Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporations</td>
<td>7,305</td>
<td>6,152</td>
<td>84.2</td>
<td>700,800</td>
</tr>
<tr>
<td>Sole</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proprietors</td>
<td>99,818</td>
<td>78,815</td>
<td>79.0</td>
<td>9,312,302</td>
</tr>
<tr>
<td>Partnerships</td>
<td>11,899</td>
<td>9,611</td>
<td>86.8</td>
<td>1,247,637</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>119,022</td>
<td>94,578</td>
<td>79.5</td>
<td>11,260,739</td>
</tr>
</tbody>
</table>


*This is not the simple sum of the estimates in the panel because
of double counting. For example, the same women can appear in both Hispanic, Asian, and Black panels.
### Appendix B

1982 CBO Item Response by CBO Panel Percent of Total Responding (Unweighted)

<table>
<thead>
<tr>
<th>Response to Individual Questions</th>
<th>Major 1982 CBO Ethnicity Grouping (Panel)</th>
<th>Hispanic</th>
<th>Asian</th>
<th>Black</th>
<th>Women</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Panel Response</td>
<td></td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>1986 owner of same 1982 business</td>
<td></td>
<td>96.66</td>
<td>96.63</td>
<td>95.33</td>
<td>95.56</td>
<td>95.55</td>
</tr>
<tr>
<td>1982 Firm Operating in 1986</td>
<td></td>
<td>94.23</td>
<td>94.42</td>
<td>92.25</td>
<td>93.55</td>
<td>93.82</td>
</tr>
<tr>
<td>Why 1982 Firm Not Operating</td>
<td></td>
<td>73.23</td>
<td>73.23</td>
<td>69.62</td>
<td>73.29</td>
<td>71.80</td>
</tr>
<tr>
<td>Owner Age</td>
<td></td>
<td>95.22</td>
<td>94.79</td>
<td>93.38</td>
<td>95.09</td>
<td>94.70</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td>96.35</td>
<td>96.19</td>
<td>95.53</td>
<td>95.71</td>
<td>95.27</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>97.97</td>
<td>97.61</td>
<td>98.02</td>
<td>97.44</td>
<td>96.87</td>
</tr>
<tr>
<td>Veteran Status</td>
<td></td>
<td>96.96</td>
<td>96.60</td>
<td>96.13</td>
<td>96.00</td>
<td>95.86</td>
</tr>
<tr>
<td>Veteran: Period of Duty</td>
<td></td>
<td>95.75</td>
<td>95.74</td>
<td>94.27</td>
<td>95.35</td>
<td>94.14</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>94.92</td>
<td>93.76</td>
<td>95.12</td>
<td>95.57</td>
<td>95.37</td>
</tr>
<tr>
<td>Business Education</td>
<td></td>
<td>95.57</td>
<td>95.29</td>
<td>93.83</td>
<td>95.11</td>
<td>94.59</td>
</tr>
<tr>
<td>Family Business Experience</td>
<td></td>
<td>96.73</td>
<td>96.31</td>
<td>95.12</td>
<td>95.76</td>
<td>95.57</td>
</tr>
<tr>
<td>Work with Family Business Experience</td>
<td></td>
<td>87.34</td>
<td>88.19</td>
<td>78.87</td>
<td>88.79</td>
<td>87.98</td>
</tr>
<tr>
<td>Employment Experience</td>
<td></td>
<td>92.21</td>
<td>91.82</td>
<td>89.25</td>
<td>92.81</td>
<td>92.72</td>
</tr>
<tr>
<td>Managerial Experience</td>
<td></td>
<td>91.53</td>
<td>90.54</td>
<td>89.69</td>
<td>92.42</td>
<td>92.14</td>
</tr>
<tr>
<td>Business Ownership Experience</td>
<td></td>
<td>96.07</td>
<td>95.97</td>
<td>94.57</td>
<td>95.28</td>
<td>95.07</td>
</tr>
<tr>
<td>Business in Private Residence</td>
<td>94.57</td>
<td>94.69</td>
<td>92.18</td>
<td>93.78</td>
<td>94.04</td>
<td></td>
</tr>
<tr>
<td>Aspect</td>
<td>Hispanic</td>
<td>Asian</td>
<td>Black</td>
<td>Women</td>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
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<td>--------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Work in Business (Hours per Week)</td>
<td>94.93</td>
<td>95.01</td>
<td>92.75</td>
<td>93.82</td>
<td>94.09</td>
<td></td>
</tr>
<tr>
<td>Income from Business (percent)</td>
<td>92.64</td>
<td>92.92</td>
<td>89.63</td>
<td>91.84</td>
<td>93.19</td>
<td></td>
</tr>
<tr>
<td>Year Acquire Business</td>
<td>91.02</td>
<td>91.89</td>
<td>86.36</td>
<td>89.50</td>
<td>92.19</td>
<td></td>
</tr>
<tr>
<td>Original Business Founder</td>
<td>94.50</td>
<td>94.27</td>
<td>91.27</td>
<td>93.75</td>
<td>94.32</td>
<td></td>
</tr>
<tr>
<td>Year Business Established</td>
<td>91.88</td>
<td>92.41</td>
<td>87.76</td>
<td>90.65</td>
<td>92.56</td>
<td></td>
</tr>
<tr>
<td>How Acquire Business</td>
<td>92.56</td>
<td>92.94</td>
<td>88.75</td>
<td>91.83</td>
<td>93.37</td>
<td></td>
</tr>
<tr>
<td>Business Startup Capital</td>
<td>93.05</td>
<td>92.81</td>
<td>88.71</td>
<td>92.03</td>
<td>92.78</td>
<td></td>
</tr>
<tr>
<td>Business Startup Debt</td>
<td>91.57</td>
<td>92.16</td>
<td>85.65</td>
<td>88.90</td>
<td>91.31</td>
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</tr>
<tr>
<td>Source of Debt: By Type</td>
<td>94.70</td>
<td>94.67</td>
<td>91.27</td>
<td>93.48</td>
<td>94.10</td>
<td></td>
</tr>
<tr>
<td>Source of Equity: By Type</td>
<td>87.98</td>
<td>87.87</td>
<td>84.41</td>
<td>88.12</td>
<td>89.15</td>
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<tr>
<td>Firm Net Income Before Taxes</td>
<td>80.00</td>
<td>83.74</td>
<td>68.10</td>
<td>82.21</td>
<td>85.87</td>
<td></td>
</tr>
<tr>
<td>Female Labor Force Participation (per cent)</td>
<td>94.60</td>
<td>94.08</td>
<td>95.74</td>
<td>95.19</td>
<td>93.84</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White Labor Force Participation</td>
<td>94.70</td>
<td>94.16</td>
<td>95.77</td>
<td>95.16</td>
<td>93.86</td>
<td></td>
</tr>
<tr>
<td>Customer Base White (per cent)</td>
<td>90.78</td>
<td>91.32</td>
<td>85.58</td>
<td>90.15</td>
<td>91.53</td>
<td></td>
</tr>
<tr>
<td>Exports (per cent of Sales)</td>
<td>93.70</td>
<td>93.51</td>
<td>90.58</td>
<td>92.75</td>
<td>93.78</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Characteristics of Business Owners and Statistics of Income (SOI)
Number of Firms, by Sales and Legal Form of Organization

<table>
<thead>
<tr>
<th></th>
<th>Number of Firms</th>
<th>Sales ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sole Proprietorships</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Universe Estimate</td>
<td>10,105,515</td>
<td>433,664,897</td>
</tr>
<tr>
<td>CBO Universe Estimate</td>
<td>9,338,523</td>
<td>368,543,841</td>
</tr>
<tr>
<td><strong>Partnerships</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Universe Estimate</td>
<td>1,514,212</td>
<td>251,608,987</td>
</tr>
<tr>
<td>CBO Universe Estimate</td>
<td>488,963</td>
<td>100,617,528</td>
</tr>
<tr>
<td><strong>Sub-Chapter S Corporations</strong></td>
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<td></td>
</tr>
<tr>
<td>SOI Universe Estimate</td>
<td>564,219</td>
<td>235,010,755</td>
</tr>
<tr>
<td>CBO Universe Estimate</td>
<td>320,690</td>
<td>178,247,594</td>
</tr>
<tr>
<td><strong>All Corporations</strong></td>
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<td></td>
</tr>
<tr>
<td>SOI Universe Estimate</td>
<td>2,925,933</td>
<td>6,156,994,009</td>
</tr>
</tbody>
</table>


Appendix D

Table 1. Business Sample Counts and Universe Estimates

<table>
<thead>
<tr>
<th></th>
<th>Number of Firms</th>
<th>Sales (weighted)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample</td>
<td>Weighted</td>
<td>($000)</td>
</tr>
<tr>
<td><strong>ALL</strong></td>
<td>91,132</td>
<td>10,148,176*</td>
<td>647,408,962*</td>
</tr>
<tr>
<td>Hispanic-owned businesses</td>
<td>17,711</td>
<td>246,983</td>
<td>11,815,945</td>
</tr>
<tr>
<td>Other Minority-owned businesses</td>
<td>18,179</td>
<td>254,978</td>
<td>15,146,868</td>
</tr>
<tr>
<td>Black-owned businesses</td>
<td>18,386</td>
<td>314,624</td>
<td>7,749,685</td>
</tr>
<tr>
<td>Women-owned businesses</td>
<td>18,531</td>
<td>2,870,570</td>
<td>99,006,545</td>
</tr>
<tr>
<td>Nonminority male-owned businesses</td>
<td>18,325</td>
<td>6,766,168</td>
<td>523,790,149</td>
</tr>
</tbody>
</table>


*This is not the simple sum of the estimate in the panel because of double counting. For example, the same women can appear in both Hispanic, Asian, and Black panels.

Table 2. Business Sample Counts and Universe Estimates by Legal Form of Organization

<table>
<thead>
<tr>
<th></th>
<th>Number of Firms</th>
<th>Sales (weighted)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample</td>
<td>Weighted</td>
<td>($000)</td>
</tr>
<tr>
<td><strong>ALL</strong></td>
<td>86,118</td>
<td>10,148,176</td>
<td>647,408,962</td>
</tr>
<tr>
<td>Corporations</td>
<td>2,909</td>
<td>320,690</td>
<td>178,247,594</td>
</tr>
<tr>
<td>Individual proprietorships</td>
<td>78,815</td>
<td>9,338,523</td>
<td>368,543,841</td>
</tr>
<tr>
<td>Partnerships</td>
<td>4,394</td>
<td>488,963</td>
<td>100,617,528</td>
</tr>
</tbody>
</table>

# Appendix E

## Codebook for 1982 Characteristics of Business Owners Dataset -- Questionnaire and SMOBE/WOB Variables

### Part 1. Variables Obtained in CBO Questionnaire

<table>
<thead>
<tr>
<th>Item</th>
<th>Question/ Possible Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>i1</td>
<td>1986 owner of same 1982 business</td>
</tr>
<tr>
<td>Number</td>
<td>Possible Responses</td>
</tr>
<tr>
<td>i2a</td>
<td>1982 Firm Operating in 1986</td>
</tr>
<tr>
<td>i2b</td>
<td>Why 1982 Firm Not Operating</td>
</tr>
<tr>
<td>i3</td>
<td>Owner Age</td>
</tr>
<tr>
<td>i4</td>
<td>Marital Status</td>
</tr>
<tr>
<td>i5</td>
<td>Gender</td>
</tr>
<tr>
<td>i6a</td>
<td>Veteran Status</td>
</tr>
</tbody>
</table>

1. **1986 owner of same 1982 business**  
   1 = Yes  
   2 = No  
   0 = Item Nonresponse

2. **1982 Firm Operating in 1986**  
   1 = Yes  
   2 = No  
   0 = Item Nonresponses

3. **Why 1982 Firm Not Operating**  
   1 = Profit  
   2 = Financing  
   3 = Personal  
   4 = Other  
   0 = Item Nonresponse

   . = Not Eligible for Response

4. **Owner Age**  
   1 = Less Than 25  
   2 = 25 - 34  
   3 = 35 - 44  
   4 = 45 - 54  
   5 = 55 - 64  
   6 = 65 or Over  
   0 = Item Nonresponse

5. **Marital Status**  
   1 = Never Married  
   2 = Married  
   3 = Divorced or Separated  
   4 = Widow/Widower  
   0 = Item Nonresponse

6. **Gender**  
   1 = Male  
   2 = Female  
   0 = Item Nonresponse

7. **Veteran Status**  
   1 = Yes  
   2 = No  
   0 = Item Nonresponse
i6ba1 Veteran: Before 25 July, 1947
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i6ba2 Veteran: 26 July, 1947 - 26 June, 1950
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i6ba4 Veteran: 1 February, 1955 - 4 August, 1964
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i6ba5 Veteran: 5 August, 1964 - 7 May, 1975
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i6ba6 Veteran: After 7 May, 1975
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i6ba0 1982 CBO All Response
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i6ba00 Veteran: Item Nonresponse
1 = Yes
2 = Item Nonresponse
. = Not Eligible for Response

i7 Education values 1 - 18

i7a Education: High School or Less values 1 - 12

i7b Education: One Year College or More values 1 - 6

i8 Business Education
1 = Yes
2 = No
0 = Item Nonresponse

i9a Family Business Experience
1 = Yes
2 = No
0 = Item Nonresponse

i9b Work with Family Business Experience
1 = Yes
2 = No
0 = Item Nonresponse
. = Not Eligible for Response
### Employment Experience

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Item Nonresponse</td>
</tr>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Less Than 2 Years</td>
</tr>
<tr>
<td>3</td>
<td>2-5 Years</td>
</tr>
<tr>
<td>4</td>
<td>6-9 Years</td>
</tr>
<tr>
<td>5</td>
<td>10-19 Years</td>
</tr>
<tr>
<td>6</td>
<td>20 Years or More</td>
</tr>
</tbody>
</table>

### Managerial Experience

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Item Nonresponse</td>
</tr>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Less Than 2 Years</td>
</tr>
<tr>
<td>3</td>
<td>2-5 Years</td>
</tr>
<tr>
<td>4</td>
<td>6-9 Years</td>
</tr>
<tr>
<td>5</td>
<td>10-19 Years</td>
</tr>
<tr>
<td>6</td>
<td>20 Years or More</td>
</tr>
<tr>
<td>7</td>
<td>Not Sure</td>
</tr>
</tbody>
</table>

### Business Ownership Experience

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Item Nonresponse</td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

### Business in Private Residence

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Item Nonresponse</td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

### Work in Business (Hours per Week)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Item Nonresponse</td>
</tr>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>1-9 Hrs</td>
</tr>
<tr>
<td>3</td>
<td>10-19 Hrs</td>
</tr>
<tr>
<td>4</td>
<td>20-29 Hrs</td>
</tr>
<tr>
<td>5</td>
<td>30-39 Hrs</td>
</tr>
<tr>
<td>6</td>
<td>40 Hrs</td>
</tr>
<tr>
<td>7</td>
<td>41-49 Hrs</td>
</tr>
<tr>
<td>8</td>
<td>50-59 Hrs</td>
</tr>
<tr>
<td>9</td>
<td>60-69 Hrs</td>
</tr>
<tr>
<td>10</td>
<td>70 or More Hrs</td>
</tr>
</tbody>
</table>

### Income from Business (per cent)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Item Nonresponse</td>
</tr>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>1-9</td>
</tr>
<tr>
<td>3</td>
<td>10-24</td>
</tr>
<tr>
<td>4</td>
<td>25-49</td>
</tr>
<tr>
<td>5</td>
<td>50-74</td>
</tr>
<tr>
<td>6</td>
<td>75-99</td>
</tr>
</tbody>
</table>
7 = 100
0 = Item Nonresponse

i15 Year Acquire Business
1 = Before 1960
2 = 1960-1969
3 = 1970-1975
4 = 1976-1979
5 = 1980-1981
6 = 1982
0 = Item Nonresponse

i16 Original Business Founder
1 = Yes
2 = No
0 = Item Nonresponse

i17 Year Business Established
1 = Before 1960
2 = 1960-1969
3 = 1970-1975
4 = 1976-1979
5 = 1980-1981
6 = 1982
7 = Don't Know
0 = Item Nonresponse

i18 How Acquire Business
1 = Purchased
2 = Inherited
3 = Gift, etc
4 = Other
5 = Other
0 = Item Nonresponse

i19a Business Startup Capital
1 = None
2 = $1-$4,999
3 = $5,000-$9,999
4 = $10,000-$24,999
5 = $25,000-$49,999
6 = $50,000-$99,999
7 = $100,000-$249,999
8 = $250,000-$999,999
9 = $1,000,000 or More
0 = Item Nonresponse
i19b  Business Startup Debt
1  =  None
2  =  1-10
3  =  11-20
4  =  21-30
5  =  31-40
6  =  41-50
7  =  51-60
8  =  61-70
9  =  71-80
10 =  81-90
11 =  91-100
0  =  Item Nonresponse
   =  Not Eligible for Response

i19ca1  Family Source of Debt
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca2  Friends Source of Debt
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca3  Government Source of Debt
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca4  Former Owner Source of Debt
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca5  Bank Source of Debt
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca6  Other Source of Debt
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca0  1982 CBO All Response
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i19ca00  Source of Debt: Item Nonresponse
1  =  Source of Debt
2  =  Item Nonresponse
   =  Not Eligible for Response

i20a1  No Equity
1  =  Source of Equity
2  =  Item Nonresponse

i20a2  Family Source of Equity
1  =  Source of Equity
2  =  Item Nonresponse
i20a3  Friends Source of Equity
        1 = Source of Equity
        2 = Item Nonresponse

i20a4  Government Source of Equity
        1 = Source of Equity
        2 = Item Nonresponse

i20a5  Venture Source of Equity
        1 = Source of Equity
        2 = Item Nonresponse

i20a6  Former Owner Source of Equity
        1 = Source of Equity
        2 = Item Nonresponse

i20a7  Bank Source of Equity
        1 = Source of Equity
        2 = Item Nonresponse

i20a8  Other Source of Equity
        1 = Source of Equity
        2 = Item Nonresponse

i20a0  1982 CBO All Response
        1 = Source of Equity
        2 = Item Nonresponse

i20a00 Source of Equity: Item Nonresponse
        1 = Source of Equity
        2 = Item Nonresponse

i21    Firm Net Income Before Taxes
        1 = Under $5,000
        2 = $5,000-$9,999
        3 = $10,000-$19,999
        4 = $20,000-$24,999
        5 = $25,000-$29,999
        6 = $30,000-$49,999
        7 = $50,000-$74,999
        8 = $75,000-$99,999
        9 = $100,000-$249,999
       10 = $250,000-$999,999
       11 = $1,000,000-$2,499,999
       12 = Over $2,500,000
       13 = Under $(5,000)
       14 = $(5,000)-$(9,999)
       15 = $(10,000)-$(24,999)
       16 = Over $(25,000)
        0 = Item Nonresponse

i22    Female Labor Force Participation (per cent)
        1 = No Employees
        2 = None
        3 = 1-9
4 = 10-24
5 = 25-49
6 = 50-74
7 = 75-100
8 = Don't Know
0 = Item Nonresponse

i23  Non-Hispanic White Labor Force Participation (per cent)
1 = No Employees
2 = 0-25
3 = 25-50
4 = 51-75
5 = 76-90
6 = 91-99
7 = 100
8 = Don't Know
0 = Item Nonresponse

i24  Customer Base White (per cent)
1 = 0-25
2 = 26-50
3 = 51-75
4 = 76-90
5 = 91-99
6 = 100
7 = Don't Know
0 = Item Nonresponse

i25  Exports (per cent of Sales)
1 = None
2 = 1-9
3 = 10-24
4 = 25-49
5 = 50-74
6 = 75-99
7 = 100
8 = Don't Know
0 = Item Nonresponse

Part 2. Variables Obtained for SMOBE/WOB Survey

Business Variables

1  1982 Employment
   Actual Value

2  1982 Annual Payroll
   Actual Value
<table>
<thead>
<tr>
<th></th>
<th>1982 Sales/Receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Value</td>
</tr>
</tbody>
</table>
4 **Major Industry Grouping**
0 = Agricultural services, etc.
1 = Mining
2 = Construction
3 = Manufacturing
4 = Transportation and public utilities
5 = Wholesale trade
6 = Retail trade
7 = Finance, insurance, and real estate
8 = Selected services
9 = Industries not classified

5 **Major Ethnicity Grouping (SMOBE/WOB Classification Procedure)**
1 = Hispanic-owned businesses
2 = Other minority-owned businesses
3 = Black-owned businesses
4 = Women-owned businesses
5 = Nonminority male-owned businesses

6 **Receipt Size Class**
0 = Less than $5,000
1 = $5,000 to $9,999
2 = $10,000 to $24,999
3 = $25,000 to $49,999
4 = $50,000 to $99,999
5 = $100,000 to $199,999
6 = $200,000 to $249,999
7 = $250,000 to $499,999
8 = $500,000 to $999,999
9 = $1,000,000 or more

7 **Employment Size Class**
1 = No employees
2 = 1 to 4 employees
3 = 5 to 9 employees
4 = 10 to 19 employees
5 = 20 to 49 employees
6 = 50 to 99 employees
7 = 100 employees or more

8 **Employer(2) Non-Employer(1)**
1 = Nonemployer: March 12 Employment is Zero and Annual Payroll is Less Than $2,500
2 = Employer: Employment Greater Than Zero or Annual Payroll is Greater Than $2,500

9 **Legal Form of Organization**
1 = Individual proprietorships
2 = Partnerships
0 = Corporations

Demographic Variables

1  CBO Questionnaire Response Type
    . = Response to CBO Questionnaire
    I = Nonresponse to CBO Questionnaire
    N = Owner (The code distinction I and N is used in developing weights for aggregation)

2  Firm Ethnicity Code (Hispanic)
    . = Non-Hispanic
    2 = Cuban
    3 = Mexican
    4 = Puerto Rican
    5 = Latin American
    6 = European Spanish
    7 = Other Spanish Origin or Culture

3  Firm Race Code (Other)
    . = White
    03 = Aleutians
    04 = Eskimo
    05 = American Indian
    06 = Asian Indian
    07 = Chinese
    08 = Japanese
    09 = Korean
    10 = Vietnamese
    11 = Other Asian
    12 = Filipino
    13 = Hawaiian
    14 = Other Pacific Islander
    15 = Other: Hispanic Race Designation when White or Black not Applicable

4  Firm Gender Code
    1 = Male
    2 = Female

5  Firm Race Code (Black)
    . = Not Black
    2 = Black
6 Owner Ethnicity Code (Hispanic)
   . = Non-Hispanic Space
   1 = Non-Hispanic
   2 = Cuban
   3 = Mexican
   4 = Puerto Rican
   5 = Latin American
   6 = European Spanish
   7 = Other Spanish Origin or Culture
7 Owner Race Code (Other)
   . = White Space
   01 = White
   02 = Black
   03 = Aleutians
   04 = Eskimo
   05 = American Indian
   06 = Asian Indian
   07 = Chinese
   08 = Japanese
   09 = Korean
   10 = Vietnamese
   11 = Other Asian
   12 = Filipino
   13 = Hawaiian
   14 = Other Pacific Islander
   15 = Other: Hispanic Race Designation when White or
        Black not Applicable

8 Owner Gender Code
   . = Male Space
   1 = Male
   2 = Female