

**Kauffman Firm Survey
(KFS) Third Follow Up
Methodology Report**

Final Report

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CONTENTS

Chapter	Page
A. EXECUTIVE SUMMARY	1
B. THE KAUFFMAN FIRM SURVEY: QUESTIONNAIRE DESIGN AND CONTENT	5
1. Introduction	5
2. Third Follow-Up Questionnaire Design	6
C. SAMPLING DESIGN	10
1. Target and Study Population	10
2. Sample Stratification	11
D. DATA COLLECTION PREPARATION	13
1. Overview	13
2. Respondent Materials Development	13
3. Interviewer Training Materials	15
4. Survey Operations Center Staff Training	16
5. Emails and Advance Mailings	17
6. Postcard Mailings	17
7. Response Protocols to Panel Member Inquiries	18
8. Respondent Incentives	19
E. DATA COLLECTION	20
1. Overview	20
2. Timing of Sample Releases	22
3. Schedule of Contacts to Panel Members	23
4. Survey Management Techniques	24
5. Refusal Conversion	25
6. Handling Special Cases	26
a. Owner-Name Cases	26
b. No-Suitable-Owner Cases	27
c. Web Partial Cases	27
7. Monitoring Interviewer Performance	28
8. Locating	29
9. Response Rates	30

CONTENTS (*continued*)

Chapter	Page
E. (<i>continued</i>)	
10. Longitudinal Response Rate	34
11. Panel Maintenance	35
F. CODING AND DATA PROCESSING.....	36
1. Overview	36
2. Back-Coding	37
3. Industry Coding	38
4. Financial Data Coding	39
5. Field of Study Coding.....	40
6. Quality Assurance Procedures for Coding.....	40
7. Data Cleaning and Frequency Review	41
8. Constructed Variables	42
a. Financial Measures with Three Levels of Data	42
b. Financial Variables with Two Levels of Data	43
c. Variables Summing Financial Measures.....	43
d. Intellectual Property Measures.....	44
9. Preparation of Codebook and Data Documentation	44
10. Preparation of Public Use Data File.....	45
G. WEIGHTING AND NONRESPONSE ADJUSTMENTS.....	45
1. Third Follow-Up Response Analysis Summary	45
2. Longitudinal Response Analysis Summary	50
3. Sampling Weights	56
4. Nonresponse Adjustment	56
5. Raking	61
H. ESTIMATION	61
1. Point Estimation.....	61
2. Variance and Interval Estimation.....	62
3. Selected Estimates and Variances.....	63
SELECTED BIBLIOGRAPHY	67

CONTENTS (*continued*)

APPENDIX A:	KFS THIRD FOLLOW-UP QUESTIONNAIRE PROPOSED CHANGES
APPENDIX B:	KAUFFMAN FIRM SURVEY THIRD FOLLOW-UP QUESTIONNAIRE
APPENDIX C:	RESPONDENT MATERIALS
APPENDIX D:	KAUFFMAN FIRM SURVEY THIRD FOLLOW-UP ANNOTATED QUESTIONNAIRE
APPENDIX E:	DATA DOCUMENTATION MEMO

LIST OF TABLES

Table	Page
1 KFS MILESTONES	11
2 ESTIMATED COUNT AND SAMPLE FOR THE THIRD FOLLOW-UP SURVEY FROM THE D&B DATABASE: BUSINESSES THAT HAD A 2004 START DATE AND COMPLETED THE BASELINE SURVEY	17
3 KFS THIRD FOLLOW-UP RELEASES	27
4 WEIGHTED AND UNWEIGHTED AAPOR RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY ACROSS TECHNOLOGY SAMPLING STRATA A	38
5 WEIGHTED AND UNWEIGHTED AAPOR RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY ACROSS THE RESPONSE STATUS FOR FIRST AND SECOND FOLLOW-UP SURVEYS A	39
6 WEIGHTED AND UNWEIGHTED LONGITUDINAL RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY ACROSS TECHNOLOGY SAMPLING STRATA A	40
7 WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY	51
8 WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY: HIGH-TECHNOLOGY	52
9 WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY: MEDIUM-TECHNOLOGY	53
10 WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY: NON-TECHNOLOGY	54

LIST OF TABLES (*continued*)

Table	Page
11	WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST, SECOND AND THIRD FOLLOW-UP SURVEYS RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY57
12	WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST, SECOND AND THIRD FOLLOW-UP SURVEYS RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY: HIGH-TECHNOLOGY58
13	WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST AND SECOND FOLLOW-UP SURVEYS RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY: MEDIUM-TECHNOLOGY59
14	WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST AND SECOND FOLLOW-UP SURVEYS RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY: NON-TECHNOLOGY60
15	DESCRIPTIVE STATISTICS OF INITIAL SAMPLING WEIGHT FOR THE THIRD FOLLOW-UP SURVEY61
16	SUMMARY OF NONRESPONSE MODELS FOR THE THIRD FOLLOW-UP SURVEY WEIGHTS.....64
17	SUMMARY OF NONRESPONSE MODELS FOR THE LONGITUDINAL WEIGHTS FOR THE FIRST, SECOND, AND THIRD FOLLOW-UP SURVEYS65
18	VARIANCE ESTIMATION FOR SOME BUSINESS AND OWNER CHARACTERISTICS70

A. EXECUTIVE SUMMARY

Although entrepreneurship is crucial to a capitalist economy, little information is available about U.S. businesses in their first years of operation. As part of an effort to gather more data on new businesses in the United States, the Ewing Marion Kauffman Foundation sponsored the Kauffman Firm Survey (KFS), a panel study of businesses founded in 2004 and tracked over their first years of operation. The KFS collects data about the nature of new business formation; the characteristics of the strategy, offerings, and employment patterns; the nature of the financial and organizational arrangements of these businesses; and the characteristics of those who own and operate them. With the completion of the Third Follow-Up, the KFS has collected this information from the panel of diverse businesses over four years, providing a unique look at business dynamics over this formative period.

Summary of KFS Sample Design. MPR created the panel by using a list frame sample of new businesses selected from the Dun & Bradstreet Corporation (D&B) database. In 2005, we received from D&B two sampling frames containing a total of roughly 250,000 businesses started in 2004. From these lists, we selected a Baseline Survey sample (conducted starting in 2005 and completed in 2006), which we screened for eligibility and recruited into the study. In response to the Foundation's interest in understanding the dynamics of high-technology and woman-owned businesses, the sample design for the KFS oversampled high-technology businesses (based on industry designation), and kept business ownership by gender consistent across all sample strata. Rather than a sample of new business founders, the unit of analysis for the KFS design is the sampled business, so that if the same business changed ownership from one reporting period to another, it would remain in the sample.

Questionnaire Design. Prior to the Baseline Survey, MPR conducted extensive questionnaire design, which is documented in the KFS Baseline Methodology Report

(DesRoches et al. 2007). The design issues included establishing consistent definitions of what constituted the start of a new business, as well as testing the most efficient methods for collecting data from sampled businesses. The Baseline questionnaire contained a core set of questions that were repeated in future follow-ups.

The core questions repeated for the follow-up surveys focused on business characteristics, strategy and innovation, business structure and benefits, financing, and demographics of the owner-operators, which enabled us to track changes to how businesses obtain operating funds and perform over the first few years of operations. In contrast to the previous follow-up surveys conducted in 2006 and 2007, which included few changes to the questionnaire, the Foundation sought to add to the Third Follow-Up questionnaire new modules of questions that could enhance the usefulness of the data. A request for proposals that sought new areas of inquiry was issued in late 2007 to researchers studying entrepreneurship and innovation. These proposals were evaluated by the Foundation and MPR, and ultimately four sets of questions were added to the Third Follow-Up questionnaire.

Because sample attrition is a consistent challenge, we sought during the Third Follow-Up to shorten and refine the questionnaire so as to minimize respondent burden. This included having panel members simply confirm certain information gathered during previous rounds (rather than collect it again) and collecting new data only if the situation of the business had changed. Another strategy collected demographic information only from new owner-operators or from owner-operators for whom we did not already have it.

Third Follow-Up Survey Data Collection. Since the Baseline Survey had established eligibility for all the businesses in the panel, the only eligibility criterion for the 4,295 included in the Third Follow-Up was whether the business was still in operation. Specifically, the remaining businesses were those that completed the Baseline Survey (4,928), minus those

identified as permanently out of business during the First and Second Follow-Ups (633). Businesses identified as temporarily out of business in the previous follow-ups were included in the Third Follow-Up sample in case they had resumed operations since the previous interview.

As in previous rounds, panel members were contacted initially by email and invited to complete the KFS web survey. Those businesses without email addresses, or those who did not respond to the initial message, were sent an invitation through U.S. mail. As in prior waves, respondents were offered a post-paid \$50 incentive for completing the Third Follow-Up. Among the remaining eligible businesses, 2,915 interviews were completed, which resulted in a weighted response rate of 83 percent. As in the two previous follow-up surveys, most interviews were completed on the web (65 percent), the rest (35 percent) through computer-assisted telephone interviewing (CATI).

Data Processing and File Production. To ensure the highest-quality data possible, we used rigorous coding, data cleaning, and MPR’s quality assurance (QA) methods when processing data collected during the Third Follow-Up. MPR staff performed the following steps to ensure that we delivered a clean data file:

- Examined the open-ended responses and, where possible, “back-coded” (moved responses placed in “other-specify” fields into fields that matched one of the prelisted response categories for the question).
- Coded the open-ended responses to the question on “primary industry of the business,” using the North American Industry Classification System (NAICS) taxonomy.
- Coded the open-ended responses to a new question on respondents’ field of study using the Classification of Instructional Programs (CIP) taxonomy.
- Reviewed answers to financial questions for consistency and corrected any obvious instances of double-counting of equity or debt amounts.
- Added constructed variables to the data set to facilitate analysis.
- Produced documentation to accompany the data file, including (1) a copy of the questionnaire, with related variable names listed next to the questions; and (2) a

memo listing the data source for variables not found in the questionnaire and describing the constructed variables.

- Combined the Third Follow-Up data set with the data collected during the three previous rounds to create longitudinal files for both public and restricted use.

Weighting and Nonresponse Adjustments. MPR statisticians adjusted the set of sampling weights and nonresponse adjustments developed during the Baseline Survey and refined after the First and Second Follow-Ups. These weights were then applied to the businesses in the Third Follow-Up panel. As a result of oversampling businesses in high-technology industries, a weighting factor (the inverse of the probability of selection) was required so that estimates collected during the data collection would reflect the true population based on the full D&B frame. The nonresponse adjustments to the weights were applied to account for those businesses that could not be contacted or interviewed. Using logistic propensity modeling and chi-squared automatic interaction detector (CHAID) analysis, MPR statisticians developed these adjustments for the final set of sampling weights. The final weights and adjustments were added to the longitudinal data file.

B. THE KAUFFMAN FIRM SURVEY: QUESTIONNAIRE DESIGN AND CONTENT

1. Introduction

The KFS is a unique research program dedicated to advancing understanding of the early years of new-business development. This goal has broad implications for the U.S. economy, since entrepreneurship plays a major role in the economic growth of the country, and accurate information about the development and sustainability of new businesses is essential to the design of public and private programs to encourage their creation. The KFS is also special because of the design and implementation obstacles that were overcome to produce these data. Accurate information about new businesses is not easy to obtain, and few previous surveys collected data on the dynamics of business development, since longitudinal surveys of new businesses often experienced serious sample attrition. Obtaining cooperation from owners of new businesses also made this type of survey difficult to implement, which resulted in low response rates. Such surveys have faced the added complexity of defining exactly what constitutes a new business and precisely when its operations begin, concepts that lend themselves to subjectivity if they are not carefully defined. To address these related informational and methodological challenges, and as part of its commitment to advancing entrepreneurship and studying the creation and development of new businesses, the Foundation contracted with MPR to conduct the KFS. Table 1 provides the key milestones of the project. Further information on the design and initial rounds of KFS data collection are available in the KFS Baseline methodology report (DesRoches et al. 2007), the First Follow-Up methodology report (DesRoches et al. 2008), and the Second Follow-Up methodology report (DesRoches et al. 2008).

TABLE 1
KFS MILESTONES

Date	Activity
March 2004	Project awarded to MPR
June 2004	Principal investigator designated Received first D&B database file
August 2004	Pilot Test 1A—initial screening criteria Pilot Test 1B—additional screening criteria In-person developmental interviews Meeting in Washington, DC, to review sample design and questionnaire development status
September 2004	Questionnaire Review I—Draft of eligibility screening and financial section of questionnaire sent to technical advisors Questionnaire Review II—Complete draft questionnaire prepared to send to technical advisors
January–March 2005	Pilot Test 2—Sample test; full questionnaire test; 400 completed interviews
November 2005	Received second D&B database file
July 2005–July 2006	KFS Baseline data collection; 4,928 completed interviews
June 2006–January 2007	KFS First Follow-Up data collection; 3,998 completed interviews
May–December 2007	KFS Second Follow-Up data collection; 3,390 completed interviews
June–December 2008	KFS Third Follow-Up data collection; 2,915 completed interviews

2. Third Follow-Up Questionnaire Design

As part of its initial KFS questionnaire design, MPR developed a core set of questions to be asked annually of sampled businesses. Consequently, only minor adjustments were made to the First and Second Follow-Up questionnaires. Prior to the Third Follow-Up Survey, however, the Foundation issued a request for proposals to users of the KFS data and researchers in the entrepreneurship and innovation fields for modules of questions that could complement and

enhance the KFS data. Four sets of questions were submitted to the Foundation, and MPR evaluated these potential additions using several criteria: (1) the relevance and appropriateness of the topic area for the KFS panel, (2) the extent to which adding these questions would create excessive respondent burden, and (3) issues involved in administering the questions as submitted. This evaluation of the submitted questions is included as Appendix A. Ultimately, several new questions were included in the Third Follow-Up Survey, and these are described (along with the core KFS questions) below.

Questionnaire development for the Third Follow-Up Survey began in December 2007, and in March 2008 we pretested the new survey content on a convenience sample of 6 businesses. Questionnaire development was completed in April 2008. The final questionnaire consisted of seven sections, each of which is described below.

Section A: Introduction. This section introduced the study, the sponsor, and MPR as the organization conducting the study. It also verified that the correct business was reached and was still in operation. Section A also ensured that the respondent for the business (most often the respondent during the Second Follow-Up Survey) was an owner and operator of the business. Because the financial questions were quite detailed, it was important to identify a person sufficiently knowledgeable about the finances to provide accurate information. Therefore, this part of the questionnaire identified a current owner who was also involved in the day-to-day operations. However, since the respondent for the business could change from one survey round to the next, a mechanism for designating a new respondent was included in the section. Finally, the business address was confirmed. If respondents reported that the business had ceased operations, we asked the reason for the closing, whether the business had filed for bankruptcy, and in what calendar year the business closed.

Section B: Eligibility Screening. As with the previous follow-ups, there was no Section B, since business eligibility was established during the Baseline Survey.

Section C: Business Characteristics. The respondent was asked to confirm the legal status and primary industry description, which were pre-filled from previous rounds. If either was incorrect or had changed since the last interview, the respondent was asked for updated information. Other data collected in this section included the names of other owner-operators and the number of both full- and part-time employees. This section also asked about the type of location from which the business operates, reasons for any changes in location since the last interview, whether the business had opened another location, the number of locations the business operated in, and in what month and year the business opened any additional location.

Section D: Strategy and Innovation. This section included questions about whether the business offered a product or a service and whether the respondent believed that the business had a competitive advantage. A new series of questions, added in the Third Follow-Up, explored the competitive advantage the business had in terms of any teaming arrangements or intellectual property. Respondents were also asked whether the business owned or licensed any intellectual property, such as patents, copyrights, or trademarks, as well as whether they “licensed in” any intellectual property. Respondents were asked a series of questions about sales, such as whether the business had any sales during 2007 and what the percentage distribution was of such sales to individuals, government, and other businesses. New questions asked about the proximity of most customers to the business, the presence and percentage of international sales, and the presence and percentage of internet sales in calendar year 2007.

Section E: Business Organization and Human Resource Benefits. This section included questions about the number of employees who performed various functions within the business

and the types of benefits offered. The questions about benefits for full- and part-time employees were asked separately.

Section F: Business Finances. The business finances section was the focus of the questionnaire. Topics included:

- Equity investment by owner-operators into the business in 2007
- Total equity investment by owner-operators over the life of the business
- Withdrawals of cash from the business by owner-operators in 2007
- Percentage of ownership by each owner, for multiple-owner businesses
- Sources and amount of debt financing by the business and its owners
- Amount of revenue, if any, the business received in 2007
- Total expenses incurred by the business in 2007
- Total expenses spent on salary and wages
- Profit or loss during 2007
- Types of assets and liabilities and their estimated value

In addition to these core financial questions, new questions were added, including:

- Applications for new or renewed loans or lines of credit in 2007
- Approval or denial of credit applications, and the reason for the most recent denial
- Whether applications for needed capital were not filed due to fear of denial
- Amount of research and development expenses in 2007

Section G: Work Behaviors and Demographics of Owner(s). This section collected demographic and other information on the owner-operators. Respondents were asked whether they were paid employees and how many hours they worked in an average week. They were also asked how many years of experience they had in the industry of the new business and whether they had started other new businesses. The rest of this section collected basic demographic characteristics on the owner-operators, such as age, gender, race, education level, and

U.S. citizenship. For multiple-owner businesses, respondents were asked these questions about themselves and then about each of the other owner-operators. Added to Section G was a new question that collected the field of study for the respondent's highest degree.

Finally, contact information was updated for future follow-up surveys. This included the name, address, phone number, and email address of someone to contact if we were unable to reach the business for the next follow-up. It also asked for an email address of the respondent and a website for the business. The name and address of the person to whom the incentive check would be sent was also recorded. At the conclusion of the interview, the respondent was thanked and told that the incentive check would be sent in two or three weeks. The final Third Follow-Up Survey questionnaire is in Appendix B.

C. SAMPLING DESIGN

1. Target and Study Population

For the Baseline Survey, the target population was all new businesses started in calendar year 2004 in the United States (including the District of Columbia). The baseline target population includes any new, independent business that was created by a single person or a team of people, or was the purchase of an existing business or a franchise, and excludes any branch or subsidiary owned by an existing or inherited business. As discussed in the Baseline Survey methodology report, the study population was further defined by the source of the sampling frame: the D&B database, which we chose because it is among the largest commercial lists available and offers information on linkages among establishments within enterprises (or businesses). In the Baseline Survey methodology report (DesRoches et al. 2007), we also discussed the screening process in the Baseline Survey to identify businesses that “started” in 2004.

For the Third Follow-Up Survey, the target population was the same as for the First and Second Follow-Up: all new businesses that (1) started in year 2004, and (2) met the survey eligibility criteria. The study population (as described above) was a subset of the target population in that the businesses had to have been listed in the D&B database with a start date of 2004. The Third Follow-Up Survey sample included all businesses that met the survey criteria and completed the Baseline Survey. In the Baseline Survey, the businesses that were refusals or unlocatable were possibly in operation after the initial year and are therefore part of our target population. The nonresponse adjustment procedures used on the weights for the Baseline Survey sample compensated for these refusals. Therefore, the Third Follow-Up Survey sample includes only eligible businesses from which we obtained complete data in the Baseline Survey, and this was the same sample we used in the First and Second Follow-Up. Specifically, businesses that did not respond to the First or Second Follow-Up Surveys were thus still included in the sample. Businesses that were identified as permanently out of business in the First or Second Follow-Up Surveys were also treated as out of business in the Third Follow-Up. The only difference between the Third and the previous Follow-Up Surveys is that businesses that were temporarily out of business in the First or Second Follow Up Surveys were given another chance in the Third Follow-Up Survey to complete the interview, though nearly 60 percent of them turned out to be permanently or temporarily out of business as well.

2. Sample Stratification

For the Baseline Survey, the D&B database was our source file for the sampling frame. We partitioned the file into six sampling strata defined by three industrial technology categories

(based on industry designation¹) and gender of the owner or CEO of the business (based on the data element in the D&B database and additional information; see DesRoches et al (2007) for details). In Table 2, we provide the estimated population count and sample count of businesses that met the survey eligibility criteria for each stratum.

TABLE 2
ESTIMATED COUNT AND SAMPLE FOR THE THIRD FOLLOW-UP SURVEY FROM
THE D&B DATABASE: BUSINESSES THAT HAD A 2004 START DATE AND
COMPLETED THE BASELINE SURVEY

Technology Sampling Strata	Woman-Ownership Sampling Strata	Estimated Number of New Businesses in 2004 ^a	Sample for Third Follow-Up Survey ^b
Total		73,278	4,928
High-technology		1,313	705
	Yes	190	103
	No	1,123	602
Medium-technology		9,675	1,329
	Yes	2,026	271
	No	7,649	1,058
Non-technology		62,290	2,894
	Yes	14,366	513
	No	47,924	2,381

^aThe estimated number of businesses is the weighted count of eligible responding businesses having a start date of 2004 and meeting the new-business-screening criteria (see DesRoches et al. 2007).

^bThe sample count for the Third Follow-Up Survey included businesses that were determined to be permanently out of business, temporarily out of business, or refusals in the First or Second Follow-Up. Attempts were made to contact the refusals and the temporarily out of business from the prior follow-up surveys, but not the permanently out of business.

¹ The technology categories are based on the designation identified by the businesses' Standard Industry Classification (SIC) code, developed in the early 1990s by researchers from Bureau of Labor Statistics. For details, see Paul Hadlock et al. "High Technology Employment: Another View." *Monthly Labor Review*, July 1991, pp. 26-30.

D. DATA COLLECTION PREPARATION

1. Overview

Preparation for the Third Follow-Up data collection generally followed the procedures used for the two previous follow-ups. In an effort to minimize KFS panel attrition, data collection materials, training manuals, and interviewer training continued to stress retention. Most of the Third Follow-Up panel members had completed the Second Follow-Up Survey (3,390 of 4,295, or 79 percent). Of the 903 who had not responded at the Second Follow-Up, 451 had not completed either of the first two follow-up surveys. We anticipated greater difficulties completing these cases given the length of time since last contact. Even though most panel members were likely to remember the study, we expected a somewhat lower response rate due to panel fatigue and the fact that a fifth of the businesses had not responded to one or both of the previous follow-ups. The data collection plan, as in previous rounds, started with an email alerting panel members to the web survey. Additional contacts included email reminders, an advance letter mailing, and postcards, followed by CATI for those not completing the web survey.

2. Respondent Materials Development

The goal for the Third Follow-Up Survey was to retain as many as possible of the 4,295 businesses remaining in the KFS panel. Our focus was to remind the panel members of their previous participation, repeat the information about the \$50 incentive and the promise of strict confidentiality, stress the importance of the longitudinal nature of the study, and urge continued participation. We emphasized that their previous participation meant that the selection process was over and that we could not replace their business with another.

Another point of emphasis in the materials sent to panel members in previous rounds was the “Kauffman Firm Survey” title, which was included in all materials sent to respondents and

served as the first part of the email subject line. It had also been printed on all respondent gifts provided with the panel maintenance packets in the previous rounds. Our goal was to continue to “brand” the Kauffman Firm Survey name to increase recognition among panel members.

In keeping with MPR’s QA policies, draft survey materials for the Third Follow-Up Survey were reviewed by a senior MPR staff member outside the project. After comments from the reviewer were incorporated, the materials were sent to MPR’s editing department. Project staff finalized the edited versions before the survey director approved them for use in data collection.

The survey materials included:

- **Email Message.** We had collected email addresses at the end of each of the previous surveys, and we had email addresses for 83 percent of Third Follow-Up panel members. The initial survey contact was an email message to panel members who had provided an email address.

The email message reminded them of their previous participation, informed them that we could not replace their business with another, and explained why we were doing the fourth year of the study. This message included their unique web login and password, as well as an easy “click-through” (pre-filled login and password) to the website to participate in the study. This procedure greatly reduced respondent errors during login and facilitated completion of the questionnaire. The email message also provided contact information for MPR staff in case of questions.

- **Reminder Email.** This was sent as a brief reminder to panel members who had not completed the web survey one week after the initial email message. This message also included the same web login and password information and “click-through” to the website as the initial email message.
- **Advance Letter.** The advance letter was the first contact with Third Follow-Up panel members who had not provided an email address in any of the previous rounds. It was similar to the email message, but provided additional information about the study, asked for cooperation, and provided web login information. And like the email message, it provided contact information for MPR staff.
- **Frequently Asked Questions (FAQs).** This one-page document provided answers to some questions panel members were likely to have about the survey, MPR, and the Foundation. This was also included with the advance letter.
- **Reminder Postcard.** The postcard was sent as a reminder to panel members who had not completed the web survey one week after the advance letter mailing. It listed the website URL and encouraged respondents to log on and complete the survey.

Because of confidentiality concerns, the postcard omitted the login and password, but it did include the project helpline to call for this information.

- ***Refusal Letter.*** This letter was sent to respondents who had refused to participate in the survey after being contacted by telephone, or who had refused through email or a call-in. It was the first effort at refusal conversion.

Copies of these data collection materials are in Appendix C.

3. Interviewer Training Materials

Modifying the Second Follow-Up materials as needed, project staff developed a set of training materials for the Third Follow-Up. These materials focused on issues we expected to encounter during the Third Follow-Up, such as how to designate a new respondent for the business if the Second Follow-Up respondent was no longer there or was unavailable during the data collection period, or if the business had not responded to one or more of the previous follow-ups. As noted in Section B, the instrument was designed to encourage the Second Follow-Up respondent to answer in the Third Follow-Up, assuming the person was still an owner and operator of the business. For businesses not responding to the Second Follow-Up, or in cases where that respondent was no longer with the business, previous respondents or others in the business who could complete the interview were prioritized as follows:

- First Follow-Up respondent
- Baseline Survey respondent
- Any owner-operators present with the business at Baseline
- Any new owner-operators identified during the First Follow-Up interview
- Any new owner-operators identified during the Second Follow-Up interview
- Any new owner-operators identified during the Third Follow-Up interview

Interviewers were trained to follow this priority if the Second Follow-Up respondent was not available or the business was a nonrespondent to that round. The training materials were updated

using the experiences from previous rounds to reflect the slight differences in the survey instrument.

The telephone interviewer training manual contained information about the following topics:

- The background of the study
- Eligibility criteria for respondents
- The importance of confidentiality
- The procedures for contacting panel members
- Procedures on scheduling appointments and requesting new letters or emails
- Dealing with privacy managers and cell phones
- Building effective engagement and rapport with panel members
- Refusal avoidance and conversion
- Strategies for handling “gatekeepers”
- Question-by-question review of the entire survey instrument

4. Survey Operations Center Staff Training

The telephone interviewing staff included both those who had worked on previous rounds of the KFS and those new to the project. All interviewers attended the full KFS training session regardless of their prior experience on the project. The training was conducted over 12 hours, in two 4-hour “classroom” segments and 4 hours of “hands-on” practice with the CATI survey. Emphasis was placed on the importance of the initial contact, introducing the study effectively, and moving directly into the interview. The hands-on practice consisted of paired “mock” interviews, where one trainee played the role of respondent and the other played the interviewer. To ensure that each pair of interviewers had the same experiences, project staff developed detailed mock scripts for the “respondents” based on experiences from previous rounds of data collection. Part of this practice involved “engagement scenarios,” in which pairs of interviewers

alternated between the respondent and the interviewer roles, but this time the focus was on overcoming objections and answering the questions that panel members were most likely to ask.

5. Emails and Advance Mailings

As noted in Section 2 above, the first contact made with 83 percent of the Second Follow-Up sample was the email message. For those without email addresses (and for those whose email bounced back), the first notice of the survey was the advance letter.

Both the advance letter, printed on MPR's letterhead, and the initial email briefly introduced the study, reminded the business owner of the previous rounds, and asked for participation in the Third Follow-Up. They also supplied the project's toll-free number, website URL, email address, and contact information to offer panel members the option of contacting MPR if they had further questions or if they preferred to call in to complete the survey or make an appointment to do so. Before each mailing was delivered to the post office, MPR inspected 10 percent of the packets for consistency and accuracy.

6. Postcard Mailings

One week after the advance mailing, a reminder postcard was sent to each sampled business that had not yet completed the web questionnaire. The postcard included the name of the owner and the name and address of the business. An overview of the study, the website URL, and MPR contact information were also provided, and panel members were encouraged to contact MPR if they had lost or forgotten their password or login ID. The postcard labels were generated through MPR's Sample Management System (SMS). Before being mailed, postcards were also inspected for consistency with U.S. postal standards.

7. Response Protocols to Panel Member Inquiries

Prompt and efficient handling of inquiries from panel members helps establish rapport and thus increases the chances that they will complete the survey. As in previous rounds of the KFS, panel members in the Third Follow-Up could contact MPR through several avenues:

- Toll-free telephone number
- KFS email
- Project staff telephone numbers

The toll-free number was monitored by MPR's trained "help desk" staff during business hours. A panel member could call in to complete the questionnaire on the telephone or make an appointment to have an interviewer call back and administer it. Another important function of the toll-free number was to provide the login ID and password to panel members who wanted to complete the web survey but had misplaced that information. Help desk staff were trained to identify each caller through a look-up file to make sure the person was indeed an owner of the sampled business. The survey director's phone number was also provided in case help desk staff could not answer all the questions a panel member posed.

Some panel members and gatekeepers who were called requested that an email message be sent with information explaining the survey and how to participate. The email that was sent in response to such requests was the same one used in the initial email and the reminder email. It included the panel member's password, login ID, and URL for the web survey.

Some panel members also emailed with questions about the study, explanations about their businesses, or refusals. In the period after email invitations had been sent to panel members, MPR staff monitored the KFS project mailbox seven days a week in order to respond to questions promptly. Responses were usually emailed within 24 hours of initial receipt of a panel

member's email. When a panel member refused through email, staff would attempt a refusal conversion by addressing the stated reason, such as the amount of time the questionnaire would take to complete, and explaining the importance of the study.

8. Respondent Incentives

We offered panel members \$50 to complete the Third Follow-Up (whether on the web or through CATI), the same amount as in the previous rounds. The incentive was offered not as a payment for the panel members' time but rather as a "token of appreciation" for participation. We made this distinction because if the money was presented as compensation for their time, some owners might think the payment insufficient and refuse to participate. Instead, the incentive was presented as an honorarium, or a way of recognizing the owner's contribution to the success of the study.

KFS incentive checks were mailed weekly to ensure that respondents received them promptly. Payments returned to MPR without forwarding information were sent to MPR locating specialists for address updating. Each check was then reissued and sent to the new business location. If a check was returned with forwarding information, the panel member information was updated in the MPR SMS, and the check was reissued.

During the Third Follow-Up data collection, a few panel members indicated that they did not recall having received their \$50 payment for participation in one of the previous rounds. In all these cases, we determined that MPR had indeed sent the check to the respondent, although most had not been cashed. In these instances MPR staff would call or email back that the check had been sent but had not been cashed. We would then verify the address and send a new check. Some panel members wanted to receive their check from the previous round before they completed the Third Follow-Up Survey. MPR staff made sure that these panel members were contacted to complete the Third Follow-Up within a week of being sent the replacement check.

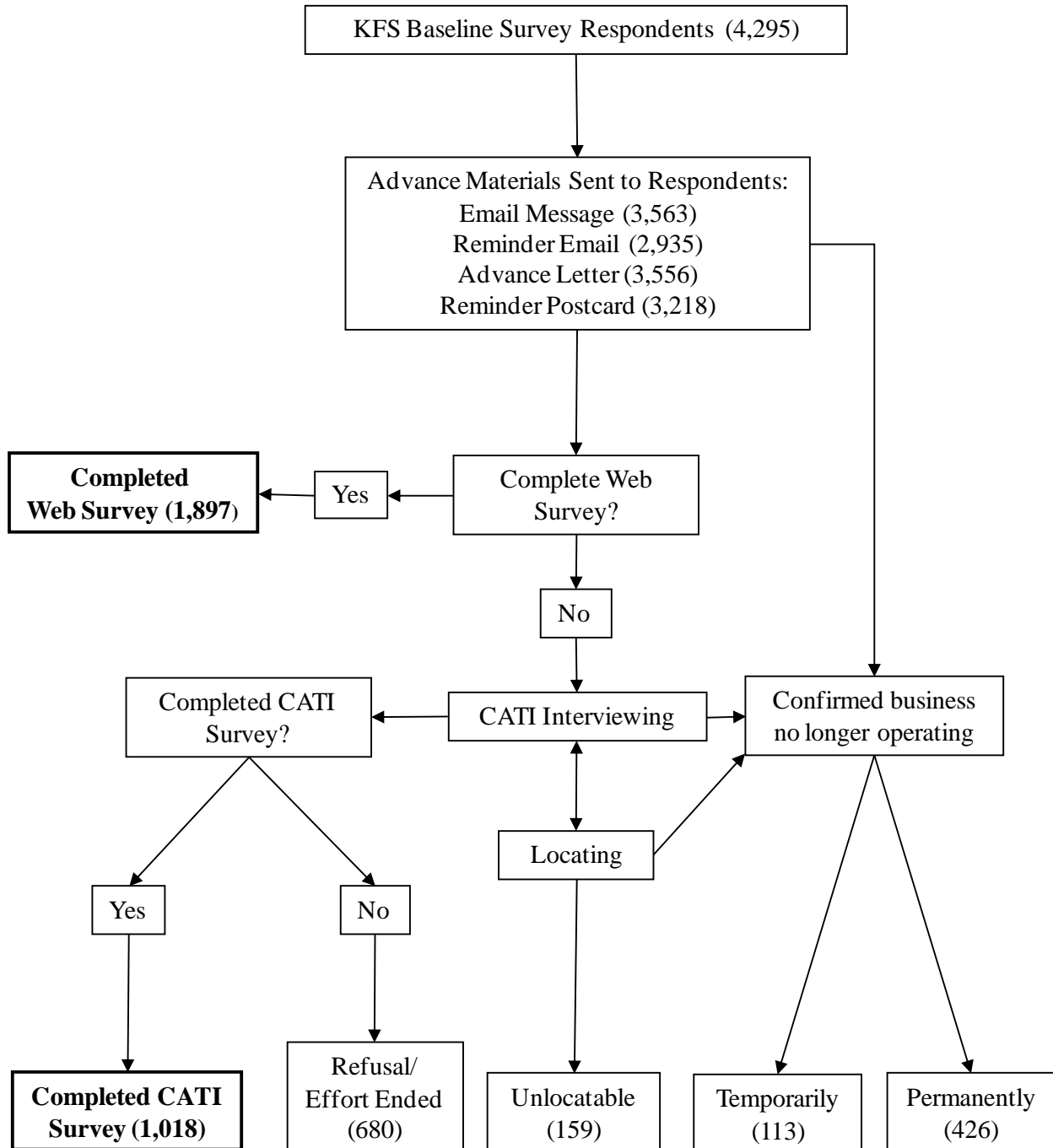
E. DATA COLLECTION

1. Overview

Data collection on the Third Follow-Up Survey closely mirrored that of the Second Follow-Up. Overall, the study continued to be successful in retaining panel businesses, achieving a response rate of 83 percent (weighted). We were also successful in slightly increasing the percentage of respondents who completed the web survey (65 percent in the Third Follow-Up compared to 63 and 59 percent in the Second and First Follow-Ups, respectively). Figure 1 illustrates the data collection process for the Third Follow-Up.

FIGURE 1

KAUFFMAN FIRM SURVEY THIRD FOLLOW-UP
DATA COLLECTION PROCESS



2. Timing of Sample Releases

Data collection began on June 24, 2008, and concluded on December 23, 2008. There were three separate batches of Third Follow-Up sample (dates and sample sizes are in Table 3). Each batch or “release” began with an email message to panel members.

Although the web and CATI instruments were thoroughly tested before data collection began, the first sample release was deliberately small to permit a live test of the instrument and the systems involved in recording completes and refusals and in generating mailings.

TABLE 3
KFS THIRD FOLLOW-UP RELEASES

Sample Release	Release Date	Sample Size
1	6/24/2008	177
2	7/9/2008	1,821
3		2,297
Total		4,295

The initial email message displayed the subject line “Kauffman Firm Survey—Round 3.” The reminder email had the same text as the initial email. For all but the first release, the emails were sent out over two days to prevent triggering various spam filters. This also spread out the web response to avoid overloading the server and preventing some panel members from being able to log in. Of the advance emails, 14 percent (492) bounced back as undeliverable. Project staff examined email bouncebacks for obvious misspellings or other problems, corrected 106 and re-sent the email messages to the updated address. As in the previous rounds, MPR project staff conducted daily testing of the KFS website just before sending batches of emails.

In addition to bouncebacks from emails, some of the U.S. Postal Service addresses to which the advance mailing was sent were not accurate, and the materials were returned. When the returned mail included an updated address, this was recorded in the MPR SMS, and the materials

were re-sent. When there was notification of “no such address,” the existing address was recorded as inaccurate to prevent any re-mails, and that panel member case was sent to locating staff to search for the new address.

3. Schedule of Contacts to Panel Members

As mentioned above, 83 percent of business owners received their first contact about the Third Follow-Up through an email message. One week later, the advance letter was sent to all businesses that had not completed the web questionnaire. For the businesses that had not provided an email address, or whose email address had changed or expired, this was the first contact about the Third Follow-Up Survey. One week following the advance letter, we sent a reminder postcard. A week after this reminder, CATI operations began. We spaced these initial contacts as we did so that panel members would have time to log on to the web and complete the survey before CATI follow-up began, thus minimizing CATI costs. About 23 percent of panel members had completed by web before CATI operations began, which was less than during the Second Follow-Up (31 percent).

During CATI follow-up, MPR’s call scheduler program provided the panel member contact information needed by interviewers to make telephone contact. This scheduler assures that callbacks are conducted at the appropriate time, and that telephone attempts that do not result in contact, such as answering machines and “no answers,” are recontacted on different days of the week, at different times of the day and evening, and on weekends. An answering machine message tailored specifically to the KFS was also left at periodic intervals. These intervals were designed to avoid irritating the panel member, and they also gave the panel member time to respond to the message before the next call. Cases with wrong numbers, and those with a series of no contacts, were sent to locating for updating. Along with setting scheduler parameters,

sending emails on request, and following other procedures, a variety of additional steps helped make CATI more efficient.

4. Survey Management Techniques

Survey management is designed to make CATI as efficient as possible by scheduling, monitoring, and evaluating the survey procedures. One of the most important aspects of efficient interviewing is properly matching the available sample and interviewer hours, so that panel members are called shortly after they receive the advance materials. To this end, project staff coordinated training schedules and sample releases with interviewer schedules. This coordination helped to ensure that interviewer hours were highest when new sample was released, so that the initial telephone contact with the panel members took place at the most opportune time. Project staff conducted weekly reviews of interviewer productivity, cooperation rates, calls per hour, and monitoring reports.

Although we achieved a high response rate in the Third Follow-Up, many businesses either were still reluctant to participate or put off completing the questionnaire. As in most surveys, the final 10 percent of completes took considerably more resources than the first 90 percent. As the Third Follow-Up Survey was coming to an end, the remaining nonresponding panel members had been provided multiple opportunities to respond. They had been contacted, and interviewers had made their best attempts to complete the interview with them. To maximize the response rate, KFS project staff implemented the following steps for nonrespondents:

- ***Sending a series of email messages*** indicating that the study was coming to an end and that their time for participation was limited. This email also stressed that we had already received responses from a sizable percentage of panel members.
- ***Sending an additional letter*** to pending cases, emphasizing that the project needed their participation, reminding them of the \$50 incentive and their previous participation, and asking them to complete the questionnaire. The envelope also contained a \$5 bill as a pre-incentive.

- *Adjusting interviewer schedules* to ensure that cases in the Pacific Time zone received sufficient call coverage.
- *Developing a special answering machine message* to replace the initial one, indicating that the study was ending and that this was the last opportunity to participate.

After these efforts were made, data collection on the Third Follow-Up Survey ended on December 23, 2008.

5. Refusal Conversion

Because the Third Follow-Up Survey was the fourth annual survey, KFS respondents usually remembered the previous surveys and required little persuasion. Nonetheless, there were some refusals, which necessitated a refusal conversion effort.

Attempts to convert refusals help ensure that those completing the survey are representative of all sample members. Without refusal conversion, results could be skewed toward people who like to do surveys or who are interested in the particular topic. Such sample members may answer the questions differently from people who initially refuse to participate in a research study. To obtain as representative a sample as possible, we used refusal conversion techniques to persuade and convert panel members who initially refused.

First, all refusal cases were put on hold for 14 days, during which a refusal letter was sent, acknowledging the refusal but emphasizing the unique nature of the study and the importance of participation. The survey website URL was provided in the letter, along with the panel member's password and login ID. After the waiting period, if the panel member had not completed the survey on the web, interviewers trained in refusal conversion techniques called the business. Refusal conversion training was conducted for KFS interviewers who had demonstrated the ability to build rapport and had higher-than-average cooperation rates.

Project staff reviewed refusals periodically, especially the few adamant first refusals, to determine whether they should be finalized without a conversion attempt. These reviews were conducted by the survey director, who used her judgment to strike a balance between avoiding calling people who were vehemently opposed to another call and giving business owners a chance to change their minds.

When businesses refused again after the conversion attempt, project staff examined the cases and put them into three different categories: (1) cases that might be converted by additional attempts, (2) cases that should be finalized for the Third Follow-Up but could be tried again during the Fourth Follow-Up, and (3) cases that should be finalized and not contacted again. Of the 4,295 cases in the Third Follow-Up, 352 initially refused, of which 46 (13 percent) were converted and completed the questionnaire.

6. Handling Special Cases

Several other types of cases that required special handling and review are described below. These were assigned to interviewers with special training on how to resolve them.

a. Owner-Name Cases

After the Second Follow-Up Survey, there were 25 panel members who did not provide a full first and last name for one or more owner-operators. Being able to track individual owners through the early years of the business allows us to learn about the makeup of the ownership team that runs the business, and is an important analytical focus of the KFS. Therefore, cases that had owners without full first and last names were separated out and designated as “CATI-only.” We did not want these cases completed on the web, because we would not be certain we could properly identify all owner-operators involved with the business. For example, in some of these cases, respondents had used initials or other identifiers, such as “Owner 2,” but we needed a first

and last name. If the respondent insisted on such a designation, we needed assurance that the person identified as “Owner 2” in previous rounds was the same as “Owner 2” in the Third Follow-Up. This process would also ensure that the proper demographic questions were asked.

These cases received a special letter that provided MPR contact information should they have any questions about the study or concerns about confidentiality. The letter also informed them that a professional telephone interviewer would be calling them shortly. Specially trained interviewers called to conduct the interview and try to obtain the complete names of all owners.

b. No-Suitable-Owner Cases

A limited number of panel members (15) had no identifiable owner-operator in the Third Follow-Up because the business was wholly owned either by silent partners or by owners those who hired a manager to run the business. In these instances, the CATI supervisor reviewed the cases and referred them to the survey director, who would decide whether or not the interview should be completed with a manager.

c. Web Partial Cases

Web partials were cases in which the panel member logged on to the questionnaire on the web, completed one or more questions, and then logged off before finishing. Panel members partially completing the questionnaire were contacted by highly experienced interviewers who proceeded as follows:

1. Examined the case before calling, to learn at what point in the questionnaire the panel member had broken off. This enables the interviewer (1) to tell the panel member how much longer the interview will take to complete, and (2) to get to the first unanswered question quickly if the member agrees to complete the questionnaire.
2. Called the panel member, acknowledging that he or she did partially complete the study. Interviewers are trained to emphasize the business’s previous participation and the \$50 incentive, and to offer to have the panel member complete the survey over the phone. Interviewers informed the panel member how much time it will take to

complete the questionnaire and assured the member of the confidentiality of the survey data.

3. Emphasized to anyone other than the panel member answering the phone that the panel member has already completed part of the questionnaire.
4. Included concise and complete notes for cases in which the panel member was contacted but did not complete the questionnaire.

In addition to these groups of cases, there were rare occasions such as when the web server went off-line for maintenance. After these occurrences, the project mailbox received email messages from panel members who had tried unsuccessfully to log on to the web to participate in the survey. Project staff responded quickly to these messages, apologized to the panel members affected, and let them know when the problem had been solved so they could log on to complete the interview.

7. Monitoring Interviewer Performance

Monitoring interviewer performance helps improve data quality and also provides an opportunity to improve interviewer techniques on panel member engagement and refusal avoidance. The monitoring process also helps identify unanticipated issues and provides support for interviewers who have questions about individual questionnaire items.

MPR emphasizes the importance of the monitoring process, and the MPR monitoring software allows the monitors to enter evaluations of interviewer performance into the system easily, where it is stored for retrieval by supervisors and project staff. So that they fully understood the project requirements, all Third Follow-Up Survey monitors attended the interviewer training. At the beginning of the data collection, project staff closely monitored interviewers to evaluate the performance of the questionnaire and to provide feedback on the performance of individual interviewers. Afterward, 10 percent of the interviewers' work was monitored.

Monitoring consisted of listening carefully as the interviewer engaged the panel member or gatekeeper, while also observing the interviewer's CATI screen to check for accurate coding and correct computer logic. After the monitors observed the interviewer and prepared evaluations, they would meet with the interviewer to review the case, point out interviewer strengths, and suggest improvements.

Monitoring reports were generated weekly and included such data as the number and type of mistakes each interviewer was making and the number of positive comments made by the monitor. Because of the generally high experience level of the interviewers and the high cooperation rates, monitors reported few problems with the interviewers or with the survey instrument.

An interviewer debriefing was conducted toward the end of the data collection period. Interviewers reported that the success of the Third Follow-Up was due to (1) the fact that respondents were familiar with and interested in KFS, (2) the incentive, and (3) prompt follow-up by project staff on missing checks from previous surveys. They also mentioned that the best refusal conversion technique was to emphasize that the interviewer would conduct the interview at a brisk pace out of respect for the owner's busy schedule.

As another step to ensure quality, data were reviewed at two benchmarks—after the first 50 interviews and again after about 250 had been completed. Project staff reviewed the data to examine skip patterns, “other-specify” fields, and other items for accuracy.

8. Locating

Cases that require locating may be systematically different from those that do not. Some new businesses will never become fully established, and others will move or change phone numbers, sometimes because they are home-based and the business owner moves. To ignore businesses that have moved or changed contact information runs the risk of excluding businesses

that differ from those that are easier to contact. For the Third Follow-Up, a substantial locating effort was made to find each listed business that could not be contacted using the information collected during the previous rounds. To update the existing contact information about sampled businesses or principals, the KFS locators used zip key, directory assistance, Lexis-Nexis, Accurint, and other web searches. Through a systematic use of these resources, locators could sometimes determine whether a business was still operating and would find updated contact information. If cases were confirmed as still being in business, they were returned to interviewing for additional attempts. A supervisor would examine a case without any new leads to determine what further action, if any, should be taken. Cases for which there was no good contact information were ultimately coded as unlocatable.

The MPR SMS was the clearinghouse for information about locating attempts, as well as all email and mail contacts attempted with panel members. Each email, letter, and postcard that was sent to panel members was recorded, as were new addresses, phone numbers, and owner names. Information gathered by telephone interviewers was also recorded in the SMS. For performance evaluation, the SMS also has management tools that allow locating supervisors to measure the effectiveness of individual locators. Finally, the SMS allows supervisors to review cases that had multiple contact attempts and, when no further locating action is warranted, to finalize them as “unlocatable.”

During the Third Follow-Up Survey, 743 cases (17 percent of the total sample) required some degree of locating efforts. Of these, 159 were finalized as unlocatable, which means that 79 percent of all cases sent to locating were found.

9. Response Rates

Response rates are often used as measures of the “potential” for nonresponse bias and of the quality and the validity of survey data. In general, unweighted response rates measure the

proportion of the sample that resulted in usable information for analysis. Weighted response rates represent an estimate of the proportion of the survey population for which usable information is available. The weighted response rate is also considered to be a measure of the potential for nonresponse bias. Because we oversampled businesses in the high-tech sampling stratum, the weighted response rates may differ from the unweighted ones. To compute the response rate for the Third Follow-Up Survey, we used a standard algorithm recommended by the American Association for Public Opinion Research (AAPOR).² In this computation, the unweighted response rate is the count of the number of completed interviews among eligible businesses divided by the estimated total count of eligible businesses (the weighted response rate is comparable with weighted counts used instead of the unweighted counts). For the KFS, we provide these response rates using two definitions of eligibility:

1. Businesses that met the survey criteria, started in 2004 and (for the unweighted response rate) completed the Baseline Survey, and are in operation at the time of data collection.
2. Businesses that met the survey criteria, started in 2004 and (for the unweighted response rate) completed the Baseline Survey, and are in operation at the time of data collection, plus businesses that were not operating at the time of data collection.³

The two definitions differ only in that the second includes businesses that were not in operation at the time of the survey.

² The response rate definitions recommended by AAPOR are available at [www.aapor.org/uploads/standarddefs_4.pdf].

³ For a weighted response rate, the numerator and denominator are population-level estimates, and the weighted response rate is a measure of the potential for nonresponse bias in survey-based estimates, because it measures the proportion of the population that provided data. For the unweighted response rate, the numerator and denominator are sample-level counts and therefore need the restriction of “completed the Baseline Survey.” The unweighted response rate is essentially an operational measure of data collection success, rather than a measure of the quality of the survey or the survey estimates.

Using the AAPOR response rate algorithm (specifically, AAPOR's Rate #3), we assumed that all businesses with unknown eligibility (under either definition) would be eligible at the same rate as businesses for which we obtained sufficient information to define eligibility. The AAPOR response rate under the first eligibility definition is:

$$RR_1 = \frac{\text{Completes}}{\text{Completes} + \text{Elig. Non-completes} + \text{Unknown Elig.} \times \text{Est. Elig. rate}}$$

Where estimated eligibility rate is defined as:

$$\text{Est. Elig. rate} = \frac{\text{Completes} + \text{Elig. Non-completes}}{\text{Completes} + \text{Elig. Non-completes} + \text{Ineligibles}}$$

Businesses that had unknown eligibility either were unlocatable or were located but did not respond. Ineligible businesses were those that were non-operational at the time of the survey. The eligible non-completes were eligible for the Third Follow-Up but refused to participate (such as a "break-off"). Because eligibility was determined as part of the interview and there were no break-offs, the number of eligible non-completes was zero.

Under the second eligibility definition, the AAPOR response rate is computed:

$$RR_2 = \frac{\text{Completes} + \text{Non-operational Businesses}}{\text{Completes} + \text{Non-operational Businesses} + \text{Elig. Non-completes} + \text{Unknown Elig.} \times \text{Est. Elig. rate}}$$

Where estimated eligibility rate is defined as:

$$\text{Est. Elig. rate} = \frac{\text{Completes} + \text{Non-operational Businesses} + \text{Elig. Non-completes}}{\text{Completes} + \text{Non-operational Businesses} + \text{Elig. Non-completes} + \text{Ineligibles}}$$

Once again, the difference between the two response rates, RR_1 and RR_2 , is that in RR_2 the businesses that are not in operation at the time of the survey were classified as eligible.

Of the 4,928 panel members from the Baseline Survey, we completed interviews with 2,915 eligible businesses and identified 1,174 that were no longer in business.⁴ The other 839 cases had unknown eligibility (refusals or unlocatables). Because there were no eligible non-completes, the two equations are algebraically the same. The overall unweighted AAPOR response rate is computed as 83.0 percent; under the second definition, it is also 83.0 percent.

When the sampling weights are incorporated, the weighted AAPOR response rate is 82.5 percent under both eligibility definitions. Table 4 shows the unweighted/weighted response rates across the three technology sampling strata under both definitions.

TABLE 4
WEIGHTED AND UNWEIGHTED AAPOR RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY
ACROSS TECHNOLOGY SAMPLING STRATA^a

Technology Sampling Strata	Completes (Count)	Out of Business (Count)	Unknown Eligibility (Count)	Unweighted AAPOR Response Rate (Percentage)	Weighted AAPOR Response Rate (Percentage)
Total	2,915	1,174	839	83.0	82.5
High-technology	434	145	126	82.1	82.0
Medium-technology	831	292	206	84.5	84.2
Non-technology	1,650	737	507	82.5	82.3

^aAs noted in the text, response rates RR_1 and RR_2 were equal because there were no businesses classified as eligible non-completes.

In the Third Follow-Up, we were able to convert some nonrespondents in the First and/or Second Follow-Up into completes. However, most nonrespondents in the First and/or Second Follow-Up were still nonrespondents in the Third Follow-Up. Table 5 shows the unweighted/weighted response rates in the Third Follow-Up Survey across response levels in the First and

⁴ Among 1,174 businesses that were out of business, 635 had already been identified in the First or Second Follow-Up Survey as permanently out of business.

TABLE 5

WEIGHTED AND UNWEIGHTED AAPOR RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY
ACROSS THE RESPONSE STATUS FOR FIRST AND SECOND FOLLOW-UP SURVEYS^a

Response to Follow-Up Surveys	Completes (Count)	Out of Business (Count)	Unknown Eligibility (Count)	Unweighted AAPOR Response Rate (Percentage)	Weighted AAPOR Response Rate (Percentage)
Total	2,915	1,174	839	83.0	82.5
Respondents to First and Second Follow-Up	2,702	943	332	91.7	91.1
Respondents to First or Second Follow-Up	166	162	251	56.6	58.2
Non-respondents to First and Second Follow-Up	47	69	256	31.2	31.2

^aAs noted in the text, response rates RR_1 and RR_2 were equal because there were no businesses classified as eligible non-completes.

Second Follow-Up. Businesses that responded in neither the First nor the Second Follow-Up achieved a 31.2 percent (unweighted) and 31.2 percent (weighted) response rate in the Third Follow-Up; businesses that responded only to one of the first two Follow-Up Surveys achieved a 56.6 percent (unweighted) and 58.2 percent (weighted) response rate in the Third Follow-Up; businesses that were First and Second Follow-Up respondents achieved a 91.7 percent (unweighted) and 91.1 percent (weighted) response rate in the Third Follow-Up. Clearly businesses that did not respond in the previous rounds were much less likely to respond in the next. We expect that in the next rounds, it is even less likely that they will respond if they did not respond in multiple consecutive rounds. In any longitudinal survey, the serial nonrespondents are the most difficult group from which to obtain completed responses.

10. Longitudinal Response Rate

Because of the longitudinal design of the KFS, we also report the longitudinal response rates. A longitudinal respondent is defined as a business that responded to the First, Second, and

Third Follow-Up Surveys. The longitudinal response rate is the count (or weighted count) of respondents in the First, Second, and Third Follow-Up Surveys as a proportion of the count (or weighted count) of eligible businesses at the time of the Baseline Survey. As was the case for the response rates for the cross-sectional Third Follow-Up Survey, the longitudinal response rates are the same under the two eligibility definitions. Table 6 gives the longitudinal response rates under the two eligibility definitions.

TABLE 6
WEIGHTED AND UNWEIGHTED LONGITUDINAL RESPONSE RATES
FOR THE THIRD FOLLOW-UP SURVEY ACROSS TECHNOLOGY SAMPLING STRATA^a

Technology Sampling Strata	Respondents	Unweighted Response Rate (Percentage)	Weighted Response Rate (Percentage)
Total	3,646	74.0	73.2
High-technology	521	73.9	73.8
Medium-technology	1,018	76.6	76.2
Non-technology	2,107	72.8	72.7

^aAs noted in the text, response rates RR_1 and RR_2 were equal because there were no businesses classified as eligible non-completes.

11. Panel Maintenance

The strength and the uniqueness of the KFS data are the longitudinal information they provide for analysis. To minimize panel attrition between surveys, we made a significant effort to express appreciation to panel members through both an incentive and a “post survey” mailing. The \$50 incentive was one way both to thank respondents for participation in each survey and to encourage participation in future follow-ups. The “panel maintenance packet” was another technique. For the Third Follow-Up, this packet consisted of a letter of appreciation and a 2009 calendar with the study name and contact information printed on it. The letter thanked

respondents for completing the survey and reminded them of the interview in the upcoming year. It also contained contact information for MPR's survey director. So that it would not be discarded or ignored as just another piece of junk mail, the panel maintenance packet was designed to appear attractive and important: the envelope carried a first-class stamp instead of the bulk rate imprint common to mass mailings.

For the Third Follow-Up, 2,915 panel maintenance packets were sent in January 2009. As with previous surveys, these generated some returned packets, some of which contained updated addresses. Those addresses were recorded and the packets re-mailed.

Another procedure for reducing panel attrition was to deal promptly with respondent requests, especially when dealing with incentives provided to respondents. During the Third Follow-Up, if respondents called in to say they had not received their \$50 incentive, MPR staff would check through the MPR respondent payment system to see whether a check had been mailed and, if yes, whether it had been cashed. Often checks were sent but not cashed, so staff would verify the address information. Any missing address information, usually a suite or apartment number, was obtained and entered into the SMS, and the checks were reissued. This updated contact information was collected and stored for use on future follow-up surveys.

F. CODING AND DATA PROCESSING

1. Overview

As with other Third Follow-Up operations, the coding and data processing were aided by the processes created in earlier rounds. The previous programs and procedures were used during the Third Follow-Up, and many needed little or no updating. High-quality coding and data-processing procedures help to provide the highest-quality data file for analysis.

2. Back-Coding

Seventeen questions in the Third Follow-Up Survey contained open-ended responses, with all but one having an “other-specify” alternative if respondents did not think their answers fit into one of the existing categories. Each of these verbatim responses entered by the CATI interviewer or, on the web survey, by the respondent was reviewed for possible back-coding. Back-coding—the process of determining whether the answer actually fits into one of the existing categories—reduces the percentage of responses in the “other” category, providing a higher level of specificity and data quality. Sometimes respondents do not hear all the answer categories during a telephone interview, do not read them carefully on a web survey, or interpret a category incorrectly. Although some responses could not be back-coded, many could. Qualified and experienced coding staff performed the back-coding of the “other-specify” responses to these questions:

- A10 (Reason for being out of business)
- C1z2 (Form of legal status of business)
- C8 (Primary location where business operates)
- C9 (Reason for change in location)
- E1h (Key responsibilities of employees)
- E2a.1 (Employee benefits provided to full-time employees)
- E2b.1 (Employee benefits provided to part-time employees)
- F3g (Sources of equity)
- F7f (Sources of respondent debt)
- F9f (Sources of other owner debt)
- F11k (Sources of debt of the business)
- F28g (Other business owner property)
- F28h (Other assets)

- F30c (Other liabilities)
- G6 (Race)

Since these questions had been used in previous rounds, the back-coding in the Third Follow-Up used the results from back-coding of the previous rounds as a guide, thus maintaining consistency.

3. Industry Coding

Question C1b (principal activity of the business) is used to determine the North American Industry Classification System (NAICS) code.⁵ The Third Follow-Up asked respondents to confirm the industry description for their business, which had been obtained during previous survey rounds. If the respondent disagreed with the primary industry description, the web questionnaire (or telephone interviewer) asked for an updated description. Coders then reviewed these verbatim descriptions and identified the most appropriate NAICS code. MPR used coders with substantial experience in industry and, specifically, NAICS coding, and they were instructed to leave the six-digit code from the Second Follow-Up if they could not code to a six-digit NAICS based on the description collected during the Third Follow-Up.

As in the previous rounds, the next step was to ensure that the NAICS descriptions for the updated NAICS code were entered into the case records. This required obtaining the listing of NAICS codes and associated descriptions, matching them to the cases with updated NAICS codes, and data the matching description into the data file for that business. This revised description was put into place for use on the Fourth Follow-Up Survey.

⁵ The NAICS system, developed by the U.S. Census Bureau, is the standard establishment classification for all federal surveys, replacing the Standard Industry Classification codes. See [www.census.gov/epcd/www/naics.html] for more information on NAICS.

4. Financial Data Coding

Financial data back-coding presented a number of challenges during the Third Follow-Up. Not all owners of new businesses have a clear understanding of financial accounting, asset categories, or even the difference between debt and equity. While the numbers of cases with this problem decreased in the Third Follow-Up, some complex cases that required review by project staff still existed.

Because the questions in the business finances section included dollar values, back-coding these also required adding the amount of the back-coded question to the appropriate response category. For example, if a respondent indicated in the “other-specify” for equity investment that “Dad” had invested \$10,000 in the business, the \$10,000 would have to be added to any amount already entered into the section that recorded amounts invested by “parents, in-laws, or children of owners of the business.” Many of the financial back-codes were obvious after review by the survey director. In addition, the programs developed during the previous rounds of coding were used to correct these problems. The programs moved the back-coded responses from the “other-specify” field into the correct response category and added the related dollar amount into the proper field. This allowed the response and the corresponding amount to be back-coded to the appropriate category.

Responses to some other questions were somewhat more complex. For example, many respondents did not make a clear distinction between the two “other asset” categories in Question F28, and these had to be adjusted as well. “Any other business property” (F28g) was designed to record tangible assets, while the “any other assets” category (F28h) was designed to record intangible assets such as patents, trademarks, and copyrights, as well as financial assets such as long-term bonds.

Some of the “other–specify” fields required extensive review and case-by-case recoding. In some cases, account balances had to be moved from debt to equity and vice versa. When the intended response was not clear, responses were kept as reported, but when it was clear that the respondent had put account information in the incorrect response category, appropriate adjustments were made to the data for that case.

5. Field of Study Coding

As discussed previously, we collected field-of-study information about respondents’ highest postsecondary degree in the Third Follow-Up (Question G9a and Question G9b). MPR coded the verbatim responses using the Classification of Instructional Programs (CIP) taxonomy.⁶ MPR coders reviewed each verbatim and, using a database of CIP codes, assigned the most appropriate six-digit code, which is the most specific level of CIP code. MPR assigned coders who had substantial experience in coding field of study on other MPR studies.

6. Quality Assurance Procedures for Coding

Quality Assurance (QA) is included in all MPR’s survey operations and was also used throughout the KFS coding process. The coding supervisor reviewed all work completed by coders and made corrections before sending the results to the survey and project directors, who reviewed all coded cases. We included comments on any cases that were changed during the QA review, so that the coders would have feedback for future rounds. These were primarily reminders about procedures for handling responses that could not be back-coded. As mentioned above, QA checks were also made between the Third Follow-Up codes and those of previous rounds to ensure consistency across rounds. One of these checks was the owner number: because

⁶ See [<http://nces.ed.gov/pubs2002/cip2000/index.asp>] for more information on CIP.

each owner-operator is identified by a unique ID number, project staff ensured that the same number was assigned to that owner in the Third Follow-Up.

MPR programmers tested all back-coding programs on a test data set for accuracy prior to adding the updated codes from the live data into the file. Both the programming and the project staff examined the adjusted data set to make sure that all changes were made accurately and that each step of the process was documented. Both were checked to ensure that the new descriptions were accurate. Additional checks were performed to ensure that back-coded financial items and their associated amounts had been properly transferred.

Project staff also looked for common “other-specify” answers to any question, to determine whether sufficient responses existed to form a new response category in the Third Follow-Up. If a response to an “other-specify” category appeared in at least 3 percent of the cases, the addition of a new response category would be considered. As in previous surveys, however, no Third Follow-Up question had an “other-specify” response that reached this threshold.

7. Data Cleaning and Frequency Review

To ensure data quality across all rounds of the KFS, the Third Follow-Up used the same set of specifications developed to machine-edit the data in previous rounds. These computer edit specifications began by checking the skip patterns and consistency checks in the CATI questionnaire, which were then expanded at each round to cover other data consistency issues identified.

After these cleaning specifications were finalized, they were programmed into SAS and applied to the original, unedited data. After these processes were completed, a set of frequency distributions was generated and then reviewed by project staff for quality control to ensure that the cleaning statements were implemented properly and to check for any other data inconsistencies.

During the initial review of the frequencies, inconsistent data values were noted for revision. Inconsistent values usually came from web cases since, to avoid increasing respondent frustration that can result in not completing the questionnaire, the web program had fewer built-in data checks than the CATI program. The frequency review also served as a final check that “other–specify” responses were back-coded properly, with any additional responses that could be back-coded noted so that they could be corrected. After the initial review, we compiled a list of values to be edited, and these were implemented through SAS. To ensure that all inconsistent values were corrected, we produced a second set of frequency distributions after cleaning.

Once the Third Follow-Up data file was finalized (all cleaning was completed and reviewed) and the constructed variables were added (discussed in the next section), the Third Follow-Up data were added to the KFS longitudinal file. Third Follow-Up variables were given a “_3” suffix to distinguish them from variables from earlier data collection rounds. This combined file went through a final quality control review to ensure that the process of combining the two files did not create any unexpected errors or complications. The longitudinal file was provided to the KFS data enclave for restricted use by approved researchers.

8. Constructed Variables

For the Third Follow-Up data, we produced a set of constructed variables using the procedures created in the previous rounds. These variables consolidated data reporting in questions with different levels of specificity in order to facilitate analysis of these data. Below is a review of the different categories of constructed variables.

a. Financial Measures with Three Levels of Data

When asked about different sources of business financing, such as equity or debt, respondents were first asked whether these sources were used (an “indicator” question).

Respondents reporting that the business had used one of these types of financing were then asked for an exact dollar amount for the reference period. Respondents unable or unwilling to provide an exact dollar amount (either through a “don’t know” or “refused” response in CATI or by not answering a response field on the web) were provided a set of ranges and asked to select the appropriate one. The goal of constructing variables for these financial measures was to combine these values into one variable that would inform researchers about both the incidence of usage and the amounts used or acquired during the reference period. Respondents answering “no” to the indicator question were given a “0” in the constructed variable. For exact-value responses, the value associated with the range the value fell into was placed in the new constructed variable. For example, if a respondent indicated that the business had a year-end personal credit card balance of \$20,000 (question F8b), the value “6” was placed in the constructed variable, indicating the range \$10,001 to \$25,000. For respondents who gave a range response to the question, these values were placed in the constructed variable as is.

b. Financial Variables with Two Levels of Data

We also created constructed variables for measures that did not include an indicator variable, such as total expenses (F17) and total wage expenses (F18). For these constructed variables, we used the process as described above to translate exact values into ranges.

c. Variables Summing Financial Measures

The KFS instrument asked about equity and debt in terms of specific sources, such as from owner-operators, family members, banks, and other organizations. By summing all discrete sources falling into a particular category, we created a set of constructed variables that provided subtotals of equity and debt provided by owner-operators and non-owner-operators, as well as a total from all sources.

d. Intellectual Property Measures

The KFS questions on patents, copyrights, and trademarks asked an indicator question for each type, and businesses that reported having these types of properties were asked how many they had. The constructed variables were created to provide both the incidence and the quantities of these items by entering a “0” for cases reporting no patents, copyrights, or trademarks, and for those reporting them, the number of the specific type was entered into the constructed variable.

Once the constructed variables were created and reviewed for quality control, the clean data file was provided to MPR statisticians so that the survey weights and nonresponse adjustment variables could be added.

9. Preparation of Codebook and Data Documentation

The main codebook for the Third Follow-Up Survey is the questionnaire, which was annotated to include the variable names in the data file next to the appropriate questions from which the variables were derived. An annotated questionnaire was created for use with the restricted-use longitudinal data file, which is in Appendix D. A full list of the variables constructed for the Third Follow-Up data file, as well as more about their construction, is in the data documentation memo in Appendix E. This memo provides information about variables not derived directly from the questionnaire, including:

- Sampling variables, such as those used in the technology and gender strata
- Weighting variables for each round of the KFS, such as nonresponse and post-stratification adjustments, as well as the longitudinal weight variable
- Survey management variables, such as the unique ID number given to cases, final dispositions, and number of contacts made to businesses
- D&B-derived variables, such as industry codes and other descriptive measures provided with the D&B file
- Constructed variables, as discussed in Section F.8

10. Preparation of Public Use Data File

In addition to the restricted-use data file we provided to the KFS data enclave, MPR produced a file for public use, available on the Foundation website [www.kauffman.org/kfs/request_download.cfm]. To create this file, we used several strategies to ensure that respondent confidentiality was not compromised. These included removing geographic variables (with the exception of “census region”), exact value variables for financial questions, and all “other—specify” variables. We reviewed the remaining variables file for values or cells containing small numbers of respondents, and “top-coded” those values into a summary statistic. QA on the public use data file was conducted by MPR staff with extensive experience in producing such files for federal agencies. Once approved, copies of the file were produced in SAS, SPSS, and STATA and provided to the Foundation, along with an annotated questionnaire and data documentation memo specifically designed for use with the public use data file.

G. WEIGHTING AND NONRESPONSE ADJUSTMENTS

1. Third Follow-Up Response Analysis Summary

For the purpose of nonresponse analysis in the Third Follow-Up alone, we classified the 4,928 panel members into two categories: located and unlocated. The located cases were further classified into “completes” and “nonrespondents.” Completes included businesses (1) for which we obtained either a web survey questionnaire or a CATI interview, or (2) that were classified as ineligible (ceased operations). Using information from the Baseline Survey, we located nearly the entire sample in the Third Follow-Up—the overall location rate (the weighted percentage of eligible businesses in the Baseline Survey that were located in the Third Follow-Up) is 96.5 percent. The weighted location and response rates relative to the Baseline Survey for the full sample are given in Table 7 and by technology stratum in tables 8 to 10.

TABLE 7

WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE
TO THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY

	Sample Count	Located	Weighted Percentage Located	Complete ^a	Weighted Percentage Complete/Located	Weighted Response Rate
All	4,928	4,769	96.5	4,089	85.5	82.5
Technology Sampling Strata						
High-technology	705	692	97.9	579	83.8	82.0
Medium-technology	1,329	1,286	96.7	1,123	87.1	84.2
Non-technology	2,894	2,791	96.5	2,387	85.3	82.3
Sole Proprietorship						
Yes	1,635	1,560	95.5	1,387	88.4	84.4
No	3,293	3,209	97.1	2,702	83.9	81.5
Number of Employees						
0	2,838	2,744	96.3	2,400	87.0	83.8
At least 1	2,090	2,025	96.9	1,689	83.4	80.8
Primary Location of the Business						
Residence	2,483	2,414	97.0	2,137	88.1	85.4
Others	2,445	2,355	96.1	1,952	83.0	79.8
Total Revenue						
0	1,704	1,627	95.0	1,369	83.7	79.6
\$1 to \$25,000	1,321	1,289	97.8	1,157	88.7	86.7
\$25,001 or more	1,903	1,833	97.0	1,563	84.8	82.2
Total Debt						
0	2,231	2,149	95.9	1,852	86.1	82.6
Positive	2,697	2,620	97.0	2,237	85.0	82.5
Age of the Responding Owner						
34 or younger	864	815	94.7	689	84.2	79.8
35 to 44	1,618	1,564	96.3	1,312	83.8	80.7
45 to 54	1,447	1,415	97.5	1,212	85.9	83.7
55 or older	999	975	97.2	876	89.1	86.7
Responding Owner's Years of Experience						
0 to 10	2,577	2,484	96.2	2,145	86.3	83.0
11 to 20	1,305	1,267	97.0	1,061	83.5	81.0
21 or more	1,046	1,018	96.9	883	85.8	83.2
Responding Owner's Education						
Associate's degree or lower	2,395	2,287	95.1	1,944	84.9	80.7
Bachelor's degree or higher	2,533	2,482	98.1	2,145	86.1	84.5

^aCompleted cases include businesses with complete data for applicable questions. These include Third Follow-Up completes and ineligible businesses (businesses that were not operational).

TABLE 8

WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO THE
BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY:
HIGH-TECHNOLOGY

	Sample Count	Located	Weighted Percentage Located	Completes ^a	Weighted Percentage Complete/Located	Weighted Response Rate
All	705	692	97.9	579	83.8	82.0
Sole Proprietorship						
Yes	153	147	95.5	131	90.2	86.2
No	552	545	98.7	448	81.9	80.8
Have Competitive Advantage						
Yes	478	470	98.2	393	84.0	82.4
No	227	222	97.5	186	83.3	81.2
Number of Owners						
1	331	324	97.6	280	87.0	84.9
2 or higher	374	368	98.3	299	80.8	79.4
Total Assets						
\$0 to \$10,000	223	216	96.4	191	88.8	85.6
\$10,001 to \$100,000	259	256	98.8	223	87.2	86.2
\$100,001 or more	223	220	98.5	165	74.7	73.6
Total Revenue						
\$0	253	246	96.9	201	82.0	79.4
\$1 to \$100,000	239	236	98.7	213	90.2	89.0
\$100,001 or more	213	210	98.5	165	78.6	77.4
Age of the Responding Owner						
34 or younger	78	75	96.0	59	78.6	75.5
35 to 44	216	211	97.5	177	83.8	81.7
45 to 54	248	245	98.6	200	81.7	80.5
55 or older	163	161	98.5	143	89.3	87.9
Responding Owner's Years of Experience						
0 to 10	314	308	97.9	261	85.1	83.3
11 to 20	202	198	97.8	161	80.9	79.1
21 or more	189	186	98.2	157	84.6	83.1
Responding Owner's Education						
Associate's degree or lower	346	342	98.6	284	83.3	82.1
Bachelor's degree or higher	359	350	97.3	295	84.2	81.9

^aCompleted cases include businesses with complete data for applicable questions. These include Third Follow-Up completes and ineligible businesses (businesses that were not operational).

TABLE 9

**WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO
THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY:
MEDIUM-TECHNOLOGY**

	Sample Count	Located	Weighted Percentage Located	Completes ^a	Weighted Percentage Complete/ Located	Weighted Response Rate
All	1,329	1,286	96.7	1,123	87.1	84.2
Sole Proprietorship						
Yes	426	405	95.0	364	89.7	85.2
No	903	881	97.5	759	85.9	83.8
Number of Employees						
0	828	802	96.9	720	89.7	86.9
At least 1	501	484	96.5	403	82.9	79.9
Have Competitive Advantage						
Yes	905	879	97.1	762	86.4	83.8
No	424	407	95.9	361	88.6	85.0
Primary Location of the Business						
Residence	873	853	97.7	765	89.5	87.5
Others	456	433	94.9	358	82.4	78.2
Total Assets						
\$0 to \$3,000	420	406	96.7	358	87.8	84.9
\$3,001 to \$25,000	488	473	96.9	431	90.9	88.1
\$25,001 or more	421	407	96.5	334	82.1	79.2
Total Revenue						
\$0	433	416	96.0	360	86.2	82.7
\$1 to \$25,000	412	400	97.0	366	91.3	88.6
\$25,001 or more	484	470	97.1	397	84.3	81.9
Age of the Responding Owner						
34 or younger	233	215	92.4	189	87.3	80.7
35 to 44	428	414	96.6	347	83.8	81.0
45 to 54	378	373	98.6	322	85.8	84.6
55 or older	290	284	97.8	265	93.3	91.2
Responding Owner's Years of Experience						
0 to 10	556	535	96.3	466	86.9	83.7
11 to 20	436	421	96.5	359	85.1	82.2
21 or more	337	330	97.8	298	89.8	87.7
Responding Owner's Education						
Associate's degree or lower	423	399	94.2	347	86.8	81.8
Bachelor's degree or higher	906	887	97.9	776	87.2	85.3

^aCompleted cases include businesses with complete data for applicable questions. These include Third Follow-Up completes and ineligible businesses (businesses that were not operational).

TABLE 10

**WEIGHTED LOCATION AND RESPONSE RATES FOR THE THIRD FOLLOW-UP SURVEY RELATIVE TO
THE BASELINE SURVEY AMONG BUSINESSES IN THE KAUFFMAN FIRM SURVEY:
NON-TECHNOLOGY**

	Sample Count	Located	Weighted Percentage Located	Completes ^a	Weighted Percentage Complete/ Located	Weighted Response Rate
All	2,894	2,791	96.5	2,387	85.3	82.3
Sole Proprietorship						
Yes	1,056	1,008	95.6	892	88.2	84.3
No	1,838	1,783	97.0	1,495	83.6	81.1
Number of Owners						
1	1,754	1,682	95.9	1,453	86.2	82.6
2 or more	1,140	1,109	97.3	934	84.0	81.7
Total Revenue						
\$0	1,018	965	94.9	808	83.4	79.1
\$1 to \$25,000	780	762	97.9	674	88.2	86.3
\$25,001 or more	1,096	1,064	97.0	905	84.9	82.3
Total Debt						
0	1,205	1,152	95.7	994	86.0	82.3
Positive	1,689	1,639	97.1	1,393	84.8	82.3
Age of the Responding Owner						
34 or younger	553	525	95.0	441	83.9	79.7
35 to 44	974	939	96.3	788	83.8	80.6
45 to 54	821	797	97.3	690	86.0	83.7
55 or older	546	530	97.1	468	88.4	85.8
Responding Owner's Years of Experience						
0 to 6	1,300	1,252	96.3	1,092	87.0	83.8
7 to 15	756	730	96.5	604	82.8	79.9
16 or more	838	809	96.6	691	84.9	82.0
Gender of the Responding Owner						
Female	843	816	96.8	701	85.9	83.1
Male	2,051	1,975	96.3	1,686	85.0	81.9
Responding Owner's Education						
Associate's degree or lower	1,626	1,546	95.1	1,313	84.8	80.6
Bachelor's degree or higher	1,268	1,245	98.2	1,074	85.9	84.4

^aCompleted cases include businesses with complete data for applicable questions. These include Third Follow-Up completes and ineligible businesses (primarily businesses that were not operational).

In general, businesses in the medium-technology sampling strata responded at a slightly higher rate than did businesses in the high-technology and non-technology sampling strata. Because businesses in the non-technology sampling stratum account for the majority of the study population (85 percent), the overall location and response rates will generally reflect the pattern of the businesses in the non-technology stratum. In addition to the technology sampling strata, we analyzed the response patterns by gender, age category, education, experience in the industry of the responding owner, legal status, physical location (residence or not), and number of employees, as well as by financial information (total debt, total revenue, etc.). All these characteristics are from data collected in the Baseline Survey.⁷

Generally speaking, the age of the responding owner was positively correlated with response to the Third Follow-Up Survey. However, among businesses in the high-technology stratum, those whose owners were between 45 and 54 years old had a response rate slightly lower than businesses whose owners were between 35 and 44. Businesses whose responding owner had at least a bachelor's degree responded at a higher rate in both medium-technology and non-technology strata, but at a slightly lower rate among businesses in the high-technology sampling stratum. Sole proprietorships responded at a higher rate across all strata. Overall, businesses whose revenues were between \$1 and \$25,000 had a higher response rate than others.

2. Longitudinal Response Analysis Summary

For the purpose of longitudinal nonresponse analysis in the First, Second and Third Follow-Up surveys, we classified the 4,928 panel members into two categories: completes and

⁷ For consistency with tables from the previous rounds of surveys, the characteristics shown in the response rate tables (tables 8-15) are from the data collected in the Baseline survey. In the nonresponse adjustments, the characteristics used as covariates in the SAS models are from data collected in the Baseline, First Follow-Up, and Second Follow-Up survey to take into account the dynamic features of the survey.

nonrespondents. Completes included businesses (1) for which we obtained either a web survey questionnaire or a telephone interview in all three rounds, or (2) that were classified as ineligible (ceased operations) in all three rounds, or (3) that completed an interview in the First Follow-Up and then was classified as out of business in the Second and Third Follow-Up, or (4) that completed an interview in the First and Second Follow-Up and then was classified as out of business in the Third Follow-Up. The weighted response rates for the full sample are given in Table 11 and by technology stratum in Tables 12 to 14.

In general, businesses in the medium-technology and high-technology sampling strata responded at a higher rate than did non-technology businesses. Again, because businesses in the non-technology sampling stratum account for the majority of the study population (85 percent), the overall location and response rates will generally reflect the pattern of the businesses in the non-technology stratum. As we did for the nonresponse analysis for the Third Follow-Up Survey alone, we analyzed the response patterns by gender, age category, education, experience in the industry of the responding owner, legal status, physical location (residence or not), and number of employees, as well as by financial information (total debt, total revenue, etc.). All these characteristics are from data collected in the Baseline Survey.⁸

For the longitudinal response, the age of the responding owner was positively correlated with response across all three strata. Businesses whose responding owner had at least a bachelor's degree responded at a higher rate across all technology strata, though the differential was slightly smaller among businesses in the high-technology sampling stratum than in the other two strata. Sole proprietorships responded at a higher rate across all technology strata. In

⁸ To be consistent with tables from the previous rounds of surveys, the characteristics shown in the response rate tables (Table 8-15) are from the data collected in the Baseline survey. In the nonresponse adjustments, the characteristics used as covariates in the SAS models are from data collected in the Baseline, First Follow-Up, and Second Follow-Up survey to take into account the dynamic features of the survey.

TABLE 11

WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST, SECOND AND THIRD FOLLOW-UP
SURVEYS RELATIVE TO THE BASELINE SURVEY AMONG
BUSINESSES IN THE KAUFFMAN FIRM SURVEY

	Sample Count	Completes ^a	Weighted Response Rate
All	4,928	3,646	73.2
Technology Sampling Strata			
High-technology	705	521	73.8
Medium-technology	1,329	1,018	76.2
Non-technology	2,894	2,107	72.7
Sole Proprietorship			
Yes	1,635	1,250	75.8
No	3,293	2,396	71.7
Number of Employees			
0	2,838	2,155	74.8
At least 1	2,090	1,491	70.9
Primary Location of the Business			
Residence	2,483	1,936	76.5
Others	2,445	1,710	69.9
Total Revenue			
0	1,704	1,210	69.4
\$1 to \$25,000	1,321	1,060	79.4
\$25,001 or more	1,903	1,376	72.1
Total Debt			
0	2,231	1,669	74.3
Positive	2,697	1,977	72.3
Age of the Responding Owner			
34 or younger	864	584	67.2
35 to 44	1,618	1,154	71.0
45 to 54	1,447	1,102	75.6
55 or older	999	806	79.3
Responding Owner's Years of Experience			
0 to 10	2,577	1,877	72.4
11 to 20	1,305	947	72.2
21 or more	1,046	822	76.7
Responding Owner's Education			
Associate's degree or lower	2,395	1,689	70.1
Bachelor's degree or higher	2,533	1,957	76.6

^aCompleted cases include businesses with complete data for applicable questions. These included businesses (1) for which we obtained either a web survey questionnaire or a telephone interview in all three rounds, or (2) that were classified as ineligible (ceased operations) in all three rounds, or (3) that completed an interview in the First Follow-Up and then was classified as out of business in the Second and Third Follow-Up, or (4) that completed an interview in the First and Second Follow-Up and then was classified as out of business in the Third Follow-Up.

TABLE 12

WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST, SECOND AND THIRD FOLLOW-UP
SURVEYS RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES
IN THE KAUFFMAN FIRM SURVEY: HIGH-TECHNOLOGY

	Sample Count	Completes ^a	Weighted Response Rate
All	705	521	73.8
Sole Proprietorship			
Yes	153	120	78.3
No	552	401	72.5
Have Competitive Advantage			
Yes	478	350	73.5
No	227	171	74.5
Number of Owners			
1	331	257	77.7
2 or higher	374	264	70.3
Total Assets			
\$0 to \$10,000	223	170	76.1
\$10,001 to \$100,000	259	206	79.7
\$100,001 or more	223	145	64.7
Total Revenue			
\$0	253	188	74.6
\$1 to \$100,000	239	187	77.9
\$100,001 or more	213	146	68.3
Age of the Responding Owner			
34 or younger	78	51	65.0
35 to 44	216	155	71.6
45 to 54	248	183	74.0
55 or older	163	132	80.8
Responding Owner's Years of Experience			
0 to 10	314	232	73.9
11 to 20	202	142	69.9
21 or more	189	147	77.9
Responding Owner's Education			
Associate's degree or lower	346	248	71.5
Bachelor's degree or higher	359	273	76.1

^aCompleted cases include businesses with complete data for applicable questions. These included businesses (1) for which we obtained either a web survey questionnaire or a telephone interview in all three rounds, or (2) that were classified as ineligible (ceased operations) in all three rounds, or (3) that completed an interview in the First Follow-Up and then was classified as out of business in the Second and Third Follow-Up, or (4) that completed an interview in the First and Second Follow-Up and then was classified as out of business in the Third Follow-Up.

TABLE 13

WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST AND SECOND FOLLOW-UP SURVEYS RELATIVE
TO THE BASELINE SURVEY AMONG BUSINESSES IN THE
KAUFFMAN FIRM SURVEY: MEDIUM-TECHNOLOGY

	Sample Count	Completes ^a	Weighted Response Rate
All	1,329	1,018	76.2
Sole Proprietorship			
Yes	426	330	77.0
No	903	688	76.0
Number of Employees			
0	828	653	78.6
At least 1	501	365	72.4
Have Competitive Advantage			
Yes	905	689	75.8
No	424	329	77.2
Primary Location of the Business			
Residence	873	706	80.7
Others	456	312	68.1
Total Assets			
\$0 to \$3,000	420	320	75.9
\$3,001 to \$25,000	488	405	82.8
\$25,001 or more	421	293	69.2
Total Revenue			
\$0	433	322	74.0
\$1 to \$25,000	412	339	82.2
\$25,001 or more	484	357	73.3
Age of the Responding Owner			
34 or younger	233	163	69.7
35 to 44	428	308	71.9
45 to 54	378	298	78.2
55 or older	290	249	85.4
Responding Owner's Years of Experience			
0 to 10	556	411	73.9
11 to 20	436	325	74.3
21 or more	337	282	82.8
Responding Owner's Education			
Associate's degree or lower	423	303	71.5
Bachelor's degree or higher	906	715	78.4

^aCompleted cases include businesses with complete data for applicable questions. These included businesses (1) for which we obtained either a web survey questionnaire or a telephone interview in all three rounds, or (2) that were classified as ineligible (ceased operations) in all three rounds, or (3) that completed an interview in the First Follow-Up and then was classified as out of business in the Second and Third Follow-Up, or (4) that completed an interview in the First and Second Follow-Up and then was classified as out of business in the Third Follow-Up.

TABLE 14

WEIGHTED LONGITUDINAL RESPONSE RATES FOR THE FIRST AND SECOND FOLLOW-UP SURVEYS
RELATIVE TO THE BASELINE SURVEY AMONG BUSINESSES IN THE
KAUFFMAN FIRM SURVEY: NON-TECHNOLOGY

	Sample Count	Completes ^a	Weighted Response Rate
All	2,894	2,107	72.7
Sole Proprietorship			
Yes	1,056	800	75.7
No	1,838	1,307	70.9
Number of Owners			
1	1,754	1,294	73.7
2 or more	1,140	813	71.1
Total Revenue			
\$0	1,018	700	68.7
\$1 to \$25,000	780	616	78.9
\$25,001 or more	1,096	791	72.0
Total Debt			
0	1,205	891	73.8
Positive	1,689	1,216	71.8
Age of the Responding Owner			
34 or younger	553	370	66.9
35 to 44	974	691	70.8
45 to 54	821	621	75.2
55 or older	546	425	78.1
Responding Owner's Years of Experience			
0 to 6	1,300	945	72.6
7 to 15	756	535	70.8
16 or more	838	627	74.5
Gender of the Responding Owner			
Female	843	625	74.3
Male	2,051	1,482	71.9
Responding Owner's Education			
Associate's degree or lower	1,626	1,138	69.9
Bachelor's degree or higher	1,268	969	76.1

^aCompleted cases include businesses with complete data for applicable questions. These included businesses (1) for which we obtained either a web survey questionnaire or a telephone interview in all three rounds, or (2) that were classified as ineligible (ceased operations) in all three rounds, or (3) that completed an interview in the First Follow-Up and then was classified as out of business in the Second and Third Follow-Up, or (4) that completed an interview in the First and Second Follow-Up and then was classified as out of business in the Third Follow-Up.

medium-technology and non-technology strata, businesses whose revenues were between \$1 and \$25,000 had a higher response rate than others, and the differential was smaller for businesses in the medium-technology sampling stratum than in the non-technology stratum. In the high-technology stratum, businesses having no revenue had the highest response rate, and businesses with higher revenue (over \$100,000) had the lowest.

3. Sampling Weights

The initial sampling weight for the Third Follow-Up Survey is defined as the final analysis weight from the Baseline Survey, that is, the weight that includes the nonresponse adjustment and the post-stratification/raking adjustment. Table 15 shows the descriptive statistics of the initial sampling weight.

TABLE 15
DESCRIPTIVE STATISTICS OF INITIAL SAMPLING WEIGHT FOR THE THIRD FOLLOW-UP SURVEY

	Minimum	Maximum	Mean	Median	Std Deviation
All	1.17	46.98	14.87	17.69	8.69
High-technology	1.17	3.42	1.86	1.84	0.34
Medium-technology	4.39	12.39	7.28	7.29	1.03
Non-technology	13.50	46.98	21.52	20.93	4.01

4. Nonresponse Adjustment

In essentially all surveys, the sampling weights have to be adjusted to compensate for the panel members who cannot be located or who refuse to respond. The general approach was discussed in detail in DesRoches et al. (2007). For the Third Follow-Up Survey, we applied a similar strategy: we used weighted logistic propensity modeling separately for each technology stratum. Because of the high rate of locating the businesses, we incorporated both the location and the response status of sampled businesses into the modeling. That is, we used three response

propensity logistic models (one for each technology sampling stratum). The two levels in the binary response for this model were “a located respondent” versus “nonrespondent or not located.” For the KFS, a sample member was classified as a respondent if the sample member completed the questionnaire (that is, was an eligible respondent) or was determined to be ineligible (that is, was out of business). We used the inverse of the propensity score as the response adjustment factor. The response-adjusted weight for each sample case is the product of the initial weight and the response adjustment factor. Finally, we computed a raking factor in each technology stratum to ensure that the marginal sums of the weights were the same before and after nonresponse adjustment.

We developed the models using data from the responses to the Baseline Survey and the First and Second Follow-Up within the sampling technology groups. We evaluated the data as main effects and also investigated interactions among these variables. To identify candidate variables to be used as main effects and interactions among these variables for the modeling, we first ran a CHAID analysis in SPSS to find possible significant predictors and combinations of them. To further refine the candidate variables and interaction terms, we then processed, through forward and backward stepwise regression (using the SAS logistic procedure with weights normalized to the sample size), the variables and interactions we had identified with CHAID. After identifying a smaller pool of main effects and interactions for potential inclusion in the final model, we evaluated a series of models to determine the final parsimonious model. Because the SAS logistic procedure does not incorporate the sampling design, the final selection of the covariates was accomplished with the logistic regression procedure in SUDAAN using various measures of goodness of fit and predictive ability.⁹ For selecting variables or interactions in a model, we

⁹ Research Triangle Institute. *SUDAAN Language Manual, Release 9.0*. Research Triangle Park, NC: Research Triangle Institute, 2004.

included variables or interactions that have a statistical significance level (alpha level) of 0.30 or lower (instead of the standard 0.05). We used a higher significance level because the purpose of the model was to improve the estimation of the propensity score, not to identify statistically significant factors related to response. In addition, the information sometimes reflected proxy variables for some underlying variable that was both unknown and unmeasured. The variables used as main effects and the interactions in the response model are summarized in Table 16. The value for the R-squared statistic ranged from 0.08 to 0.11 for the various final models, and the Hosmer-Lemeshow statistics ranged from 0.21 to 0.97. These values are similar to those observed for other response propensity modeling efforts using logistic regression with design-based sampling weights.

We used essentially the same approach to construct the longitudinal weights. The two levels in the binary response for this model were “longitudinal respondent” versus “longitudinal nonrespondent.” For the purpose of longitudinal weighting, a sample member was classified as a respondent if any of the following apply:

- Completed the interview in all three rounds (that is, was an eligible respondent)
- Was determined to be ineligible in all three rounds (that is, was out of business)
- Completed the questionnaire in the First Follow-Up and then was out of business for the Second and Third Follow-Up
- Completed an interview in the First and Second Follow-Up and then was classified as out of business in the Third Follow-Up

The variables used as main effects and the interactions in the longitudinal response model are summarized in Table 17. The value for the R-squared statistic ranged from 0.08 to 0.15 for the various models, and the Hosmer-Lemeshow statistics ranged from 0.54 to 0.96. These values are similar to those observed for other response propensity modeling efforts using logistic regression with design-based sampling weights.

TABLE 16

SUMMARY OF NONRESPONSE MODELS FOR THE THIRD FOLLOW-UP SURVEY WEIGHTS

Variable	Level	High-tech	Medium-tech	Non-tech
Responding owner's age	4	Main	Main, Interaction	Interaction
Responding owner's experience	3	Main		Interaction
Responding owner's education	2		Main, Interaction	Interaction
Responding owner's race	2		Main	Main, Interaction
Responding owner's full-time/part-time	2	Interaction	Main	Interaction
Total assets	3	Interaction	Main, Interaction	Main
Total revenue	3	Interaction	Main, Interaction	Interaction
Total debt	2		Main, Interaction	Interaction
Total expense	3		Interaction	Main, Interaction
Total equity	3		Main, Interaction	Main, Interaction
Total liability	2		Main	
Legal status	2		Main	Main
Primary location	2	Main, Interaction	Main, Interaction	Interaction
Number of owners	2	Interaction	Main	
Number of employees	2		Interaction	Main
Having sales	2	Main	Interaction	Main, Interaction
Providing services	2	Main, Interaction		
Providing products	2		Main, Interaction	Interaction
Major industry	2			Interaction
Intellectual property	2	Main, Interaction	Main, Interaction	
R&D expenditure	2	Main	Main	
Competitive advantage	2	Interaction		Main, Interaction
Full R-squared		0.114	0.124	0.084
Reduced R-squared		0.075	0.109	0.080
Hosmer-Lemeshow statistics		0.971	0.208	0.560
Percentage concordant		68.3	74.3	70.1
Percentage discordant		31.0	25.3	29.4
Percentage tied		0.7	0.4	0.5

TABLE 17

SUMMARY OF NONRESPONSE MODELS FOR THE LONGITUDINAL WEIGHTS FOR THE FIRST, SECOND, AND THIRD FOLLOW-UP SURVEYS

Variable	Level	High-tech	Medium-tech	Non-tech
Responding owner's age	4	Main, Interaction	Main, Interaction	Interaction
Responding owner's experience	3	Main, Interaction	Interaction	Main, Interaction
Responding owner's gender	2		Main, Interaction	
Responding owner's education	2	Interaction	Interaction	Main, Interaction
Responding owner's race	2		Main, Interaction	Main, Interaction
Responding owner's full-time/part-time	2	Interaction	Interaction	
Total assets	3	Main, Interaction	Main, Interaction	
Total revenue	3	Interaction	Main, Interaction	Interaction
Total debt	2		Main, Interaction	Interaction
Total expense	3			Main, Interaction
Total equity	3	Interaction	Main, Interaction	Main, Interaction
Total liability	2			Interaction
Legal status	2		Main, Interaction	Main
Primary location	2	Interaction	Main, Interaction	Main
Number of employees	2		Main, Interaction	
Number of owners	2			Interaction
Having sales	2	Main	Interaction	Main, Interaction
Providing services	2	Interaction		Main
Major industry	2			Main
Intellectual property	2			Interaction
R&D expenditure	2	Main	Interaction	Main
Competitive advantage	2	Main, Interaction		Main
Full R-squared		0.176	0.150	0.099
Reduced R-squared		0.146	0.121	0.083
Hosmer-Lemeshow statistics		0.803	0.960	0.544
Percentage concordant		74.3	73.3	67.2
Percentage discordant		25.3	26.4	32.4
Percentage tied		0.4	0.4	0.5

5. Raking

In the final step of weighting, we applied a raking method. Raking is an iteration method and is essentially a post-stratification on a set of variables when only their marginal population distributions are known. In the previous rounds, we applied a single-level post-stratification within the three technology groups to make the sum of weights the same before and after nonresponse adjustments. In the Third Follow-Up Survey, to achieve better precision, we used raking adjustments within the six sampling strata defined by the technology group and woman ownership indicator. The set of variables for which we controlled for marginal totals include the four-level census division, the two-level MSA indicator, and the two-level industry (service industry or not). Collapsing might be needed within each individual variable to make sure there were enough cases within each cell. The raking adjustment factor ranged between 0.95 and 1.06 for the Third Follow-Up weights, and between 0.90 and 1.08 for the longitudinal weights.

H. ESTIMATION

1. Point Estimation

The KFS uses a simple stratified sampling design. As described in DesRoches et al. (2007), the businesses in the high-technology sampling stratum were oversampled substantially (actually all were included in the sample). We also oversampled the medium-technology businesses relative to the non-technology ones. The sampling weights take this oversampling into account to remove the potential bias in the estimates relative to unweighted estimates. Moreover, as shown in Section G, the response rate differed by factors like legal status, ownership, and age and education of the owner. The nonresponse adjustments described in Section G were designed to minimize potential nonresponse bias in the estimates. We strongly recommend the use of the nonresponse-adjusted weights for all estimates using the KFS data.

2. Variance and Interval Estimation

Variance estimates calculated from KFS data must incorporate the sample design features to obtain the correct (approximately unbiased) estimates. Most procedures in standard statistical packages such as SAS, STATA, and SPSS are not appropriate for the proposed design, because the assumptions in these software packages or procedures are for independent, identically distributed observations or for simple random sampling with replacement.¹⁰ Although the simple random sample variance may approximate the true sampling variance for some surveys, it is likely to underestimate substantially the sampling variance with the KFS design.

The sampling variance is a measure of the variation of an estimator attributable to having sampled a portion of the full population of interest using a specific probability-based sampling design. The sampling variance is a measure of the variation of the *estimate* of a population parameter (for example, a population mean or proportion) over repeated samples, whereas the classic “population” variance is a measure of the variation among the *observations* in the population. The population variance is different from the sampling variance in the sense that the population variance is a constant, independent of any sampling issues, while the sampling variance becomes smaller as the sample size increases. The sampling variance is zero when the full population is observed, as in a census.

For the KFS, the sampling variance estimate is a function of the sampling design and the population parameter being estimated. Called the design-based sampling variance, it assumes the use of fully adjusted sampling weights, which are derived from the sampling design, with adjustments to compensate for nonresponse among the businesses and additional adjustments to align the sampling totals to external totals, as previously described. We developed a single fully

¹⁰ STATA and SAS software packages now contain procedures that account for the sampling design and can be used for estimation of the sampling variances.

adjusted sampling weight and information on analysis parameters (that is, analysis stratification) necessary for the estimation of the sampling variance for a statistic using the Taylor series linearization approach. The fully adjusted sampling weight and the analysis parameters can be used in survey data analysis procedures in SUDAAN or in certain procedures in STATA, SAS, and SPSS to compute design-unbiased variance estimates. These variance estimates can be used to make interval estimates. For example, for a proportion (p) of businesses (or owners) with certain characteristics, the 90 percent confidence interval is

$$[p - 1.645 \times (\text{std err. } (p)), p + 1.645 \times (\text{std err. } (p))]$$

To identify sampling levels or stages, the SUDAAN software requires specifying the survey design and STRATA variables. This is the stratum variable we used when drawing the sample (that is, the six-level variable defined by technology group and woman-owned status).

3. Selected Estimates and Variances

The point and variance estimation procedures are straightforward, and we provide example estimates at the business level and the owner level here. These estimates are for the following variables (the question number and response categories are in parentheses).

Business level:

- Percentage of businesses that are sole proprietorships (C1z2 = 1)
- Percentage of businesses that are partnerships (C1z2 = 5, 6)
- Percentage of businesses whose primary location is a residence such as a home or garage (C8 = 1)
- Percentage of businesses that have any patents, copyrights, or trademarks (any D3 = 1)
- Percentage of businesses that have R&D expenditures (F19 = 1)

Owner level:

- Percentage of responding owners who are 25-44 (G4 = 2, 3)

- Percentage of responding owners with higher than bachelor's degree ($G9 = 7, 8, 9, 10$)
- Percentage of responding owners who work full-time ($G1b1 = 3, 4, 5, 6$)
- Percentage of responding owners who are women ($G10 = 2$)

Table 18 shows these estimates and their standard errors (the square root of the variance).

TABLE 18

VARIANCE ESTIMATION FOR SOME BUSINESS AND OWNER CHARACTERISTICS

	High-tech	Sample Size	Estimate	Standard Error
Percentage of businesses that are sole proprietorships	All	2,915	33.7	1.03
	High-tech	434	19.2	1.95
	Medium-tech	831	26.2	1.54
	Non-tech	1,650	35.3	1.19
Percentage of businesses that are partnerships	All	2,915	4.8	0.48
	High-tech	434	1.2	0.49
	Medium-tech	831	2.6	0.58
	Non-tech	1,650	5.2	0.57
Percentage of businesses that have any patents, copyrights, or trademarks	All	2,903	20.1	0.87
	High-tech	433	33.8	2.35
	Medium-tech	825	26.0	1.60
	Non-tech	1,645	18.8	1.00
Percentage of businesses that have R&D expenditures	All	2,906	15.0	0.78
	High-tech	433	35.7	2.37
	Medium-tech	829	18.1	1.42
	Non-tech	1,644	14.0	0.90
Percentage of businesses whose primary location is a residence, such as a home or garage	All	2,762	48.8	1.12
	High-tech	417	33.1	2.34
	Medium-tech	787	61.5	1.81
	Non-tech	1,558	47.0	1.30
Percentage of responding owners who are 25 to 44	All	2,834	49.3	1.11
	High-tech	420	38.3	2.41
	Medium-tech	814	45.8	1.80
	Non-tech	1,600	50.2	1.29
Percentage of responding owners with higher than a bachelor's degree	All	2,821	50.0	1.10
	High-tech	417	51.3	2.51
	Medium-tech	812	72.5	1.63
	Non-tech	1,592	46.1	1.29
Percentage of responding owners who work full-time	All	2,831	64.2	1.06
	High-tech	420	75.4	2.15
	Medium-tech	813	61.1	1.73
	Non-tech	1,598	64.5	1.22
Percentage of responding owners who are women	All	2,834	29.9	0.80
	High-tech	420	16.4	1.38
	Medium-tech	814	22.1	0.99
	Non-tech	1,600	31.5	0.94

SELECTED BIBLIOGRAPHY

- Ballou, Janice, Frank Potter, and David DesRoches. "Kauffman Firm Survey Design Report." Report submitted to the Ewing Marion Kauffman Foundation. Princeton, NJ: Mathematica Policy Research, Inc., December 10, 2004.
- Ballou, Janice, Tom Barton, David DesRoches, Frank Potter, E.J. Reedy, Alicia Robb, Scott Shane and Zhanyun Zhao. "The Kauffman Firm Survey: Results from the Baseline and First Follow-Up Surveys." Available at SSRN: <http://ssrn.com/abstract=1098173>, March 2008.
- Ballou, Janice, Zhanyun Zhao, Frank Potter, and David DesRoches. "Meeting the Challenges of Designing the Kauffman Firm Survey (KFS): Sampling Frame, Definitions, Questionnaire Development, and Respondent Burden." Proceedings of the International Conference on Establishment Surveys, Montreal, June 2007.
- DesRoches, David, Janice Ballou, Frank Potter, Betsy Santos, and Zhanyun Zhao. "Kauffman Firm Survey Second Follow Up Methodology Report." Final report submitted to the Ewing Marion Kauffman Foundation. Princeton, NJ: Mathematica Policy Research, Inc. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1284474 October 7, 2008.
- DesRoches, David, Tom Barton, Jaceey Sebastian, Betsy Santos, Frank Potter, and Janice Ballou. "Kauffman Firm Survey Baseline Methodology Report." Final report submitted to the Ewing Marion Kauffman Foundation. Princeton, NJ: Mathematica Policy Research, Inc. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1024045, August 7, 2007.
- DesRoches, David, Tom Barton, Janice Ballou, Frank Potter, Zhanyun Zhao, Betsy Santos, and Jaceey Sebastian. "Kauffman Firm Survey First Follow Up Methodology Report." Final report submitted to the Ewing Marion Kauffman Foundation. Princeton, NJ: Mathematica Policy Research, Inc. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1116766 April 8, 2008.
- Potter, Frank, Zhanyun Zhao, David DesRoches, and Janice Ballou. "Response Rates and Response Patterns Among New Employers: Results from the Kauffman Firm Survey." Proceedings of the American Statistical Association Survey Methods Section, August 2006.

APPENDIX A

KFS THIRD FOLLOW-UP QUESTIONNAIRE PROPOSED CHANGES

MEMORANDUM**TO:** E. J. Reedy, Ewing Marion Kauffman Foundation**FROM:** David DesRoches**DATE:** 2/4/2008
KFS – 110**SUBJECT:** Comments on proposed question additions to Kauffman Firm Survey questionnaire

I. INTRODUCTION

The Kauffman Firm Survey (KFS) plans a Third Follow-Up Survey in 2008. As part of the Kauffman Foundation's outreach to data users, a request for proposals was issued in October 2007 for new questions to be added to the KFS questionnaire. Four sets of questions were submitted, totaling 34 questions. Given the length of the Second Follow-Up Survey questionnaire (33 minutes on average by telephone), it will be necessary to prioritize the proposed questions so as to limit the increase in respondent burden and any corresponding reduction in the survey response rate. In evaluating the suggested questions, MPR considered their relevance to the KFS panel, the likely effect of adding the question on respondent burden and, and the potential issues involved in administering the question. This memo details the questions submitted, along with comments from MPR staff on the KFS project team.

II. PROPOSED QUESTIONS FROM THE NATIONAL SCIENCE FOUNDATION**A. Follow-up to C8 (Business Location)**

C8a. Next, I'm going to ask you whether you chose this location to be close to several types of organizations. The first one is [READ FIRST ITEM]. Did you chose this location to be close to [or in] a [REPEAT FIRST ITEM]. The next one is [READ NEXT ITEM]? [As necessary:] Did you chose this location to be close to [or in] a [REPEAT ITEM].

	Yes	No	Don't know	Refused
Science or research park				
Business incubator center				
Technology corridor				
University or college				

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 2

Read descriptions as needed:

Science parks, also called research parks, are real estate developments designed to promote technology development. Many science parks are affiliated with universities or government agencies.

Business incubator centers are facilities to help startup companies grow through the use of business services and other shared resources. Business incubators can be located in science and research parks.

Technology corridors are loosely-defined geographic areas with clusters of technology-oriented companies. They are typically located near a population center or a major highway or airport.

Universities and colleges include branch campuses, research centers, and any other location of an academic institution.

MPR comments:

1. This question is most appropriate for businesses that are primarily operated from a non-residential setting. We are concerned that the proximity of home-based businesses to these types of locations will not be meaningful for analysis, and we recommend that home-based businesses be skipped over this question.
2. We are somewhat concerned that businesses may be chosen to locate near a “university or college” for reasons that have nothing to do with innovation, especially among KFS non-tech businesses. We would recommend looking at the data collected at a question like this be used in conjunction with data on primary industry. As an alternative, this question could only be asked of high-tech and medium-tech businesses.
3. In addition to the question on primary location asked in the Baseline Survey, the follow-up surveys have also included questions about the reason for changes in primary location and the number of locations the business has. We recommend that if this question is added to the KFS, that it be placed after the question about the reason for changes in the primary location (currently question C9), and before the question about additional locations (currently question C10).
4. In terms of the question wording, we would recommend an opening statement that is clearly tied to the primary location, and expanding the description of the list, since some of the items on the list are not organizations per se. An example is:

“Now, focusing on your current primary location of [READ C8 RESPONSE], I’m going to ask you whether you chose this location to be close to several types of several types of organizations or areas.”

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 3

B. Follow-up to D2 (Competitive advantage)

(If respondent answers “YES” in D2.)

D2a. I’m going to ask you about several items that could have contributed to your company’s competitive advantage both in calendar year 2007 and in 2004 when you started your company. For each one I read, please tell me if it is a major reason, a minor reason, or not a reason for your competitive advantage in 2007. After that, I will ask you if this is something about your company that was the same or different in 2004. If an item does not seem to apply to you, you can say that it is not a reason. The first one is [READ FIRST ITEM].

[As necessary:] Would you say that is a is a major reason, a minor reason, or not a reason for your competitive advantage in 2007? Is that the same situation or different from 2004? If “different,” ask: In 2004 was it a major reason, a minor reason, or not a reason for your company’s competitive advantage.

The next item is [READ NEXT ITEM]. [As necessary:] Would you say that is a major reason, a minor reason, or not a reason for your competitive advantage in 2007? Is that the same situation or different from 2004? If “different,” ask: In 2004 was that a major reason, a minor reason, or not a reason for your company’s competitive advantage?

	2007			2004				
	Major reason	Minor reason	Not a reason	Major reason	Minor reason	Not a reason	Other/ Don’t know	Refused
Teaming up with a college or university								
Teaming up with a government laboratory or government research center								
Teaming up with another company								
A patent, such as one awarded to your company, one that you applied for, or one that you licensed								
The science and technology of your products or services								

MPR comments:

1. The first sentence assumes that the competitive advantage was static between 2004 and 2007 (meaning the business had an advantage at both points in time), which is not necessarily true and may confuse respondents. The KFS has consistently taken the approach of reducing respondent recall problems by concentrating on the previous calendar year during each survey round. For this reason, we strongly recommend asking this set of questions of calendar year 2007 only.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 4

2. Given that these questions are likely to be most relevant to high-tech businesses, we recommend screening questions so that non-tech businesses do not have to answer the entire list. For example, the following two questions could be asked of all respondents reporting a competitive advantage at D2:

- a. Is the competitive advantage you have related in any way to teaming up with a college or university, a government research center, or another company?
- b. Is the competitive advantage that you have related in any way to patents you own, have applied for, or licensed, or to unpatented science and technology that you own?

If “No” to both questions, they would skip the grid, and if “Yes” to both, they would answer the whole set of questions. If “Yes” to one and “No” to the other, they would only be asked the questions related the “Yes” answer. We believe this would strike a balance between gathering useful information and increasing respondent burden.

C. Follow-up to F19 (Research and Development spending)

IF BUSINESS REPORTED “0” spending at F19, GO TO F20.

F19a. Could you please estimate how much your company spent on R&D in 2007 including salaries, wages, and benefits?

\$_____.

[if volunteered:] None
Don't know
Refused

IF DON'T KNOW OR REFUSED, PROBE: You don't have to give me an exact figure; your best estimate will do.

MPR comments:

1. Prior to the Baseline Survey, we piloted questions on the total amount the business spent on R&D, but the question was dropped from the Baseline Survey due to the difficulty of respondent being able to provide an accurate figure. This may be less of a problem with more established businesses and asking this only of those who reported some spending.
2. We assume this question is trying to capture a total expenditure figure for R&D, not just salaries, wages, and benefits. If so, we should include other expenses that should be included (such as materials, equipment, space, etc.) or risk having some respondents include only the items mentioned in the current question.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 5

3. For Don't Know, Refused, or Blank responses, we recommend using the standard KFS ranges used for other financial questions in the survey.

F19b. Of your R&D spending in 2007 [As necessary: READ TOTAL AMOUNT], could you please estimate the percent of the total, if any, that was used for projects that have a biotechnology application?

_____ percent

[if volunteered:] None
Don't know
Refused

IF DON'T KNOW OR REFUSED, PROBE: You don't have to give me an exact figure; your best estimate will do.

[As needed:] Biotechnology is the use of science and engineering for the study of living organisms.

F19c. Of your R&D spending in 2007 [As necessary: READ TOTAL AMOUNT], could you please estimate the percent of the total, if any, that was used for projects that use materials synthesis and processing?

_____ percent

[if volunteered:] None
Don't know
Refused

IF DON'T KNOW OR REFUSED, PROBE: You don't have to give me an exact figure; your best estimate will do.

IF RESPONDENT ASKS WHETHER TO INCLUDE WHAT THEY ALREADY REPORTED IN F19b, THE ANSWER IS "YES."

[As needed:] Materials synthesis and processing is the use of science and engineering to form and manipulate new materials.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 6

F19d. Of your R&D spending in 2007 [As necessary: READ TOTAL AMOUNT], could you please estimate the percent of the total, if any, that was used for software projects.

_____ percent

[if volunteered:] None
Don't know
Refused

IF DON'T KNOW OR REFUSED, PROBE: You don't have to give me an exact figure; your best estimate will do.

IF RESPONDENT ASKS WHETHER TO INCLUDE WHAT THEY ALREADY REPORTED IN F19b OR F19c, THE ANSWER IS "YES."

[As needed:] Software is the programs, applications, routines, and so forth, for computers, excluding those used exclusively for company operations.

MPR comment:

1. The question and optional probe at F19d should be more explicit about including software developed for products and services, and excluding software for internal use only.
2. We should consider a screening question that asks if any of the R&D was for biotechnology, materials, or software, in turn. If the answer is "Yes" to one or more than one, we could follow up with questions about each of those. This would reduce respondent burden.

F19e. Of your R&D spending in 2007 [As necessary: READ TOTAL AMOUNT], did you obtain any of that through a federal government research program such as the Small Business Innovation Research program — SBIR, the Advanced Technology Program — ATP, or any other federal research program?

Yes
No
Don't know
Refused

IF F19e is No, Don't know, OR Refused, GO TO F20.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 7

F19e1. Could you give me the names of the federal government research programs that helped you?

Small Business Innovation Research (SBIR) program
Advanced Technology Program (ATP)
Other (Specify answers)

MPR comment:

1. It is not clear whether the list of programs at F19e1 is read to the respondent or not. We recommend that each item in the list be read with a “Yes/No” option for response.
2. Prior to the Baseline Survey, we piloted questions on participation of businesses in SBIR, HUBZone, and 8(a) business development certification. These question was dropped from the Baseline Survey due to the low level of participation reported by respondents. We are concerned that incidence will not have increased appreciably among KFS businesses, so that the questions may not produce sufficient businesses participating in these programs for analysis..

D. Follow-up to F20 (Purchase of new or used machinery or equipment)

IF BUSINESS REPORTED “0” PURCHASES AT F20, GO TO F21.

F20a. Could you please estimate how much your company spent on these purchases?

\$_____.

[if volunteered:] None
Don’t know
Refused

IF DON’T KNOW OR REFUSED, PROBE: You don’t have to give me an exact figure; your best estimate will do.

MPR comments:

1. Prior to the Baseline Survey, we piloted questions on the total amount the business spent on new or used machinery or equipment, but the question was dropped from the Baseline Survey due to the difficulty of respondent being able to provide an accurate figure. This may be less of a problem with more established businesses and only asking this of those who reported some spending.
2. For Don’t Know, Refused, or Blank responses, we recommend using the standard KFS ranges used for other financial questions in the survey.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 8

E. Follow-up to G9 (Highest level of education)

IF EDUCATION IS 01 TO 05, GO TO G10.

IF EDUCATION IS 08, GO TO G9b.

G9a. What was the primary field of study for that degree?

IF EDUCATION IS 06, 07, 09, 10, GO TO G10.

G9b. What was the primary field of study for [your/the OWNER'S] bachelor's degree?

MPR comments:

1. During the development of the KFS questionnaire, we were sensitive to the need to include demographic questions that one owner-operator (as respondent) could answer accurately for all other owner-operators in the business. The result of this effort has been very low item nonresponse among the demographic questions. We feel these questions will have above average item nonresponse due to some owner-operators not knowing the field of study for other owner-operators.
2. For the follow-up surveys, we have been asking the education question about owner-operators only if they were new to the business (and we therefore needed to ask the entire demographic battery), or if we were unable to collect this information during previous rounds of the survey (due to refusal). These follow-up questions would require the education question to be asked of all owner-operators during the Third Follow-Up.
3. Adding these questions will also increase the amount of coding effort required for the survey. We estimate that over 2,500 text string verbatim responses will be collected through the addition of these questions. We would need to know the most appropriate taxonomy to code these verbatim to (CIP, SESTAT), and the level of specificity required.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 9

III. PROPOSED QUESTIONS FROM DR. CHARLES BRAYMAN (KANSAS STATE UNIVERSITY)

QUESTION 1:

A domestic business is a business based in the United States. A foreign business is a business based in foreign country. The primary competitors of [NAME BUSINESS] in calendar year 2007 were:

DOMESTIC BUSINESSES
FOREIGN BUSINESSES
BOTH FOREIGN AND DOMESTIC BUSINESSES
DON'T KNOW
REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey

QUESTION TESTED: No

PROPOSED LOCATION IN SURVEY: After Question D3 or Globalization Module

SPECIFIC POPULATION: All Respondents

MPR comment:

1. This question, if added to the KFS, would probably be best placed after D2, which asks about competitive advantage.

QUESTION 2:

What percentage of the sales of [NAME BUSINESS] was to foreign parties in calendar year 2007?

[__|__|__] PERCENTAGE

DON'T KNOW

REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey

QUESTION TESTED: No

PROPOSED LOCATION IN SURVEY: After Question D7 or Globalization Module

SPECIFIC POPULATION: Respondents with YES for D6

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 10

MPR comments:

1. The current question refers to foreign “parties,” which may be a confusing term for respondents. We suggest using the same terms used in question D7 and identifying those as being outside the U.S. For example, the question could be revised to:

“Some businesses make sales to individuals, businesses, or governments outside the United States. In calendar year 2007, what percentage of [NAME BUSINESS]’s sales were to individuals, businesses, or governments located outside the United States?”

2. We expect the percentage of businesses in the KFS sample that export will be fairly low. Another approach to this question is to employ a screening question to determine if any of the business’ sales were of an export nature, and ask the percentage question only of those who indicate the business had export sales.

QUESTION 3:

Which of the following have prevented or restricted foreign sales?

(RESPONDENT MAY CHOOSE MORE THAN ONE)

LIMITED KNOWLEDGE OF FOREIGN MARKET CONDITIONS

COST OF ESTABLISHING A FOREIGN MARKET

UNITED STATES EXPORT RESTRICTIONS

TARIFFS, QUOTAS, AND OTHER REGULATIONS OF FOREIGN COUNTRIES

DON’T KNOW

REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey

QUESTION TESTED: No

PROPOSED LOCATION IN SURVEY: After Proposed Question 2

SPECIFIC POPULATION: Respondents with YES for D6

MPR comments:

1. For this question, it will be important to establish that businesses reporting no foreign sales actually attempted to make such sales. Those respondents whose businesses never considered foreign markets will have a hard time answering this question. A screener question would identify those businesses who reported no foreign sales but had tried to make them. The proposed question could then be asked of this group.
2. The use of the word “restricted” suggests that those businesses with limited foreign sales could be asked this question. We would suggest limiting the question to only those businesses that tried and failed to establish foreign sales, since defining a benchmark

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 11

percentage as limited seems arbitrary (for example, businesses may be satisfied or at capacity making a small percentage of sales to foreign parties).

3. We would suggest an "Other-Specify" response option be added to the question.

QUESTION 4:

Which type of party did [NAME BUSINESS] license out [ITEMS ANSWERED YES IN D4] in calendar year 2007?

PATENTS	COPYRIGHTS	TRADEMARKS
DOMESTIC	DOMESTIC	DOMESTIC
FOREIGN	FOREIGN	FOREIGN
BOTH	BOTH	BOTH
DON'T KNOW	DON'T KNOW	DON'T KNOW
REFUSED	REFUSED	REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey

QUESTION TESTED: No

PROPOSED LOCATION IN SURVEY: After Question D4 or Globalization Module

SPECIFIC POPULATION: Respondents with YES for any part of D4

QUESTION 5:

Which type of party did [NAME BUSINESS] license in [ITEMS ANSWERED YES IN D5] in calendar year 2007?

PATENTS	COPYRIGHTS	TRADEMARKS
DOMESTIC	DOMESTIC	DOMESTIC
FOREIGN	FOREIGN	FOREIGN
BOTH	BOTH	BOTH
DON'T KNOW	DON'T KNOW	DON'T KNOW
REFUSED	REFUSED	REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey

QUESTION TESTED: No

PROPOSED LOCATION IN SURVEY: After Question D5 or Globalization Module

SPECIFIC POPULATION: Respondents with YES for any part of D5

RATIONALE AND BACKGROUND:

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 12

MPR comment:

1. We suggest rewording these questions so they use similar terminology to that suggested above at Question 2. Although these questions are unlikely to increase respondent burden for most respondents since few will qualify to be asked them, the small portion of the sample answering them are likely to be the most valuable in terms of growth potential. We are concerned about increasing respondent burden among this group.

QUESTION 6:

Did [NAME BUSINESS] purchase equipment or materials from foreign parties during calendar year 2007?

YES → GO TO QUESTION 7
NO → END SECTION
DON'T KNOW
REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey
QUESTION TESTED: No
PROPOSED LOCATION IN SURVEY: After Question F17 or Globalization Module
SPECIFIC POPULATION: All Respondents

MPR comment:

1. For this question it will be important to distinguish between importing equipment or materials from outside the U.S. versus purchasing goods from a foreign company located in the U.S. Rather than use the phrase "foreign parties," we recommend asking whether they purchased equipment or materials from outside the U.S.

QUESTION 7:

Which of the following contributed to the decision to purchase equipment or materials from foreign sources during calendar year 2007?

FOREIGN SOURCES HAD A LOWER PRICE
GOOD NOT PRODUCED BY SOURCES IN THE UNITED STATES
DON'T KNOW
REFUSED

QUESTION DELIVERY: Computer-Assisted Telephone and Web-based Survey
QUESTION TESTED: No

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 13

PROPOSED LOCATION IN SURVEY: After Proposed Question 6 or Globalization Module

SPECIFIC POPULATION: Respondents with YES for Proposed Question 6

MPR comments:

1. We assume that respondents can select multiple responses to this question.
2. We recommend including a “foreign sources had higher quality” response option.
3. We recommend including an “Other-Specify” response option.

IV. PROPOSED QUESTIONS FROM DR. ALICIA ROBB (UNIVERSITY OF CALIFORNIA – SANTA CRUZ)

These would be placed after F14.

READ: This next section is about recent applications for credit. I want you to include renewals of, and new applications for, lines of credit and other types of loans. Do not include applications for credit cards, loans from owners, or trade credit with suppliers. Also, do not include applications that were withdrawn or that are still pending.

How many times in the *last three years* did the firm apply for new loans?

NUMBER: _____
DK/RF.....

MPR comments:

1. Prior to the KFS Baseline Survey, we piloted similar questions on applications for financing and denials. These were removed from the Baseline Survey questionnaire after review of the pilot data, with the reasoning that denial of applications represented very different outcomes according to industry, which affected the usefulness of the data collected.
2. The use of a three-year time frame would differ from all other time references in the questionnaire. The KFS has consistently taken the approach of reducing respondent recall problems by concentrating on the previous calendar year during each survey round. For this reason, we recommend asking this set of questions of calendar year 2007 only. Also, is the current question asking about three calendar years, or three years from the date of the Third Follow-Up interview?
3. We are assuming that respondents reporting zero credit applications will skip out the rest of these questions.

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 14

Were these loan applications always approved, always denied, or sometimes approved and sometimes denied?

ALWAYS APPROVED1
ALWAYS DENIED2
SOMETIMES APPROVED/SOMETIMES DENIED3
DK/RF.....DK/RF

IF ANY DENIALS: (Otherwise skip to last 2 questions)

For your most recent denial, what official reasons did the funder give for denying the firm's application?

Do you think there were any other reasons that the application was turned down?

YES 1
NO 2
DK or RF DK or RF

What were they? _____

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

IF R ASKS ABOUT CANCELLED APPLICATIONS, SAY: Include applications that were withdrawn because the firm suspected it would be turned down.

YES 1
NO 2
DK or RF DK or RF

Why did you think the firm would have been turned down?

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 15

CODEFRAME FOR

/ Terms of loan sought */*

11 = Insufficient collateral or no guarantee available 47 = Tax Lien, Judgments 98=Not ascertainable

12 = Loan too large (personal or business lawsuits) .D=Don't know

13 = Loan too small */* Miscellaneous */* .R=Refuse

14 = Size of loan (small vs. large n.a.) 51 = Inability to audit account .S=Legitimate skip

/ Type of loan */* 52 = Insufficient time to process application

21 = Loan would overconcentrate inst. Portfolio 53 = Inadequate documentation provided.

22 = Institution doesn't like to make loans of this type 54 = Federal rules or regulations make loan difficult or impossible

/ General reasons */* 56 = Economy, slow or weak economy

30 = Credit history, not otherwise specified */* Institutional error or prejudice*/*

31 = Business credit history 61 = Institution made a mistake

32 = Personal credit history 62 = Informational problem, fact blown out of proportion

33 = Poor balance sheet, financial situation 63 = Arbitrariness

(included embezzlement, fraud, theft) 64 = Personality conflict

34 = Firm would fail institution's formula or guidelines 65 = Prejudice on racial/ethnic basis

(included owner too young, lack of business plan) 66 = Prejudice against women

35 = Ability to renew/repay questionable 69 = Prejudice or discrimination (not-specified or other)

36 = Firm not in business long enough */* Other reasons to anticipate turndown */*

(included young management) 71 = Experience with previous loan applications

/ Characteristics of firm */* 72 = Banks don't loan to (small) business

41 = Firm too small for institution, too few assets (includes self-employed or no employees)

42 = Large amount of outstanding loans, overextended */* Problem responses */*

43 = Firm too highly leveraged, too little equity 94=Same as previous

45 = Firm in declining or risky industry 95=No particular reason

46 = Bad fit between institution and firm 97=Other

MPR comments:

1. We are concerned that respondents will not recall specifically the "official" reasons the funder provided in the first question, especially if the most recent denial was some time ago.
2. For the second question, we would clearly be collecting the respondent's perceptions or expectations of why they were denied. The KFS has tried to avoid including perception questions, since the respondent may vary from one survey round to another—making comparison across rounds less meaningful.
3. The code frame provided would not be able to be displayed for the web survey, which would mean collecting verbatim responses for these two questions and coding them after collection. This will increase the amount of coding effort required for the survey.

In terms of getting access to credit, how do you think 2007 compared with 2005 & 2006?

More Difficult1

Less Difficult.....2

The Same3

DK or RFDK or RF

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 16

MPR comment:

1. This is another perception question (see above). Also, because the time frame for the first question is three years, we cannot be sure that the business sought credit during both 2007 and 2005-2006.

Did your business experience any negative effects from the subprime lending market meltdown (crisis)?

YES1
NO2
DK or RF.....DK or RF

MPR comment:

1. This is another perception question (see above).

V. PROPOSED QUESTIONS FROM DRS. PURI AND ROBINSON (DUKE UNIVERSITY)

We propose adding two questions to the end of Section D that would branch off an affirmative response to Question D7.b. If the respondent firm answers “Yes” to D7.b, we would ask:

D8: Do you have other business relationships with any of these firms?

____ Yes ____ No

D9: (If D8==Yes) What type of business relationships are these? (check all that apply)

____ Strategic Alliance
____ Joint Venture
____ Co-Marketing Agreement
____ Co-Distribution Agreement
____ R&D Alliance
____ Subsidiary

MPR comment:

1. We would suggest defining the “relationships” referred to in the question by including examples such as “joint ventures or distribution agreements.”

MEMO TO: E. J. Reedy
FROM: David DesRoches
DATE: 2/4/2008
PAGE: 17

We also propose a series of questions to appear immediately after Question F.6 in the business finances section. If Question F.3D is answered “Yes”, then we would branch to the following questions after F.6:

New F7: Do you have any other business relationships with this firm?

____ Yes _____ No

New F8: (If F8==Yes) What type of business relationships are these? (check all that apply)

____ Strategic Alliance
____ Joint Venture
____ Co-Marketing Agreement
____ Co-Distribution Agreement
____ R&D Alliance
____ Subsidiary

MPR comments:

1. We would suggest defining the “relationships” referred to in the question by including examples such as “joint ventures or distribution agreements.”
2. The proposal references asking these questions of all listed owners at F6 “in a Likert format.” Is the intent here that one respondent for the business be asked whether each of the owners (owner-operators and non-operating equity holders in the business) have a relationship with the business(es) referred to in F.3d? If so, we feel this would be problematic, since non-operating owners in F.3 can represent multiple individuals such as spouses, family members, and angels. Our recommendation would be to concentrate on the relationships between the sampled business and the business(es) that own a share of the sampled business (at F.3d) only.

APPENDIX B

KAUFFMAN FIRM SURVEY THIRD FOLLOW-UP QUESTIONNAIRE

MPR Reference No.: 6091-410

MATHEMATICA
Policy Research, Inc.

**Kauffman Firm Survey
Third Follow-Up**

Final Questionnaire

May 15, 2008

A. INTRODUCTION

INTRO: Hello, my name is _____. I'm calling on behalf of the Kauffman Foundation.

May I speak with (OWNER NAME/the owner or CEO of [NAME BUSINESS])?

OWNER NAME = Second Follow-Up Respondent for Section A.

OWNER NAME —PROCEED WITH INTERVIEW	01	
OWNER NAME —BAD TIME/CALL BACK	02	→ GO TO A2a
OWNER NAME NOT AVAILABLE	03	→ GO TO Inform
OWNER NAME NO LONGER WITH BUSINESS.....	04	→ GO TO A1a [then A4web if A1a=1]
BUSINESS NO LONGER IN OPERATION	05	→ GO TO A10
DON'T KNOW.....	d	} → THANK AND TERMINATE
REFUSED.....	r	

A1a. Your business has been participating in the Kauffman Firm Survey. Last year we asked you some questions about [NAME BUSINESS]'s operations in 2006. Now we'd like to ask about calendar year 2007.

We'd like to confirm that the name of the business is [NAME BUSINESS] and that [NAME BUSINESS] is still operating.

[NAME BUSINESS] IS THE CURRENT NAME AND [NAME BUSINESS] IS STILL OPERATING.....	01	
THE BUSINESS NAME IS INCORRECT	02	→ GO TO A2Web
[NAME BUSINESS] IS OUT OF BUSINESS	03	→ GO TO A10

A1b. We'd like to confirm that you are [OWNER NAME] and you are you are still an owner of [NAME BUSINESS]?

[OWNER NAME] IS THE RESPONDENT AND IS STILL AN OWNER OF [NAME BUSINESS].....	01	
[OWNER NAME] IS THE RESPONDENT AND IS STILL AN OWNER OF [NAME BUSINESS], BUT CORRECT [OWNER NAME]'s NAME.....	02	→ GO TO A4aWeb
RESPONDENT IS NOT [OWNER NAME].....	03	→ GO TO A4Webz
THE RESPONDENT [OWNER NAME] IS NO LONGER AN OWNER OF [NAME BUSINESS]	07	→ GO TO A5a Box

A1c. We'd like to confirm that the title of your position is [TITLE]? Is that correct?

YES 01 → **GO TO A5**

NO 00

DON'T KNOW..... d] → **GO TO A5**

REFUSED..... r] → **GO TO A5**

A1d. What is your job title?

INTERVIEWER: ENTER JOB TITLE.

_____ UPDATE TITLE

GO TO A5

A2a. I'm sorry. When would be a better time to reach (you/[OWNER])?

INTERVIEWER: ENTER CALLBACK DATE AND TIME.

READ: Is this the best number to reach you?

INTERVIEWER: UPDATE CONTACT INFORMATION AS NEEDED.

Thank you very much. Good-bye.

THANK AND TERMINATE

A2Web. What is the correct business name?

INTERVIEWER: TYPE IN BUSINESS NAME.

A3Web. Is this a corrected spelling, a name change but the same business, or a different business?

SPELLING CORRECTION 01] → **GO TO A1b**

NAME CHANGE/SAME COMPANY 02] → **GO TO A1b**

DIFFERENT COMPANY 03

A3Webz. We are trying to find out what happened to [NAME BUSINESS]. Is [NAME BUSINESS] still in operation?

YES 01 → GO TO A1b
NO 00 → GO TO A10
DON'T KNOW d
REFUSED r } → THANK AND TERMINATE

A4Webz Is [OWNER NAME] still an owner and actively involved in running [NAME BUSINESS]?

IF NEEDED: By actively involved, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES 01
NO 00 → GO TO A5a Box
DON'T KNOW d
REFUSED r

A4Webz1 Would [OWNER NAME] be available to do the study at another time?

YES 01 → ENTER CALLBACK DATE AND TIME
NO 00
DON'T KNOW d
REFUSED r } → GO TO A5a Box

A4aWeb What is the correct spelling of your name?

NAME: _____

A5. Are you **still** actively involved in running [NAME BUSINESS]? By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES 01 → GO TO A4
NO 00
DON'T KNOW d
REFUSED r } → GO TO A4

A5a BOX:
IF MORE THAN ONE OWNER-OPERATOR-FOUNDER FROM SECOND FOLLOW-UP, ASK A5a. ELSE, ASK A4Web.

A5a. During the last interview with your business, we recorded other owners of [NAME BUSINESS]. Please tell me the person who is an owner of the business, is actively involved in running [NAME BUSINESS], and will answer this study.

By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

READ THE OWNER NAMES BELOW. SELECT ONLY ONE.

NEW OWNER-OPERATOR WILL ANSWER 00 → **GO TO A5aweb1**
[NAME OWNER]..... 2-9 → **GO TO A7Title**
NON-OWNER WILL ANSWER 11 → **GO TO A5aweb1**

INTERVIEWER: CODE 11 ONLY WITH SUPERVISOR PERMISSION AND WRITE NOTE DOCUMENTING CIRCUMSTANCES

A4Web Who is currently an (OWNER/CEO) of [NAME BUSINESS]?
NAME: _____

A4Webz2 Are you (OWNER/CEO)?
YES 01
NO 00 → **GO TO Inform**

A5new. And are you actively involved in running [NAME BUSINESS]? By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.
YES 01 → **GO TO A4new**
NO 00

A7. Is there another owner of [NAME BUSINESS] who is actively involved in running [NAME BUSINESS], and can answer questions about the business?

PROBE: By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES..... 01

NO 00 → **GO TO Stop5**

A5aWeb1 Who is another owner of [NAME BUSINESS] who is actively involved in running [NAME BUSINESS], and can answer questions about the business?

ENTER FIRST NAME _____

ENTER LAST NAME _____

ENTER JOB TITLE _____

A4Webz2 Are you (OWNER/CEO)?

YES..... 01 → **GO TO A4new**

NO 00

Inform. Do you know a good time and date I can call to contact (OWNER/CEO)?

INTERVIEWER: ENTER CALLBACK DATE AND TIME.

THANK AND TERMINATE

Stop5. Thank you for your time.

THANK AND TERMINATE

A7Title. What is [OWNER NAME]'s title?

A4Webz2 Are you (OWNER NAME)?

YES..... 01 → **GO TO A4new**

NO 00 → **GO TO Inform**

- A4. You participated last year in the Kauffman Firm Survey. At that time, we asked some questions about [NAME BUSINESS] operations in 2006. Now we'd like to ask about the year 2007. Again, your answers will be completely confidential, and you will once again receive a \$50 payment as a token of our appreciation.

GO TO A8

- A4new. Your business participated last year in the Kauffman Firm Study. At that time, we asked some questions about [NAME BUSINESS]'s operation in 2006. Now we'd like to ask about the year 2007. Again, your answers will be kept confidential, and you will receive a \$50 payment as a token of our appreciation.

- A8. I'd like to confirm your business' mailing address. Is [NAME BUSINESS]'s mailing address (ADDRESS, CITY, STATE, ZIP)?

WEB: Our records indicate that the mailing address for [NAME BUSINESS] is (ADDRESS, CITY, STATE, ZIP). Is this correct?

YES 01 → **GO TO C1z**
NO 00 → **GO TO A9**
DON'T KNOW..... d }
REFUSED..... r } → **GO TO C1z**

- A9. What is [NAME BUSINESS]'s correct mailing address?

INTERVIEWER: UPDATE MAILING ADDRESS INFORMATION.

ADDRESS:_____

CITY:_____

STATE:_____ ZIP:_____

DON'T KNOW..... d

REFUSED..... r

GO TO C1z

A10. What is the **main** reason [NAME BUSINESS] is out of business?

SOLD TO ANOTHER BUSINESS 01

MERGED WITH ANOTHER BUSINESS 02

TEMPORARILY STOPPED OPERATIONS 03

PERMANENTLY STOPPED OPERATIONS 04 → **GO TO A11**

OTHER (SPECIFY)..... 05

DON'T KNOW d

REFUSED..... r

THANK AND TERMINATE

A11. In what calendar year did [NAME BUSINESS] close?

YEAR | 2 | 0 | 0 | |

DON'T KNOW d

REFUSED..... r

A11a. Did [NAME BUSINESS] file for bankruptcy?

YES 01

NO 00

DON'T KNOW d

REFUSED..... r

THANK AND TERMINATE

NO SECTION B

C. BUSINESS CHARACTERISTICS

All of the following questions I'm going to ask are about [NAME BUSINESS]. Some of the questions will ask to confirm information about your business which you provided to us previously. As we go through the interview, please tell me if any of the information about your business is incorrect and needs to be updated.

C1z. Our records show that [NAME BUSINESS] had a legal status of [tOWNERshipModel]. As of December 31, 2007, is that still the legal status of [NAME BUSINESS]?

YES..... 01 → **GO TO C1a**
NO 00
DON'T KNOW d
REFUSED r

C1z2. I'm going to read you a list of some different forms of legal status a business can have. As of December 31, 2007, which form of legal status did [NAME BUSINESS] have? Was it a . . .

READ LIST AND READ DESCRIPTIONS AS NEEDED:

Sole Proprietorship: A type of business ownership in which a business is owned and managed by one individual and no subchapter S-corporation or C-corporation has been established.

Limited Liability Company: A cross between a corporation and a partnership, and offering some of the benefits of both. Similar to S corporations, income produced by a limited liability company flows through to owners (known as "members") who pay their own taxes as individuals. Unlike S-corporations, however, limited liability companies are not subject to as many government restrictions.

Subchapter S-Corporation: Corporations in which all profits and losses are passed through to shareholders, just as they are passed through to partners in a partnership.

C-Corporation: Legal entities separate from their owners that may engage in business, make contracts, own property, pay taxes, and sue and be sued by others.

General Partnership: An association of two or more people who co-own a business for the purpose of making a profit and no subchapter S-corporation or C-corporation has been established.

Limited Partnership: A partnership in which one or more partners are general partners who manage the business and others are limited partners who invest in the business but forego any right to manage the company.

Sole Proprietorship,.....	01
Limited Liability Company,	02
Subchapter S-Corporation,.....	03
C-Corporation,.....	04
General Partnership,	05
Limited Partnership, or	06
Something else? (SPECIFY)	07

DON'T KNOW d

REFUSED..... r

C1a. Our records indicate the principal activity of the business was [D&B NAICS CODE DESCRIPTION]. Was that still the principal activity of the business as of December 31, 2007?

YES..... 01 → **GO TO C2**

NO 00

DON'T KNOW d

REFUSED r

C1b. As of December 31, 2007, what was the principal activity of the business?

IF SOLE PROPRIETORSHIP IN [tOWNERshipModel] [or C1z2], GO TO C5.

C2. As of December 31, 2007, how many individuals or entities owned [NAME BUSINESS]? Please include all individuals or entities who owned shares in the business.

|_|_|_| NUMBER OF OWNERS

DON'T KNOW d

REFUSED r

C3. Of the [NUMBER OF OWNERS FROM C2] owners as of December 31, 2007, how many owners actively helped to run [NAME BUSINESS]? By helped to run the business we mean that they provided regular assistance or advice with day-to-day operations of the business, rather than providing only money or occasional operating assistance.

|_|_|_| NUMBER OF OWNER/OPERATORS

DON'T KNOW d

REFUSED r

IF ONE OWNER/OPERATOR REPORTED AT C3, GO TO C5. IF MORE THAN ONE OWNER/OPERATOR REPORTED AT C3, ASK:

C4. FOR EACH SECOND FOLLOW-UP OWNER/OPERATOR WHO IS NOT THE RESPONDENT, ASK:

Was [OWNER NAME] still an owner who actively helped run [NAME BUSINESS]—as of December 31, 2007?

YES 01

NO 00

YES BUT THE NAME IS MISSPELLED..... 02

DON'T KNOW..... d

REFUSED..... r

FOR ALL MISSPELLED NAMES, ASK:

How do you spell (your/his/her) name?

INTERVIEWER: ENTER NAME

THEN ASK:

How many other people, not previously listed, were owners actively helping to run [NAME BUSINESS] as of December 31, 2007.

**INTERVIEWER: PREVIOUSLY LISTED PEOPLE ARE STATED BELOW.
NUMBER OF OWNERS STATED IN C3: [FILL FROM C3]**

I want to record with you the first and last names of these owners. These are the people who joined the business between the last time we talked to you and December 31, 2007. I'm going to be asking some questions about each of the owners who actively **helped run** [NAME BUSINESS]. Can you tell me the first and last name of the other owner(s) of ABC Business?

INTERVIEWER: ENTER FIRST AND LAST NAMES.

C4Confirm. I have listed:

	FIRST NAME	LAST NAME
OWNER A (RESPONDENT)	_____	_____
OWNER B	_____	_____
OWNER C	_____	_____
OWNER D	_____	_____

Are there any other owner-operators as of December 31, 2007 of [NAME BUSINESS] that I have not mentioned?

INTERVIEWER: CONFIRM SPELLING OF NAMES. TO CORRECT NAMES, ARROW BACK TO TABLE.

ADD ANOTHER NAME OR
CORRECT A MISSPELLING 01
NO CHANGES..... 02

NOTE: UP TO 10 OWNER/OPERATOR/FOUNDERS WILL BE INCLUDED.

C5. Not counting owner(s), on December 31, 2007, how many people worked for [NAME BUSINESS]? Please include all full- and part-time employees, but exclude contract workers who work for the business either full- or part-time but are not on the business' official payroll.

|_|_|_| NUMBER OF EMPLOYEES ON DECEMBER 31, 2007

DON'T KNOW..... d
REFUSED..... r

C5b. Was this change an increase, a decrease, or no change in the number of people who worked for [NAME BUSINESS] on December 31, 2007 compared to December 31, 2006?

INCREASE 01
DECREASE 02
NO CHANGE 03
DON'T KNOW..... d
REFUSED..... r

} → **GO TO C6**

C5c. And what was the (increase/decrease) in the number of people who worked for [NAME BUSINESS] on December 31, 2007 compared to December 31, 2006? Your best estimate is fine.

|_|_| CHANGE IN NUMBER OF EMPLOYEES

DON'T KNOW..... d

REFUSED..... r

IF BUSINESS REPORTED "0" EMPLOYEES AT C5, GO TO C8z.

C6. And of those [NUMBER FROM C5], how many were full-time?
(**IF NEEDED:** Full-time is considered 35 hours or more per week)

|_|_| NUMBER OF DECEMBER 31, 2007 FULL-TIME EMPLOYEES

DON'T KNOW..... d

REFUSED..... r

C7. And how many were part-time? (**IF NEEDED:** Part-time is considered less than 35 hours per week)

|_|_| NUMBER OF DECEMBER 31, 2007 PART-TIME EMPLOYEES

DON'T KNOW..... d

REFUSED..... r

C8z. Our records show that the primary location where [NAME BUSINESS] operates is [tPrimaryLocation]. Is that correct?

YES 01 → **GO TO C10**

NO 00

DON'T KNOW..... d

REFUSED..... r

→ **GO TO C10**

C8. How would you describe the primary location where [NAME BUSINESS] operates?
Is it . . .

A residence such as a home or garage, 01

A rented or leased space, 02

Space the business purchased, 03

A site where a client is located, or 04

Some other location? (SPECIFY)..... 05

DON'T KNOW d

REFUSED..... r

C9. What was the main reason for the change of location?

Previous location too expensive 01

Needed more space due to growth of business 02

Moved closer to customers 03

Moved business and residence to new location 04

OTHER (SPECIFY)..... 05

DON'T KNOW d

REFUSED..... r

C10. As of December 31, 2007, did [NAME BUSINESS] operate in more than one location?

YES 01

NO 00 → **GO TO D1**

C11. And as of December 31, 2007, how many locations did [NAME BUSINESS] operate in?

|_|_|_| NUMBER OF LOCATIONS AS OF DECEMBER 31, 2007

C11a. In what month and year did you open your second location?

Month _____ Year |_2_|_0_|_0_|_|

D. STRATEGY AND INNOVATION

D1. Does [NAME BUSINESS] provide (READ ITEM)?

	YES	NO	DON'T KNOW	REFUSED
a. A service.....	01	00	d	r
b. A product.....	01	00	d	r

D2. Businesses often have to compete with other businesses. A competitive advantage is something unique or distinctive a business provides that gives it an advantage compared to competitors. In calendar year 2007, did [NAME BUSINESS] have a competitive advantage over its competitors?

YES	01	→	GO TO D2a
NO	00	}	→ GO TO D3
DON'T KNOW.....	d		
REFUSED.....	r		

D2a. Was the competitive advantage [NAME BUSINESS] had in calendar year 2007 related in any way to [ITEM]?

YES 01 → **GO TO D2b**
 NO 00
 DON'T KNOW d
 REFUSED r

} → **GO TO NEXT ITEM**

D2b. Do you consider this to have given [NAME BUSINESS] a major or a minor competitive advantage in calendar year 2007?

REPEAT D2a-D2b FOR EACH ITEM.

ITEMS	D2a. Reason For Competitive Advantage					D2b. Strength of reason for Competitive Advantage			
	YES	NO	DON'T KNOW	REFUSED		MAJOR REASON	MINOR REASON	DON'T KNOW	REFUSED
a. teaming up with a college or university?	01	00	d	r	IF YES →	01	00	d	r
b. teaming up with another company?	01	00	d	r	IF YES →	01	00	d	r
c. teaming up with a government lab or research center?	01	00	d	r	IF YES →	01	00	d	r
d. patents that [NAME BUSINESS] owns, has applied for, or licensed? ..	01	00	d	r	IF YES →	01	00	d	r

- D3. Whether assigned by an owner or obtained in some other way, does [NAME BUSINESS] have any of the following? (READ LIST)

FOR EACH “YES,” ASK: How many (READ ITEM) does [NAME BUSINESS] have?

INTERVIEWERS IF NEEDED:

Patent: A patent is a right given by the government to preclude others from making and selling an invention for 20 years from the date of application in return for disclosure of how the invention operates.

Copyright: The legal right granted to authors, composers, artists and publishers to protect their thoughts and ideas for exclusive publication, reproduction, sale and distribution of their works.

Trademark: Words, names, symbols or devices, or any combination of these used to identify the goods of a business and to distinguish these goods from the goods of others.

	YES	NO	DON'T KNOW	REFUSED	NUMBER BUSINESS HAS
a. Patents	01	00	d	r	_ _
b. Copyrights	01	00	d	r	_ _
c. Trademarks	01	00	d	r	_ _

- D4. “Licensing out” is licensing patents, copyrights, or trademarks owned by the business to other parties under a licensing agreement. In calendar year 2007, did [NAME BUSINESS] **license out** any (READ ITEM)?

	YES	NO	DON'T KNOW	REFUSED
a. Patents	01	00	d	r
b. Copyrights	01	00	d	r
c. Trademarks	01	00	d	r

- D5. “Licensing in” is acquiring the right to use intellectual property such as patents, copyrights, or trademarks created by someone outside the business through a licensing agreement. In calendar year 2007, did [NAME BUSINESS] **license in** any (READ ITEM)?

	YES	NO	DON'T KNOW	REFUSED
a. Patents	01	00	d	r
b. Copyrights	01	00	d	r
c. Trademarks	01	00	d	r

D6. Did [NAME BUSINESS] have any customers or sales in calendar year 2007?

YES 01

NO 00

DON'T KNOW d

REFUSED r

→ GO TO E1

D7. I'd like to learn more about the type of customers that [NAME BUSINESS] had during calendar year 2007. I am going to ask you to estimate the percent of the business' sales that were made to individuals, businesses, and government agencies. The total should equal 100%.

- a. During calendar year 2007, what percentage of the business' sales were to private individuals?

|_|_| PERCENTAGE

DON'T KNOW d

REFUSED r

- b. What percentage of the business' sales were to other businesses?

[IF NEEDED: Please include sales to for-profit and not-for-profit business.]

|_|_| PERCENTAGE

DON'T KNOW d

REFUSED r

- c. What percentage of the business' sales were to government agencies?

|_|_| PERCENTAGE

DON'T KNOW d

REFUSED r

D8. Now, I will read you a list of customer locations. When I am done reading, please select only one answer choice for your response. During calendar year 2007, where were most of [NAME BUSINESS]'s customers located? Would you say . . .

- In neighborhoods local to the business, 01
- In the same city or county, 02
- In the same region, such as in nearby counties
or states, 03
- Nationwide, or 04
- International? 05 → **GO TO D8b**
- DON'T KNOW d
- REFUSED r

D8a. During calendar year 2007, were any of [NAME BUSINESS]'s sales made to individuals, businesses, or governments outside the United States?

- YES 01
 - NO 00
 - DON'T KNOW d
 - REFUSED r
- } → **GO TO D9**

D8b. What percent of [NAME BUSINESS]'s total sales were to individuals, businesses, or governments outside of the United States? Would you say . . .

- Less than 5%, 01
- 5% - 25%, 02
- 26% - 50%, 03
- 51% - 75%, or 04
- 76% - 100% 05
- DON'T KNOW d
- REFUSED r

D9. During calendar year 2007, were any of [NAME BUSINESS]'s sales made to customers through the internet, such as through the business' website or an online retailer site?

- YES 01
 - NO 00
 - DON'T KNOW d
 - REFUSED r
- } → **GO TO E1**

D9a. What percent of [NAME BUSINESS]'s total sales were sales made to customers through the internet? Would you say . . .

Less than 5%,	01
5%—25%,	02
26%—50%,	03
51%—75%, or	04
76%—100%?	05
DON'T KNOW	d
REFUSED	r

E. BUSINESS ORGANIZATION AND HR BENEFITS

IF ONE OWNER REPORTED AT C2 AND BUSINESS REPORTED “0” EMPLOYEES AT C5, GO TO F1.

Next, I'd like to ask about how [NAME BUSINESS] is organized and about the benefits that are offered to employees.

- E1. On December 31, 2007, how many employees or owners, if any, did [NAME BUSINESS] have who were primarily responsible for (READ ITEM)? Please include only full- and part-time employees, but not contract workers who work for the business but are not on the business' official payroll.

	NUMBER EMPLOYEES OR OWNERS	DON'T KNOW	REFUSED
a. Human resources such as employee benefits, recruitment, or hiring	_ _	d	r
b. Sales or Marketing such as sales, market research, customer analysis, or promotional activities	_ _	d	r
c. Executive administration functions such as strategic planning, competitive analysis, shareholder relations, or general management	_ _	d	r
d. Research and development on new products or services	_ _	d	r
e. Production or manufacturing such as producing materials or products, production planning, production control, quality control, or storage	_ _	d	r
f. General administration such as office management, responding to maintenance requests, purchase supplies, or training employees in office procedures.....	_ _	d	r
g. Financial administration such as accounting procedures, budgeting, financial analysis, or investment activities	_ _	d	r
h. Does [NAME BUSINESS] have employees with any other key responsibilities? (SPECIFY).....	_ _	d	r

E2a. As of December 31, 2007, did [NAME BUSINESS] offer full-time employees or owners (READ ITEM):

	YES	NO	DON'T KNOW	REFUSED
a. A health insurance plan either through the business or an association.....	01	00	d	r
b. A retirement plan such as profit sharing, pension, including 401K, annuity, Keogh, etc.	01	00	d	r
c. Stock options or other stock ownership.....	01	00	d	r
d. A bonus plan.....	01	00	d	r
e. Tuition reimbursement	01	00	d	r
f. Paid vacation	01	00	d	r
g. Paid sick days.....	01	00	d	r
h. Alternative work schedules such as flex time or job sharing	01	00	d	r
i. Any other benefits? (SPECIFY).....	01	00	d	r

IF ZERO PART-TIME EMPLOYEES AT C7, GO TO F1.

E2b. As of December 31, 2007, did [NAME BUSINESS] offer part-time employees (READ ITEM):

	YES	NO	DON'T KNOW	REFUSED
a. A health insurance plan either through the business or an association.....	01	00	d	r
b. A retirement plan such as profit sharing, pension, including 401K, annuity, Keogh, etc.	01	00	d	r
c. Stock options or other stock ownership.....	01	00	d	r
d. A bonus plan.....	01	00	d	r
e. Tuition reimbursement	01	00	d	r
f. Paid vacation	01	00	d	r
g. Paid sick days.....	01	00	d	r
h. Alternative work schedules such as flex time or job sharing	01	00	d	r
i. Any other benefits? (SPECIFY).....	01	00	d	r

F. BUSINESS FINANCES

F1. Now I'd like to ask about [NAME BUSINESS]'s financing. Businesses can get money from the savings or investments of the owner(s), money from spouses, family or other individuals, from companies, borrowing in an owner's name, venture funds, or by borrowing **in the name of the business**. Some of the funds must be paid back and other funds represent an equity stake or share of the business. We will ask some questions about what happened **during calendar year 2007**, some questions about what has happened since the business began, and other questions about balances **as of December 31, 2007**.

F1a. First, in calendar year 2007, did [you/OWNER B-J] put any of your own money into [NAME BUSINESS] in return for an ownership share of the business? Please do not include any money borrowed from others or from credit cards.

IF NEEDED: This would include all additional money invested by [you/OWNER B-J] in the business during calendar year 2007.

YES 01

NO 00

DON'T KNOW d

REFUSED r

→ **GO TO F2a1**

F2a. **IF YES:** How much of [your/her/his] own money did [you/she/he] put into the business during calendar year 2007?

IF NEEDED: Your best estimate is fine.

OWNER A..... \$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_|

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F2a1. Counting **all** years, how much of [your/OWNER B-J]'s own money did [you/she/he] put into [NAME BUSINESS] as of December 31, 2007?

IF NEEDED: This includes all money [you/she/he] invested in the business as of December 31, 2007.

\$ |__|__|__|,|__|__|__|,|__|__|__| TOTAL EQUITY

DON'T KNOW..... d

REFUSED..... r

PROBE: IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:

Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

IF F2a IS GREATER THAN F2a1:

I may have made a mistake. The amount invested in 2007 is greater than the amount invested in all years combined. Is there an error?

F2b. What percentage of the business did [you/OWNER B-J] own on December 31, 2007?

|__|__|__| PERCENTAGE OF BUSINESS

DON'T KNOW..... d

REFUSED..... r

IF MORE THAN ONE OWNER/OPERATOR AT C4, ASK F1a-F2b FOR EACH OWNER/OPERATOR. OTHERWISE, GO TO F3.

IF SOLE PROPRIETORSHIP AT QUESTION C1z OR C1z2, GO TO F6a.

- F3. Equity investment is money received **in return for some portion of ownership**, and it is another way to fund business expenses. During calendar year 2007, did the business obtain equity financing from any of the following sources?

	YES	NO	DON'T KNOW	REFUSED
a. Spouses or life partners of owners of the business. This does not include spouses or life partners already named as owners.....	01	00	d	r
b. Parents, in-laws or children of owners of the business	01	00	d	r
c. Individuals who are not spouses or life partners, parents, in-laws or children of the owners, excluding venture capitalists	01	00	d	r
d. Other companies.....	01	00	d	r
e. Government agencies	01	00	d	r
f. Venture capitalists.....	01	00	d	r
g. Any other sources? (SPECIFY)	01	00	d	r

- F4. **FOR EACH EQUITY FINANCING OPTION REPORTED AS “YES” ABOVE, ASK:**
In calendar year 2007, how much money did [NAME BUSINESS] receive from [EQUITY OPTION]?

\$ | | | | |, | | | | |, | | | | | CALENDAR YEAR 2007 AMOUNT
FROM EQUITY OPTION

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F4a. Counting all years, how much did [EQUITY OPTION] put into [NAME BUSINESS] as of December 31, 2007?

PROBE: This includes all money invested by [EQUITY OPTION] in all years.

\$ | | | | , | | | | , | | | | TOTAL EQUITY

DON'T KNOW..... d

REFUSED..... r

PROBE: IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

IF F4 IS GREATER THAN F4a:

I may have made a mistake. The amount invested in 2007 is greater than the amount invested in all years combined. Is there an error?

F5. **FOR EACH EQUITY FINANCING OPTION REPORTED AS "YES" ABOVE, ASK:**
What was the total percentage of the business owned by the [EQUITY OPTION] who invested money in the business as of December 31, 2007?

| | | | PERCENT

DON'T KNOW..... d

REFUSED..... r

INTERVIEWER CHECK BOX: CHECK ANSWER FROM F2b AND F5 FOR TOTAL PERCENTAGE OF BUSINESS ACCOUNTED FOR.

IF TOTAL PERCENTAGE EQUALS 100%, GO TO F6a
IF TOTAL EQUALS LESS OR MORE THAN 100%

F6. So far, you've given me the following information on who owns [NAME BUSINESS]:
[LIST EQUITY INVESTORS FROM F2b AND F5]. Can we review this list?

REVIEW LIST OF OWNERS AND PERCENTAGES WITH RESPONDENT. MAKE CHANGES AS NEEDED, ADDING NEW OWNERS AND/OR PERCENTAGES AS NECESSARY.

DON'T KNOW..... d

REFUSED..... r

F6a. Have you (or other owners) withdrawn money from the business for personal use in calendar year **2007**?

INTERVIEWER IF NEEDED: This does not include owner salaries.

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

→ **GO TO F7a**

F6b. **IF YES:** Thinking of calendar year **2007**, how much money, if any, did you and other owners withdraw from the business for personal use? This includes any dividends paid.

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| TOTAL DRAWINGS CALENDAR YEAR 2007

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

- F7a. Another way to finance a business is debt financing. Debt is money borrowed that has to be paid back with or without interest.

We will be talking about categories of debt based on who is responsible for paying it back. For each category, I'll ask you about several sources of debt business owners or businesses can use to fund operations. We want to make sure that any business-related debt is reported in the right category, and is reported only once. I will identify each category and remind you when I change categories. Here is the first category.

I'm going to ask you about some different types of debt financing **you** may have borrowed **in your name** on behalf of [NAME BUSINESS]. For each, please tell me if you used this type at any time during calendar year 2007. Did you use [NAME FINANCING OPTION FROM LIST]?

- F7b. **IN BELOW LIST, FOR EACH DEBT FINANCING OPTION BUSINESS REPORTED, ASK:** How many [NAME DEBT FINANCING OPTION] did you use to finance the operation of the business during calendar year 2007?

	YES	NO	DON'T KNOW	REFUSED	NUMBER USED
a. Personal credit cards for business-related purposes	01	00	d	r	__ __
b. Personal loans from a bank or other financial institution, such as a mortgage or home equity loan used for the business	01	00	d	r	__ __
c. Business or corporate credit cards issued in your name.....	01	00	d	r	__ __
d. Personal loans from any family or friends.....	01	00	d	r	__ __
e. Personal loans from any other individuals not associated with the management of the business	01	00	d	r	__ __
f. Any other sources? (SPECIFY)	01	00	d	r	__ __

F8a. **IF ANSWERED “YES” TO F7a ITEMS a, c, ASK:** As of December 31, 2007, what was the maximum credit line on the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| DECEMBER 31, 2007 CREDIT LINE

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F8b. **IF ANSWERED “YES” TO F7a ITEMS a, c, ASK:** As of December 31, 2007, what was the outstanding balance on the [NAME DEBT FINANCING OPTION]?

\$ | | | | |, | | | | |, | | | | | DECEMBER 31, 2007 OUTSTANDING
CREDIT CARD BALANCE

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

IF F8b IS GREATER THAN F8a:

Perhaps I made a mistake. The amount I recorded as the balance outstanding is greater than the amount reported as the maximum credit limit.

F8c. **IF ANSWERED “YES” TO F7a ITEMS b, d, e, f, ASK:** In calendar year 2007, how much was obtained from the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| CALENDAR YEAR 2007 DEBT AMOUNT

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F8d. **IF ANSWERED “YES” TO F7a ITEMS b, c, e, f, ASK:** As of December 31, 2007, what was the estimated amount of the [NAME DEBT FINANCING OPTION] owed by you on behalf of [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | DEBT FINANCING VALUE AS OF
DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

IF MORE THAN ONE OWNER/OPERATOR AT C4, ASK F9a. OTHERWISE, GO TO F11a.

F9a. Here is the next debt category. I'm going to ask you about some different types of debt financing that **other owners** may have borrowed on behalf of [NAME BUSINESS]. This debt does **not** include amounts already reported in the previous section about **your** debt. For each, please tell me if other owners used this type at any time during calendar year 2007. Did other owners use [NAME DEBT FINANCING OPTION FROM LIST]?

F9b. **IN BELOW LIST, FOR EACH DEBT FINANCING OPTION BUSINESS REPORTED, ASK:** How many [NAME DEBT FINANCING OPTION] did other owners use to finance the operation of the business during calendar year 2007?

	YES	NO	DON'T KNOW	REFUSED	NUMBER USED
a. Personal credit cards for business-related purposes	01	00	d	r	_ _
b. Personal loans from a bank or other financial institution, such as a mortgage or home equity loan used for the business	01	00	d	r	_ _
c. Business or corporate credit cards issued in the other owner's name(s).....	01	00	d	r	_ _
d. Personal loans from any family or friends.....	01	00	d	r	_ _
e. Personal loans from any other individuals not associated with the management of the business.....	01	00	d	r	_ _
f. Any other sources? (SPECIFY).....	01	00	d	r	_ _

F10a. **IF ANSWERED “YES” TO F9a ITEMS a, c, ASK:** As of December 31, 2007, what was the maximum credit line on the [NAME DEBT FINANCING OPTION] of (one of) the other owner(s)?

\$ | | | | |, | | | | |, | | | | | DECEMBER 31, 2007 CREDIT LINE

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F10b. **IF ANSWERED “YES” TO F9a ITEMS a, c, ASK:** As of December 31, 2007, what was the outstanding balance on the [NAME DEBT FINANCING OPTION] used by (one of) the other owner(s)?

\$ | | | | |, | | | | |, | | | | | DECEMBER 31, 2007 OUTSTANDING
CREDIT CARD BALANCE

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

IF F10b IS GREATER THAN F10a:

Perhaps I made a mistake. The amount I recorded as the balance outstanding is greater than the amount reported as the maximum credit limit.

F10c. **IF ANSWERED “YES” TO F9a, ITEMS b, d, e, f, ASK:** In calendar year 2007, how much was obtained from the [NAME DEBT FINANCING OPTION] other owners used?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| CALENDAR YEAR 2007 DEBT AMOUNT

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F10d. **IF ANSWERED “YES” TO F9a ITEMS b, d, e, f, ASK:** As of December 31, 2007, what was the estimated amount of the [NAME DEBT FINANCING OPTION] owed by other owners on behalf of [NAME BUSINESS]?

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| DEBT AMOUNT AS OF DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F11a. We are once again switching to another debt category. Now I'm going to ask you about some different types of debt financing that may have been obtained in the name of the business during calendar year 2007. This debt does **not** include amounts already reported in the previous sections about **your debt or the debt of other owners**. During calendar year 2007, did [NAME BUSINESS] use [NAME DEBT FINANCING OPTION FROM LIST]?

F11b. **IN BELOW LIST, FOR EACH DEBT FINANCING OPTION BUSINESS REPORTED, ASK:** How many [NAME DEBT FINANCING OPTION] did the business use to finance the operation or the business during calendar year 2007?

	YES	NO	DON'T KNOW	REFUSED	NUMBER USED
a. Business or corporate credit cards issued in the name of the business	01	00	d	r	_ _
b. Business loans from a commercial bank	01	00	d	r	_ _
c. Business line of credit (READ IF NEEDED: a business line of credit is when a business has an agreement with a bank or other financial institution to borrow up to a certain amount of funds)	01	00	d	r	_ _
d. Business loans from a non-bank financial institution	01	00	d	r	_ _
e. Business loans from any family or friends of the owners	01	00	d	r	_ _
f. Business loans from another owner of the business or a partner	01	00	d	r	_ _
g. [IF HAVE EMPLOYEES AT C5] Loans to the business from employees that are not owners of the business	01	00	d	r	_ _
h. Loans from government agencies	01	00	d	r	_ _
i. Loans from other businesses	01	00	d	r	_ _
j. Business loans from any other individuals not associated with the management of the business	01	00	d	r	_ _
k. Any other sources? (SPECIFY)	01	00	d	r	_ _

F12a. **IF ANSWERED “YES” TO F11a ITEMS a, c, ASK:** As of December 31, 2007, what was the maximum credit line on the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| DECEMBER 31, 2007 CREDIT LINE

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F12b. **IF ANSWERED “YES” TO F11a ITEMS a, c, ASK:** As of December 31, 2007, what was the outstanding balance on the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| DECEMBER 31, 2007 OUTSTANDING
CREDIT BALANCE

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

IF F12a IS LESS THAN F12b:

Perhaps I made a mistake. The amount I recorded as the balance outstanding is greater than the amount reported as the maximum credit limit.

F12c. **IF ANSWERED “YES” TO F11a ITEMS b, d-k, ASK:** In calendar year 2007, how much was the amount obtained from [NAME DEBT FINANCING OPTION] used by [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | CALENDAR YEAR 2007 DEBT AMOUNT

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F12d. **IF ANSWERED “YES” TO F11a ITEMS b, d-k, ASK:** As of December 31, 2007, what was the estimated amount of the [NAME DEBT FINANCING OPTION] owed by [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | DEBT AMOUNT AS OF DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F13. Trade financing is where a business has an arrangement with a supplier to make purchases on account. In calendar year 2007, did [NAME BUSINESS] make any purchases through trade financing?

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

→ GO TO F14c

F14a. In calendar year 2007, what was the amount of purchases made through trade financing?

\$ | | | | |, | | | | |, | | | | | CALENDAR YEAR 2007 AMOUNT
OF TRADE PURCHASES

DON'T KNOW..... d

REFUSED..... r

F14b. **IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:** Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F14c. This next section is about applications for credit [NAME BUSINESS] made in calendar year 2007. In responding to these questions, include new as well as renewal applications for lines of credit and other types of loans. Do not include applications for credit cards, loans from owners, trade credit with suppliers, or loan applications that were withdrawn or are still pending.

F14d. Did [NAME BUSINESS] make any applications for new or renewed loans or lines of credit in calendar year 2007?

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

→ GO TO F14g

F14e. Were these applications always approved, sometimes approved and sometimes denied, or always denied?

ALWAYS APPROVED, 01 → **GO TO F14g**

SOMETIMES APPROVED AND SOMETIMES DENIED, ... 02

ALWAYS DENIED, 03

DON'T KNOW d

REFUSED r → **GO TO F14g**

F14f. Consider the most recent time [NAME BUSINESS]'s credit application was denied. Officially, was the application denied because of . . .

	YES	NO	DON'T KNOW	REFUSED
a. Insufficient collateral?	01	00	d	r
b. The loan requested was too large?	01	00	d	r
c. Inadequate documentation provided?	01	00	d	r
d. Business credit history?	01	00	d	r
e. Personal credit history?	01	00	d	r
f. Not being in business long enough?	01	00	d	r
g. Any other reason? (SPECIFY)	01	00	d	r

F14g. During calendar year 2007, was there any time when [NAME BUSINESS] needed credit, but did not apply because you or others associated with [NAME BUSINESS] thought the application would be denied?

YES 01

NO 00

DON'T KNOW d

REFUSED r

- F15. In calendar year 2007, did [NAME BUSINESS] receive any revenue (money), from the sales of goods, services, or intellectual property? **[IF SOLE PROPRIETORSHIP, ADD: This would be gross receipts reported on a Schedule C or C-EZ with your personal income tax return.]**

YES 01
 NO 00
 DON'T KNOW d
 REFUSED r

} → **GO TO F17**

IF F15 = 01 AND D6 = 00:

I may have made a mistake. Earlier in the interview, I recorded that [NAME BUSINESS] did not have any customers or sales in calendar year 2007. Is there an error?

- F16. What was [NAME BUSINESS]'s total revenue for calendar year 2007? **[IF SOLE PROPRIETORSHIP, ADD: This would be gross receipts reported on a Schedule C or C-EZ with your personal income tax return.]**

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| TOTAL REVENUE 2007

DON'T KNOW d
 REFUSED r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01
 \$501 to \$1,000, 02
 \$1,001 to \$3,000, 03
 \$3,001 to \$5,000, 04
 \$5,001 to \$10,000, 05
 \$10,001 to \$25,000, 06
 \$25,001 to \$100,000, 07
 \$100,001 to \$1,000,000, 08
 \$1,000,001 or more? 09
 DON'T KNOW d
 REFUSED r

} → **GO TO F17**

F16b. Was this an increase, a decrease, or no change in the amount of revenue for [NAME BUSINESS] in calendar year 2007 compared to 2006?

INCREASE 01
 DECREASE 02
 NO CHANGE 03 → **GO TO F17**
 DON'T KNOW d
 REFUSED..... r


F16c. And what was the percentage change in revenue in calendar year 2007 compared 2006? Your best estimate is fine.

|_|_|_| % CHANGE IN REVENUE
 DON'T KNOW d
 REFUSED..... r

F17. Now I'm going to ask about the expenses the business paid. Expenses are the costs paid for the operation of the business, including wages, salaries, interest on loans, capital leases, materials, etc. How much, if any, did [NAME BUSINESS] pay in expenses during calendar year 2007?

\$ |_|_|_|,|_|_|,|_|_| TOTAL EXPENSES IN CALENDAR YEAR 2007
 DON'T KNOW d
 REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01
 \$501 to \$1,000, 02
 \$1,001 to \$3,000, 03
 \$3,001 to \$5,000, 04
 \$5,001 to \$10,000, 05
 \$10,001 to \$25,000, 06
 \$25,001 to \$100,000, 07
 \$100,001 to \$1,000,000, 08
 \$1,000,001 or more? 09
 DON'T KNOW d
 REFUSED..... r  **GO TO F18**

F17b. Was this an increase, a decrease, or no change in total expenses for [NAME BUSINESS] in calendar year 2007 compared to 2006?

INCREASE	01	
DECREASE	02	
NO CHANGE	03	} → GO TO F18
DON'T KNOW	d	
REFUSED.....	r	

F17c. And what was the percentage change in total expenses in calendar year 2007 compared 2006? Your best estimate is fine.

|_|_|_| % CHANGE IN EXPENSES

DON'T KNOW..... d

REFUSED..... r

F18. **IF BUSINESS REPORTED "0" EMPLOYEES AT C5, GO TO F19.**
 How much, if any, did [NAME BUSINESS] pay in wages, salaries, and benefits to full-and part-time employees in calendar year 2007? Please do not include wages, salaries, and benefits to contract workers who work for the business but are not on the business' official payroll.

\$ |_|_|_|, |_|_|_|, |_|_|_| TOTAL PAYROLL EXPENSES
 IN CALENDAR YEAR 2007

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less,	01
\$501 to \$1,000,	02
\$1,001 to \$3,000,	03
\$3,001 to \$5,000,	04
\$5,001 to \$10,000,	05
\$10,001 to \$25,000,	06
\$25,001 to \$100,000,	07
\$100,001 to \$1,000,000,	08
\$1,000,001 or more?.....	09
DON'T KNOW	d
REFUSED.....	r

IF F18 > F17:

I may have made a mistake. I recorded that the business' wage expenses for 2007 were greater than its total expenses. Is there an error?

- F19. Did [NAME BUSINESS] spend any money on research and development of new products and services during calendar year 2007?

YES	01	} → GO TO F20
NO	00	
DON'T KNOW	d	
REFUSED.....	r	

- F19a. Please estimate [NAME BUSINESS]'s total research and development expenses for calendar year 2007, including materials, equipment, space, salaries, wages, benefits, and consulting fees?

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| TOTAL RESEARCH AND DEVELOPMENT
EXPENSES IN CALENDAR YEAR 2007

DON'T KNOW..... d
REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less,	01
\$501 to \$1,000,	02
\$1,001 to \$3,000,	03
\$3,001 to \$5,000,	04
\$5,001 to \$10,000,	05
\$10,001 to \$25,000,	06
\$25,001 to \$100,000,	07
\$100,001 to \$1,000,000,	08
\$1,000,001 or more?.....	09
DON'T KNOW	d
REFUSED.....	r

IF F19a > F17:

I may have made a mistake. I recorded that the business' research and development expenses for 2007 were greater than its total expenses. Is there an error?

F20. Did [NAME BUSINESS] spend any money on the purchase of new or used machinery or equipment during calendar year 2007?

YES 01
NO 00
DON'T KNOW d
REFUSED r

F21. Did [NAME BUSINESS] spend any money on rental or lease payments for buildings or other structures during calendar year 2007?

YES 01
NO 00
DON'T KNOW d
REFUSED r

F22. Did [NAME BUSINESS] spend any money on **rental or lease payments** for machinery or equipment during calendar year 2007?

YES 01
NO 00
DON'T KNOW d
REFUSED r

F23. Profit is the business' income after all expenses and taxes have been deducted. What was [NAME BUSINESS]'s total profit or loss for calendar year 2007?

PROFIT 01 → **GO TO F24**
LOSS 02 → **GO TO F26**
DON'T KNOW d
REFUSED r } → **GO TO F28**

IF F23 = 01 AND F15 = 00:

I may have made a mistake. Earlier in the interview, I recorded that [NAME BUSINESS] did not have any revenue in calendar year 2007. Is there an error?

F24. ENTER PROFIT AMOUNT

\$ | | | | , | | | | , | | | | TOTAL PROFIT IN CALENDAR YEAR 2007
DON'T KNOW d
REFUSED r

F25. **IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:** Would you say it was . . .

\$500 or less, 01
\$501 to \$1,000, 02
\$1,001 to \$3,000, 03
\$3,001 to \$5,000, 04
\$5,001 to \$10,000, 05
\$10,001 to \$25,000, 06
\$25,001 to \$100,000, 07
\$100,001 to \$1,000,000, 08
\$1,000,001 or more? 09
DON'T KNOW d
REFUSED r

F26. **ENTER LOSS AMOUNT**

\$ | | | | |, | | | | |, | | | | | TOTAL LOSS IN CALENDAR YEAR 2007

DON'T KNOW d
REFUSED r

F27. **IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:** Would you say it was . . .

\$500 or less, 01
\$501 to \$1,000, 02
\$1,001 to \$3,000, 03
\$3,001 to \$5,000, 04
\$5,001 to \$10,000, 05
\$10,001 to \$25,000, 06
\$25,001 to \$100,000, 07
\$100,001 to \$1,000,000, 08
\$1,000,001 or more? 09
DON'T KNOW d
REFUSED r

F28. Assets are what the business owns. As of December 31, 2007, did [NAME BUSINESS]'s assets include [NAME ASSET FROM LIST]?

	YES	NO	DON'T KNOW	REFUSED
a. Cash on hand in checking, savings, money market accounts, certificates of deposit and other time deposits	01	00	d	r
b. Accounts receivable	01	00	d	r
c. Product inventory	01	00	d	r
d. Equipment or machinery	01	00	d	r
e. Land, buildings, and other structures.....	01	00	d	r
f. Vehicles	01	00	d	r
g. Any other business owned property (SPECIFY) ...	01	00	d	r

h. Any other assets? (SPECIFY)	01	00	d	r

F29. **FOR EACH ASSET BUSINESS REPORTED, ASK:**

As of December 31, 2007, what was the estimated value of the [NAME OF ASSET] owned by [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | ASSET VALUE AS OF DECEMBER 31, 2007

DON'T KNOW d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

F30. Liabilities are what the business owes. Other than the loans and the financial debt we've already talked about, did [NAME BUSINESS]'s liabilities as of December 31, 2007 include [NAME LIABILITY FROM LIST]?

	YES	NO	DON'T KNOW	REFUSED
a. Accounts Payable	01	00	d	r
b. Pension and post retirement benefits	01	00	d	r
c. Any other liabilities? (SPECIFY)	01	00	d	r

F31. **FOR EACH LIABILITY BUSINESS HAS, ASK:** As of December 31, 2007, what was the estimated value of [NAME BUSINESS]'s [NAME OF LIABILITY]?

\$ | | | | |, | | | | |, | | | | | LIABILITY VALUE AS OF DECEMBER 31, 2007

DON'T KNOW d

REFUSED r

G. WORK BEHAVIORS AND DEMOGRAPHICS OF OWNER/OPERATOR(S)

The last section contains questions for classification purposes only.

C4 LISTING OF OWNER/OPERATORS SHOULD BE ASKED THIS SERIES IN THE ORDER THEY APPEAR IN C4.

NO QUESTIONS WILL BE ASKED ABOUT OWNER/OPERATORS WHO HAVE LEFT THE BUSINESS.

FOR ALL SECOND FOLLOW-UP OWNER/OPERATORS IN C4, ASK BLOCK G1.

FOR ALL NEW OWNER/OPERATORS, ASK BLOCK G2.

QG9-G9b IS TO BE ASKED ONLY OF RESPONDENTS AND NOT ABOUT OTHER OWNER/OPERATORS.

BLOCK G1

G1a. (Are/Is) (you/[OWNER B-J]) also a paid employee at [NAME BUSINESS]?

YES 01
NO 00
DON'T KNOW d
REFUSED r

G1b. During the time [NAME BUSINESS] was in business during 2007, how many hours in an average week did (you/[OWNER B-J]) spend working at [NAME BUSINESS]?

|_|_| HOURS WORKED IN AVERAGE WEEK

DON'T KNOW d
REFUSED r

IF DON'T KNOW OR REFUSED PROBE: Would you say it was . . .

Less than 20 hours, 01
20 hours to 35 hours, 02
36 hours to 45 hours, 03
46 hours to 55 hours, 04
56 hours to 65 hours, 05
66 hours or more? 06
DON'T KNOW d
REFUSED r

G9. What is the highest level of education (you/[OWNER B-J]) (have/has) completed so far? Would you say . . .

- | | | | | |
|---|----|---|---|------------------|
| Less than 9th grade, | 01 | } | → | GO TO G10 |
| Some high school, but no diploma, | 02 | | | |
| High school graduate (diploma or equivalent diploma [GED]), | 03 | | | |
| Technical, trade or vocational degree, | 04 | | | |
| Some college, but no degree, | 05 | | | |
| Associate's degree, | 06 | } | → | GO TO G9a |
| Bachelor's degree, | 07 | | | |
| Some graduate school but no degree, | 08 | → | | GO TO G9b |
| Master's degree, or | 09 | } | → | GO TO G9a |
| Professional school or doctorate? | 10 | | | |
| DON'T KNOW | d | | | |
| REFUSED | r | | | |

G9a. What was the primary field of study for this degree?

- DON'T KNOW..... d
- REFUSED..... r

G9b. What was the primary field of study for your bachelor's degree?

- DON'T KNOW..... d
- REFUSED..... r

SECOND FOLLOW-UP OWNERS/OPERATORS: ANY DEMOGRAPHIC QUESTION G1d-G10a NOT ANSWERED IN SECOND FOLLOW-UP WILL BE ASKED AGAIN. QUESTION G9-G9b IS TO BE ASKED ONLY OF RESPONDENTS AND NOT ABOUT OTHER OWNER/OPERATORS.

ENDBLOCK G1—FOR ALL SECOND FOLLOW-UP OWNERS WITH COMPLETE DEMOGRAPHIC INFORMATION.

BLOCK bSectionG2—for all NEW OWNERS

G1a. (Are/Is) (you/[OWNER B-J]) also a paid employee at [NAME BUSINESS]?

YES 01
NO 00
DON'T KNOW d
REFUSED..... r

G1b. During the time [NAME BUSINESS] was in business during 2007, how many hours in an average week did (you [OWNER B-J] spend working at [NAME BUSINESS]?

|_|_|_| HOURS WORKED IN AVERAGE WEEK
DON'T KNOW d
REFUSED..... r

G1b1. **IF DON'T KNOW OR REFUSED, PROBE:** Would you say it was . . .

Less than 20 hours, 01
20 hours to 35 hours, 02
36 hours to 45 hours, 03
46 hours to 55 hours, 04
56 hours to 65 hours, 05
66 hours or more?..... 06
DON'T KNOW d
REFUSED..... r

G2. How many years of work experience (have/has) (you/[OWNER B-J]) had in this industry—the one in which [NAME BUSINESS] competes?

|_|_| YEARS

DON'T KNOW..... d

REFUSED..... r

G3a. How many other new businesses (have/has) (you/[OWNER B-J]) started besides [NAME BUSINESS]?

|_|_| NUMBER OF BUSINESSES (ENTER "0" FOR NONE)

DON'T KNOW..... d

REFUSED..... r

IF ZERO NEW BUSINESSES AT G3a, GO TO G4.

G3b. (Was this/Were any of the) business(es) in the same industry as [NAME BUSINESS]?

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

G4. How old will (you/[OWNER B-J]) be on (your/his/her) next birthday?

OWNER A..... |_|_|

DON'T KNOW..... d

REFUSED..... r

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say . . .

18-24, 01

25-34, 02

35-44, 03

45-54, 04

55-64, 05

65-74, 06

75 or older?..... 07

DON'T KNOW..... d

REFUSED..... r

IF G4 IS LESS THAN G2:

Perhaps I made a mistake in recording your answer. (Your/OWNER B-J)'s age is less than (Your/OWNER B-J)'s years of experience.

Now I have a few questions about race and ethnicity.

G5. (Are/Is) (you/[OWNER B-J]) of Hispanic or Latino origin?

YES 01
NO 00
DON'T KNOW d
REFUSED r

G6. I am going to read a list of race categories. Please choose one or more that best describes (your/[OWNER B-J])'s race. Are (you [OWNER B-J]) American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Asian, Black or African American, or White?

AMERICAN INDIAN OR ALASKA NATIVE 01
NATIVE HAWAIIAN OR OTHER
PACIFIC ISLANDER 02
ASIAN 03
BLACK OR AFRICAN AMERICAN 04
WHITE 05
OTHER (SPECIFY) 06

DON'T KNOW d
REFUSED r

G7. (Were/Was) (you/[OWNER B-J]) born in the United States?

YES 01 → **GO TO G9**
NO 00
DON'T KNOW d
REFUSED r

G8. (Are/Is) (you/[OWNER B-J]) a U.S. citizen?

YES 01
NO 00
DON'T KNOW..... d
REFUSED..... r

G9. What is the highest level of education (you/[OWNER B-J]) (have/has) completed so far? Would you say . . .

Less than 9th grade,	01	}	→	GO TO G10
Some high school, but no diploma,	02			
High school graduate (diploma or equivalent diploma [GED]),	03			
Technical, trade or vocational degree,	04			
Some college, but no degree,	05			
Associate's degree,.....	06	}	→	GO TO G9a
Bachelor's degree,	07			
Some graduate school but no degree,	08		→	GO TO G9b
Master's degree, or	09	}	→	GO TO G9a
Professional school or doctorate?	10			
DON'T KNOW.....	d			
REFUSED.....	r			

G9a. What was the primary field of study for this degree?

DON'T KNOW..... d
REFUSED..... r

G9b. What was the primary field of study for your bachelor's degree?

DON'T KNOW..... d
REFUSED..... r

BY OBSERVATION:

G10a. (Are/Is) (you/[OWNER B-J]) male or female?

MALE..... 01

FEMALE 02

DON'T KNOW..... d

REFUSED..... r

ENDBLOCK bSectionG2

SECTION G ARRAYED UP TO 10 TIMES, ONCE FOR EACH NEW OWNER.

G11. IF EMAIL ADDRESS COLLECTED AT BASELINE, FIRST OR SECOND FOLLOW-UP:

Can we confirm your email address?

INTERVIEWER: READ E-MAIL ADDRESS AND CORRECT AS NECESSARY.

IF EMAIL ADDRESS FIELD BLANK FROM BASELINE, FIRST, AND SECOND FOLLOW-UP:

Can you give us an email address where you can be reached?

EMAIL: _____ @ _____

DON'T KNOW d

REFUSED r

G12. IF WEBSITE ADDRESS COLLECTED AT BASELINE, FIRST, OR SECOND FOLLOW-UP:

May we confirm your web site address as:

Web Address: _____ . _____

INTERVIEWER: CORRECT AS NECESSARY → GO TO G14

IF WEBSITE ADDRESS BLANK FROM BASELINE, FIRST, AND SECOND FOLLOW-UP:

Does [NAME BUSINESS] have its own website?

YES 01

NO 00

DON'T KNOW d

REFUSED r

} → **GO TO G14**

G13. Can you give me the web address?

WEB ADDRESS: _____ . _____

DON'T KNOW d

REFUSED r

G14. Is the business likely to move to another location in the next 12 months?

YES 01

NO 00

DON'T KNOW d

REFUSED r

→ GO TO G16

G15. What city and state is the business likely to move to?

CITY: _____

STATE: _____

DON'T KNOW d

REFUSED r

G16. **IF CONTACT INFORMATION COLLECTED AT BASELINE, FIRST, OR SECOND FOLLOW-UP:**

Here is the information we have for a contact person. This information will be held in the strictest confidence, and will only be used if we cannot contact you or someone else associated with the business at the current business phone number or address.

INTERVIEWER: PLEASE ASK FOR ANY INFORMATION THAT IS NOT FILLED IN.

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____

PHONE: _____

EMAIL: _____ @ _____

DON'T KNOW d

REFUSED r

IF CONTACT INFORMATION IS BLANK FROM BASELINE, FIRST, AND SECOND FOLLOW-UP:

In case we are unable to contact you, can you provide a name and contact information for a person besides yourself who would know how to reach you or someone else associated with [NAME BUSINESS]? All information collected will be held in the strictest confidence, and will only be used if we cannot contact you or someone else associated with the business at the current business phone number or address.

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____

PHONE: _____

EMAIL: _____ @ _____

DON'T KNOW..... d

REFUSED..... r

THANK AND TERMINATE

APPENDIX C
RESPONDENT MATERIALS

ADVANCE EMAIL MESSAGE

Subject: Round 4 -- Kauffman Firm Survey

Dear [THIRD FOLLOW-UP RESPONDENT NAME]:

Welcome to the 4th round of the Kauffman Firm Survey (KFS)! Sponsored by the Ewing Marion Kauffman Foundation, KFS is a groundbreaking study investigating how new businesses like yours develop and operate in their early years of existence. [BUSINESS NAME] is one of only 4,500 businesses participating in this, the largest longitudinal study of new businesses ever performed. **Your continued participation** is critical. Already, your input from previous rounds has helped provide important insights. Highlights include:

- Nearly 45% percent of businesses reported making a profit in their first year of operations, and about 17% had profits greater than \$100,000.
- One quarter of businesses had at least 2 employees.
- Most of the equity raised by businesses came from the owners themselves.
- 30% of businesses in the study were owned by women.

For additional findings from the first three rounds, check out: <http://www.kauffman.org/kfs/>

You can complete the 4th round of this important study online at www.kauffmansurvey.org using the following login ID and Password:

Login ID: «username»
Password: «password»

In appreciation, you will again receive \$50. All information you provide will be kept confidential, and no information will be released that can be linked to you or your business. If you have questions, please call Pat Jones toll free at 877-542-6725, or me directly at 609-750-2018. You may also email the study team at KFS@mathematica-mpr.com.

Thank you in advance for your continuing participation.

Sincerely,

Betsy Santos
Survey Director

KAUFFMAN
The Foundation
of Entrepreneurship

ADVANCE LETTER

Betsy Santos
Survey Director

June 6, 2008

«FirstName» «MiddleInitial» «LastName»
«CEO_Title»
«BusinessName»
«Address1»
«Address2»
«City», «State» «postalcode»

Dear «CEO_Prefix» «LastName»:

Welcome to the fourth round of the Kauffman Firm Survey (KFS)! Sponsored by the Ewing Marion Kauffman Foundation, KFS is a groundbreaking study investigating how new businesses like yours develop and operate in their early years of existence. «BusinessName» is one of only 4,500 businesses participating in this, the largest longitudinal study of new businesses ever performed. Already, your input from previous rounds has helped provide important insights. Highlights include:

- Nearly 45 percent of businesses reported making a profit in their first year of operations, and about 17 percent had profits greater than \$100,000.
- One-quarter of businesses had at least two employees.
- Most of the equity raised by businesses came from the owners themselves.
- Thirty percent of businesses in the study were owned by women.

For more findings from the first three rounds, check out: <http://www.kauffman.org/kfs/>.

We encourage you to complete the fourth round of this important study online at www.kauffmansurvey.org using the following secure login ID and Password:

Login ID: «username»
Password: «password»

In appreciation, you will again receive \$50. All information you provide will be kept confidential, and Mathematica Policy Research, Inc. will not release any information that can be linked to you or your business. If you have questions, please call Pat Jones toll free at 877-542-6725, or me directly at 609-750-2018. You may also email the study team at KFS@mathematica-mpr.com.

Thank you in advance for your continuing participation.

Sincerely,



Frequently Asked Questions

What is the purpose of the Kauffman Firm Survey?

The Kauffman Firm Survey (KFS) is a research study sponsored by the Kauffman Foundation of Kansas City. The study's purpose is to learn about the challenges involved in owning and operating a new business.

Did our business already complete this survey?

Your business completed earlier rounds of this survey. At this time, we are asking about your business during calendar year 2007. Your input in this round is important. Since your business has been scientifically selected to participate, we cannot replace it.

Why are you asking about Year 4 of my business?

We are interested in following new businesses like yours from year to year as they continue to develop and operate. By studying businesses over the crucial early years of their growth and development, we can begin to understand what factors help businesses succeed in becoming established. No other study has examined as many new businesses in as much detail.

Will I be paid for participating?

You will receive **\$50** again as a "thank you" for completing the interview.

What if my company is no longer in business or I have sold my business?

We want to know if you if your company is no longer in business or you have sold it. Take a few minutes to access the Web survey or call Pat Jones at 1-877-542-6725 to tell us what happened to your business.

Will I get to see the results of the study?

The Kauffman Foundation is committed to sharing information from this study. Included in this mailing are results from earlier rounds of the study. For more findings from the initial rounds of the study, visit **www.kauffman.org**. Results of this round will be posted as soon as it is completed.

Will the information I provide be kept confidential?

Yes. Information that you share will be kept private by the study investigators. Information provided will be used for research and statistical purposes only by the Kauffman Foundation, its contractors, and collaborating researchers for the purpose of analyzing data and preparing scientific reports and articles. Any information that is publicly released (such as statistical summaries) will appear in a form that does not personally identify your business or any individuals involved with the business.

Will I be asked to make a donation to the Kauffman Foundation?

No. This study is solely a research study. At no time will you be asked to buy anything or contribute money to any foundation. Additionally, your name and your business name will not be sold or provided to anyone.

What is the Kauffman Foundation?

The Kauffman Foundation is a private foundation dedicated to studying and promoting entrepreneurship in the United States. For additional information about the Kauffman Foundation, please visit its web site: **www.kauffman.org**

Who is Mathematica Policy Research?

The Kauffman Foundation has hired Mathematica Policy Research, Inc. (MPR), an independent research firm, to conduct the study. MPR is an independent research firm based in Princeton, New Jersey known for its high-quality, objective research designed to support decision making on the nation's most pressing issues. For additional information about MPR, please visit the company's web site:

www.mathematica-mpr.com

How can I contact you with further questions?

If you have questions about this study, please call Pat Jones toll-free at 1-877-542-6725, or email the study team at KFS@mathematica-mpr.com. By mail, the study team can be contacted at:

**Kauffman Firm Survey
Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393**

REMINDER POSTCARD

Front

KAUFFMAN

The Foundation
of Entrepreneurship

We still need your help!

Your business is one of only 4,500 businesses in the Kauffman Firm Survey. Your continued participation is vital to studying new business development.

If you haven't done so already, please complete the questionnaire at www.kauffmansurvey.org. You will receive \$50 as a "thank you."

If you have lost your login ID or password, or have questions, contact Pat Jones at 1-877-542-6725, or email KFS@mathematica-mpr.com.

Back

Kauffman Firm Survey (6091-440)
Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-9809

Return Service Requested

REFUSAL LETTER

July 29, 2008

«FirstName» «MiddleInitial» «LastName»
«CEO_Title»
«BName»
«Address1»
«Address2»
«City», «State» «postalcode»

Dear «CEO_Prefix» «LastName»: [NOTE: USE «FirstName» IF «CEO_Prefix» IS MISSING]

We would like to thank you again for your past participating in the Kauffman Firm Survey, sponsored by the Ewing Marion Kauffman Foundation. Recently, we contacted you about participating in the fourth round of the study, but at that time you were unable to speak with us. I wanted to personally explain to you how important your continued cooperation in the survey is to the success of this critical study.

New businesses are vital to the economic future of the United States, and yet little is known about the challenges of running a business in the early years of development. Your continued participation in this, the largest longitudinal study of new businesses ever performed, will provide the Kauffman Foundation with a greater understanding of the challenges involved in owning and operating a new business. As such, your completion of the interview will contribute to the Foundation's mission of supporting entrepreneurship.

In appreciation of your time, you will receive \$50. Know that everything you report will be kept confidential, and no information will be released that can be linked to you or your business. If you have questions, please call Pat Jones toll free at 877-542-6725, or me directly at 609-750-2018. You may also email the study team at KFS@mathematica-mpr.com.

Sincerely,



Betsy Santos
Survey Director

APPENDIX D

KAUFFMAN FIRM SURVEY THIRD FOLLOW-UP ANNOTATED QUESTIONNAIRE

MPR Reference No.: 6091-470

MATHEMATICA
Policy Research, Inc.

**Kauffman Firm Survey
Third Follow-Up**

Annotated Questionnaire

April 6, 2009

A. INTRODUCTION

INTRO: Hello, my name is _____. I'm calling on behalf of the Kauffman Foundation.

May I speak with (OWNER NAME/the owner or CEO of [NAME BUSINESS])?

OWNER NAME = Second Follow-Up Respondent for Section A.

OWNER NAME —PROCEED WITH INTERVIEW	01	
OWNER NAME —BAD TIME/CALL BACK	02	→ GO TO A2a
OWNER NAME NOT AVAILABLE	03	→ GO TO Inform
OWNER NAME NO LONGER WITH BUSINESS.....	04	→ GO TO A1a [then A4web if A1a=1]
BUSINESS NO LONGER IN OPERATION	05	→ GO TO A10
DON'T KNOW.....	d	} → THANK AND TERMINATE
REFUSED.....	r	

A1a. Your business has been participating in the Kauffman Firm Survey. Last year we asked you some questions about [NAME BUSINESS]'s operations in 2006. Now we'd like to ask about calendar year 2007.

We'd like to confirm that the name of the business is [NAME BUSINESS] and that [NAME BUSINESS] is still operating.

[NAME BUSINESS] IS THE CURRENT NAME AND [NAME BUSINESS] IS STILL OPERATING.....	01	
THE BUSINESS NAME IS INCORRECT	02	→ GO TO A2Web
[NAME BUSINESS] IS OUT OF BUSINESS	03	→ GO TO A10

A1b. We'd like to confirm that you are [OWNER NAME] and you are you are still an owner of [NAME BUSINESS]?

[OWNER NAME] IS THE RESPONDENT AND IS STILL AN OWNER OF [NAME BUSINESS].....	01	
[OWNER NAME] IS THE RESPONDENT AND IS STILL AN OWNER OF [NAME BUSINESS], BUT CORRECT [OWNER NAME]'s NAME.....	02	→ GO TO A4aWeb
RESPONDENT IS NOT [OWNER NAME].....	03	→ GO TO A4Webz
THE RESPONDENT [OWNER NAME] IS NO LONGER AN OWNER OF [NAME BUSINESS]	07	→ GO TO A5a Box

A1c. We'd like to confirm that the title of your position is [TITLE]? Is that correct?

YES 01 → **GO TO A5**

NO 00

DON'T KNOW..... d] → **GO TO A5**

REFUSED..... r] → **GO TO A5**

A1d. What is your job title?

INTERVIEWER: ENTER JOB TITLE.

_____ **UPDATE TITLE**

GO TO A5

A2a. I'm sorry. When would be a better time to reach (you/[OWNER])?

INTERVIEWER: ENTER CALLBACK DATE AND TIME.

READ: Is this the best number to reach you?

INTERVIEWER: UPDATE CONTACT INFORMATION AS NEEDED.

Thank you very much. Good-bye.

THANK AND TERMINATE

A2Web. What is the correct business name?

INTERVIEWER: TYPE IN BUSINESS NAME.

A3Web. Is this a corrected spelling, a name change but the same business, or a different business?

SPELLING CORRECTION 01] → **GO TO A1b**

NAME CHANGE/SAME COMPANY 02] → **GO TO A1b**

DIFFERENT COMPANY 03

A3Webz. We are trying to find out what happened to [NAME BUSINESS]. Is [NAME BUSINESS] still in operation?

YES 01 → GO TO A1b
NO 00 → GO TO A10
DON'T KNOW d
REFUSED r } → THANK AND TERMINATE

A4Webz Is [OWNER NAME] still an owner and actively involved in running [NAME BUSINESS]?

IF NEEDED: By actively involved, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES 01
NO 00 → GO TO A5a Box
DON'T KNOW d
REFUSED r

A4Webz1 Would [OWNER NAME] be available to do the study at another time?

YES 01 → ENTER CALLBACK DATE AND TIME
NO 00
DON'T KNOW d
REFUSED r } → GO TO A5a Box

A4aWeb What is the correct spelling of your name?

NAME: _____

A5. Are you **still** actively involved in running [NAME BUSINESS]? By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES 01 → GO TO A4
NO 00
DON'T KNOW d
REFUSED r } → GO TO A4

[A5_Actively_involved_3]

A5a BOX:
**IF MORE THAN ONE OWNER-OPERATOR-
FOUNDER FROM SECOND FOLLOW-UP, ASK
A5a. ELSE, ASK A4Web.**

A5a. During the last interview with your business, we recorded other owners of [NAME BUSINESS]. Please tell me the person who is an owner of the business, is actively involved in running [NAME BUSINESS], and will answer this study.

By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

READ THE OWNER NAMES BELOW. SELECT ONLY ONE.

NEW OWNER-OPERATOR WILL ANSWER 00 → **GO TO A5aweb1**
[NAME OWNER]..... 2-9 → **GO TO A7Title**
NON-OWNER WILL ANSWER 11 → **GO TO A5aweb1**

**INTERVIEWER: CODE 11 ONLY WITH SUPERVISOR PERMISSION AND WRITE
NOTE DOCUMENTING CIRCUMSTANCES**

A4Web Who is currently an (OWNER/CEO) of [NAME BUSINESS]?

NAME:_____

A4Webz2 Are you (OWNER/CEO)?

YES 01
NO 00 → **GO TO Inform**

A5new. And are you actively involved in running [NAME BUSINESS]? By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES 01 → **GO TO A4new**
NO 00

[A5New_Actively_involved_3]

A7. Is there another owner of [NAME BUSINESS] who is actively involved in running [NAME BUSINESS], and can answer questions about the business?

PROBE: By actively involved in running the business, we mean providing regular assistance or advice with day-to-day operations of the business rather than providing only money or occasional operating assistance.

YES..... 01

NO 00 → **GO TO Stop5**

A5aWeb1 Who is another owner of [NAME BUSINESS] who is actively involved in running [NAME BUSINESS], and can answer questions about the business?

ENTER FIRST NAME _____

ENTER LAST NAME _____

ENTER JOB TITLE _____

A4Webz2 Are you (OWNER/CEO)?

YES..... 01 → **GO TO A4new**

NO 00

Inform. Do you know a good time and date I can call to contact (OWNER/CEO)?

INTERVIEWER: ENTER CALLBACK DATE AND TIME.

THANK AND TERMINATE

Stop5. Thank you for your time.

THANK AND TERMINATE

A7Title. What is [OWNER NAME]'s title?

A4Webz2 Are you (OWNER NAME)?

YES..... 01 → **GO TO A4new**

NO 00 → **GO TO Inform**

- A4. You participated last year in the Kauffman Firm Survey. At that time, we asked some questions about [NAME BUSINESS] operations in 2006. Now we'd like to ask about the year 2007. Again, your answers will be completely confidential, and you will once again receive a \$50 payment as a token of our appreciation.

GO TO A8

- A4new. Your business participated last year in the Kauffman Firm Study. At that time, we asked some questions about [NAME BUSINESS]'s operation in 2006. Now we'd like to ask about the year 2007. Again, your answers will be kept confidential, and you will receive a \$50 payment as a token of our appreciation.

- A8. I'd like to confirm your business' mailing address. Is [NAME BUSINESS]'s mailing address (ADDRESS, CITY, STATE, ZIP)?

WEB: Our records indicate that the mailing address for [NAME BUSINESS] is (ADDRESS, CITY, STATE, ZIP). Is this correct?

YES 01 → **GO TO C1z**
NO 00 → **GO TO A9**
DON'T KNOW..... d }
REFUSED..... r } → **GO TO C1z**

[A8_Addr_ver_3]

- A9. What is [NAME BUSINESS]'s correct mailing address?

INTERVIEWER: UPDATE MAILING ADDRESS INFORMATION.

ADDRESS:_____

CITY:_____

STATE:_____ ZIP:_____

DON'T KNOW..... d

REFUSED..... r

GO TO C1z

A10. What is the **main** reason [NAME BUSINESS] is out of business? Has [NAME BUSINESS]. . .

Been s-old to another business, 01

Merged with another business, 02

Temporarily stopped operations, 03

Permanently stopped operations, or 04 → **GO TO A11**

Something else? 05

DON'T KNOW d

REFUSED r

[A10_Out_Of_Business_3]

[A10_Other_Specify_3]

THANK AND TERMINATE

A11. In what calendar year did [NAME BUSINESS] close?

YEAR | 2 | 0 | 0 | |

DON'T KNOW d

REFUSED r

[A11_Year_Closed_3]

A11a. Did [NAME BUSINESS] file for bankruptcy?

YES 01

NO 00

DON'T KNOW d

REFUSED r

[A11a_Bankruptcy_3]

THANK AND TERMINATE

NO SECTION B

C. BUSINESS CHARACTERISTICS

All of the following questions I'm going to ask are about [NAME BUSINESS]. Some of the questions will ask to confirm information about your business which you provided to us previously. As we go through the interview, please tell me if any of the information about your business is incorrect and needs to be updated.

C1z. Our records show that [NAME BUSINESS] had a legal status of [tOWNERshipModel]. As of December 31, 2007, is that still the legal status of [NAME BUSINESS]?

YES..... 01 → **GO TO C1a**

NO 00

DON'T KNOW d

REFUSED r

[C1z_Confirm_Legal_Status_3]

C1z2. I'm going to read you a list of some different forms of legal status a business can have. As of December 31, 2007, which form of legal status did [NAME BUSINESS] have? Was it a . . .

READ LIST AND READ DESCRIPTIONS AS NEEDED:

Sole Proprietorship: A type of business ownership in which a business is owned and managed by one individual and no subchapter S-corporation or C-corporation has been established.

Limited Liability Company: A cross between a corporation and a partnership, and offering some of the benefits of both. Similar to S-corporations, income produced by a limited liability company flows through to owners (known as "members") who pay their own taxes as individuals. Unlike S-corporations, however, limited liability companies are not subject to as many government restrictions.

Subchapter S-Corporation: Corporations in which all profits and losses are passed through to shareholders, just as they are passed through to partners in a partnership.

C-Corporation: Legal entities separate from their owners that may engage in business, make contracts, own property, pay taxes, and sue and be sued by others.

General Partnership: An association of two or more people who co-own a business for the purpose of making a profit and no subchapter S-corporation or C-corporation has been established.

Limited Partnership: A partnership in which one or more partners are general partners who manage the business and others are limited partners who invest in the business but forego any right to manage the company.

Sole Proprietorship,.....	01
Limited Liability Company,	02
Subchapter S-Corporation,.....	03
C-Corporation,.....	04
General Partnership,	05
Limited Partnership, or	06
Something else? (SPECIFY)	07

[C1z2_Legal_Status_3]

[C1z2OtherSpecify_3]

DON'T KNOW	d
REFUSED	r

C1a. Our records indicate the principal activity of the business was [D&B NAICS CODE DESCRIPTION]. Was that still the principal activity of the business as of December 31, 2007?

YES..... 01 → **GO TO C2**

NO 00

DON'T KNOW d

REFUSED r

[C1a_NAICS_verification_3]

C1b. As of December 31, 2007, what was the principal activity of the business?

IF SOLE PROPRIETORSHIP IN [tOWNERshipModel] [or C1z2], GO TO C5.

C2. As of December 31, 2007, how many individuals or entities owned [NAME BUSINESS]? Please include all individuals or entities who owned shares in the business.

|_|_| NUMBER OF OWNERS

DON'T KNOW..... d

REFUSED..... r

[C2_Owners_3]

C3. Of the [NUMBER OF OWNERS FROM C2] owners as of December 31, 2007, how many owners actively helped to run [NAME BUSINESS]? By helped to run the business we mean that they provided regular assistance or advice with day-to-day operations of the business, rather than providing only money or occasional operating assistance.

|_|_| NUMBER OF OWNER/OPERATORS

DON'T KNOW..... d

REFUSED..... r

[C3a_Owner_Operators_3]

IF ONE OWNER/OPERATOR REPORTED AT C3, GO TO C5. IF MORE THAN ONE OWNER/OPERATOR REPORTED AT C3, ASK:

C4. FOR EACH SECOND FOLLOW-UP OWNER/OPERATOR WHO IS NOT THE RESPONDENT, ASK:

Was [OWNER NAME] still an owner who actively helped run [NAME BUSINESS]—as of December 31, 2007?

YES 01

NO 00

YES BUT THE NAME IS MISSPELLED..... 02

DON'T KNOW..... d

REFUSED..... r

FOR ALL MISSPELLED NAMES, ASK:

How do you spell (your/his/her) name?

INTERVIEWER: ENTER NAME

THEN ASK:

How many other people, not previously listed, were owners actively helping to run [NAME BUSINESS] as of December 31, 2007.

**INTERVIEWER: PREVIOUSLY LISTED PEOPLE ARE STATED BELOW.
NUMBER OF OWNERS STATED IN C3: [FILL FROM C3]**

I want to record with you the first and last names of these owners. These are the people who joined the business between the last time we talked to you and December 31, 2007. I'm going to be asking some questions about each of the owners who actively **helped run** [NAME BUSINESS]. Can you tell me the first and last name of the other owner(s) of ABC Business?

INTERVIEWER: ENTER FIRST AND LAST NAMES.

C4Confirm. I have listed:

	FIRST NAME	LAST NAME
OWNER A (RESPONDENT)	_____	_____
OWNER B	_____	_____
OWNER C	_____	_____
OWNER D	_____	_____

[C4_NumOwners_Confirm_3]

Are there any other owner-operators as of December 31, 2007 of [NAME BUSINESS] that I have not mentioned?

INTERVIEWER: CONFIRM SPELLING OF NAMES. TO CORRECT NAMES, ARROW BACK TO TABLE.

ADD ANOTHER NAME OR
CORRECT A MISPELLING 01

NO CHANGES..... 02

NOTE: UP TO 10 OWNER/OPERATOR/FOUNDERS WILL BE INCLUDED.

C5. Not counting owner(s), on December 31, 2007, how many people worked for [NAME BUSINESS]? Please include all full- and part-time employees, but exclude contract workers who work for the business either full- or part-time but are not on the business' official payroll.

|_|_|_| NUMBER OF EMPLOYEES ON DECEMBER 31, 2007

DON'T KNOW d

REFUSED..... r

[C5_Num_Employees_3]

C5b. Was this change an increase, a decrease, or no change in the number of people who worked for [NAME BUSINESS] on December 31, 2007 compared to December 31, 2006?

INCREASE 01

DECREASE 02

NO CHANGE 03

DON'T KNOW d

REFUSED..... r

} → GO TO C6

[C5b_Num_Employees_Change_3]

C5c. And what was the (increase/decrease) in the number of people who worked for [NAME BUSINESS] on December 31, 2007 compared to December 31, 2006? Your best estimate is fine.

|_|_| CHANGE IN NUMBER OF EMPLOYEES

DON'T KNOW..... d

REFUSED..... r

[C5c_Num_Employees_Change_Amt_3]

IF BUSINESS REPORTED "0" EMPLOYEES AT C5, GO TO C8z.

C6. And of those [NUMBER FROM C5], how many were full-time?
(**IF NEEDED:** Full-time is considered 35 hours or more per week)

|_|_| NUMBER OF DECEMBER 31, 2007 FULL-TIME EMPLOYEES

DON'T KNOW..... d

REFUSED..... r

[C6_Num_FT_Employees_3]

C7. And how many were part-time? (**IF NEEDED:** Part-time is considered less than 35 hours per week)

|_|_| NUMBER OF DECEMBER 31, 2007 PART-TIME EMPLOYEES

DON'T KNOW..... d

REFUSED..... r

[C7_Num_PT_Employees_3]

C8z. Our records show that the primary location where [NAME BUSINESS] operates is [tPrimaryLocation]. Is that correct?

YES 01 → **GO TO C10**

NO 00

DON'T KNOW..... d

REFUSED..... r → **GO TO C10**

[C8z_Primary_Loc_Confirm_3]

C8. How would you describe the primary location where [NAME BUSINESS] operates?
Is it . . .

A residence such as a home or garage, 01
A rented or leased space, 02
Space the business purchased, 03
A site where a client is located, or 04
Some other location? (SPECIFY)..... 05

DON'T KNOW d

REFUSED..... r

[C8_Primary_Loc_3]

[C8_Primary_Loc_Specify_3]

C9. What was the main reason for the change of location?

Previous location too expensive 01
Needed more space due to growth of business 02
Moved closer to customers 03
Moved business and residence to new location 04
OTHER (SPECIFY)..... 05

DON'T KNOW d

REFUSED..... r

[C9_Loc_Change_Reason_3]

[C9OtherSpecify_3]

C10. As of December 31, 2007, did [NAME BUSINESS] operate in more than one location?

YES 01

NO 00 → **GO TO D1**

[C10_MoreLocations_3]

C11. And as of December 31, 2007, how many locations did [NAME BUSINESS] operate in?

|_|_| NUMBER OF LOCATIONS AS OF DECEMBER 31, 2007

[C11_Num_Locations_3]

C11a. In what month and year did you open your second location?

Month _____ Year |_2_|_0_|_0_|_|

[C11a_2ndOpening_Month_3]

[C11a_2ndOpening_Year_3]

D. STRATEGY AND INNOVATION

D1. Does [NAME BUSINESS] provide (READ ITEM)?

	YES	NO	DON'T KNOW	REFUSED
a. A service.....	01	00	d	r
[D1a_Provide_Service_3]				
b. A product.....	01	00	d	r
[D1b_Provide_Product_3]				

D2. Businesses often have to compete with other businesses. A competitive advantage is something unique or distinctive a business provides that gives it an advantage compared to competitors. In calendar year 2007, did [NAME BUSINESS] have a competitive advantage over its competitors?

YES	01	→	GO TO D2a
NO	00	}	→ GO TO D3
DON'T KNOW	d		
REFUSED.....	r		

[D2_Comp_Advantage_3]

D2a. Was the competitive advantage [NAME BUSINESS] had in calendar year 2007 related in any way to [ITEM]?

YES	01	→	GO TO D2b
NO	00	}	→ GO TO NEXT ITEM
DON'T KNOW	d		
REFUSED.....	r		

D2b. Do you consider this to have given [NAME BUSINESS] a major or a minor competitive advantage in calendar year 2007?

REPEAT D2a-D2b FOR EACH ITEM.

ITEMS	D2a. Reason For Competitive Advantage				IF YES →	D2b. Strength of reason for Competitive Advantage			
	YES	NO	DON'T KNOW	REFUSED		MAJOR REASON	MINOR REASON	DON'T KNOW	REFUSED
a. teaming up with a college or university? [D2a_CompAdv_Univ_Reason_3] [D2b_CompAdv_Univ_Strength_3]	01	00	d	r		01	00	d	r
b. teaming up with another company? [D2a_CompAdv_Comp_Reason_3] [D2b_CompAdv_Comp_Strength_3]	01	00	d	r		01	00	d	r
c. teaming up with a government lab or research center? [D2a_CompAdv_GovLab_Reason_3] [D2b_CompAdv_GovLab_Strength_3]	01	00	d	r		01	00	d	r
d. patents that [NAME BUSINESS] owns, has applied for, or licensed? .. [D2a_CompAdv_Patents_Reason_3] [D2b_CompAdv_Patents_Strength_3]	01	00	d	r		01	00	d	r

- D3. Whether assigned by an owner or obtained in some other way, does [NAME BUSINESS] have any of the following? (READ LIST)

FOR EACH “YES,” ASK: How many (READ ITEM) does [NAME BUSINESS] have?

INTERVIEWERS IF NEEDED:

Patent: A patent is a right given by the government to preclude others from making and selling an invention for 20 years from the date of application in return for disclosure of how the invention operates.

Copyright: The legal right granted to authors, composers, artists and publishers to protect their thoughts and ideas for exclusive publication, reproduction, sale and distribution of their works.

Trademark: Words, names, symbols or devices, or any combination of these used to identify the goods of a business and to distinguish these goods from the goods of others.

	YES	NO	DON'T KNOW	REFUSED	NUMBER BUSINESS HAS
a. Patents	01	00	d	r	_ _
[D3_a_Have_Patent_3]					[D3_a_Num_Patent_3]
b. Copyrights	01	00	d	r	_ _
[D3_b_Have_Copyright_3]					[D3_b_Num_Copyright_3]
c. Trademarks	01	00	d	r	_ _
[D3_c_Have_Trademark_3]					[D3_c_Num_Trademark_3]

- D4. “Licensing out” is licensing patents, copyrights, or trademarks owned by the business to other parties under a licensing agreement. In calendar year 2007, did [NAME BUSINESS] **license out** any (READ ITEM)?

	YES	NO	DON'T KNOW	REFUSED
a. Patents	01	00	d	r
[D4_a_Lic_Out_Patent_3]				
b. Copyrights	01	00	d	r
[D4_b_Lic_Out_Copyright_3]				
c. Trademarks	01	00	d	r
[D4_c_Lic_Out_Trademark_3]				

- D5. “Licensing in” is acquiring the right to use intellectual property such as patents, copyrights, or trademarks created by someone outside the business through a licensing agreement. In calendar year 2007, did [NAME BUSINESS] **license in** any (READ ITEM)?

	YES	NO	DON'T KNOW	REFUSED
a. Patents..... [D5_a_Lic_In_Patent_3]	01	00	d	r
b. Copyrights..... [D5_b_Lic_In_Copyright_3]	01	00	d	r
c. Trademarks..... [D5_c_Lic_In_Trademark_3]	01	00	d	r

- D6. Did [NAME BUSINESS] have any customers or sales in calendar year 2007?

YES 01
 NO 00
 DON'T KNOW d
 REFUSED..... r

} → GO TO E1

[D6_Have_Sales_3]

D7. I'd like to learn more about the type of customers that [NAME BUSINESS] had during calendar year 2007. I am going to ask you to estimate the percent of the business' sales that were made to individuals, businesses, and government agencies. The total should equal 100%.

- a. During calendar year 2007, what percentage of the business' sales were to private individuals?

|_|_| PERCENTAGE

DON'T KNOW..... d

REFUSED..... r

[D7_Perc_Sales_Indiv_3]

- b. What percentage of the business' sales were to other businesses?

[IF NEEDED: Please include sales to for-profit and not-for-profit business.]

|_|_| PERCENTAGE

DON'T KNOW..... d

REFUSED..... r

[D7_Perc_Sales_Bus_3]

- c. What percentage of the business' sales were to government agencies?

|_|_| PERCENTAGE

DON'T KNOW..... d

REFUSED..... r

[D7_Perc_Sales_Govt_3]

D8. Now, I will read you a list of customer locations. When I am done reading, please select only one answer choice for your response. During calendar year 2007, where were most of [NAME BUSINESS]'s customers located? Would you say . . .

In neighborhoods local to the business, 01

In the same city or county, 02

In the same region, such as in nearby counties
or states, 03

Nationwide, or 04

International? 05 → GO TO D8b

DON'T KNOW..... d

REFUSED..... r

[D8_Customer_Locations_3]

D8a. During calendar year 2007, were any of [NAME BUSINESS]'s sales made to individuals, businesses, or governments outside the United States?

YES	01	
NO	00	} → GO TO D9
DON'T KNOW	d	
REFUSED	r	

[D8a_International_Sales_3]

D8b. What percent of [NAME BUSINESS]'s total sales were to individuals, businesses, or governments outside of the United States? Would you say . . .

Less than 5%,	01
5% - 25%,	02
26% - 50%,	03
51% - 75%, or	04
76% - 100%	05
DON'T KNOW	d
REFUSED	r

[D8b_Perc_International_Sales_3]

D9. During calendar year 2007, were any of [NAME BUSINESS]'s sales made to customers through the internet, such as through the business' website or an online retailer site?

YES	01	
NO	00	} → GO TO E1
DON'T KNOW	d	
REFUSED	r	

[D9_Internet_Sales_3]

D9a. What percent of [NAME BUSINESS]'s total sales were sales made to customers through the internet? Would you say . . .

Less than 5%,	01
5%—25%,	02
26%—50%,	03
51%—75%, or	04
76%—100%?	05
DON'T KNOW	d
REFUSED	r

[D9a_Perc_Internet_Sales_3]

E. BUSINESS ORGANIZATION AND HR BENEFITS

IF ONE OWNER REPORTED AT C2 AND BUSINESS REPORTED “0” EMPLOYEES AT C5, GO TO F1.

Next, I'd like to ask about how [NAME BUSINESS] is organized and about the benefits that are offered to employees.

- E1. On December 31, 2007, how many employees or owners, if any, did [NAME BUSINESS] have who were primarily responsible for (READ ITEM)? Please include only full- and part-time employees, but not contract workers who work for the business but are not on the business' official payroll.

	NUMBER EMPLOYEES OR OWNERS	DON'T KNOW	REFUSED
a. Human resources such as employee benefits, recruitment, or hiring [E1_a_Num_Human_Res_3]	_ _ _	d	r
b. Sales or Marketing such as sales, market research, customer analysis, or promotional activities [E1_b_Num_Sales_3]	_ _ _	d	r
c. Executive administration functions such as strategic planning, competitive analysis, shareholder relations, or general management [E1_c_Num_Exec_Admin_3]	_ _ _	d	r
d. Research and development on new products or services [E1_d_Num_ResDev_3]	_ _ _	d	r
e. Production or manufacturing such as producing materials or products, production planning, production control, quality control, or storage [E1_e_Num_Prod_Manu_3]	_ _ _	d	r
f. General administration such as office management, responding to maintenance requests, purchase supplies, or training employees in office procedures..... [E1_f_Num_Gen_Admin_3]	_ _ _	d	r
g. Financial administration such as accounting procedures, budgeting, financial analysis, or investment activities [E1_g_Num_Fin_Admin_3]	_ _ _	d	r
h. Does [NAME BUSINESS] have employees with any other key responsibilities? (SPECIFY)..... [E1_h_Num_Other_3]	_ _ _	d	r

[E1_h_Other_Specify_3]

E2a. As of December 31, 2007, did [NAME BUSINESS] offer full-time employees or owners (READ ITEM):

	YES	NO	DON'T KNOW	REFUSED
a. A health insurance plan either through the business or an association..... [E2a_FT_Emp_Hlth_Plan_3]	01	00	d	r
b. A retirement plan such as profit sharing, pension, including 401K, annuity, Keogh, etc. [E2a_FT_Emp_Retire_Plan_3]	01	00	d	r
c. Stock options or other stock ownership..... [E2a_FT_Emp_Stock_Own_3]	01	00	d	r
d. A bonus plan..... E2a_FT_Emp_Bonus_Plan_3]	01	00	d	r
e. Tuition reimbursement [E2a_FT_Emp_Tuit_Reim_3]	01	00	d	r
f. Paid vacation [E2a_FT_Emp_Paid_Vaca_3]	01	00	d	r
g. Paid sick days..... [E2a_FT_Emp_Paid_Sick_3]	01	00	d	r
h. Alternative work schedules such as flex time or job sharing [E2a_FT_Emp_Flex_Time_3]	01	00	d	r
i. Any other benefits? (SPECIFY)..... [E2a_FT_Emp_Other_3]	01	00	d	r

[E2a_Other_Specify_3]				

IF ZERO PART-TIME EMPLOYEES AT C7, GO TO F1.

E2b. As of December 31, 2007, did [NAME BUSINESS] offer part-time employees (READ ITEM):

	YES	NO	DON'T KNOW	REFUSED
a. A health insurance plan either through the business or an association..... [E2b_PT_Emp_Hlth_Plan_3]	01	00	d	r
b. A retirement plan such as profit sharing, pension, including 401K, annuity, Keogh, etc. [E2b_PT_Emp_Retire_Plan_3]	01	00	d	r
c. Stock options or other stock ownership..... [E2b_PT_Emp_Stock_Own_3]	01	00	d	r
d. A bonus plan..... [E2b_PT_Emp_Bonus_Plan_3]	01	00	d	r
e. Tuition reimbursement [E2b_PT_Emp_Tuit_Reim_3]	01	00	d	r
f. Paid vacation [E2b_PT_Emp_Paid_Vaca_3]	01	00	d	r
g. Paid sick days..... E2b_PT_Emp_Paid_Sick_3]	01	00	d	r
h. Alternative work schedules such as flex time or job sharing [E2b_PT_Emp_Flex_Time_3]	01	00	d	r
i. Any other benefits? (SPECIFY)..... [E2b_PT_Emp_Other_3]	01	00	d	r

[E2bOtherSpecify_3]				

F. BUSINESS FINANCES

F1. Now I'd like to ask about [NAME BUSINESS]'s financing. Businesses can get money from the savings or investments of the owner(s), money from spouses, family or other individuals, from companies, borrowing in an owner's name, venture funds, or by borrowing **in the name of the business**. Some of the funds must be paid back and other funds represent an equity stake or share of the business. We will ask some questions about what happened **during calendar year 2007**, some questions about what has happened since the business began, and other questions about balances **as of December 31, 2007**.

F1a. First, in calendar year 2007, did [you/OWNER B-J] put any of your own money into [NAME BUSINESS] in return for an ownership share of the business? Please do not include any money borrowed from others or from credit cards.

IF NEEDED: This would include all additional money invested by [you/OWNER B-J] in the business during calendar year 2007.

YES 01

NO 00

DON'T KNOW d

REFUSED r

→ **GO TO F2a1**

[F2_Owner_Eq_Invest_01_3]

F2a. **IF YES:** How much of [your/her/his] own money did [you/she/he] put into the business during calendar year 2007?

IF NEEDED: Your best estimate is fine.

OWNER A..... \$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_|

DON'T KNOW..... d

REFUSED..... r

[F2_Owner_Amt_Eq_Invest_01_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F2_Ownr_Amt_EqInvest_Range_01_3]

F2a1. Counting **all** years, how much of [your/OWNER B-J]'s own money did [you/she/he] put into [NAME BUSINESS] as of December 31, 2007?

IF NEEDED: This includes all money [you/she/he] invested in the business as of December 31, 2007.

\$ | | | | |, | | | | |, | | | | | TOTAL EQUITY

DON'T KNOW..... d

REFUSED..... r

[F2_Ownr_Amt_EqInvest_AllYrs_01_3]

PROBE: IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:

Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F2_Ownr_EqInvst_AllYrs_Range01_3]

IF F2a IS GREATER THAN F2a1:

I may have made a mistake. The amount invested in 2007 is greater than the amount invested in all years combined. Is there an error?

F2b. What percentage of the business did [you/OWNER B-J] own on December 31, 2007?

| | | | PERCENTAGE OF BUSINESS

DON'T KNOW..... d

REFUSED..... r

[F2_Owner_Perc_Own_01_3]

IF MORE THAN ONE OWNER/OPERATOR AT C4, ASK F1a-F2b FOR EACH OWNER/OPERATOR. OTHERWISE, GO TO F3.

IF SOLE PROPRIETORSHIP AT QUESTION C1z OR C1z2, GO TO F6a.

F2 series asked of up to 10 owner-operators.

[F2_Owner_Eq_Invest_02_3]
[F2_Owner_Amt_Eq_Invest_02_3]
[F2_Ownr_Amt_EqInvest_Range_02_3]
[F2_Ownr_Amt_EqInvest_AllYrs_02_3]
[F2_Ownr_EqInvst_AllYrs_Range02_3]
[F2_Owner_Perc_Own_02_3]
[F2_Owner_Eq_Invest_03_3]
[F2_Owner_Amt_Eq_Invest_03_3]
[F2_Ownr_Amt_EqInvest_Range_03_3]
[F2_Ownr_Amt_EqInvest_AllYrs_03_3]
[F2_Ownr_EqInvst_AllYrs_Range03_3]
[F2_Owner_Perc_Own_03_3]
[F2_Owner_Eq_Invest_04_3]
[F2_Owner_Amt_Eq_Invest_04_3]
[F2_Ownr_Amt_EqInvest_Range_04_3]
[F2_Ownr_Amt_EqInvest_AllYrs_04_3]
[F2_Ownr_EqInvst_AllYrs_Range04_3]
[F2_Owner_Perc_Own_04_3]
[F2_Owner_Eq_Invest_05_3]
[F2_Owner_Amt_Eq_Invest_05_3]
[F2_Ownr_Amt_EqInvest_Range_05_3]
[F2_Ownr_Amt_EqInvest_AllYrs_05_3]
[F2_Ownr_EqInvst_AllYrs_Range05_3]
[F2_Owner_Perc_Own_05_3]
[F2_Owner_Eq_Invest_06_3]
[F2_Owner_Amt_Eq_Invest_06_3]
[F2_Ownr_Amt_EqInvest_Range_06_3]
[F2_Ownr_Amt_EqInvest_AllYrs_06_3]
[F2_Ownr_EqInvst_AllYrs_Range06_3]
[F2_Owner_Perc_Own_06_3]
[F2_Owner_Eq_Invest_07_3]
[F2_Owner_Amt_Eq_Invest_07_3]
[F2_Ownr_Amt_EqInvest_Range_07_3]
[F2_Ownr_Amt_EqInvest_AllYrs_07_3]
[F2_Ownr_EqInvst_AllYrs_Range07_3]
[F2_Owner_Perc_Own_07_3]
[F2_Owner_Eq_Invest_08_3]
[F2_Owner_Amt_Eq_Invest_08_3]
[F2_Ownr_Amt_EqInvest_Range_08_3]
[F2_Ownr_Amt_EqInvest_AllYrs_08_3]
[F2_Ownr_EqInvst_AllYrs_Range08_3]
[F2_Owner_Perc_Own_08_3]
[F2_Owner_Eq_Invest_09_3]
[F2_Owner_Amt_Eq_Invest_09_3]
[F2_Ownr_Amt_EqInvest_Range_09_3]
[F2_Ownr_Amt_EqInvest_AllYrs_09_3]
[F2_Ownr_EqInvst_AllYrs_Range09_3]
[F2_Owner_Perc_Own_09_3]
[F2_Owner_Eq_Invest_10_3]
[F2_Owner_Amt_Eq_Invest_10_3]
[F2_Ownr_Amt_EqInvest_Range_10_3]
[F2_Ownr_Amt_EqInvest_AllYrs_10_3]
[F2_Ownr_EqInvst_AllYrs_Range10_3]
[F2_Owner_Perc_Own_10_3]
[F2_Owner_Amt_Eq_Invest_11_3]
[F2_Ownr_Amt_EqInvest_Range_11_3]
[F2_Ownr_Amt_EqInvest_AllYrs_11_3]
[F2_Ownr_EqInvst_AllYrs_Range11_3]
[F2_Owner_Perc_Own_11_3]

F3. Equity investment is money received **in return for some portion of ownership**, and it is another way to fund business expenses. During calendar year 2007, did the business obtain equity financing from any of the following sources?

	YES	NO	DON'T KNOW	REFUSED
a. Spouses or life partners of owners of the business. This does not include spouses or life partners already named as owners..... [F3a_Eq_Invest_Spouse_3]	01	00	d	r
b. Parents, in-laws or children of owners of the business [F3b_Eq_Invest_Parents_3]	01	00	d	r
c. Individuals who are not spouses or life partners, parents, in-laws or children of the owners, excluding venture capitalists [F3c_Eq_Invest_Angels_3]	01	00	d	r
d. Other companies..... [F3d_Eq_Invest_Companies_3]	01	00	d	r
e. Government agencies [F3e_Eq_Invest_Govt_3]	01	00	d	r
f. Venture capitalists..... [F3f_Eq_Invest_Vent_Cap_3]	01	00	d	r
g. Any other sources? (SPECIFY)..... [F3g_Eq_Invest_Other_3]	01	00	d	r

[F3_Other_Specify_3]				

F4. **FOR EACH EQUITY FINANCING OPTION REPORTED AS “YES” ABOVE, ASK:**
 In calendar year 2007, how much money did [NAME BUSINESS] receive from
 [EQUITY OPTION]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| CALENDAR YEAR 2007 AMOUNT
 FROM EQUITY OPTION

DON'T KNOW..... d

REFUSED..... r

[F4_Eq_Amt_Spouse_3]
 [F4_Eq_Amt_Parents_3]
 [F4_Eq_Amt_Angels_3]
 [F4_Eq_Amt_Companies_3]
 [F4_Eq_Amt_Govt_3]
 [F4_Eq_Amt_Vent_Cap_3]
 [F4_Eq_Amt_Other_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F4a_Eq_Amt_Spouse_Ranges_3]
 [F4a_Eq_Amt_Parents_Ranges_3]
 [F4a_Eq_Amt_Angels_Ranges_3]
 [F4a_Eq_Amt_Companies_Ranges_3]
 [F4a_Eq_Amt_Govt_Ranges_3]
 [F4a_Eq_Amt_Vent_Cap_Ranges_3]
 [F4a_Eq_Amt_Other_Ranges_3]

F4a. Counting all years, how much did [EQUITY OPTION] put into [NAME BUSINESS] as of December 31, 2007?

PROBE: This includes all money invested by [EQUITY OPTION] in all years.

\$ |_|_|_|_|,|_|_|_|_|,|_|_|_|_| TOTAL EQUITY

DON'T KNOW..... d

REFUSED..... r

[F4_Eq_Amt_Spouse_AllYrs_3]
[F4_Eq_Amt_Parents_AllYrs_3]
[F4_Eq_Amt_Angels_AllYrs_3]
[F4_Eq_Amt_Companies_AllYrs_3]
[F4_Eq_Amt_Govt_AllYrs_3]
[F4_Eq_Amt_Vent_Cap_AllYrs_3]
[F4_Eq_Amt_Other_AllYrs_3]

PROBE: IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F4_Eq_Amt_Spouse_AllYrs_Ranges_3]
[F4_Eq_Amt_Parents_AllYrs_Range_3]
[F4_Eq_Amt_Angels_AllYrs_Ranges_3]
[F4_Eq_Amt_Comp_AllYrs_Range_3]
[F4_Eq_Amt_Govt_AllYrs_Ranges_3]
[F4_Eq_Amt_VentCap_AllYrs_Range_3]
[F4_Eq_Amt_Other_AllYrs_Ranges_3]

IF F4 IS GREATER THAN F4a:

I may have made a mistake. The amount invested in 2007 is greater than the amount invested in all years combined. Is there an error?

F5. **FOR EACH EQUITY FINANCING OPTION REPORTED AS “YES” ABOVE, ASK:**
 What was the total percentage of the business owned by the [EQUITY OPTION] who
 invested money in the business as of December 31, 2007?

|_|_| PERCENT

DON'T KNOW..... d

REFUSED..... r

[F5_Perc_Owned_Spouse_3]
 [F5_Perc_Owned_Parents_3]
 [F5_Perc_Owned_Angels_3]
 [F5_Perc_Owned_Companies_3]
 [F5_Perc_Owned_Govt_3]
 [F5_Perc_Owned_Vent_Cap_3]
 [F5_Perc_Owned_Other_3]

INTERVIEWER CHECK BOX: CHECK ANSWER FROM F2b AND F5 FOR TOTAL PERCENTAGE OF BUSINESS ACCOUNTED FOR.

[F6Check_3]

IF TOTAL PERCENTAGE EQUALS 100%, GO TO F6a
IF TOTAL EQUALS LESS OR MORE THAN 100%

F6. So far, you've given me the following information on who owns [NAME BUSINESS]:
 [LIST EQUITY INVESTORS FROM F2b AND F5]. Can we review this list?

**REVIEW LIST OF OWNERS AND PERCENTAGES WITH RESPONDENT. MAKE
 CHANGES AS NEEDED, ADDING NEW OWNERS AND/OR PERCENTAGES AS
 NECESSARY.**

DON'T KNOW..... d

REFUSED..... r

[F6_perc_owned_owner_01_3]
 [F6_perc_owned_owner_02_3]
 [F6_perc_owned_owner_03_3]
 [F6_perc_owned_owner_04_3]
 [F6_perc_owned_owner_05_3]
 [F6_perc_owned_owner_06_3]
 [F6_perc_owned_owner_07_3]
 [F6_perc_owned_owner_08_3]
 [F6_perc_owned_owner_09_3]
 [F6_perc_owned_owner_10_3]
 [F6_perc_owned_owner_11_3]
 [F6_perc_owned_owner_12_3]
 [F6_perc_owned_owner_13_3]

F6a. Have you (or other owners) withdrawn money from the business for personal use in calendar year 2007?

INTERVIEWER IF NEEDED: This does not include owner salaries.

YES	01	
NO	00	} → GO TO F7a
DON'T KNOW	d	
REFUSED.....	r	

[F6a_Personal_Use_3]

F6b. **IF YES:** Thinking of calendar year 2007, how much money, if any, did you and other owners withdraw from the business for personal use? This includes any dividends paid.

\$ |_|_|_|_|,|_|_|_|_|,|_|_|_|_| TOTAL DRAWINGS CALENDAR YEAR 2007

DON'T KNOW..... d
REFUSED..... r

[F6b_Personal_Use_Amt_2007_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less,	01
\$501 to \$1,000,	02
\$1,001 to \$3,000,	03
\$3,001 to \$5,000,	04
\$5,001 to \$10,000,	05
\$10,001 to \$25,000,	06
\$25,001 to \$100,000,	07
\$100,001 to \$1,000,000,	08
\$1,000,001 or more?.....	09
DON'T KNOW.....	d
REFUSED.....	r

[F6b_PersonalUse_Amt_2007_Range_3]

F7a. Another way to finance a business is debt financing. Debt is money borrowed that has to be paid back with or without interest.

We will be talking about categories of debt based on who is responsible for paying it back. For each category, I'll ask you about several sources of debt business owners or businesses can use to fund operations. We want to make sure that any business-related debt is reported in the right category, and is reported only once. I will identify each category and remind you when I change categories. Here is the first category.

I'm going to ask you about some different types of debt financing **you** may have borrowed **in your name** on behalf of [NAME BUSINESS]. For each, please tell me if you used this type at any time during calendar year 2007. Did you use [NAME FINANCING OPTION FROM LIST]?

F7b. **IN BELOW LIST, FOR EACH DEBT FINANCING OPTION BUSINESS REPORTED, ASK:** How many [NAME DEBT FINANCING OPTION] did you use to finance the operation of the business during calendar year 2007?

	YES	NO	DON'T KNOW	REFUSED	NUMBER USED
a. Personal credit cards for business-related purposes..... [F7a_Pers_CredCard_3]	01	00	d	r	<input type="text"/> [F7b_Pers_CredCard_NumUsed_3]
b. Personal loans from a bank or other financial institution, such as a mortgage or home equity loan used for the business..... [F7a_Pers_Loan_Bank_3]	01	00	d	r	<input type="text"/> [F7b_Pers_Loan_Bank_NumUsed_3]
c. Business or corporate credit cards issued in your name..... [F7a_Bus_CredCard_3]	01	00	d	r	<input type="text"/> [F7b_Bus_CredCard_NumUsed_3]
d. Personal loans from any family or friends..... [F7a_Pers_Loan_Fam_3]	01	00	d	r	<input type="text"/> [F7b_Pers_Loan_Fam_NumUsed_3]
e. Personal loans from any other individuals not associated with the management of the business..... [F7a_Pers_Loan_Other_3]	01	00	d	r	<input type="text"/> [F7b_Pers_Loan_Other_NumUsed_3]
f. Any other sources? (SPECIFY) .. [F7a_Pers_Other_3]	01	00	d	r	<input type="text"/> [F7b_Pers_Other_NumUsed_3]
<hr/> [F7_Pers_Other_Specify_3]					

F8a. **IF ANSWERED “YES” TO F7a ITEMS a, c, ASK:** As of December 31, 2007, what was the maximum credit line on the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| DECEMBER 31, 2007 CREDIT LINE

DON'T KNOW..... d

REFUSED..... r

[F8a_Pers_CredCard_Line_3]

[F8a_Bus_CredCard_Line_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F8a_Pers_CredCard_Line_Ranges_3]

[F8a_Bus_CredCard_Line_Ranges_3]

F8b. **IF ANSWERED “YES” TO F7a ITEMS a, c, ASK:** As of December 31, 2007, what was the outstanding balance on the [NAME DEBT FINANCING OPTION]?

\$ | | | | |, | | | | |, | | | | | DECEMBER 31, 2007 OUTSTANDING
CREDIT CARD BALANCE

DON'T KNOW..... d

REFUSED..... r

[F8b_Pers_CredCard_Bal_3]

[F8b_Bus_CredCard_Bal_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F8b_Pers_CredCard_Bal_Ranges_3]

[F8b_Bus_CredCard_Bal_Ranges_3]

IF F8b IS GREATER THAN F8a:

Perhaps I made a mistake. The amount I recorded as the balance outstanding is greater than the amount reported as the maximum credit limit.

F8c. **IF ANSWERED “YES” TO F7a ITEMS b, d, e, f, ASK:** In calendar year 2007, how much was obtained from the [NAME DEBT FINANCING OPTION]?

\$ | | | | |, | | | | |, | | | | | CALENDAR YEAR 2007 DEBT AMOUNT

DON'T KNOW..... d

REFUSED..... r

[F8c_Pers_Loan_Bank_Amt_3]

[F8c_Pers_Loan_Fam_Amt_3]

[F8c_Pers_Loan_Other_Amt_3]

[F8c_Pers_Other_Amt_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F8c_Pers_Loan_Bank_Amt_Ranges_3]

[F8c_Pers_Loan_Fam_Amt_Ranges_3]

[F8c_Pers_Loan_Other_Amt_Ranges_3]

[F8c_Pers_Other_Amt_Ranges_3]

F8d. **IF ANSWERED “YES” TO F7a ITEMS b, c, e, f, ASK:** As of December 31, 2007, what was the estimated amount of the [NAME DEBT FINANCING OPTION] **owed** by you on behalf of [NAME BUSINESS]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| DEBT FINANCING VALUE AS OF
DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

[F8d_Pers_Loan_Bank_Owed_3]
[F8d_Pers_Loan_Fam_Owed_3]
[F8d_Pers_Loan_Other_Owed_3]
[F8d_Pers_Other_Owed_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F8d_Pers_Loan_Bank_Owed_Ranges_3]
[F8d_Pers_Loan_Fam_Owed_Ranges_3]
[F8d_PersLoan_Other_Owed_Range_3]
[F8d_Pers_Other_Owed_Ranges_3]

IF MORE THAN ONE OWNER/OPERATOR AT C4, ASK F9a. OTHERWISE, GO TO F11a.

F9a. Here is the next debt category. I'm going to ask you about some different types of debt financing that **other owners** may have borrowed on behalf of [NAME BUSINESS]. This debt does **not** include amounts already reported in the previous section about **your** debt. For each, please tell me if other owners used this type at any time during calendar year 2007. Did other owners use [NAME DEBT FINANCING OPTION FROM LIST]?

F9b. **IN BELOW LIST, FOR EACH DEBT FINANCING OPTION BUSINESS REPORTED, ASK:** How many [NAME DEBT FINANCING OPTION] did other owners use to finance the operation of the business during calendar year 2007?

	YES	NO	DON'T KNOW	REFUSED	NUMBER USED
a. Personal credit cards for business-related purposes..... [F9a_Pers_CredCard_3]	01	00	d	r	<input type="text"/> <input type="text"/> <input type="text"/> [F9b_Pers_CredCard_NumUsed_3]
b. Personal loans from a bank or other financial institution, such as a mortgage or home equity loan used for the business [F9a_Pers_Loan_Bank_3]	01	00	d	r	<input type="text"/> <input type="text"/> <input type="text"/> [F9b_Pers_Loan_Bank_NumUsed_3]
c. Business or corporate credit cards issued in the other owner's name(s) [F9a_Bus_CredCard_3]	01	00	d	r	<input type="text"/> <input type="text"/> <input type="text"/> [F9b_Bus_CredCard_NumUsed_3]
d. Personal loans from any family or friends [F9a_Pers_Loan_Fam_3]	01	00	d	r	<input type="text"/> <input type="text"/> <input type="text"/> [F9b_Pers_Loan_Fam_NumUsed_3]
e. Personal loans from any other individuals not associated with the management of the business [F9a_Pers_Loan_Other_3]	01	00	d	r	<input type="text"/> <input type="text"/> <input type="text"/> [F9b_Pers_Loan_Other_NumUsed_3]
f. Any other sources? (SPECIFY) [F9a_Pers_Other_3]	01	00	d	r	<input type="text"/> <input type="text"/> <input type="text"/> [F9b_Pers_Other_NumUsed_3]

[F9_Pers_Other_Specify_3]					

F10a. **IF ANSWERED “YES” TO F9a ITEMS a, c, ASK:** As of December 31, 2007, what was the maximum credit line on the [NAME DEBT FINANCING OPTION] of (one of) the other owner(s)?

\$ | | | | |, | | | | |, | | | | | DECEMBER 31, 2007 CREDIT LINE

DON'T KNOW..... d

REFUSED..... r

[F10a_Pers_CredCard_Line_3]

[F10a_Bus_CredCard_Line_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F10a_Pers_CredCard_Line_Ranges_3]

[F10a_Bus_CredCard_Line_Ranges_3]

F10b. **IF ANSWERED “YES” TO F9a ITEMS a, c, ASK:** As of December 31, 2007, what was the outstanding balance on the [NAME DEBT FINANCING OPTION] used by (one of) the other owner(s)?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| DECEMBER 31, 2007 OUTSTANDING
CREDIT CARD BALANCE

DON'T KNOW..... d

REFUSED..... r

[F10b_Pers_CredCard_Bal_3]
[F10b_Bus_CredCard_Bal_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F10b_Pers_CredCard_Bal_Ranges_3]
[F10b_Bus_CredCard_Bal_Ranges_3]

IF F10b IS GREATER THAN F10a:

Perhaps I made a mistake. The amount I recorded as the balance outstanding is greater than the amount reported as the maximum credit limit.

F10c. **IF ANSWERED “YES” TO F9a, ITEMS b, d, e, f, ASK:** In calendar year 2007, how much was obtained from the [NAME DEBT FINANCING OPTION] other owners used?

\$ | | | | |, | | | | |, | | | | | CALENDAR YEAR 2007 DEBT AMOUNT

DON'T KNOW..... d

REFUSED..... r

[F10c_Pers_Loan_Bank_Amt_3]

[F10c_Pers_Loan_Fam_Amt_3]

[F10c_Pers_Loan_Other_Amt_3]

[F10c_Pers_Other_Amt_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F10c_Pers_Loan_Bank_Amt_Ranges_3]

[F10c_Pers_Loan_Fam_Amt_Ranges_3]

[F10c_PersLoan_Other_Amt_Range_3]

[F10c_Pers_Other_Amt_Ranges_3]

F10d. **IF ANSWERED “YES” TO F9a ITEMS b, d, e, f, ASK:** As of December 31, 2007, what was the estimated amount of the [NAME DEBT FINANCING OPTION] owed by other owners on behalf of [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | DEBT AMOUNT AS OF DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

[F10d_Pers_Loan_Bank_Owed_3]

[F10d_Pers_Loan_Fam_Owed_3]

[F10d_Pers_Loan_Other_Owed_3]

[F10d_Pers_Other_Owed_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F10d_PersLoan_Bank_Owed_Range_3]

[F10d_Pers_Loan_Fam_Owed_Ranges_3]

[F10d_PersLoan_Other_Owed_Range_3]

[F10d_Pers_Other_Owed_Ranges_3]

F11a. We are once again switching to another debt category. Now I'm going to ask you about some different types of debt financing that may have been obtained in the name of the business during calendar year 2007. This debt does **not** include amounts already reported in the previous sections about **your debt or the debt of other owners**. During calendar year 2007, did [NAME BUSINESS] use [NAME DEBT FINANCING OPTION FROM LIST]?

F11b. **IN BELOW LIST, FOR EACH DEBT FINANCING OPTION BUSINESS REPORTED, ASK:** How many [NAME DEBT FINANCING OPTION] did the business use to finance the operation or the business during calendar year 2007?

	YES	NO	DON'T KNOW	REFUSED	NUMBER USED
a. Business or corporate credit cards issued in the name of the business..... [F11a_Bus_CredCard_3]	01	00	d	r	<input type="text"/> [F11b_Bus_CredCard_NumUsed_3]
b. Business loans from a commercial bank.... [F11a_Bus_Loans_Bank_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Loans_Bank_NumUsed_3]
c. Business line of credit (READ IF NEEDED: a business line of credit is when a business has an agreement with a bank or other financial institution to borrow up to a certain amount of funds)..... [F11a_Bus_Cred_Line_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Cred_Line_NumUsed_3]
d. Business loans from a non-bank financial institution [F11a_Bus_Loans_Nonbank_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Loans_Nonbank_NumUsed_3]
e. Business loans from any family or friends of the owners [F11a_Bus_Loans_Fam_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Loans_Fam_NumUsed_3]
f. Business loans from another owner of the business or a partner [F11a_Bus_Loans_Owner_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Loans_Owner_NumUsed_3]
g. [IF HAVE EMPLOYEES AT C5] Loans to the business from employees that are not owners of the business [F11a_Bus_Loans_Emp_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Loans_Emp_NumUsed_3]
h. Loans from government agencies..... [F11a_Bus_Loans_Govt_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Loans_Govt_NumUsed_3]
i. Loans from other businesses..... [F11a_Bus_Loans_Other_Bus_3]	01	00	d	r	<input type="text"/> [F11a_BusLoans_OtherBus_NumUsed_3]
j. Business loans from any other individuals not associated with the management of the business [F11a_Bus_Loans_Other_Ind_3]	01	00	d	r	<input type="text"/> [F11b_BusLoans_OtherInd_NumUsed_3]
k. Any other sources? (SPECIFY) [F11a_Bus_Other_3] [F11_Bus_Other_Specify_3]	01	00	d	r	<input type="text"/> [F11b_Bus_Other_NumUsed_3]

F12a. **IF ANSWERED “YES” TO F11a ITEMS a, c, ASK:** As of December 31, 2007, what was the maximum credit line on the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| DECEMBER 31, 2007 CREDIT LINE

DON'T KNOW..... d

REFUSED..... r

[F12a_Bus_CredCard_Line_3]

[F12a_Bus_Cred_Line_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F12a_Bus_CredCard_Line_Ranges_3]

[F12a_Bus_Cred_Line_Ranges_3]

F12b. **IF ANSWERED “YES” TO F11a ITEMS a, c, ASK:** As of December 31, 2007, what was the outstanding balance on the [NAME DEBT FINANCING OPTION]?

\$ |_|_|_|_|_|, |_|_|_|_|_|, |_|_|_|_|_| DECEMBER 31, 2007 OUTSTANDING
CREDIT BALANCE

DON'T KNOW..... d

REFUSED..... r

[F12b_Bus_CredCard_Bal_3]
[F12b_Bus_Cred_Line_Bal_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F12b_Bus_CredCard_Bal_Ranges_3]
[F12b_Bus_Cred_Line_Bal_Ranges_3]

IF F12a IS LESS THAN F12b:

Perhaps I made a mistake. The amount I recorded as the balance outstanding is greater than the amount reported as the maximum credit limit.

F12c. **IF ANSWERED “YES” TO F11a ITEMS b, d-k, ASK:** In calendar year 2007, how much was the amount obtained from [NAME DEBT FINANCING OPTION] used by [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | CALENDAR YEAR 2007 DEBT AMOUNT

DON'T KNOW..... d

REFUSED..... r

[F12c_Bus_Loans_Bank_Amt_3]
[F12c_Bus_Loans_Nonbank_Amt_3]
[F12c_Bus_Loans_Fam_Amt_3]
[F12c_Bus_Loans_Owner_Amt_3]
[F12c_Bus_Loans_Emp_Amt_3]
[F12c_Bus_Loans_Govt_Amt_3]
[F12c_Bus_Loans_Bus_Amt_3]
[F12c_Bus_Loans_Other_Ind_Amt_3]
[F12c_Bus_Other_Amt_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F12c_Bus_Loans_Bank_Amt_Ranges_3]
[F12c_BusLoans_Nonbnk_Amt_Range_3]
[F12c_Bus_Loans_Fam_Amt_Ranges_3]
[F12c_BusLoans_Owner_Amt_Range_3]
[F12c_Bus_Loans_Emp_Amt_Ranges_3]
[F12c_Bus_Loans_Govt_Amt_Ranges_3]
[F12c_Bus_Loans_Bus_Amt_Ranges_3]
[F12c_BusLoans_Other_Ind_Amt_Range_3]
[F12c_Bus_Other_Amt_Ranges_3]

F12d. **IF ANSWERED “YES” TO F11a ITEMS b, d-k, ASK:** As of December 31, 2007, what was the estimated amount of the [NAME DEBT FINANCING OPTION] owed by [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | DEBT AMOUNT AS OF DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

[F12d_Bus_Loans_Bank_Owed_3]
[F12d_Bus_Loans_Nonbank_Owed_3]
[F12d_Bus_Loans_Fam_Owed_3]
[F12d_Bus_Loans_Owner_Owed_3]
[F12d_Bus_Loans_Emp_Owed_3]
[F12d_Bus_Loans_Govt_Owed_3]
[F12d_Bus_Loans_Bus_Owed_3]
[F12d_Bus_Loans_Other_Ind_Owed_3]
[F12d_Bus_Other_Owed_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F12d_BusLoans_Bank_Owed_Range_3]
[F12d_BusLoan_Nonbnk_Owed_Range_3]
[F12d_Bus_Loans_Fam_Owed_Ranges_3]
[F12d_BusLoans_Owner_Owed_Range_3]
[F12d_Bus_Loans_Emp_Owed_Ranges_3]
[F12d_BusLoans_Govt_Owed_Range_3]
[F12d_Bus_Loans_Bus_Owed_Ranges_3]
[F12d_BusLoan_OthrInd_Owed_Range_3]
[F12d_Bus_Other_Owed_Ranges_3]

F13. Trade financing is where a business has an arrangement with a supplier to make purchases on account. In calendar year 2007, did [NAME BUSINESS] make any purchases through trade financing?

YES	01	
NO	00	} → GO TO F14c
DON'T KNOW	d	
REFUSED.....	r	

[F13_Trade_Fin_3]

F14a. In calendar year 2007, what was the amount of purchases made through trade financing?

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| CALENDAR YEAR 2007 AMOUNT
OF TRADE PURCHASES

DON'T KNOW..... d
REFUSED..... r

[F14a_Trade_Fin_Amt_3]

F14b. **IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:** Would you say it was . . .

\$500 or less, 01
 \$501 to \$1,000, 02
 \$1,001 to \$3,000, 03
 \$3,001 to \$5,000, 04
 \$5,001 to \$10,000, 05
 \$10,001 to \$25,000, 06
 \$25,001 to \$100,000, 07
 \$100,001 to \$1,000,000, 08
 \$1,000,001 or more?..... 09
 DON'T KNOW..... d
 REFUSED..... r

[F14b_Trade_Fin_Amt_Ranges_3]

F14c. This next section is about applications for credit [NAME BUSINESS] made in calendar year 2007. In responding to these questions, include new as well as renewal applications for lines of credit and other types of loans. Do not include applications for credit cards, loans from owners, trade credit with suppliers, or loan applications that were withdrawn or are still pending.

F14d. Did [NAME BUSINESS] make any applications for new or renewed loans or lines of credit in calendar year 2007?

YES	01	} →	GO TO F14g
NO	00		
DON'T KNOW.....	d		
REFUSED.....	r		

[F14d_New_Loans_3]

F14e. Were these applications always approved, sometimes approved and sometimes denied, or always denied?

ALWAYS APPROVED,	01	} →	GO TO F14g
SOMETIMES APPROVED AND SOMETIMES DENIED, ...	02		
ALWAYS DENIED,	03		
DON'T KNOW.....	d		
REFUSED.....	r		

[F14e_Approved_Denied_3]

F14f. Consider the most recent time [NAME BUSINESS]'s credit application was denied. Officially, was the application denied because of . . .

	YES	NO	DON'T KNOW	REFUSED
a. Insufficient collateral? [F14f_Insuff_Coll_3]	01	00	d	r
b. The loan requested was too large? [F14f_Loan_TooLarge_3]	01	00	d	r
c. Inadequate documentation provided? [F14f_Inadeq_Doc_3]	01	00	d	r
d. Business credit history? [F14f_Bus_Credit_Hist_3]	01	00	d	r
e. Personal credit history? [F14f_Pers_Credit_Hist_3]	01	00	d	r
f. Not being in business long enough?..... [F14f_New_Bus_3]	01	00	d	r
g. Any other reason? (SPECIFY) [F14f_Other_3]	01	00	d	r

[F14f_OtherSpecify_3]				

F14g. During calendar year 2007, was there any time when [NAME BUSINESS] needed credit, but did not apply because you or others associated with [NAME BUSINESS] thought the application would be denied?

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

[F14g_DidNotApply_3]

F15. In calendar year 2007, did [NAME BUSINESS] receive any revenue (money), from the sales of goods, services, or intellectual property? **[IF SOLE PROPRIETORSHIP, ADD:** This would be gross receipts reported on a Schedule C or C-EZ with your personal income tax return.]

YES	01	} → GO TO F17
NO	00	
DON'T KNOW	d	
REFUSED.....	r	

[F15_Revenue_2007_3]

IF F15 = 01 AND D6 = 00:

I may have made a mistake. Earlier in the interview, I recorded that [NAME BUSINESS] did not have any customers or sales in calendar year 2007. Is there an error?

F16. What was [NAME BUSINESS]'s total revenue for calendar year 2007? **[IF SOLE PROPRIETORSHIP, ADD:** This would be gross receipts reported on a Schedule C or C-EZ with your personal income tax return.]

\$ |_|_|_|_|, |_|_|_|_|, |_|_|_|_| TOTAL REVENUE 2007

DON'T KNOW	d
REFUSED.....	r

[F16a_Rev_2007_Amt_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less,	01	} → GO TO F17
\$501 to \$1,000,	02	
\$1,001 to \$3,000,	03	
\$3,001 to \$5,000,	04	
\$5,001 to \$10,000,	05	
\$10,001 to \$25,000,	06	
\$25,001 to \$100,000,	07	
\$100,001 to \$1,000,000,	08	
\$1,000,001 or more?.....	09	
DON'T KNOW	d	
REFUSED.....	r	

[F16a_Rev_2007_Amt_Ranges_3]

F16b. Was this an increase, a decrease, or no change in the amount of revenue for [NAME BUSINESS] in calendar year 2007 compared to 2006?

INCREASE 01
 DECREASE 02
 NO CHANGE 03 → **GO TO F17**
 DON'T KNOW d
 REFUSED r

[F16b_Rev_2007_Change_3]

F16c. And what was the percentage change in revenue in calendar year 2007 compared 2006? Your best estimate is fine.

|_|_|_| % CHANGE IN REVENUE
 DON'T KNOW d
 REFUSED r

[F16c_Perc_Change_3]

F17. Now I'm going to ask about the expenses the business paid. Expenses are the costs paid for the operation of the business, including wages, salaries, interest on loans, capital leases, materials, etc. How much, if any, did [NAME BUSINESS] pay in expenses during calendar year 2007?

\$ |_|_|_|,|_|_|_|,|_|_|_| TOTAL EXPENSES IN CALENDAR YEAR 2007
 DON'T KNOW d
 REFUSED r

[F17a_Total_Exp_2007_Amt_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01
 \$501 to \$1,000, 02
 \$1,001 to \$3,000, 03
 \$3,001 to \$5,000, 04
 \$5,001 to \$10,000, 05
 \$10,001 to \$25,000, 06
 \$25,001 to \$100,000, 07
 \$100,001 to \$1,000,000, 08
 \$1,000,001 or more? 09
 DON'T KNOW d
 REFUSED r → **GO TO F18**

[F17a_Total_Exp_2007_Amt_Ranges_3]

F17b. Was this an increase, a decrease, or no change in total expenses for [NAME BUSINESS] in calendar year 2007 compared to 2006?

INCREASE 01
DECREASE 02
NO CHANGE 03 → **GO TO F18**
DON'T KNOW d
REFUSED r

[F17b_Total_Exp_2007_Change_3]

F17c. And what was the percentage change in total expenses in calendar year 2007 compared 2006? Your best estimate is fine.

|_|_|_| % CHANGE IN EXPENSES
DON'T KNOW d
REFUSED r

[F17c_Perc_Change_3]

F18. **IF BUSINESS REPORTED “0” EMPLOYEES AT C5, GO TO F19.**

How much, if any, did [NAME BUSINESS] pay in wages, salaries, and benefits to full- and part-time employees in calendar year 2007? Please do not include wages, salaries, and benefits to contract workers who work for the business but are not on the business’ official payroll.

\$ | | | | |, | | | | |, | | | | | TOTAL PAYROLL EXPENSES
IN CALENDAR YEAR 2007

DON’T KNOW..... d

REFUSED..... r

[F18a_Wage_Exp_2007_Amt_3]

IF DON’T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON’T KNOW..... d

REFUSED..... r

[F18b_Wage_Exp_2007_Amt_Ranges_3]

IF F18 > F17:

I may have made a mistake. I recorded that the business’ wage expenses for 2007 were greater than its total expenses. Is there an error?

F19. Did [NAME BUSINESS] spend any money on research and development of new products and services during calendar year 2007?

YES 01

NO 00

DON’T KNOW..... d

REFUSED..... r

→ **GO TO F20**

[F19_Res_Dev_3]

F19a. Please estimate [NAME BUSINESS]'s total research and development expenses for calendar year 2007, including materials, equipment, space, salaries, wages, benefits, and consulting fees?

\$ | | | | | , | | | | | , | | | | | TOTAL RESEARCH AND DEVELOPMENT
EXPENSES IN CALENDAR YEAR 2007

DON'T KNOW.....d

REFUSED.....r

[F19a Res Dev Amt 2007 3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000,..... 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000..... 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW.....d

REFUSED..... r

[F19b_Res_Dev_Amt_2007_Ranges_3]

IF F19a > F17:

I may have made a mistake. I recorded that the business' research and development expenses for 2007 were greater than its total expenses. Is there an error?

F20. Did [NAME BUSINESS] spend any money on the purchase of new or used machinery or equipment during calendar year 2007?

YES 01
NO 00
DON'T KNOW d
REFUSED r

[F20_Mach_3]

F21. Did [NAME BUSINESS] spend any money on rental or lease payments for buildings or other structures during calendar year 2007?

YES 01
NO 00
DON'T KNOW d
REFUSED r

[F21_Land_Rent_3]

F22. Did [NAME BUSINESS] spend any money on **rental or lease payments** for machinery or equipment during calendar year 2007?

YES 01
NO 00
DON'T KNOW d
REFUSED r

[F22_Mach_Rent_3]

F23. Did [NAME BUSINESS] have a profit or loss in calendar year 2007?

PROFIT 01 → **GO TO F24**
LOSS 02 → **GO TO F26**
DON'T KNOW d
REFUSED r } → **GO TO F28**

[F23_Profit_Or_Loss_3]

IF F23 = 01 AND F15 = 00:

I may have made a mistake. Earlier in the interview, I recorded that [NAME BUSINESS] did not have any revenue in calendar year 2007. Is there an error?

F24. Profit is the business' income after all expenses and taxes have been deducted.
What was [NAME BUSINESS]'s total profit for calendar year 2007?

ENTER PROFIT AMOUNT

\$ |_|_|_|_|_|,|_|_|_|_|_|,|_|_|_|_|_| TOTAL PROFIT IN CALENDAR YEAR 2007

DON'T KNOW..... d

REFUSED..... r

[F24_Profit_Amt_3]

F25. **IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:** Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F25_Profit_Amt_Ranges_3]

F26. Loss is the business' negative income after all expenses and taxes have been deducted. What was [NAME BUSINESS]'s total loss for calendar year 2007?

ENTER LOSS AMOUNT

\$ | | | | | , | | | | | , | | | | | TOTAL LOSS IN CALENDAR YEAR 2007

DON'T KNOW d

REFUSED r

[F26_Loss_Amt_3]

F27. **IF DON'T KNOW OR REFUSED, PROBE WITH RANGES:** Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more? 09

DON'T KNOW d

REFUSED r

[F27_Loss_Amt_Ranges_3]

F28. Assets are what the business owns. As of December 31, 2007, did [NAME BUSINESS]'s assets include [NAME ASSET FROM LIST]?

	YES	NO	DON'T KNOW	REFUSED
a. Cash on hand in checking, savings, money market accounts, certificates of deposit and other time deposits [F28a_Asset_Cash_3]	01	00	d	r
b. Accounts receivable [F28b_Asset_Acct_Rec_3]	01	00	d	r
c. Product inventory [F28c_Asset_Inv_3]	01	00	d	r
d. Equipment or machinery [F28d_Asset_Equip_3]	01	00	d	r
e. Land, buildings, and other structures..... [F28e_Asset_LandBuild_3]	01	00	d	r
f. Vehicles [F28f_Asset_Veh_3]	01	00	d	r
g. Any other business owned property (SPECIFY) ... [F28g_Other_Bus_Prop_3]	01	00	d	r
_____	01	00	d	r
[F28_Other_Bus_Prop_Specify_3]				
h. Any other assets? (SPECIFY) [F28h_Other_Assets_3]	01	00	d	r

[F28_Other_Specify_3]				

F29.

FOR EACH ASSET BUSINESS REPORTED, ASK:

As of December 31, 2007, what was the estimated value of the [NAME OF ASSET] owned by [NAME BUSINESS]?

\$ | | | | |, | | | | |, | | | | | ASSET VALUE AS OF DECEMBER 31, 2007

DON'T KNOW d

REFUSED r

[F29_AssetVal_Cash_3]

[F29_AssetVal_AcctRec_3]

[F29_AssetVal_Inv_3]

[F29_AssetVal_Equip_3]

[F29_AssetVal_LandBuild_3]

[F29_AssetVal_Veh_3]

[F29_AssetVal_OthBusProp_3]

[F29_AssetVal_Other_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more? 09

DON'T KNOW d

REFUSED r

[F29_AssetVal_Cash_Ranges_3]

[F29_AssetVal_AcctRec_Ranges_3]

[F29_AssetVal_Inv_Ranges_3]

[F29_AssetVal_Equip_Ranges_3]

[F29_AssetVal_LandBuild_Ranges_3]

[F29_AssetVal_Veh_Ranges_3]

[F29_AssetVal_OthBusProp_Ranges_3]

[F29_AssetVal_Other_Ranges_3]

F30. Liabilities are what the business owes. Other than the loans and the financial debt we've already talked about, did [NAME BUSINESS]'s liabilities as of December 31, 2007 include [NAME LIABILITY FROM LIST]?

	YES	NO	DON'T KNOW	REFUSED
a. Accounts Payable [F30a_Liab_AcctPay_3]	01	00	d	r
b. Pension and post retirement benefits [F30b_Liab_Pension_3]	01	00	d	r
c. Any other liabilities? (SPECIFY) [F30c_Liab_Other_3] [F30_Other_Specify_3]	01	00	d	r

F31. **FOR EACH LIABILITY BUSINESS HAS, ASK:** As of December 31, 2007, what was the estimated value of [NAME BUSINESS]'s [NAME OF LIABILITY]?

\$ [] [] [] [], [] [] [] [], [] [] [] [] LIABILITY VALUE AS OF DECEMBER 31, 2007

DON'T KNOW..... d

REFUSED..... r

[F31_Value_AcctPay_3]

[F31_Value_Pension_3]

[F31_Value_Other_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say it was . . .

\$500 or less, 01

\$501 to \$1,000, 02

\$1,001 to \$3,000, 03

\$3,001 to \$5,000, 04

\$5,001 to \$10,000, 05

\$10,001 to \$25,000, 06

\$25,001 to \$100,000, 07

\$100,001 to \$1,000,000, 08

\$1,000,001 or more?..... 09

DON'T KNOW..... d

REFUSED..... r

[F31_Value_AcctPay_Ranges_3]

[F31_Value_Pension_Ranges_3]

[F31_Value_Other_Ranges_3]

G. WORK BEHAVIORS AND DEMOGRAPHICS OF OWNER/OPERATOR(S)

The last section contains questions for classification purposes only.

C4 LISTING OF OWNER/OPERATORS SHOULD BE ASKED THIS SERIES IN THE ORDER THEY APPEAR IN C4.

NO QUESTIONS WILL BE ASKED ABOUT OWNER/OPERATORS WHO HAVE LEFT THE BUSINESS.

FOR ALL SECOND FOLLOW-UP OWNER/OPERATORS IN C4, ASK BLOCK G1.

FOR ALL NEW OWNER/OPERATORS, ASK BLOCK G2.

QG9-G9b IS TO BE ASKED ONLY OF RESPONDENTS AND NOT ABOUT OTHER OWNER/OPERATORS.

BLOCK G1

G1a. (Are/Is) (you/[OWNER B-J]) also a paid employee at [NAME BUSINESS]?

YES 01

NO 00

DON'T KNOW d

REFUSED r

[G1a_Emp_Owner_01_3] THROUGH [G1a_Emp_Owner_11_3]

G1b. During the time [NAME BUSINESS] was in business during 2007, how many hours in an average week did (you/[OWNER B-J]) spend working at [NAME BUSINESS]?

|_|_| HOURS WORKED IN AVERAGE WEEK

DON'T KNOW d

REFUSED r

[G1b1_Hours_Owner_01_3] THROUGH [G1b1_Hours_Owner_11_3]

IF DON'T KNOW OR REFUSED PROBE: Would you say it was . . .

Less than 20 hours, 01

20 hours to 35 hours, 02

36 hours to 45 hours, 03

46 hours to 55 hours, 04

56 hours to 65 hours, 05

66 hours or more? 06

DON'T KNOW d

REFUSED r

[G1b2_Hours_Ranges_Owner_01_3] THROUGH [G1b2_Hours_Ranges_Owner_11_3]

G9. What is the highest level of education (you/[OWNER B-J]) (have/has) completed so far? Would you say . . .

- | | | | |
|---|----|-----|-------------------|
| Less than 9th grade, | 01 | } → | GO TO G10a |
| Some high school, but no diploma, | 02 | | |
| High school graduate (diploma or equivalent diploma [GED]), | 03 | | |
| Technical, trade or vocational degree, | 04 | | |
| Some college, but no degree, | 05 | | |
| Associate's degree, | 06 | } → | GO TO G9a |
| Bachelor's degree, | 07 | | |
| Some graduate school but no degree, | 08 | → | GO TO G9b |
| Master's degree, or | 09 | } → | GO TO G9a |
| Professional school or doctorate? | 10 | | |
| DON'T KNOW | d | | |
| REFUSED | r | | |

[G9_Education_Owner_01_3] THROUGH [G9_Education_Owner_11_3]

G9a. What was the primary field of study for this degree?

- DON'T KNOW..... d
- REFUSED..... r

[G9_FieldOfStudy_Resp_3]
[G9_FieldOfStudy_Resp_2nd_3]

G9b. What was the primary field of study for your bachelor's degree?

- DON'T KNOW..... d
- REFUSED..... r

[G9_FieldOfStudy_Resp_3]
[G9_FieldOfStudy_Resp_2nd_3]

SECOND FOLLOW-UP OWNERS/OPERATORS: ANY DEMOGRAPHIC QUESTION G1d-G10a NOT ANSWERED IN SECOND FOLLOW-UP WILL BE ASKED AGAIN. QUESTION G9-G9b IS TO BE ASKED ONLY OF RESPONDENTS AND NOT ABOUT OTHER OWNER/OPERATORS.

ENDBLOCK G1—FOR ALL SECOND FOLLOW-UP OWNERS WITH COMPLETE DEMOGRAPHIC INFORMATION.

BLOCK bSectionG2—for all NEW OWNERS

G1a. (Are/Is) (you/[OWNER B-J]) also a paid employee at [NAME BUSINESS]?

YES 01

NO 00

DON'T KNOW d

REFUSED r

[G1a_Emp_Owner_01_3] THROUGH [G1a_Emp_Owner_11_3]

G1b. During the time [NAME BUSINESS] was in business during 2007, how many hours in an average week did (you [OWNER B-J]) spend working at [NAME BUSINESS]?

|_|_|_| HOURS WORKED IN AVERAGE WEEK

DON'T KNOW d

REFUSED r

[G1b1_Hours_Owner_01_3] THROUGH [G1b1_Hours_Owner_11_3]

G1b1. **IF DON'T KNOW OR REFUSED, PROBE:** Would you say it was . . .

Less than 20 hours, 01

20 hours to 35 hours, 02

36 hours to 45 hours, 03

46 hours to 55 hours, 04

56 hours to 65 hours, 05

66 hours or more? 06

DON'T KNOW d

REFUSED r

[G1b2_Hours_Ranges_Owner_01_3] THROUGH [G1b2_Hours_Ranges_Owner_11_3]

G2. How many years of work experience (have/has) (you/[OWNER B-J]) had in this industry—the one in which [NAME BUSINESS] competes?

|_|_| YEARS

DON'T KNOW..... d

REFUSED..... r

[G2_Work_Exp_Owner_01_3] THROUGH [G2_Work_Exp_Owner_11_3]

G3a. How many other new businesses (have/has) (you/[OWNER B-J]) started besides [NAME BUSINESS]?

|_|_| NUMBER OF BUSINESSES (ENTER "0" FOR NONE)

DON'T KNOW..... d

REFUSED..... r

[G3a_Oth_Bus_Owner_01_3] THROUGH [G3a_Oth_Bus_Owner_11_3]

IF ZERO NEW BUSINESSES AT G3a, GO TO G4.

G3b. (Was this/Were any of the) business(es) in the same industry as [NAME BUSINESS]?

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

[G3b_Bus_Same_Ind_Owner_01_3] THROUGH [G3b_Bus_Same_Ind_Owner_11_3]

G4. How old will (you/[OWNER B-J]) be on (your/his/her) next birthday?

OWNER A..... |__|__|

DON'T KNOW..... d

REFUSED..... r

[G4_Age_Owner_01_3] THROUGH [G4_Age_Owner_11_3]

IF DON'T KNOW OR REFUSED, PROBE WITH RANGES: Would you say . . .

18-24, 01

25-34, 02

35-44, 03

45-54, 04

55-64, 05

65-74, 06

75 or older?..... 07

DON'T KNOW..... d

REFUSED..... r

[G4a_Age_Ranges_Owner_01_3] THROUGH [G4a_Age_Ranges_Owner_11_3]

IF G4 IS LESS THAN G2:

Perhaps I made a mistake in recording your answer. (Your/OWNER B-J)'s age is less than (Your/OWNER B-J)'s years of experience.

Now I have a few questions about race and ethnicity.

G5. (Are/Is) (you/[OWNER B-J]) of Hispanic or Latino origin?

YES 01

NO 00

DON'T KNOW..... d

REFUSED..... r

[G5_Hisp-Origin_Owner_01_3] THROUGH [G5_Hisp-Origin_Owner_11_3]

G6. I am going to read a list of race categories. Please choose one or more that best describes (your/[OWNER B-J])'s race. Are (you [OWNER B-J]) American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Asian, Black or African American, or White?

AMERICAN INDIAN OR ALASKA NATIVE 01
 [G6_Race_AmInd_Owner_01_3] THROUGH [G6_Race_AmInd_Owner_11_3]
 NATIVE HAWAIIAN OR OTHER
 PACIFIC ISLANDER..... 02
 [G6_Race_NatHaw_Owner_01_3] THROUGH [G6_Race_NatHaw_Owner_11_3]
 ASIAN..... 03
 [G6_Race_Asian_Owner_01_3] THROUGH [G6_Race_Asian_Owner_11_3]
 BLACK OR AFRICAN AMERICAN 04
 [G6_Race_Black_Owner_01_3] THROUGH [G6_Race_Black_Owner_11_3]
 WHITE 05
 [G6_Race_White_Owner_01_3] THROUGH [G6_Race_White_Owner_11_3]
 OTHER (SPECIFY)..... 06
 [G6_Race_Other_Owner_01_3] THROUGH [G6_Race_Other_Owner_11_3]

 [G6_OtherSpecify_Owner_01_3] THROUGH [G6_OtherSpecify_Owner_11_3]
 DON'T KNOW..... d
 REFUSED..... r

G7. (Were/Was) (you/[OWNER B-J]) born in the United States?

YES 01 → **GO TO G9**
 NO 00
 DON'T KNOW..... d
 REFUSED..... r
 [G7_Native_Born_Owner_01_3] THROUGH [G7_Native_Born_Owner_11_3]

G8. (Are/Is) (you/[OWNER B-J]) a U.S. citizen?

YES 01
 NO 00
 DON'T KNOW..... d
 REFUSED..... r
 [G8_US_Cit_Owner_01_3] THROUGH [G8_US_Cit_Owner_11_3]

G9. What is the highest level of education (you/[OWNER B-J]) (have/has) completed so far? Would you say . . .

- | | | | | |
|---|----|---|---|-------------------|
| Less than 9th grade, | 01 | } | → | GO TO G10a |
| Some high school, but no diploma, | 02 | | | |
| High school graduate (diploma or equivalent diploma [GED]), | 03 | | | |
| Technical, trade or vocational degree, | 04 | | | |
| Some college, but no degree, | 05 | | | |
| Associate's degree, | 06 | } | → | GO TO G9a |
| Bachelor's degree, | 07 | | | |
| Some graduate school but no degree, | 08 | | → | GO TO G9b |
| Master's degree, or | 09 | } | → | GO TO G9a |
| Professional school or doctorate? | 10 | | | |
| DON'T KNOW | d | | | |
| REFUSED | r | | | |

[G9_Education_Owner_01_3] THROUGH [G9_Education_Owner_11_3]

G9a. What was the primary field of study for this degree?

- DON'T KNOW..... d
- REFUSED..... r

[G9_FieldOfStudy_Resp_3]
[G9_FieldOfStudy_Resp_2nd_3]

G9b. What was the primary field of study for your bachelor's degree?

- DON'T KNOW..... d
- REFUSED..... r

[G9_FieldOfStudy_Resp_3]
[G9_FieldOfStudy_Resp_2nd_3]

BY OBSERVATION:

G10a. (Are/Is) (you/[OWNER B-J]) male or female?

MALE..... 01

FEMALE 02

DON'T KNOW..... d

REFUSED..... r

[G10_Gender_Owner_01_3] THROUGH [G10_Gender_Owner_11_3]

ENDBLOCK bSectionG2

SECTION G ARRAYED UP TO 10 TIMES, ONCE FOR EACH NEW OWNER.

G11. **IF EMAIL ADDRESS COLLECTED AT BASELINE, FIRST OR SECOND FOLLOW-UP:**

Can we confirm your email address?

INTERVIEWER: READ E-MAIL ADDRESS AND CORRECT AS NECESSARY.

IF EMAIL ADDRESS FIELD BLANK FROM BASELINE, FIRST, AND SECOND FOLLOW-UP:

Can you give us an email address where you can be reached?

EMAIL:_____ @ _____

DON'T KNOW..... d

REFUSED..... r

G12. **IF WEBSITE ADDRESS COLLECTED AT BASELINE, FIRST, OR SECOND FOLLOW-UP:**

May we confirm your web site address as:

Web Address: _____ . _____

INTERVIEWER: CORRECT AS NECESSARY → GO TO G14

IF WEBSITE ADDRESS BLANK FROM BASELINE, FIRST, AND SECOND FOLLOW-UP:

Does [NAME BUSINESS] have its own website?

YES	01	
NO	00	} → GO TO G14
DON'T KNOW.....	d	
REFUSED.....	r	

G13. Can you give me the web address?

WEB ADDRESS: _____ . _____

DON'T KNOW..... d
REFUSED..... r

G14. Is the business likely to move to another location in the next 12 months?

YES	01	
NO	00	} → GO TO G16
DON'T KNOW.....	d	
REFUSED.....	r	

G15. What city and state is the business likely to move to?

CITY: _____

STATE: _____

DON'T KNOW..... d
REFUSED..... r

G16. **IF CONTACT INFORMATION COLLECTED AT BASELINE, FIRST, OR SECOND FOLLOW-UP:**

Here is the information we have for a contact person. This information will be held in the strictest confidence, and will only be used if we cannot contact you or someone else associated with the business at the current business phone number or address.

INTERVIEWER: PLEASE ASK FOR ANY INFORMATION THAT IS NOT FILLED IN.

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____

PHONE: _____

EMAIL: _____ @ _____

DON'T KNOW..... d

REFUSED..... r

IF CONTACT INFORMATION IS BLANK FROM BASELINE, FIRST, AND SECOND FOLLOW-UP:

In case we are unable to contact you, can you provide a name and contact information for a person besides yourself who would know how to reach you or someone else associated with [NAME BUSINESS]? All information collected will be held in the strictest confidence, and will only be used if we cannot contact you or someone else associated with the business at the current business phone number or address.

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____

PHONE: _____

EMAIL: _____ @ _____

DON'T KNOW..... d

REFUSED..... r

THANK AND TERMINATE

APPENDIX E

DATA DOCUMENTATION MEMO

MEMORANDUM

TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation

FROM: David DesRoches and Betsy Santos

DATE: 4/6/2009

KFS – 137

SUBJECT: Kauffman Firm Survey (KFS) data documentation for longitudinal data file

This memo provides information about the longitudinal KFS data file, which includes data collected during the Baseline, First Follow-Up, Second Follow-Up, and Third Follow-Up Surveys. This includes information on how item non-response was handled within variables in the data file, as well as a description of variables not documented in the KFS questionnaire. It also documents variables used in constructing the survey weights and all constructed variables. Several of the variables included here were provided with the Dun & Bradstreet (D&B) listings of sampled businesses that may provide additional context during analysis. For variables derived directly from the KFS Baseline, First Follow-Up, Second Follow-Up, and Third Follow-Up questionnaires, the annotated versions of these questionnaires serve as the codebooks.

I. NON-RESPONSE CLEANING STEPS

All values for “Don’t Know” and “Refusal” responses were recoded to blanks (“.”) in all variables.

II. VARIABLE-SPECIFIC INFORMATION

Variable names in the longitudinal dataset are similar between the Baseline, First Follow-Up, Second Follow-Up, and Third Follow-Up Surveys. With the exception of MPRID and the credit risk variables, all variables in the data file will have a suffix that corresponds to a round of data collection. Baseline variables contain an “_0” suffix, First Follow-Up variables contain an “_1” suffix, Second Follow-Up variables contain an “_2” suffix, and Third Follow-Up variables contain an “_3” suffix.

Unless indicated, the variables in this memo are listed without a suffix if the variable name is the same across all rounds.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 2

A. Weighting and non-response adjustment variables - Baseline

VARIABLE	DEFINITION
sampleinfo_samplestrata_0	The technology and gender ownership sampling strata MPR used to select the KFS sample. 101 = high tech, woman owned 102 = high tech, not woman owned 201 = medium tech, woman owned 202 = medium tech, not woman owned 301 = non tech, woman owned 302 = non tech, not woman owned
FSTATUS_0	The response status of Baseline Survey cases. 1 = Complete 21 = Ineligible, out of business 22 = Ineligible, does not meet project requirements 3 = Refusal 4 = Unlocatable
RESP_0	Response Indicator – All completes and ineligibles are considered respondents under this measure. 1 = Respondent 0 = Non-respondent
SamplingWeight_0	Initial sampling weight when the sample was drawn
WGT_INI_0	Weight after release adjustment
WGT_PLOCT_0	Weight after location model
WGT_FINAL_0	Final Baseline weight after non-response model
LOCT_0	Location indicator – Indicates whether business was located 1 = Located 0 = Unlocated

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 3

B. Weighting and non-response adjustment variables – First, Second, and Third Follow-Up

VARIABLE	DEFINITION
Fstatus_1	The response status of First Follow-Up cases. 1 = Complete 21 = Ineligible, out of business 22 = Ineligible, does not meet project expectations 3 = Refusal 4 = Unlocatable
Resp_1	Response Indicator for First Follow-Up cases – All completes and ineligibles are considered respondents under this measure. 1 = respondents 0 = non-respondents
Wgt_Final_1	Final weight after non-response model for First Follow-Up cases.
FSTATUS_f2_2	The response status of Second Follow-Up cases. 1 = Complete 21 = Ineligible, out of business 22 = Ineligible, does not meet project expectations 3 = Refusal 4 = Unlocatable
RESP_f2_2	Response Indicator for Second Follow-Up cases – All completes and ineligibles are considered respondents under this measure. 1 = respondents 0 = non-respondents
Wgt_Final_F2_2	Second Follow-Up final weight – Cross-Sectional
Wgt_final_f12_long_2	Second Follow-Up final weight – Longitudinal

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 4

B. Weighting and non-response adjustment variables – First, Second, and Third Follow-Up (Continued)

VARIABLE	DEFINITION
Resp_f12_long_2	Indicates if there is a Second Follow-Up longitudinal weight 1 = Yes 0 = No
FSTATUS_f2_3	The response status of Third Follow-Up cases. 1 = Complete 21 = Ineligible, out of business 22 = Ineligible, does not meet project expectations 3 = Refusal 4 = Unlocatable
RESP_f3_3	Response Indicator for Third Follow-Up cases – All completes and ineligible are considered respondents under this measure. 1 = respondents 0 = non-respondents
Wgt_Final_F3_3	Third Follow-Up final weight – Cross-Sectional
Wgt_final_f123_long_3	Third Follow-Up final weight – Longitudinal
Resp_f123_long_3	Indicates if there is a Third Follow-Up longitudinal weight 1 = Yes 0 = No

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 5

C. Survey Management Variables (continued)

VARIABLE	DEFINITION
MPRID	The identification number provided by MPR to each sampled business.
Final_Status_Code_0	Final Disposition Code for sampled businesses in the Baseline Survey. 10 = Telephone Complete 30 = Web Complete
Final_Status_Code_1	Final Disposition Code for sampled businesses in the First Follow-Up Survey. 10 = Telephone Complete 30 = Web Complete 200 = Refusal 210 = Refusal by gatekeeper 220 = Refusal by other 330 = Effort ended/Case retired 401 = Language Barrier (Spanish) 431 = Temporarily Stopped Operations During Field Period 450 = Business moved out of country 463 = No Longer in Business 465 = Started Previous to 2004 – The business was engaged in new business activity prior to calendar year 2004. New business activity is defined as applying for an EIN, submitting a Schedule C or C-EZ, paying state unemployment insurance taxes, or making FICA payments 590 = Unlocatable

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 6

C. Survey Management Variables (continued)

VARIABLE	DEFINITION
Final_Status_Code_2	Final Disposition Code for sampled businesses in the Second Follow-Up Survey. 10 = CATI complete 30 = Web Complete 200 = Refusal by known respondent 209 = Adamant refusal by known respondent 210 = Refusal by gatekeeper 220 = Refusal by unknown person 330 = Effort ended/Case retired 431 = Temporarily Stopped Operations During Field Period 463 = No Longer in Business 468 = Duplicate case 590 = Unlocatable
Final_Status_Code_3	Final Disposition Code for sampled businesses in the Third Follow-Up Survey. 10 = CATI complete 30 = Web Complete 200 = Refusal by known respondent 209 = Adamant refusal by known respondent 210 = Refusal by gatekeeper 220 = Refusal by unknown person 330 = Effort ended/Case retired 431 = Temporarily Stopped Operations During Field Period 450 = Business moved out of country 463 = No Longer in Business 590 = Unlocatable
TotalCalls	Total number of calls made to interviews completed via Computer Assisted Telephone Interviewing (CATI).
SampleInfo_Wave_0	The sample wave number the sample business was included in during the Baseline Survey.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 7

C. Survey Management Variables (continued)

VARIABLE	DEFINITION
SampleInfo_Strata_0	<p>The high-tech strata of businesses in the D&B sample frame were defined by using the SIC codes of businesses listed below:</p> <p>1 = High Tech</p> <ul style="list-style-type: none">28 Chemicals and allied products35 Industrial machinery and equipment36 Electrical and electronic equipment38 Instruments and related products <p>2 = Medium Tech</p> <ul style="list-style-type: none">131 Crude Petroleum and natural gas operations211 Cigarettes229 Miscellaneous textile goods261 Pulp mills267 Miscellaneous converted paper products291 Petroleum refining299 Miscellaneous petroleum and coal products335 Nonferrous rolling and drawing348 Ordnance and accessories, not elsewhere classified371 Motor vehicles and equipment372 Aircraft and parts376 Guided missiles, space vehicles, parts379 Miscellaneous transportation equipment737 Computer and data processing services871 Engineering and architectural services873 Research and testing services874 Management and public relations899 Services, not elsewhere classified <p>3 = Not High Tech</p> <p>Includes all other industries not listed above.</p>

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 8

C. Survey Management Variables (continued)

VARIABLE	DEFINITION
SampleInfo_Release_0	The Baseline Survey sample was released in six batches: 1 = 1st release sent 07/29/05 2 = 2nd release sent 09/23/05 3 = 3rd release sent 11/4/05 4 = 4th release sent 12/1/05 5 = 5th release sent 01/11/06 6 = 6th release sent 02/28/06
SampleInfo_Release_1	The First Follow-Up Survey sample was released in four batches: 1 = 1st release sent 06/14/06 2 = 2nd release sent 07/6/06 3 = 3rd release sent 08/07/06 4 = 4th release sent 08/31/06
SampleInfo_Release_2	The Second Follow-Up Survey sample was released in three batches: 1 = 1st release sent 05/17/07 2 = 2nd release sent 05/31/07 3 = 3rd release sent 06/25/07
SampleInfo_Release_3	The Third Follow-Up Survey sample was released in three batches: 1 = 1st release sent 06/24/08 2 = 2nd release sent 07/09/08 3 = 3rd release sent 07/23/08
InterviewDate	The date the interview was completed.
TimeZone	The time zone the business is located in: 2 = Hawaiian/Aleutian Time Zone 3 = Alaska Time Zone 4 = Pacific Time Zone 5 = Mountain Time Zone 6 = Central Time Zone 7 = Eastern Time Zone

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 9

D. Variables provided with D&B sampling frame

These variables appear once in the longitudinal file, as they were included in the original D&B listing and were not updated during the surveys.

VARIABLE	DEFINITION
SampleInfo_Sex_0	The gender variable for the business principal provided with the D&B listing. 1 = Male 2 = Female
SampleInfo_Sales_Volume_0	Sales volume provided by D&B for the sampled business.
SampleInfo_Sales_Volume_Code_0	Code provided by D&B that helps define the SampleInfo_Sales_Volume variable. 0 = SampleInfo_Sales_Volume contains a real value 1 = SampleInfo_Sales_Volume contains the low end of a real range 2 (with an all zero SampleInfo_Sales_Volume) = SampleInfo_Sales_Volume is unknown 2 (with a non-zero SampleInfo_Sales_Volume) = SampleInfo_Sales_Volume is an estimate based on defined norms for this industry and size of business
SampleInfo_Employees_Total_0	Total employees provided by D&B for the sampled business.
SampleInfo_Manufacturing Indica_0	Code provided by D&B indicating whether manufacturing operations occur at this location. 0 = Manufacturing is done here 1 = No manufacturing done here
SampleInfo_Legal_Status_0	Code provided by D&B indicating the legal status of the establishment. 000 = not available 003 = corporation 012 = partnership of unknown type 013 = proprietorship type

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 10

D. Variables provided with D&B sampling frame (continued)

VARIABLE	DEFINITION
SampleInfo_MajorIndustry_Categ_0	Code provided by D&B that denotes the major industry category under which a sampled business falls. 1 = agriculture 2 = mining 3 = construction 4 = manufacturing 5 = transportation, communications, utilities 6 = wholesale trade 7 = retail trade 8 = finance, insurance, real estate 9 = services
SampleInfo_line_business_0	A brief description of the line of business provided by D&B for the sampled business based on the SIC code.
SampleInfo_SIC_1_0	The first Standard Industrial Classification (SIC) code provided by D&B for the sampled business. The SIC code taxonomy assigns a code to businesses and other organizations, classifying and subdividing the activity performed by the establishment at that location.
SampleInfo_SIC_2_0	The second SIC code provided by D&B for the sampled business.
SampleInfo_SIC_3_0	The third SIC code provided by D&B for the sampled business.
SampleInfo_SIC_4_0	The fourth SIC code provided by D&B for the sampled business.
SampleInfo_SIC_5_0	The fifth SIC code provided by D&B for the sampled business.
SampleInfo_SIC_6_0	The sixth SIC code provided by D&B for the sampled business.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 11

D. Variables provided with D&B sampling frame (continued)

VARIABLE	DEFINITION
Subsidiary_Indicator_0	Indicating if this business is a corporation that is more than 50 percent owned by another company according to D&B: 0 = Non subsidiary 3 = Subsidiary
SampleInfo_NAICS_Code_0	The NAICS code provided by D&B for the sampled business. Refer to NAICS—North American Industry Classification System for additional documentation of this variable.
SampleInfo_NAICS_Desp_0	Descriptions of the NAICS code provided by D&B for the sampled business. Refer to NAICS—North American Industry Classification System for additional documentation of this variable.
SampleInfo_Woman_owned_0	Code provided by D&B indicating if the majority of the establishment is owned by a woman: Y = Yes, woman owned N = Not woman owned
SampleInfo_fips_msa_0	The Federal Information Processing System (FIPS) Metropolitan Statistical Area (MSA) code provided by D&B for the sampled business. Refer to Current Lists of Metropolitan and Micropolitan Statistical Areas and Definitions for additional documentation of this variable.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 12

E. Other Variables

VARIABLE	DEFINITION
TotalOwners	The total number of owners of the business, including owner-operators collected at question C4, and non-operating equity owners collected at question F3.
F6Check	The total percentage of ownership accounted for prior to reconciliation. This includes the percentages collected among owner-operators at the question F2 series and among non-operating equity owners at question F5.
NAICS_Code	Primary industry of the business confirmed or updated during the surveys. Refer to NAICS—North American Industry Classification System for additional documentation of this variable.
State_final	The state abbreviation for the sampled business.
Zip_Final	The zip code for the sampled business.
msa_final_3	Metropolitan Statistical Area, based on most recent zip code collected or confirmed from the panel businesses. Refer to Current Lists of Metropolitan and Micropolitan Statistical Areas and Definitions for additional documentation of this variable.
Respondent_1	Owner who completed the First Follow-Up Survey
Respondent_2	Owner who completed the Second Follow-Up Survey
Respondent_3	Owner who completed the Third Follow-Up Survey
Owner_Active_01_1	Active owner(s) 1-10 at time of First Follow-Up Survey
Owner_Active_02_1	
Owner_Active_03_1	
Owner_Active_04_1	
Owner_Active_05_1	
Owner_Active_06_1	
Owner_Active_07_1	
Owner_Active_08_1	
Owner_Active_09_1	
Owner_Active_10_1	

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 13

E. Other Variables (continued)

VARIABLE	DEFINITION
Owner_Active_01_2	Active owner(s) 1-10 at time of Second Follow-Up Survey
Owner_Active_02_2	
Owner_Active_03_2	
Owner_Active_04_2	
Owner_Active_05_2	
Owner_Active_06_2	
Owner_Active_07_2	
Owner_Active_08_2	
Owner_Active_09_2	
Owner_Active_10_2	
Owner_Active_01_3	Active owner(s) 1-11 at time of Third Follow-Up Survey
Owner_Active_02_3	
Owner_Active_03_3	
Owner_Active_04_3	
Owner_Active_05_3	
Owner_Active_06_3	
Owner_Active_07_3	
Owner_Active_08_3	
Owner_Active_09_3	
Owner_Active_10_3	
Owner_Active_11_3	
G9_FieldOfStudy_Resp_2nd_3	Second majors collected during the Third Follow-Up Survey and coded to a six-digit CIP code. Refer to CIP - Classification of Instructional Programs for additional documentation of this variable.
G9_FieldOfStudy_CIP_Desc_3	Descriptions of the CIP code assigned to the field of study collected from respondents. Refer to CIP - Classification of Instructional Programs for additional documentation of this variable.
G9_FieldOfStudy2nd_CIP_Desc_3	Descriptions of the CIP code assigned to the second field of study collected from respondents. Refer to CIP - Classification of Instructional Programs for additional documentation of this variable.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 14

E. Other Variables (continued)

VARIABLE	DEFINITION		
credrisk04	Credit risk variables categorized as shown below:		
credrisk05			
credrisk06			
credrisk07			
credrisk08			
	Credit Score Risk Class	Credit Score Percentile	Commercial Credit Score
	1	91-100	536-670
	2	71-90	493-535
	3	31-70	423-492
	4	11-30	376-422
	5	1-10	101-375

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 15

III. CONSTRUCTED VARIABLES

The data file includes constructed variables for ease of analysis. These fall into several categories, each of which is explained below. Variables using Baseline data are denoted by a “_0” suffix, First Follow-Up variables with the “_1” suffix. Similarly, variables using Second Follow-Up data have a “_2” suffix and Third Follow-Up data have a “_3” suffix.

A. Total Intellectual Property Variables

These variables create a total number of patents, copyrights, or trademarks the businesses possessed at the time of each interview. For each type of intellectual property, the variables were constructed using data from the following questions:

- “Indicator” questions, such as Question D3a (“Does the business have any patents?”)
- “Exact value” measures, such as Question D3b (“How many patents does the business have?”)

The construction was specified by the rules provided in the table below.

Intellectual Property Variable Specifications	
Condition	Value of Constructed Variable
“Indicator” variable = 0	0
“Exact value” variable > 0	Value of “Exact value” variable
“Indicator” variable = BLANK	BLANK
“Indicator” variable = 1 and “Continuous” variable = BLANK	BLANK

The following variables were created using these specifications:

Total_Patents
Total_Copyrights
Total_Trademarks

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 16

B. Amount Variables

These variables were constructed for the specific types of equity, debt, revenue, assets, and liabilities the businesses possessed at the time of each interview. For each type, variables were constructed using data from the following survey questions:

- “Indicator” questions, such as Question F1 (“First, in calendar year 2004, did you put any of your own money into the business in return for an ownership share of the business?”)
- “Exact value” measures such as Question F2a (“How much of your own money did you put into the business during calendar year 2004?”)
- “Range” questions asked of respondents who could or would not provide an exact figure

The construction was specified by the rules provided in the table below.

Amount Variable Specifications	
Condition	Value of Constructed Variable
“Indicator” variable = 0	0
“Exact value” variable > 0	Value of “Exact value” variable converted to range value
“Indicator” variable = 1 and “Continuous” variable = BLANK	Range value
“Indicator” variable = BLANK	BLANK
“Indicator” variable = 1 and “Continuous” and “Range” variables = BLANK	BLANK

The range values for these amount variables are listed in the table below:

Range definition - Amount	
Value	Range
1	\$500 or less
2	\$501 to \$1,000
3	\$1,001 to \$3,000
4	\$3,001 to \$5,000
5	\$5,001 to \$10,000
6	\$10,001 to \$25,000
7	\$25,001 to \$100,000
8	\$100,001 to \$1,000,000
9	\$1,000,001 or more

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 17

B. Amount Variables (continued)

This process was used to construct the following variables:

Tot_Equity_Owner_1_R
Tot_Equity_Owner_2_R
Tot_Equity_Owner_3_R
Tot_Equity_Owner_4_R
Tot_Equity_Owner_5_R
Tot_Equity_Owner_6_R
Tot_Equity_Owner_7_R
Tot_Equity_Owner_8_R
Tot_Equity_Owner_9_R
Tot_Equity_Owner_10_R
Tot_Equity_Spouse_R
Tot_Equity_Parents_R
Tot_Equity_Angels_R
Tot_Equity_Companies_R
Tot_Equity_Govt_R
Tot_Equity_Vent_Cap_R
Tot_Equity_Other_R
Tot_Pers_CredCard_Line_Resp_R
Tot_Pers_CredCard_Bal_Resp_R
Tot_Pers_Loan_Bank_Resp_R
Tot_Bus_CredCard_Line_Resp_R
Tot_Bus_CredCard_Bal_Resp_R
Tot_Pers_Loan_Fam_Resp_R
Tot_Pers_Loan_Other_Resp_R
Tot_Pers_Other_Resp_R
Tot_Pers_CredCard_Line_Othrs_R
Tot_Pers_CredCard_Bal_Others_R
Tot_Pers_Loan_Bank_Others_R
Tot_Bus_CredCard_Line_Others_R
Tot_Bus_CredCard_Bal_Others_R
Tot_PersLoan_Fam_OtherOwners_R
Tot_Pers_Loan_Other_Owners_R
Tot_Pers_Other_Other_Owners_R
Tot_CredCard_Line_Bus_R
Tot_CredCard_Bal_Bus_R
Tot_Loan_Bank_Bus_R
Tot_Cred_Line_Bus_Line_R
Tot_Cred_Line_Bus_Bal_R
Tot_Loan_NonBank_Bus_R

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 18

B. Amount Variables (continued)

Tot_Loan_Fam_Bus_R
Tot_Loan_Owner_Bus_R
Tot_Loan_Emp_Bus_R
Tot_Loan_Govt_Bus_R
Tot_Loan_Other_Bus_R
Tot_Loan_Other_Ind_R
Tot_Bus_Debt_Other_R
Tot_Trade_Finan_R
Tot_Asset_Cash_R
Tot_Asset_Acct_Rec_R
Tot_Asset_Inv_R
Tot_Asset_Equip_R
Tot_Asset_LandBuild_R
Tot_Asset_Veh_R
Tot_Asset_Other_Bus_Prop_R
Tot_Asset_Other_R
Tot_Liab_Acct_Pay_R
Tot_Liab_Pension_R
Tot_Liab_Other_R
Tot_Revenue_R
Tot_Loss_R
Tot_Profit_R

The following constructed variables are specific to the First, Second, and Third Follow-Up Surveys. The First Follow-Up variables with the “_1” suffix are shown below. The Second Follow-Up and Third Follow-Up variables are denoted by a “_2” suffix and “_3” suffix (respectively) instead of the “_1” suffix.

Tot_Equity_AllYrs_Owner_01_R_1
Tot_Equity_AllYrs_Owner_02_R_1
Tot_Equity_AllYrs_Owner_03_R_1
Tot_Equity_AllYrs_Owner_04_R_1
Tot_Equity_AllYrs_Owner_05_R_1
Tot_Equity_AllYrs_Owner_06_R_1
Tot_Equity_AllYrs_Owner_07_R_1
Tot_Equity_AllYrs_Owner_08_R_1
Tot_Equity_AllYrs_Owner_09_R_1
Tot_Equity_AllYrs_Owner_10_R_1
Tot_Equity_Spouse_AllYrs_R_1
Tot_Equity_Parents_AllYrs_R_1

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 19

B. Amount Variables (continued)

Tot_Equity_Angels_AllYrs_R_1
Tot_Equity_Comp_AllYrs_R_1
Tot_Equity_Govt_AllYrs_R_1
Tot_Equity_Vent_Cap_AllYrs_R_1
Tot_Equity_Other_AllYrs_R_1
Tot_Pers_Loan_Bank_Owed_Resp_R_1
Tot_Pers_Loan_Fam_Owed_Resp_R_1
Tot_PersLoan_Other_Owed_Resp_R_1
Tot_Pers_Other_Owed_Resp_R_1
Tot_PersLoan_Bank_Owed_Othrs_R_1
Tot_PersLoan_Fam_Owed_Othrs_R_1
Tot_PersLoan_Othr_Owed_Othrs_R_1
Tot_Pers_Other_Owed_Others_R_1
Tot_Bus_Loans_Bank_Owed_R_1
Tot_Bus_Loans_Nonbank_Owed_R_1
Tot_Bus_Loans_Fam_Owed_R_1
Tot_Bus_Loans_Owner_Owed_R_1
Tot_Bus_Loans_Emp_Owed_R_1
Tot_Bus_Loans_Govt_Owed_R_1
Tot_Bus_Loans_OtherBus_Owed_R_1
Tot_Bus_Loans_OtherInd_Owed_R_1
Tot_Bus_Loans_Other_Owed_R_1

The constructed variables below were named according to the reference year mentioned in the indicator question and therefore differ across the rounds. Data about business funds being withdrawn for personal use were not collected during the Baseline Survey. The First Follow-Up Survey collected data about the incidence and level of this activity occurring in calendar years 2004 and 2005, the Second Follow-Up Survey collected data about 2006 and Third Follow-Up about 2007.

Tot_Personal_Use_2004_R_1
Tot_Personal_Use_2005_R_1
Tot_Personal_Use_2006_R_2
Tot_Personal_Use_2007_R_3

The following constructed variables are specific to the Third Follow-Up Survey only.

Tot_Res_Dev_R_3
Tot_Equity_AllYrs_Owner_11_R_3

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 20

C. Expense Variables

The variables created for total expenses, wage expenses, and total profit or loss are similar to those detailed in Section III.B above, but at these questions there was no “Indicator” question. The variables were constructed using data from the following types of survey questions:

- “Exact value” measures such as Question F17 (“How much, if any, did the business pay in expenses during calendar year 2007?”),
- “Range” questions asked of respondents who could or would not provide an exact figure at the “Exact value” variable.

The construction was specified by the rules provided in the table below using the series of equity questions as an example.

Amount Variable Specifications	
Condition	Value of Constructed Variable
“Exact value” variable = 0	0
“Exact value” variable > 0	Value of “Exact value” variable converted to range value
“Exact value” variable = BLANK	Range value
“Exact value” and “Range” variables = BLANK	BLANK

These variables used the same amount range values as those described above in III.B. The following variables were created using these specifications:

Tot_Expenses_R
Tot_Wages_R

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 21

D. Total Amount Variables

These variables create total amounts of equity, debt, revenue, assets, and liabilities the businesses reported at each interview, combining the values reported for each individual type. For example, the variable “Tot_Equity_Owner_Operators_R” sums all values in the owner-operator variables (Tot_Equity_Owner_1_R through Tot_Equity_Owner_10_R, Tot_Equity_Owner_11_R_3), which is then translated into the amount range values described above in III.B and III.C. The variables created in this way are listed below along with the component variables.

Total Amount Variables	
Variable Name	Variables used to create
Tot_Equity_Owner_Operators_R	Tot_Equity_Owner_1_R, Tot_Equity_Owner_2_R, Tot_Equity_Owner_3_R, Tot_Equity_Owner_4_R, Tot_Equity_Owner_5_R, Tot_Equity_Owner_6_R, Tot_Equity_Owner_7_R, Tot_Equity_Owner_8_R, Tot_Equity_Owner_9_R, Tot_Equity_Owner_10_R Tot_Equity_Owner_11_R_3*
Tot_Equity_OwnerOper_AllYrs_R_1**	Tot_Equity_AllYrs_Owner_01_R_1, Tot_Equity_AllYrs_Owner_02_R_1 Tot_Equity_AllYrs_Owner_03_R_1, Tot_Equity_AllYrs_Owner_04_R_1 Tot_Equity_AllYrs_Owner_05_R_1, Tot_Equity_AllYrs_Owner_06_R_1 Tot_Equity_AllYrs_Owner_07_R_1, Tot_Equity_AllYrs_Owner_08_R_1 Tot_Equity_AllYrs_Owner_09_R_1, Tot_Equity_AllYrs_Owner_10_R_1 Tot_Equity_AllYrs_Owner_11_R_3*
Tot_Equity_NonOwnerOperators_R	Tot_Equity_Spouse_R, Tot_Equity_Parents_R, Tot_Equity_Angels_R, Tot_Equity_Companies_R, Tot_Equity_Govt_R, Tot_Equity_Vent_Cap_R, Tot_Equity_Other_R
Tot_Equity_NonOwnerOp_AllYrs_R_1**	Tot_Equity_Spouse_AllYrs_R_1, Tot_Equity_Parents_AllYrs_R_1 Tot_Equity_Angels_AllYrs_R_1, Tot_Equity_Comp_AllYrs_R_1 Tot_Equity_Govt_AllYrs_R_1, Tot_Equity_Vent_Cap_AllYrs_R_1 Tot_Equity_Other_AllYrs_R_1
Tot_Equity_R	Tot_Equity_Owner_Operators_R, Tot_Equity_NonOwnerOperators_R
Tot_Pers_Debt_Resp_R	Tot_Pers_CredCard_Bal_R, Tot_Pers_Loan_Resp_R, Tot_Bus_CredCard_Bal_Resp_R, Tot_Pers_Loan_Fam_Resp_R, Tot_Pers_Loan_Other_Resp_R, Tot_Pers_Other_Resp_R

* Third Follow-Up data only.

** First, Second, and Third Follow-Up data only. Variable shown for First Follow-Up. Second and Third Follow-Up variables will have a “_2” and “_3” suffix respectively.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 22

D. Total Amount Variables (continued)

Total Amount Variables	
Variable Name	Variables used to create
Tot_Pers_Debt_Owed_Resp_R_1**	Tot_Pers_CredCard_Bal_Resp_R Tot_Bus_CredCard_Bal_Resp_R Tot_Pers_Loan_Bank_Owed_Resp_R_1 Tot_Pers_Loan_Fam_Owed_Resp_R_1 Tot_PersLoan_Other_Owed_Resp_R_1 Tot_Pers_Other_Owed_Resp_R_1
Tot_Pers_Debt_Other_Owners_R	Tot_Pers_CredCard_Bal_Others_R, Tot_Pers_Loan_Bank_Others_R, Tot_Bus_CredCard_Bal_Others_R, Tot_PersLoan_Fam_OtherOwners_R, Tot_Pers_Loan_Other_Owners_R, Tot_Pers_Other_Other_Owners_R
Tot_Pers_Debt_Owed_OthrOwnrs_R_1**	Tot_Pers_CredCard_Bal_Others_R_1 Tot_Bus_CredCard_Bal_Others_R_1 Tot_PersLoan_Bank_Owed_Othrs_R_1 Tot_PersLoan_Fam_Owed_Othrs_R_1 Tot_PersLoan_Othr_Owed_Othrs_R_1 Tot_Pers_Other_Owed_Others_R_1
Tot_Debt_Owner_Operators_R	Tot_Pers_Debt_Resp_R, Tot_Debt_Other_Owners_R
Tot_Debt_Bus_R	Tot_CredCard_Bal_Bus_R, Tot_Loan_Bank_Bus_R, Tot_Cred_Line_Bus_Bal_R, Tot_Loan_NonBank_Bus_R, Tot_Loan_Fam_Bus_R, Tot_Loan_Owner_Bus_R, Tot_Loan_Emp_Bus_R, Tot_Loan_Govt_Bus_R, Tot_Loan_Other_Bus_R, Tot_Loan_Other_Ind_R, Tot_Bus_Debt_Other_R
Tot_Bus_Debt_Owed_R_1**	Tot_Bus_Loans_Bank_Owed_R_1 Tot_Bus_Loans_Nonbank_Owed_R_1 Tot_Bus_Loans_Fam_Owed_R_1 Tot_Bus_Loans_Owner_Owed_R_1 Tot_Bus_Loans_Emp_Owed_R_1 Tot_Bus_Loans_Govt_Owed_R_1 Tot_Bus_Loans_OtherBus_Owed_R_1 Tot_Bus_Loans_OtherInd_Owed_R_1 Tot_Bus_Loans_Other_Owed_R_1
Tot_Debt_R	Tot_Debt_Owner_Operators_R, Tot_Debt_Bus_R
Tot_Assets_R	Tot_Asset_Cash_R, Tot_Asset_Acct_Rec_R, Tot_Asset_Inv_R, Tot_Asset_Equip_R, Tot_Asset_LandBuild_R, Tot_Asset_Veh_R, Tot_Asset_Other_Bus_Prop_R, Tot_Asset_Other_R
Tot_Liab_R	Tot_Liab_Acct_Pay_R, Tot_Liab_Pension_R, Tot_Liab_Other_R

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MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 23

E. Variables constructed using the “Quarter” range

These variables were constructed for questions (in the Baseline Survey only) collecting the month in 2004 businesses first paid unemployment insurance or FICA taxes. The components of the constructed variables include:

- Exact values such as Question B9 (“For what month in 2004 were the first unemployment taxes paid”),
- “Range” questions asked of respondents who could or would not provide an exact figure value – the response choices were “The 1st quarter of 2004 (January to March),” “The 2nd quarter of 2004 (April to June),” etc.

Range definition - Quarter	
Value	Range (months)
1	1-3
2	4-6
3	7-9
4	10-12

This process was used to construct the following variables:

UI_Month_R

FICA_Month_R

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 24

F. Variables constructed using the “Hours” range

These variables were constructed for the question collecting the average number of hours per week owner-operators worked at the business. The components of the constructed variables include:

- Exact values collected at Question G1b (“During the time [NAME BUSINESS] was in business during 2004, how many hours in an average week did (you/[owner B-J]) spend working at [NAME BUSINESS]?”))
- “Range” questions asked of respondents who could or would not provide an exact value. The range definitions are provided below.

Range definition - Hours	
Value	Range
1	1-19
2	20-35
3	36-45
4	46-55
5	56-65
6	66+

This process was used to construct the following variables:

Total_Hours_Owner_01_R
Total_Hours_Owner_02_R
Total_Hours_Owner_03_R
Total_Hours_Owner_04_R
Total_Hours_Owner_05_R
Total_Hours_Owner_06_R
Total_Hours_Owner_07_R
Total_Hours_Owner_08_R
Total_Hours_Owner_09_R
Total_Hours_Owner_10_R
Total_Hours_Owner_11_R_3*

* Third Follow-Up data only.

MEMO TO: Alicia Robb and E. J. Reedy, Ewing Marion Kauffman Foundation
FROM: David DesRoches and Betsy Santos
DATE: 4/6/2009
PAGE: 25

G. Variables constructed using the “Age” range

These variables were constructed for the question collecting the ages of owner-operators of the business. The components of the constructed variables include:

- Exact values collected at Question G4 (“How old will (you/[OWNER B-J]) be on (your/his/her) next birthday?”)
- “Range” questions asked of respondents who could or would not provide an exact value. The range definitions are provided below.

Range definition - Age	
Value	Range
1	18-24
2	25-34
3	35-44
4	45-54
5	55-64
6	65-74
7	75+

This process was used to construct the following variables:

Age_Owner_01_R
Age_Owner_02_R
Age_Owner_03_R
Age_Owner_04_R
Age_Owner_05_R
Age_Owner_06_R
Age_Owner_07_R
Age_Owner_08_R
Age_Owner_09_R
Age_Owner_10_R
Age_Owner_11_R_3*

* Third Follow-Up data only.