APPENDIX A1 Administering Organizations

**National Institutes Of Health (NIH)
Institutes and Centers**

APPENDIX A-1

ADMINISTERING ORGANIZATIONS

NATIONAL INSTITUTES OF HEALTH (NIH) INSTITUTES AND CENTERS

NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIA	National Institute on Aging
NIAID	National Institute of Allergy and Infectious Diseases
NIAMS	National Institute of Arthritis and Musculoskeletal and Skin Diseases
NCCAM	National Center for Complementary and Alternative Medicine
NCI	National Cancer Institute
NIDA	National Institute on Drug Abuse
NIDCD	National Institute on Deafness and Other Communication Disorders
NIDCR	National Institute of Dental and Craniofacial Research
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases
NIEHS	National Institute of Environmental Health Sciences
NEI	National Eye Institute
NIGMS	National Institute of General Medical Sciences
NICHD	National Institute of Child Health & Human Development
NHGRI	National Human Genome Research Institute
NHLBI	National Heart, Lung, and Blood Institute
NLM	National Library of Medicine
NIMH	National Institute of Mental Health
NINR	National Institute of Nursing Research
NINDS	National Institute of Neurological Disorders and Stroke
NCRR	National Center for Research Resources

APPENDIX A2   Evaluation Framework

A2.1 Program Goals and Measures

A2.2 Map of Survey Items to Goals

Program Goals And Measures

Evaluation Framework for the NIH SBIR Program Assessment

SBIR Program Goal	NIH Objective	Standard *	Index*	Measure * **	
1. Stimulate technological innovation	The NIH SBIR Program stimulates technological innovation in support of the NIH mission from the date of award to the date of measurement.	Some SBIR awardees produce products, processes, usages, and services .	1.1 Whether or not sales have occurred, 40% or more of NIH SBIR awardees produce new or improved products, processes, usages, and/or services in support of the NIH mission.	1.1.1	Number of new or improved SBIR supported products, processes, usages, and/or services in health-related fields at time of measurement (4,10,14)
				1.1.2	Number of technical articles on new or improved SBIR supported products, processes, usages, and/or services in health-related fields at time of measurement (31, 32)
				1.1.3	Number of patents for new or improved SBIR supported products, processes, usages, and/or services in health-related fields at time of measurement (31, 32)
			1.2 10% or more of NIH SBIR awardees receive additional Phase I or Phase II awards that relate to the core technology.	1.2.1	Number of Phase I or Phase II awards that are based on the core technology (5, 6, 7, 8)

Notes

* **Standards and indices define program expectations. Measures define findings at the time of measurement.**

** Unit of analysis is the awardee (company receiving the NIH SBIR Program award) unless otherwise specified.
  Subgroups may be specified for some measures to facilitate "within" and "between" group comparisons .
  Numbers in parentheses refer to the numbers of the questions in the final Survey Instrument that can generate data for the specified measure.
  "DB" refers to NIH SBIR Databases that may be used to locate data for the specified measure.

Evaluation Framework for the NIH SBIR Program

SBIR Program Goal	NIH Objective	Standard	Index*	Measure* **	
2. Use small businesses to meet federal research and development needs	The NIH SBIR Program increases the use of small businesses to meet federal research and development needs in support of the NIH mission from the date of award to the date of measurement.	Most NIH SBIR awardees make contributions to knowledge, increase the dissemination of information, and are satisfied with the usefulness of the Program.	50% or more of NIH awardees : 2.1 Make contributions to knowledge in health promotion, disease prevention, diagnosis, health care, and amelioration and cure of disease,	2.1.1	Number of SBIR supported contributions yielding increases in health knowledge, research tools, and education at time of measurement (2,15)
			2.2 Are able to obtain and to disseminate health-related information, and/or	2.2.1	Number of awardee companies giving high rankings to the usefulness of outreach and informational services at time of measurement (33)
				2.2.2	Number of disseminations of SBIR supported technology and information among populations using and receiving health and health care resources at time of measurement (16, 17)
			2.3 Express satisfaction with the usefulness of the NIH SBIR Program.	2.3.1	Number of awardee companies experiencing high levels of satisfaction with the NIH SBIR program at time of measurement (3, 8, 9,33,34)

* Standards and indices define program expectations. Measures define findings at the time of measurement.

** Unit of analysis is the awardee (company receiving the NIH SBIR Program award) unless otherwise specified.
   Subgroups may be specified for some measures to facilitate "within" and "between" group comparisons.
   Numbers in parentheses refer to the numbers of the questions in the Draft Survey Instrument that can generate data for the specified measure.
  "DB"   refers to NIH SBIR Databases that may be used to locate data for the specified measure.

Evaluation Framework for the NIH SBIR Program

SBIR Program Goal	NIH Objective	Standard	Index*	Measure* **
3. Foster and encourage participation by women, minority, and disadvantaged persons in technological innovation	The NIH SBIR Program fosters and encourages participation by wom en, minority, and disadvantaged persons in technological innovation in support of the NIH mission from the date of award to the date of measurement.	Most NIH SBIR awardees increase the participation of women, minority, and disadvantaged persons in technological innovation in health-related fields.	10% or more of NIH SBIR awardees include women, minority, and disadvantaged employees engaged in technological innovation in health-related fields .	3.1.1 Number of *applicant* companies owned by women, minority, and/or disadvantaged persons at time of measurement (DB) 3.1.2 Number of *awardee* companies owned by women, minority, and disadvantaged persons at time of measurement (DB) (DB = NIH IMPAC DATABASE)

*   Standards and indices define program expectations. Measures define findings at the time of measurement.

** Unit of analysis is the awardee (company receiving the NIH SBIR Program award) unless otherwise specified.
   Subgroups may be specified for some measures to facilitate "within" and "between" group comparisons.
   Numbers in parentheses refer to the numbers of the questions in the Draft Survey Instrument that can generate data for the specified measure.
  "DB"   refers to NIH SBIR Databases that may be used to locate data for the specified measure.

Evaluation Framework for the NIH SBIR Program

SBIR Program Goal	NIH Objective	Standard	Index*	Measure* **	
4. Increase the commercialization of innovations	The NIH SBIR Program increases private-sector commercialization of innovations resulting from federal R&D in support of the NIH mission from the date of award to the date of measurement.	Some NIH SBIR awardees increase the commercialization of health-related products and services resulting from federal support for research and development.	40% or more of companies with NIH SBIR awards: 4.1 Commercialize new or improved products, processes, usages, and/or services in health-related fields; and/or	4.1.1	Number of SBIR-supported products, processes, usages, and/or services that yield sales at time of measurement (19, 21, 22)
				4.1.2	Dollar volume of sales of SBIR-supported products, processes, usages, and/or services at time of measurement (23)
				4.1.3	Number of SBIR-supported drugs and medical devices receiving FDA approval at time of measurement (11, 12, 13)
				4.1.4	Number of licenses for SBIR-supported products, processes, usages, and/or services at time of measurement (21)
				4.1.5	Other evidence of commercialization of SBIR-supported innovations at time of measurement (10, 14, 18, 20, 22, 30)
				4.1.6	Amount of additional developmental funding for SBIR-supported innovations from sources other than the SBIR program at time of measurement (25, 26, 27, 28)
			4.2 Grow their companies.	4.2.1	Number of years companies with NIH SBIR awards exist (independently or merged) at time of measurement (1, 2, 29)
				4.2.2	Amount of increase in number of employees in companies with NIH SBIR awards at time of measurement (24)

* Standards and indices define program expectations. Measures define findings at the time of measurement.

** Unit of analysis is the awardee (company receiving the NIH SBIR Program award) unless otherwise specified.
   Subgroups may be specified for some measures to facilitate "within" and "between" group comparisons.
   Numbers in parentheses refer to the numbers of the questions in the Draft Survey Instrument that can generate data for the specified measure.
   "DB" refers to NIH SBIR Databases that may be used to locate data for the specified measure.

APPENDIX A2.2

Map of Survey Items to NIH Program Objectives

Questionnaire Item Number	Questionnaire Item Content	NIH Program Objective
1	Year company founded	4
2	Company major field of business	2, 4
3	Need for SBIR	2
4	Type of product (new, improved, modification)	1
5	Other SBIR awards	1
6	Other Phase I SBIR awards	1
7	Other Phase II SBIR awards	1
8	Importance of SBIR	2
9	Effect of project on additional funding	2
10	Products of SBIR planned for commercialization	1, 4
11	Need for FDA approval	4
12	Submission to FDA	4
13	Stage of FDA approval process	4
14	Commercialized products of SBIR	1, 4
15	Contributions to NIH mission	2
16	Populations for product	2
17	Size of target population	2
18	Current status of SBIR project	4
19	Reasons for discontinuing project	4
20	Status of marketing activities	4
21	Expectation of further sales	4
22	Status of sales for project	4
23	Dollar value of cumulative sales	4
24	Current number of employees	4
25	Additional non-SBIR funding received	4

26	Effect of NIH SBIR funding on additional funding	4
27	Sources of additional funding	4
28	Most important source of additional funding	4
29	Financial status of company	4
30	Stock exchange of companies with public offering	4
31	Patents, copyrights, trademarks, publications, etc.	1
32	Number of each (above) received or achieved	1
33	Experience with SBIR application, award process	2
34	Awareness of help from NIH staff	2
35	General suggestions for SBIR program	--
36	Respondent role in SBIR funded project	--
37	Respondent relationship with awardee company	--
38	Respondent self-reported knowledge of SBIR award	--

APPENDIX A3   Survey Sample

A3.1 SBIR Awardee Database

A3.2 Limitations of Awardee Database

A3.3 Respondent Selection Procedures and Limitations

APPENDIX A3.1

SBIR Awardee Database

SBIR selected and supplied the initial database of awardees from NIH's IMPAC (Information for Management, Planning, Analysis, and Coordination) database. The address confirmation and database update phase of the *SBIR National Survey to Evaluate the NIH SBIR Program* took place from July 1 through September 6, 2002. Humanitas' activities in the address confirmation and update phase included:

- Jul 1-12:   Preparing the initial contact letter and online and paper update forms
- Jul 15:   Mailing this letter
- Jul 23:   Sending a reminder email message to all those with email addresses
- Jul 15-Sep 6:   Updating and maintaining the database of contact information
- Jul 31:   Briefing and training telephone interviewers for the follow-up with nonresponders
- Jul 29-Aug 28:   Conducting a telephone follow-up with nonresponders to the update Request using Braun Research, Inc. (BRI)
- Jul 29-Aug 28:   Ongoing tracking activities to locate hard-to-reach prospective respondents
- Jul 29-Sep 4:   Entering all new and updated contact information into the database
- Sep 3-6:   Reconciling all database statistics and summarizing outcomes of this phase

Tracking efforts during this address confirmation and database update phase included using the USPS' *Address Service Requested* (which forwards mail, returns undeliverable mail, and sends notice of any available new address information to the sender), online telephone directories (business, residential, and reverse listings), services of a professional telephone center to contact each nonresponder, and individual searching and tracking online using various search engines and databases (such as Dun and Bradstreet). Only after this extensive tracking yielded no valid contact information for the awardee did we conclude that it was highly likely that the small business no longer existed.

There were two duplicate awardee sample pieces. These appeared to result from misspelling of the awardee's company name, so that the misspelling appeared to be a different small business.

The following table summarizes the results of the contact update phase of the survey. A total of 654 sample units were deemed usable after the initial update letter—504 updated using online, mail, telephone, fax, or email messages, and another 150 were assumed to have current email addresses (the single essential piece of contact information for an online survey) because email messages to them did not bounce (return to sender). Another 212 sample units were deemed usable after the telephone follow-up with nonresponders to the update request. A total of 186 sample units were likely unusable sample—67 were confirmed unusable (nonexistent small businesses) and 119 were likely to be unusable (nonexistent and/or nonworking telephone numbers).

All sample units, except for the 67 small businesses that were confirmed unusable, were included in the database of potential respondents. During the actual survey field period, the usability status

of the sample units was further updated. Some of those presumed usable were unusable (primarily in the "nonbouncing email address" group), and some of those presumed unusable turned out to be usable (mostly in the "unconfirmed unusable" group). Appendix A3, *Response Rate*, summarizes the final disposition of all survey sample and shows the calculation of the response rate. A3.2, *Final Disposition of Sample*, itemizes all sample units in terms of usability and eligibility.

Exhibit A3.1
Summary of Results of the Database Update Phase

|	*Number*	*Totals*
Total Sample:		**1052**
INITIAL UPDATE RESULTS		
Usable Sample:		**654**
Online form update	243	
Mail form update	220	
Telephone, other update	18	
Fax update	16	
Email message update	7	
Nonbouncing email address	150	
BRI UPDATE RESULTS		
Usable Sample:		**212**
Email updated	112	
Email + other information updated	85	
Updated mailing address (no email)	15	
UNUSABLE SAMPLE		
Unusable Sample:		**186**
Confirmed unusable	67	
Unconfirmed unusable	119	

APPENDIX A3.2

Limitations of Awardee Database

There are several inherent limitations in the awardee database used as the survey sample. The first is due to the sample selection process, and the second is due to the age of the data. We minimized these limitations so that they had no pragmatic effects on the survey sample.

Sample Selection Process. Because the survey is a *census* of all awardees within the ten-year study period from 1992 through 2001, we did not need to select a random sample of awardees. We did, however, decide to select a random sample of awards to minimize respondent burden and to have a single award as the focus of the survey. Thus, for each small business that won more than a single SBIR Phase II award during the study period, we randomly selected a single award from among the multiple ones each had won.

This random selection process affected only the 32% of the 1,052 awardee small businesses that won multiple Phase II awards during the study period. It did not affect the 68% that won just a single award. The following exhibit shows the numbers of awardee small businesses winning one, two, three, four, and more awards. Only 8% of awardees won more than three Phase II awards.

Exhibit A3.2-1 Distribution of Awards Across 1,052 Awardees
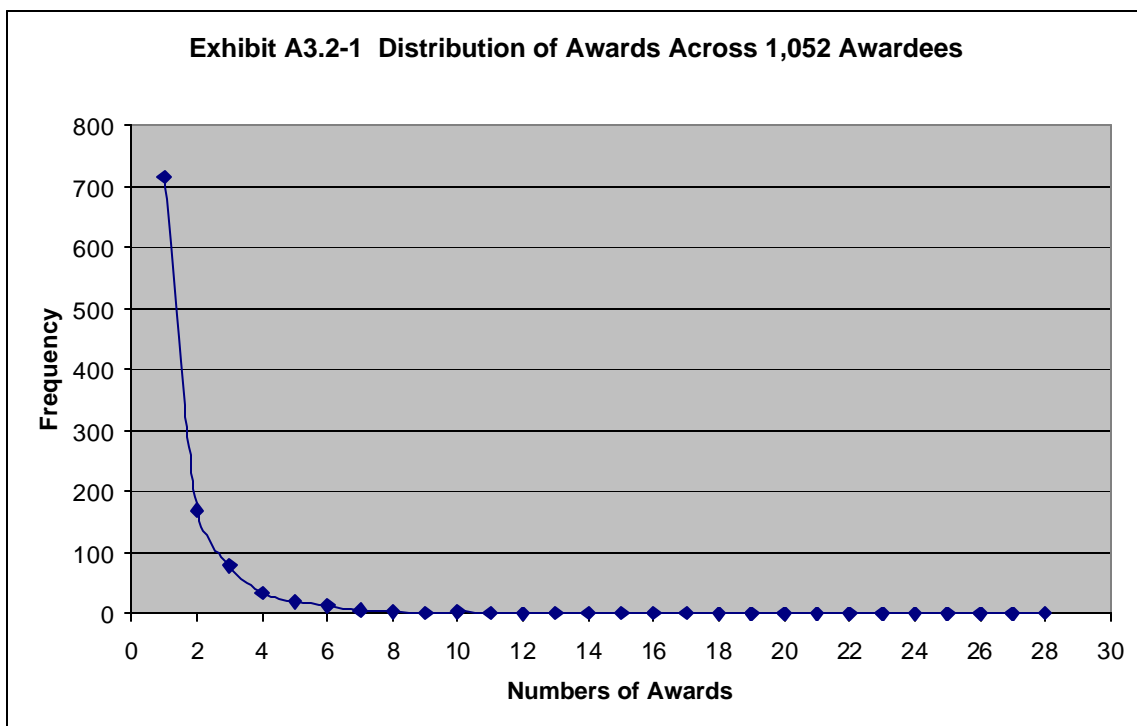
The *random* selection procedure minimized differences between the distribution of *all* Phase II awards and the distribution of *one-award-per-awardee* Phase II awards. Thus, the resultant sample of Phase II awards is highly representative of all Phase II awards during the study period. This would not be the case, for example, if we had selected the largest or the most recent Phase II award as the survey focus.

The next two exhibits compare the distributions of all SBIR Phase II awards with the random selection of Phase II awards by study year and then by NIH institute sponsoring the award. Visually, the relative distributions are very similar.

Exhibit A3.2-2 Distribution of SBIR Phase II Awards by Year

Exhibit A3.2-3 Distribution of SBIR Phase II Awards by NIH Institutes/Centers
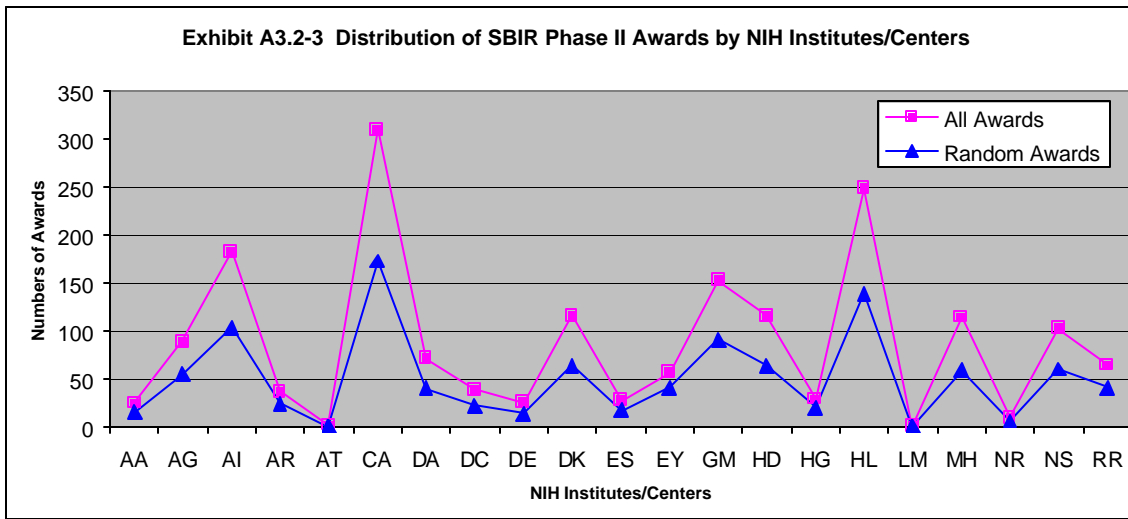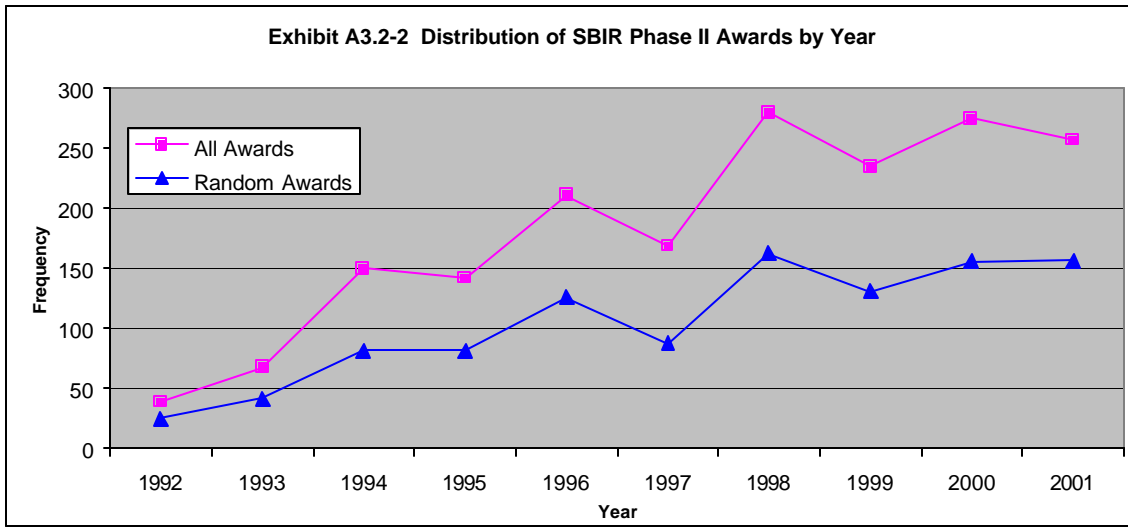
The following two exhibits compare the distributions of *percentages* of awards by year and by NIH institute/center. There are no statistically significant differences (at the 1% level of significance) between any of the percentages by year or by NIH institute/center. (Please see the "Difference" columns. Ignore the final "Multi-Award" columns for now.)

Exhibit A3.2-4 Distribution of Percentages of Awards By Year						
Fiscal Year	All Awards		Random Awards		Difference	Multi-Award
1992	39	2.14%	25	2.38%	-0.24%	35.9%
1993	68	3.72%	42	3.99%	-0.27%	38.2%
1994	150	8.21%	82	7.79%	0.42%	45.3%
1995	142	7.78%	82	7.79%	-0.02%	42.3%
1996	211	11.56%	126	11.98%	-0.42%	40.3%
1997	169	9.26%	88	8.37%	0.89%	47.9%
1998	280	15.33%	163	15.49%	-0.16%	41.8%
1999	235	12.87%	131	12.45%	0.42%	44.3%
2000	275	15.06%	156	14.83%	0.23%	43.3%
2001	257	14.07%	157	14.92%	-0.85%	38.9%
TOTALS	1826	100.00%	1052	100.00%	0.00%	42.4%

Exhibit A3.2-4 Distribution of Percentages of Awards By NIH Institute/Center						
NIH Institute	All Awards		Random Awards		Difference	Multi-Award
AA	25	1.37%	15	1.43%	-0.06%	40.0%
AG	89	4.87%	55	5.23%	-0.35%	38.2%
AI	183	10.02%	104	9.89%	0.14%	*43.2%
AR	37	2.03%	24	2.28%	-0.26%	35.1%
AT	2	0.11%	1	0.10%	0.01%	50.0%
CA	311	17.03%	173	16.44%	0.59%	*44.4%
DA	72	3.94%	40	3.80%	0.14%	44.4%
DC	39	2.14%	22	2.09%	0.04%	43.6%
DE	26	1.42%	14	1.33%	0.09%	46.2%
DK	116	6.35%	64	6.08%	0.27%	*44.8%
ES	28	1.53%	17	1.62%	-0.08%	39.3%
EY	57	3.12%	41	3.90%	-0.78%	*28.1%
GM	153	8.38%	91	8.65%	-0.27%	40.5%
HD	116	6.35%	64	6.08%	0.27%	*44.8%
HG	29	1.59%	20	1.90%	-0.31%	31.0%
HL	249	13.64%	139	13.21%	0.42%	*44.2%
LM	1	0.05%	1	0.10%	-0.04%	0.0%
MH	115	6.30%	59	5.61%	0.69%	*48.7%
NR	10	0.55%	6	0.57%	-0.02%	40.0%
NS	103	5.64%	61	5.80%	-0.16%	40.8%
RR	65	3.56%	41	3.90%	-0.34%	36.9%
Totals	1826	100.00%	1052	100.00%	0.00%	42.4%

Thus, the random selection of SBIR Phase II awards is representative of all the SBIR Phase II awards received by awardee small businesses during the study period along the important dimensions of year of award and sponsoring NIH institute/center. By selecting a random sample of Phase II awards, we minimized possible limitations of the final survey data not being fully representative of the data one might collect from a survey (census) of all awards. (Such a census is not realistic because of the burden it would impose.)

The reason that the random selection of a single award per awardee is representative of all the awards along the year-of-award and institute dimensions is that multiple awards are distributed evenly across years and institutes. For the most part, the percentage of multiple SBIR Phase II awards is about 42%, regardless of the year of the award or the funding institute. The rightmost column in the above two exhibits shows this. This column gives the percentage of Phase II awards that we know are *not* single awards to one awardee. For example, in the exhibit above, the NIH institute "AA" (National Institute on Alcohol Abuse and Alcoholism) awarded 25 Phase II SBIR awards during the study period from 1992 through 2001. The random selection process yielded 15 AA-sponsored awards granted to 15 different small businesses. Thus, at least 10 of the 25 AA awards (40%) are multiple awards, which have been granted to some of the 25 small businesses. (Some of the 15 randomly selected AA awards may be one of several multiple awards that an awardee business received from this institute or other NIH institutes.)

There is only a single anomaly among the institutes (none among the years of awards). The NIH institute "EY" (National Eye Institute) awarded proportionately fewer awards to awardees who received multiple awards—only 28%—than did six of the other institutes (AI, CA, DK, HD, HL, and MH). This difference is significant at the 5% level. (Please see the percentages in the exhibit above that have been flagged with

"*" on the left.) This difference appears merely interesting to note. It has not perturbed the distribution of the random selection of Phase II grants, which is very much like the distribution of all Phase II grants across year of award and institute.

Age of the Data . To minimize the effects of the age of the information in the respondent database, we conducted an extensive database update before conducting the actual survey. This database update, detailed in Appendix A2.1, allowed us to track and contact nearly all awardees in the database, even those whose small businesses had relocated or changed their business status (were merged, spun off, or purchased). However, the survey did not collect information from those awardee companies no longer in business. We learned that the awardee small businesses no longer existed, but we did not collect information about the awardees' experiences with SBIR or about any successful or unsuccessful award outcomes that the businesses may have had before going out of business. This was beyond the scope of this survey. Future efforts to survey SBIR awardees on an ongoing basis might yield information on the status of those awardee small businesses that exist at the time of assessment, but ultimately go out of business.

APPENDIX A3.3

Respondent Selection Procedures and Limitations

The unit of study for the *National Survey to Evaluate the NIH SBIR Program* is the award within the awardee. The awardee (the small business receiving the SBIR Phase II award), however, is an institution, not a person. Thus, an appropriate spokesman for the awardee business was required to respond to the survey questions about the award and its outcomes. We developed criteria defining three eligible respondents for the survey and the order in which we sought them. The fact that there are three types of respondents with, conceivably, varying scopes of knowledge about the project funded by the award, probably introduces some limitations into the survey data. These are likely no different than those in any survey due to the variations in respondent knowledge about the survey topics. Nonetheless, it is useful to understand the respondent selection procedure and consider its implications.

During the focus group session and pretest of the draft questionnaire, we evaluated who would be the most knowledgeable respondent. Because the survey asked about a variety of technical and business aspects associated with the SBIR award—the awardee company's field of business, the effects of the award, the supported project's outcomes, the commercialization of the project, and general experiences with the SBIR process (application, review, award, and grant management), it became apparent that there was no single, ideal "all-knowing" respondent.

We also realized that we could not expect to administer different parts of the survey to different respondents within a single awardee small business. The awardee businesses vary in size, ranging from single-person small businesses to large companies that would no longer qualify as small businesses. While the best respondent for the one-person business might be the PI (who wears multiple hats and is probably also the president), this is unlikely to be the case in larger companies. There, the PI may be a researcher, with more limited knowledge of the business aspects of the supported project. The pragmatics of discerning the situation existing within each awardee business, identifying appropriate respondents, and locating and administering different parts of the survey to them would be nearly impossible and extremely inefficient (in terms of cost and time).

Based on the understandings we gained during the survey development phase (focus group session and pretest of the draft instrument), we defined the eligible respondents for the awardee small businesses. In order of desirability, they were:

- PI on the SBIR award application, if he or she were still at the awardee business

- Replacement PI who had taken over the funded project, if the original PI was no longer with the awardee business

- Business official who had signed the SBIR award application for the small business, if he or she were still at the awardee business.

In addition to being employed at the awardee small business, eligible respondents had to reside within the U.S.A.

Locating and contacting the awardee business, establishing whom the eligible respondent was, and locating and contacting that person were nontrivial tasks. This process typically took extensive tracking and multiple contacts. The process was not straightforward because the

awardee contact information was not always associated with the awardee business, but with the PI. His or her telephone number or email address could be associated with an academic institution (PIs often hold joint positions at a university and at the small business) or with a home (some PIs work from their homes). Thus, the PI could receive the initial survey contact (the letter requesting updated contact information), respond by confirming that this information was correct, and yet still not be the eligible respondent if he or she were no longer associated with the awardee business. As best we could, we attempted to get the *eligible* respondent to complete the survey. Nonetheless, we suspect that some persons not meeting the eligibility criteria may have responded. Additionally, several replacements for business officials no longer at the awardee business did complete the survey.

Understandably, the scope of knowledge of the different eligible respondents varies. We believe that the original PIs are most knowledgeable overall, particularly in the small awardee businesses. They know about the award application and review process, the funded project, and its outcomes (especially those related to enhancing the knowledge base). On the other hand, the business officials may be more knowledgeable about the aspects of the survey dealing with funding and commercialization.

We did include several items in the survey in an attempt to learn more about the role of the respondent in the SBIR award, his or her current relationship with the awardee business, and his or her recall of the information requested in the survey. The responses to these items are discussed in the main body of the report in Section 2.4, *Respondent Demographics.*

APPENDIX A4   Response Rate

A4.1 Online Survey Response Rate Calculator

A4.2 Final Disposition of Sample

A4.3 Daily and Cumulative Completes

A4.4 CASRO Response Rate Formula

NIH SBIR Survey Response Rate Calculator

Created and Maintained by
HUMANITAS

In the table below, you can see current statistics for the NIH SBIR Survey as of **11/21/2002 3:26:33 PM**.

Response Rate to Date	86.1%

Summary Statistics

Total Sample Released	1052
Potential Respondents	892
Completes	768

USABILITY AND ELIGIBILITY STATISTICS

Usable	896	Eligible	892
Unusable	156	Ineligible	4
Usability Unknown	0	Eligibility Unknown	0

USABILITY AND ELIGIBILITY RATES

Usability Rate	85.2%	Eligibility Rate	99.6%
Estimated Usable	0	Estimated Elig	0
Estimated + Usable	896	Estimated + Eligible	892

NONCOMPLETES

Incompletes	21	Refusals	3
Promises to Complete	33		
Nonresponders	67	TOTAL NONCOMPLETES	124

POTENTIAL RESPONSE RATES

Response Rate - If All Incompletes Complete	88.5%
Response Rate - If All Incompletes+Promisers Complete	92.2%
Response Rate - If All Incompletes+Promisers+Nonresponders Complete	99.3%

APPENDIX A4.2

Final Disposition of Sample

| Unusable Sample	Count	Percent ~
Awardee Small Business No Longer Exists	47	4%
No Contact Information Exists After Extensive Tracking	69	7%
Duplicate Sample	2	0%
Total Unusable Sample	118	11%
Usability Unknown		
No Contact Ever Made (Repeated No Answer/Busy/Fax)	13	1%
Total Usability Unknown	13	1%
Usable Eligible Sample		
Completed Survey	768	73%
Incomplete Survey	21	2%
Promised to Complete; Did Not	33	3%
Nonresponder	67	6%
Refused to participate	3	0%
Total Usable Eligible Sample	892	85%
Usable Ineligible		
Respondent Permanently Incapacitated; No Replacement	2	0%
Respondent No Longer With Awardee; No Replacement	24	2%
Language Barrier; No Replacement	0	0%
Not Residing in USA; No Replacement	1	0%
Total Usable Ineligible	27	3%
Usable Eligibility Unknown		
Replacement Respondent May Exist; Not Contacted	2	0%
Total Usable Eligibility Unknown	2	0%
Total Usable	921	88%
Total Sample Released	1,052	100%
Usability Rate *		**89%**
Eligibility Rate **		**97%**
Response Rate ***		**85%**

~ Percent of 1,052 (total sample released)

* Usability Rate = Usable (Usable + Unusable) = 921/(921 + 118) = 89% (Based on known values)
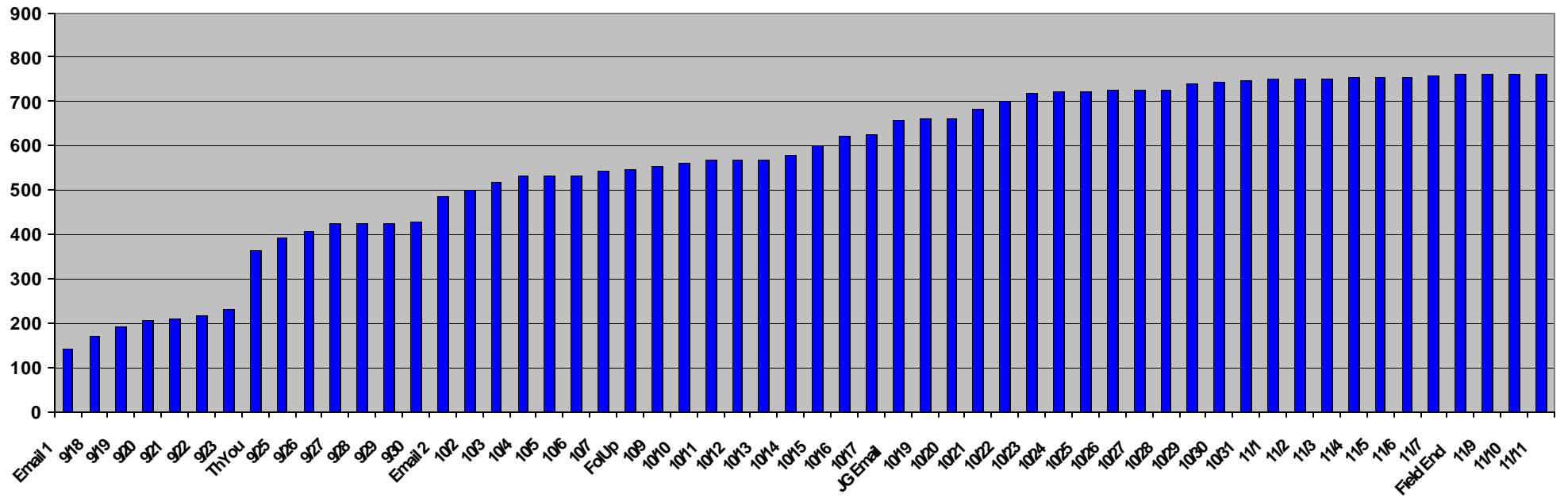** Eligibility Rate = Eligible (Eligible + Ineligible) = 892/(892 + 27) = 97% (Based on known values)
*** Response Rate: Estimated Usable = .89(13) = 11.6
                        Estimated Eligible = .97(11.6 + 2) = 13
                        Response Rate = 768/(892 + 13) = 85%

APPENDIX A4.3 Daily and Cumulative Completes
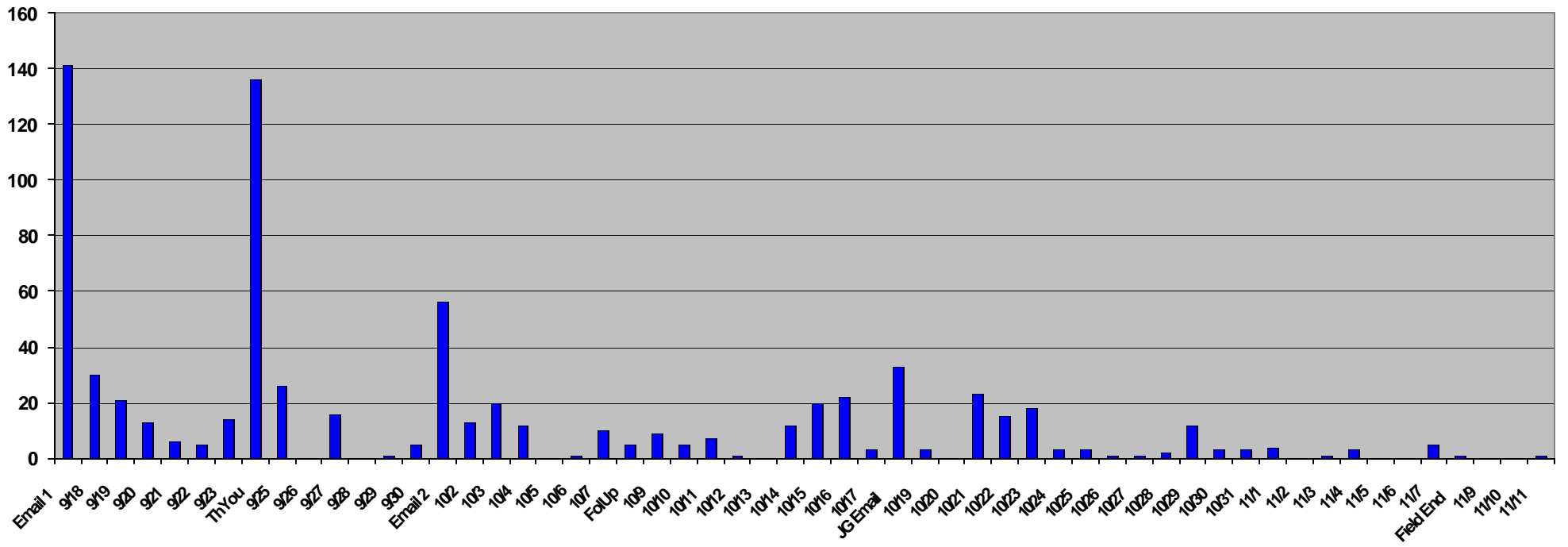
Cumulative Completes

APPENDIX A4.4

**CASRO Response Rate Formula for
Measuring Response Rates for Survey Research**

This explains the CASRO[1] response rate formula.

- **Calculate Usable Sample Units**: "Usable" sample units are those for whom contact information exists. "Unusable" sample units are those for whom no contact information exists. "Usability Unknown" sample units are those whose contact information status is not yet known. Initially, all sample units should be considered usable.

Usability Rate	=	Usable / (Usable + Unusable)
Estimated Usable	=	Usability Rate x Usability Unknowns
Total Usable	=	Usable + Estimated Usable

- **Calculate Eligible Sample Units**: "Eligible" sample units are those who meet the specific survey criteria for eligibility (and who are currently located within the U.S.A. and capable of interviewing in English). "Ineligible" sample units are those who do not meet all of the survey criteria for eligibility. "Eligibility Unknown" sample units are those whose eligibility is not yet known. Initially, all sample units should be considered eligible.

Eligibility Rate	=	Eligible / (Eligible + Ineligible)
Estimated Eligible	=	Eligibility Rate x (Estimated Usable + Eligibility Unknowns)
Total Eligible	=	Eligible + Estimated Eligible

- **Calculate Response Rate**: The response rate is the ratio of completed surveys to the total number of eligible sample units.

Response Rate	=	Completes / Total Eligible

- **Calculate Cooperation Rate**. Some researchers compute cooperation based on just the eligible respondents, without taking into consideration those potential respondents who are estimated to be eligible. Thus, this rate may often be higher than the true response rate.

Cooperation Rate	=	Completes / (Completes + Noncompletes)

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[1] CASRO is the Council of American Survey Research Organizations.

APPENDIX A5   Survey Instrument

A5.1 Paper Survey

A5.2 Telephone Survey

A5.3 Interviewer Briefing

NATIONAL INSTITUTES OF HEALTH
Office of Extramural Research

SBIR

National Survey to Evaluate the NIH SBIR Program

Conducted by Humanitas, Inc.

for the

**Office of Extramural Research
National Institutes of Health**

September 2002

NATIONAL SURVEY TO EVALUATE THE NIH SBIR PROGRAM

The following award was identified through the National Institutes of Health (NIH) databases as a Small Business Innovation Research (SBIR) Phase II award. Please keep this particular award in mind when responding to the survey questions.

Company: Principal Investigator:

Award Number: Company Contact:

Project Period: NIH Sponsoring Institute:

Project Title:

SECTION A

The following questions ask for information about the <u>company</u> identified above that won the referenced SBIR award.

1.   **To the best of your knowledge, in what year was this company founded?**

_____

2.   **Which of the following <u>best</u> describes this company's <u>major</u> field of business?**

(*PLEASE SELECT ONLY ONE.*)

— Biotechnology
— Pharmaceuticals
— Diagnostics
— Medical devices
— Healthcare
— Medical education, health promotion
— Instrumentation
— Computer hardware, software
— Other (please specify): _____

3.   **If the SBIR program were <u>not</u> available, would the project funded by the referenced award still have been pursued?**

— YES
— NO
— NOT SURE / DON'T KNOW

4. **Which one of the following <u>most characterizes</u> the product, process, or service that was planned under this project?**

(*PLEASE SELECT ONLY ONE.*)

— A totally new product, process, or service
— An improvement to an existing product, process, or service
— A combination of products, processes, or services
— A new use for an existing product, process, or service
— Other (please specify): _____

5. **Has the <u>company</u> won any other SBIR Phase I or Phase II awards, in addition to the referenced award, for products, processes, or services that are <u>related to this project</u>? (The awards may have different principal investigators, and they may have come before or after the referenced SBIR award and from different NIH agencies.)**

— YES ⟶ CONTINUE
— NO
— NOT SURE ⟶ GO TO Q.8

6. **How many SBIR <u>Phase I awards</u>, that involve products, processes, or services <u>related to the project</u> supported by the SBIR award referenced earlier, has the company won?**

_____

7. **How many other SBIR <u>Phase II awards</u>, that involve products, processes, or services <u>related to the project</u> supported by the SBIR award referenced earlier, has the company won?**

_____

8. **How important overall has SBIR support been, or how important will it be, in research and development of this product, process, or service?**

— Very important
— Important
— Somewhat important
— Not important
— Not very important

9. **Did the granting of one or more SBIR awards for this product, process, or service have an impact on any of the following activities….**

(PLEASE SELECT ONE RESPONSE FOR EACH ACTIVITY.)

	Yes	No	Not sure
Pursuing a high-risk idea or action that might not otherwise be undertaken			
Hiring additional personnel			
Raising additional capital			
Credibility or visibility for finding partners			

<div style="text-align:center">

SECTION B

</div>

The following questions ask about commercialization of the product, process, or service resulting from the project supported by the referenced SBIR award.

10. **When you applied for this SBIR award, what product, process, or service did you plan to commercialize?**

(PLEASE SELECT ONLY THE ONE MOST APPROPRIATE CATEGORY.)

— Drug
— Device
— Biologic
— Genomic
— Research tool
— Software
— Educational materials
— Other (please specify):_____

11. **Was or is FDA approval required for the product, process, or service selected above?**

— YES ⟶ CONTINUE
— NO ⟶ GO TO Q.14

12. **Has this product, process, or service been submitted for FDA review?**

— YES ⟶ CONTINUE
— NO, NOT YET ⟶ GO TO Q.14

13. **In what stage of the FDA approval process is this product, process, or service?**

— Applied for approval
— Review ongoing
— Approved
— Not approved
— Other (please specify): _____

14. **Please give any applicable trade or commercial name, the generic name, and the model number for this product, process or service:**

Trade or Commercial Name: _____

Generic Name: _____

Model Number (if applicable): _____

15. **A**. **From the following list, please select the categories that best describe the medical, societal, or technological outcome(s) that relate to the product, process, _or_ service supported by the above referenced SBIR award.**

B. Next, select the single category that is the most important medical, societal, or technological outcome.

(PLEASE SELECT ONLY APPROPRIATE OUTCOME(S).)

Q.15A: SELECT ONE OR MORE OUTCOMES

Q.15B: SELECT THE MOST IMPORTANT

	Outcomes	**Most important outcome**
Preventing disease or disability		
Detecting disease or disability		
Diagnosing disease or disability		
Treating disease or disability		
Reducing the cost of medical care		
Developing information for health care professionals		
Developing health information for the general public		
Fostering new research collaborations		
Improving research tools		
Training research investigators		
Other (please specify): _____		

16. A. From the following list, please select those <u>population(s)</u> who are currently using, or are likely to use, the product, process, or service developed under this project?

B. Next, select the single population that is the most important population.

(PLEASE SELECT ONLY APPROPRIATE POPULATION(S).)

Q.16A: SELECT ONE OR MORE POPULATIONS

Q.16B: SELECT THE MOST IMPORTANT

	Populations	Most important population
Hospitals, patients:		
Outpatients		
Inpatients		
Hospital personnel		
Laboratories:		
Research laboratories		
Diagnostic laboratories		
Healthcare providers:		
Medical practitioners		
Homecare providers		
Emergency medical services		
Military medical services		
Other health services		
Other populations:		
General public		
Educators		
Worksites		
Schools, universities		
Police, fire, other municipal workers		
Other companies, other technologies		
Other (please specify): _____		

17.   Within the next few years, what is the anticipated size of the <u>total target populations</u> that would benefit from or use the product, process, or service being developed under this project?

—   Under 10,000 persons
—   10,000 – 49,999
—   50,000 – 199,999
—   200,000 – 499,999
—   500,000 or more
—   Not sure

18.   What is the current status of the project funded by the referenced SBIR award?

(PLEASE SELECT ONLY ONE.)

—   Under development
—   Commercializatio n stage   → GO TO Q.20
—   In use by target population
—   Discontinued ──────────→ CONTINUE
—   Other (please specify):

_____   ──────→ GO TO Q. 20

19.   Did the reasons for discontinuing this project include any of the following….

(PLEASE SELECT YES OR NO FOR EACH REASON.)

	Yes	No
Idea failed		
Market demand too small		
Level of risk too high		
Not enough funding		
Company shifted priorities		
Principal investigator left		
No FDA approval		
Licensed to another company		
Product, process, or service not competitive		
Other (please specify): _____		

──→ GO TO Q.24

20. Which of the following describes the status of marketing activities by your <u>company and/or your licensee</u> for this project….

(PLEASE SELECT ONE RESPONSE FOR EACH ACTIVITY.)

	Not yet planned	Planned	Ongoing	Complete	Need assistance	Not applicable
Preparation of marketing plan						
Hiring of marketing staff						
Publicity and advertising						
Test marketing						

<div align="center">

SECTION C

</div>

The next group of questions asks about the economic impact of the product, process, or service resulting from the project supported by the SBIR award referenced earlier.

21. Upon <u>completion</u> of the project, were (or are) sales expected? (Include <u>both sales and sales of licenses</u>.)

— YES ⟶ CONTINUE
— NO ⟶ GO TO Q.24

22. With regard to sales, which of the following resulted?
(PLEASE SELECT ONLY ONE RESPONSE.)

— Sales were realized ⟶ CONTINUE
— Sales are anticipated ⟶ GO TO Q.24
— Other (please specify):

_____   ⟶ GO TO Q.24

23. What is the dollar range of <u>cumulative</u> sales related to the product, process, or service developed under this project?

— $50,000 or less
— $50,000 - $99,999
— $100,000 - $499,999
— $500,000 - $999,999
— $1,000,000- $4,999,999
— $ 5,000,000- $49,999,999
— $50,000,000 or more

24. What is the <u>current</u> number of <u>total</u> employees (full-time equivalents) in your company?

_____

SECTION D

The following questions ask about any additional funding that your company may have received for the project supported by the referenced SBIR award.

25. **Has your company received any additional <u>non-SBIR</u> funding or capital for this project?**

— YES ⟶ CONTINUE
— NO ⟶ GO TO Q.29

26. **Do you believe that this additional funding or capital is a result of the NIH SBIR funding for the product, process, or service developed under this project?**

— YES
— NO
— NOT SURE

27. **Thinking now about the <u>sources</u> of additional funding or capital for this project and its outcome (product, service, or process), were or are any of the following sources important?**

(PLEASE SELECT YES OR NO FOR EACH SOURCE.)

Q.27: SELECT YES OR NO FOR EACH

Q 28: SELECT THE MOST IMPORTANT

	Important sources		Most important
	Yes	No	
Non-SBIR federal funds			
Your own company			
Other private company			
U.S. venture capital institution			
Foreign venture capital institution			
Private individual investor			
Personal funds			
State or local government funds			
College or university			
Other (please specify): _____			

28. **Which source has been or is the <u>most important</u> source of additional funding or capital?**

➤ PLEASE SELECT ONE IN THE RIGHTMOST COLUMN ABOVE.)

29. **Which, if any, of the following has your company experienced <u>because of the product, process, or service developed during this project?</u>**

(PLEASE SELECT YES, NO, OR NOT SURE FOR EACH ACTIVITY.)

	Yes	No	Not sure
Debt financing			
Private placement (angels, VC, relatives)			
Public offering			
Set up one or more spin-off companies			
Joint venture (academic or commercial)			
Sold company			
Merged company			
Licensed agreement			

➞   IF YES ON Q.29, PUBLIC OFFERING, CONTINUE. OTHERWISE GO TO Q.31.

30. **A**. **On which stock exchange is your company listed?**

— New York Stock Exchange (NYSE)
— NASDAQ
— American Stock Exchange (AMEX)
— Other (please specify): _____

B. **What is its ticker symbol?**

_____

<div style="border: 1px solid blue; text-align: center;">

SECTION E

</div>

The next questions ask about possible contributions to the intellectual property and knowledge base resulting from support for this project by the SBIR award referenced earlier.

31. **Which of the following items, <u>associated with the product, process, or service developed under the project supported by the SBIR award referenced earlier</u>, have you or your company received or achieved?**

(PLEASE SELECT YES OR NO FOR EACH ITEM.)

Q.31: SELECT YES OR NO FOR EACH ITEM

Q.32: GIVE THE NUMBER FOR EACH "YES" ITEM

	You or company received or achieved		Number received or achieved
	Yes	**No**	
Patents			
Copyrights			
Trademarks			
Publications in press or journals			
Conference presentations			
Awards (such as Tibbetts or state)			
Other (please specify): _____			

32. **For each of the items above that you or your company received or achieved, please indicate <u>how many items</u> were received or achieved.**

<div style="border: 1px solid blue;">

⟶ PLEASE USE THE RIGHTMOST COLUMN ABOVE

</div>

<div style="text-align: center;">

SECTION F

</div>

The last few questions ask about you and your experiences with the NIH SBIR award process.

33. **Thinking now <u>just about the referenced award</u>, how satisfied were you with your experiences going through the SBIR application, review, and award process?**

(PLEASE SELECT ONE IN EACH ROW.)

	Completely Satisfied	Mostly Satisfied	Mixed	Mostly Dissatisfied	Completely Dissatisfied	Not Applicable
Obtaining information about the SBIR program						
Instructions for preparing applications						
Review process						
Award process						
Post-award administration						
Other (please specify): _____						

_____

34. **Were you aware that you could contact NIH staff for additional information or assistance about any aspects of the SBIR grant review, award, and management process?**

— YES
— NO

35. **Based on your experiences with this and other SBIR awards, do you have any suggestions, comments, or criticisms to offer about both the strengths and weaknesses of the SBIR program? (Your advice will be valued greatly.)**

36. **Which of the following best describes your role in the SBIR award referenced earlier**?

       (PLEASE SELECT ONLY <u>ONE</u>.)

— Initial principal investigator
— Subsequent principal investigator
— Other investigator
— Company contact on SBIR application
— Other company contact
— Other (please specify): _____

37. **Which of the following characterize your <u>current relationship</u> with this company?**

      (PLEASE SELECT YES OR NO FOR EACH RELATIONSHIP.)

	Yes	No
An employee		
An owner		
Part of management		
A shareholder		
Other (please specify): _____		

38. **How well do you feel you were able to recall the information that this survey requested about the referenced SBIR award?**

— Very well
— Well
— Somewhat well
— Not well
— Not very well

Thank you very much for your time and effort spent in completing this questionnaire. NIH is extremely appreciative and will use the information to enhance the administration of the SBIR Program.

Please return your completed questionnaire in the enclosed envelope to the survey contractor:

National Survey to Evaluate the NIH SBIR Program
Humanitas, Inc.
8630 Fenton Street, Suite 820
Silver Spring, MD 20910

NATIONAL SURVEY TO EVALUATE THE NIH SBIR PROGRAM

BEGIN HERE:

⟶   **The following award was identified through the National Institutes of Health (NIH) databases as a Small Business Innovation Research (SBIR) Phase II award. Please keep this particular award in mind when responding to the survey questions.**

READ ALL TEXT IN THIS BOX:

Company: Principal Investigator:

Award Number: Company Contact:

Project Period: NIH Sponsoring Institute:

Project Title:

SECTION A

CONTINUE HERE:

⟶ **The following questions ask for information about the company identified above that won the referenced SBIR award.**

1.   **To the best of your knowledge, in what year was this company founded?** *(RECORD YEAR)*

__ __ __ __

2.   **Which of the following best describes this company's major field of business?**

(READ ALL EXCEPT "OTHER". RECORD ONLY ONE ANSWER.)

___   Biotechnology
___   Pharmaceuticals
___   Diagnostics
___   Medical devices
___   Healthcare
___   Medical education, health promotion
___   Instrumentation
___   Computer hardware, software
___   OTHER (PLEASE SPECIFY):   _____

3.   **If the SBIR program were not available, would the project funded by the referenced award still have been pursued?** *(DO NOT READ ANSWERS.)*

___   YES
___   NO
___   NOT SURE / DON'T KNOW

4. **Which one of the following most characterizes the product, process, or service that was planned under this project?**

(READ ALL, EXCEPT "OTHER." RECORD ONLY ONE ANSWER.)

__ A totally new product, process, or service

__ An improvement to an existing product, process, or service

__ A combination of products, processes, or services

__ A new use for an existing product, process, or service

__ OTHER (PLEASE SPECIFY): _____

5. **Has the company won any other SBIR Phase I or Phase II awards, in addition to the referenced award, for products, processes, or services that are related to this project? (The awards may have different principal investigators, and they may have come before or after the referenced SBIR award and from different NIH agencies.)** *(DO NOT READ ANSWERS.)*
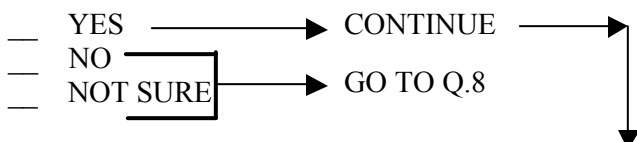
__ YES ———————▶ CONTINUE ————————▶

__ NO ——————┐

__ NOT SURE ┘——▶ GO TO Q.8

6. **How many SBIR Phase I awards, that involve products, processes, or services related to the project supported by the SBIR award referenced earlier, has the company won?**

_____

7. **How many other SBIR Phase II awards, that involve products, processes, or services related to the project supported by the SBIR award referenced earlier, has the company won?**

_____

8. **How important overall has SBIR support been, or how important will it be, in research and development of this product, process, or service?** *(PLEASE READ ANSWERS.)*

__ Very important

__ Important

__ Somewhat important

__ Not important

__ Not very important

9. **Did the granting of one or more SBIR awards for this product, process, or service have an impact on any of the following activities….**

(PLEASE READ EACH ITEM, AND WAIT FOR ANSWER.)

	YES	NO	NOT SURE
Pursuing a high-risk idea or action that might not otherwise be undertaken			
Hiring additional personnel			
Raising additional capital			
Credibility or visibility for finding partners			

SECTION B

CONTINUE HERE:

⟶ **The following questions ask about commercialization of the product, process, or service resulting from the project supported by the referenced SBIR award.**

10. **When you applied for this SBIR award, what product, process, or service did you plan to commercialize?**

*(READ ALL EXCEPT "OTHER". RECORD ONLY **ONE** ANSWER)*

__ Drug
__ Device
__ Biologic
__ Genomic
__ Research tool
__ Software
__ Educational materials
__ OTHER (PLEASE SPECIFY):_____

11. **Was or is FDA approval required for the product, process, or service selected above?**

__ YES ⟶ CONTINUE
__ NO ⟶ GO TO Q.14

12. **Has this product, process, or service been submitted for FDA review?**

__ YES ⟶ CONTINUE
__ NO, NOT YET ⟶ GO TO Q.14

13. **In what stage of the FDA approval process is this product, process, or service?**

__ Applied for approval   *(READ ALL EXCEPT "OTHER". RECORD **ONE** ANSWER)*
__ Review ongoing
__ Approved
__ Not approved
__ OTHER (PLEASE SPECIFY): _____

14. **Please give any applicable trade or commercial name, the generic name, and the model number for this product, process, or service. What is the….**

Trade or Commercial Name: _____

Generic Name: _____

Model Number (if applicable): _____

15. **A**. **Which of the following categories best describe the medical, societal, or technological outcomes that relate to the product, process, or service supported by the above referenced SBIR award?**

(PLEASE READ EACH ONE AND WAIT FOR ANSWER. DO NOT READ "OTHER".)

	Q.15A: RECORD ONE OR MORE OUTCOMES	**Q.15B**: RECORD THE MOST IMPORTANT
	OUTCOMES	**MOST IMPORTANT OUTCOME**
Preventing disease or disability		
Detecting disease or disability		
Diagnosing disease or disability		
Treating disease or disability		
Reducing the cost of medical care		
Developing information for health care professionals		
Developing health information for the general public		
Fostering new research collaborations		
Improving research tools		
Training research investigators		
OTHER (PLEASE SPECIFY): _____		

B. Which single category is the most important medical, societal, or technological outcome?

(PLEASE READ ONLY THE OUTCOMES ABOVE THAT WERE SELECTED. RECORD ONLY ONE ANSWER FOR Q.15B ABOVE.)

16. **A. Which of the following <u>populations</u> are currently using, or are likely to use, the product, process, or service developed under this project?**

(PLEASE READ EACH ONE AND WAIT FOR ANSWER.. DO NOT READ "OTHER".)

	Q.16A: RECORD ONE OR MORE POPULATIONS	**Q.16B**: RECORD THE MOST IMPORTANT
	POPULATIONS	**MOST IMPORTANT POPULATION**
*Among Hospitals and Patients***:**		
Outpatients		
Inpatients		
Hospital personnel		
Among Laboratories:		
Research laboratories		
Diagnostic laboratories		
Among Healthcare Providers:		
Medical practitioners		
Homecare providers		
Emergency medical services		
Military medical services		
Other health services		
Among Other Populations:		
General public		
Educators		
Worksites		
Schools, universities		
Police, fire, other municipal workers		
Other companies, other technologies		
OTHER (PLEASE SPECIFY):		

B. Which single population is the most important population?

(PLEASE READ ONLY THE POPULATIONS ABOVE THAT WERE SELECTED. RECORD ONLY ONE ANSWER FOR Q.16B ABOVE.)

17. **Within the next few years, what is the anticipated size of the <u>total target populations</u> that would benefit from or use the product, process, or service being developed under this project?**

___ Under 10,000 persons
___ 10,000 – 49,999
___ 50,000 – 199,999
___ 200,000 – 499,999
___ 500,000 or more
___ NOT SURE

18. **What is the current status of the project funded by the referenced SBIR award?**

(PLEASE RECORD ONLY ONE.)

___ Under development
___ Commercialization stage   ➤ GO TO Q.20
___ In use by target population
___ Discontinued ──────── ➤ CONTINUE
___ OTHER (PLEASE SPECIFY):

_____ ➤ GO TO Q. 20

19. **Did the reasons for discontinuing this project include any of the following….**

(PLEASE RECORD YES OR NO FOR EACH REASON.)

	YES	NO
Idea failed		
Market demand too small		
Level of risk too high		
Not enough funding		
Company shifted priorities		
Principal investigator left		
No FDA approval		
Licensed to another company		
Product, process, or service not competitive		
OTHER (PLEASE SPECIFY): _____		

──────────────── ➤ GO TO Q.24

20. Which of the following describes the status of marketing activities by your <u>company and/or your licensee</u> for this project….

(PLEASE RECORD ONE ANSWER FOR EACH. DO NOT READ "NOT APPLICABLE".)

➤Is this….	Not yet planned	Planned	Ongoing	Complete	Need assistance	NOT APPLICABLE
Preparation of marketing plan						
Hiring of marketing staff						
Publicity and advertising						
Test marketing						

SECTION C

➤ **The next group of questions asks about the economic impact of the product, process, or service resulting from the project supported by the SBIR award referenced earlier.**

21. Upon <u>completion</u> of the project, were (or are) sales expected? (Include <u>both sales and sales of licenses</u>.)   (*DO NOT READ ANSWERS.*)

__ YES ———➤ CONTINUE
__ NO ———➤ GO TO Q.24

22. With regard to sales, which of the following resulted?
        (PLEASE RECORD ONLY ONE RESPONSE.)

__ Sales were realized ———➤ CONTINUE
__ Sales are anticipated ———➤ GO TO Q.24
__ OTHER (PLEASE SPECIFY):

_____ ———➤ GO TO Q.24

23. What is the dollar range of <u>cumulative</u> sales related to the product, process, or service developed under this project?

__ $50,000 or less
__ $50,000 - $99,999
__ $100,000 - $499,999
__ $500,000 - $999,999
__ $1,000,000- $4,999,999
__ $ 5,000,000- $49,999,999
__ $50,000,000 or more

24. What is the <u>current</u> number of <u>total</u> employees (full-time equivalents) in your company?

_____   *(RECORD NUMBER.)*

SECTION D

➤ **The following questions ask about any additional funding that your company may have received for the project supported by the referenced SBIR award.**

25. **Has your company received any additional <u>non-SBIR</u> funding or capital for this project?**
(*DO NOT READ ANSWERS.*)

__ YES ──────➤ CONTINUE
__ NO ──────➤ GO TO Q.29

26. **Do you believe that this additional funding or capital is a result of the NIH SBIR funding for the product, process, or service developed under this project?**
(*DO NOT READ ANSWERS.*)

__ YES
__ NO
__ NOT SURE

27. **Thinking now about the <u>sources</u> of additional funding or capital for this project and its outcome (product, service, or process), were or are any of the following sources important?**

(PLEASE RECORD YES OR NO FOR EACH.)

	Q.27: RECORD YES OR NO FOR EACH		**Q 28**: RECORD THE MOST IMPORTANT
	IMPORTANT SOURCES YES	**SOURCES NO**	**MOST IMPORTANT**
Non-SBIR federal funds			
Your own company			
Other private company			
U.S. venture capital institution			
Foreign venture capital institution			
Private individual investor			
Personal funds			
State or local government funds			
College or university			
OTHER (PLEASE SPECIFY):			

28. ➤ **Which source has been or is the <u>most important</u> source of additional funding or capital?**

(PLEASE READ ONLY THE SOURCES ABOVE THAT WERE SELECTED. RECORD ONLY ONE ANSWER FOR Q.28.)
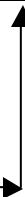
29. **Which, if any, of the following has your company experienced <u>because of the product, process, or service developed during this project?</u>**

(PLEASE RECORD ONE ANSWER FOR EACH.)

	YES	NO	NOT SURE
Debt financing			
Private placement (angels, venture capitalists, relatives)			
Public offering			
Set up one or more spin-off companies			
Joint venture (academic or commercial)			
Sold company			
Merged company			
Licensed agreement			

IF YES ON Q.29, PUBLIC OFFERING, CONTINUE. OTHERWISE GO TO Q.31.

30. **A**. **On which stock exchange is your company listed?**

__   New York Stock Exchange (NYSE)

__   NASDAQ

__   American Stock Exchange (AMEX)

__   OTHER (PLEASE SPECIFY): _____

B. **What is its ticker symbol?**

_____   *(RECORD INITIALS.)*

<div style="text-align:center">

SECTION E

</div>

➤ **The next questions ask about possible contributions to the intellectual property and knowledge base resulting from support for this project by the SBIR award referenced earlier.**

31. **Which of the following items, <u>associated with the product, process, or service developed under the project supported by the SBIR award referenced earlier</u>, have you or your company received or achieved?**

(PLEASE RECORD YES OR NO FOR EACH ITEM.)

Q.31: SELECT YES OR NO FOR EACH ITEM

Q.32: GIVE THE NUMBER FOR EACH "YES" ITEM

	YOU OR COMPANY RECEIVED OR ACHIEVED		NUMBER RECEIVED OR ACHIEVED
	YES	**NO**	
Patents			
Copyrights			
Trademarks			
Publications in press or journals			
Conference presentations			
Awards (such as Tibbetts or state)			
OTHER (PLEASE SPECIFY):			

_____

32. ➤ **For each of the items that you or your company received or achieved, please tell me <u>how many items</u> were received or achieved.**

➤ *PLEASE READ THE ITEMS RECEIVED ("YES" ONES). RECORD THE NUMBER RECEIVED FOR Q.32 ABOVE.*

SECTION F

➤ **The last few questions ask about you and your experiences with the NIH SBIR award process.**

33. **Thinking now <u>just about the referenced award</u>, how satisfied were you with your experiences going through the SBIR application, review, and award process—**

Completely Satisfied, Mostly Satisfied, Mixed, Mostly Dissatisfied, or Completely Dissatisfied with….

(PLEASE RECORD ONE IN EACH ROW.)

	COMPLETELY SATISFIED	MOSTLY SATISFIED	MIXED	MOSTLY DISSATISFIED	COMPLETELY DISSATISFIED	NOT APPLICABLE
Obtaining information about the SBIR						
Instructions for preparing applications						
Review process						
Award process						
Post-award administration						
OTHER (PLEASE SPECIFY):						

34. **Were you aware that you could contact NIH staff for additional information or assistance about any aspects of the SBIR grant review, award, and management process?**

__ YES
__ NO

35. **Based on your experiences with this and other SBIR awards, do you have any suggestions, comments, or criticisms to offer about both the strengths and weaknesses of the SBIR program? (Your advice will be valued greatly.)**

36. **Which of the following best describes your role in the SBIR award referenced earlier?**

(PLEASE RECORD ONLY __ONE__ ANSWER.)

__ Initial principal investigator
__ Subsequent principal investigator
__ Other investigator
__ Company contact on SBIR application
__ Other company contact
__ OTHER (PLEASE SPECIFY): _____

37. **Which of the following characterize your __current relationship__ with this company?**

(PLEASE RECORD YES OR NO FOR EACH.)

	YES	NO
An employee		
An owner		
Part of management		
A shareholder		
OTHER (PLEASE SPECIFY): _____		

38. **How well do you feel you were able to recall the information that this survey requested about the referenced SBIR award?**

__ Very well
__ Well
__ Somewhat well
__ Not well
__ Not very well

National Survey to Evaluate the

NIH SBIR Program

Interviewer Briefing

Telephone Follow-Up

Humanitas, Inc.   2002

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BACKGROUND

Survey of SBIR Awardees. The *National Survey to Evaluate the NIH SBIR Program* is

an Internet survey of all scientists who have received Phase II SBIR (Small Business

Innovation Research) awards from the National Institutes of Health (NIH) during the

period from 1992 through 2001. NIH gives these awards to foster and support medical

research in small business companies. NIH's goals are to develop and commercialize

health related products, services, and processes and to increase health knowledge in order

to improve the prevention and treatment of disease.

Awardees Have Phase II Awards. Phase I SBIR awards support basic exploratory

research and cover a six-month period. Phase II awards follow Phase I awards and fund

further research and development and the commercialization of the research products and

cover two years. The prospective respondents for this survey have all received Phase I

and Phase II awards.

RESPONDENTS

Respondents Are PIs. The scientists who receive these awards are the prospective

respondents for this survey. They are called principal investigators or PIs, for short.

They are generally doctors, either Ph.D.s or M.D.s, who are the founders of small

businesses or the persons in charge of research. Many also hold positions at universities.

Address Respondents as Dr. We should address all respondents as "Dr.". We will need to remember that these PIs are busy people—presidents of small businesses, directors of research, and professors. Thus, we have to be prepared to deal with "gate keepers" who are receptionists, administrative assistants, and other investigators. The NIH name, in conjunction with a cheerful, positive attitude, will tend to enlist their cooperation in locating and contacting investigators.

Respondents Like SBIR. The PIs are typically very positive about NIH's SBIR Program because it funds their research. They are very appreciative of these multi-year high-dollar awards. Thus, once located, most PIs will be eager to cooperate with this survey. This has been our experience in the initial phase, which was aimed at updating contact information and obtaining email addresses.

FOLLOW-UP PROCEDURES

Follow-Up With Nonresponders. There will be two telephone follow-ups in this survey. The first is a follow-up with non-responders to a letter and a subsequent reminder email message requesting that the PIs update their contact information and provide their email address. This has already been completed. The second is a follow-up with nonresponders to the online survey. This is what we are now doing. The information in this booklet relates to the telephone follow-up with nonresponders to the online survey.

Follow-Up Goals. The goals of this follow-up are to:

1. Contact each nonresponder

2. Obtain a promise to complete the survey by answering online, using a paper questionnaire, *or* in a telephone interview

3. Write down accurate information for emailing the survey link or mailing the paper questionnaire, *or* administer the survey on the telephone

Make Nine or More Calls. We will use a *Call Record Form* to keep track of the date and time calls are made and the outcome of each call. We need to make a minimum of *nine calls* in attempting to reach each respondent. Please note down all the information that you learn, so that the next interviewer knows what has happened and can make logical follow-up decisions.

Write Legibly. Please print and write neatly and legibly. As necessary, ask respondents to repeat or spell their contact information. Repeat back email addresses and telephone numbers so that the respondents can verify that they are correct. Make good notes so that we can tell what has happened, and so that another interviewer can continue where you left off.

In summary:

- Read and prepare before you call.

- Ask respondents to repeat and spell contact information.

- Read email addresses and telephone numbers to respondents for verification.

- Make good follow-up notes.

- Print and write neatly and legibly.

THE CALL RECORD FORM

Note Respondent Name, Telephone, and Role. The call record forms show the name
and telephone number of the respondent. To the right of the respondent's name, a box
with an "X" indicates the role of the respondent. Most respondents are PIs (Principal
Investigators)—that is, they are the person who applied for the SBIR award and did the
research. Some of the respondents are replacement investigators for the PI, who may
have left the company that received the SBIR award, and some are business officials in
the company. The survey is the same for all respondents, regardless of their role in
obtaining the SBIR award. The PIs will probably be able to answer more of the questions
in the survey than will the replacement investigators and business officials.

Read the Remarks. Please read the "REMARKS" information. This information and the
role of the respondent (in the check box) may help you in locating the respondent or
explaining to the respondent why he or she is being asked to complete the survey. These
may be useful explanations, if a respondent asks why you are contacting him or her to do
the survey.

Explanations for Non-PI Respondents:

1.   *To Replacement Investigators*: "The original PI is no longer at this company.
     We were told that you took over the research supported by this SBIR award."

2.   ***To Business Officials***: "The original PI is no longer at this company and there is no replacement investigator. We were told that you are the business official on the SBIR award application."

Respondents Should Be Aware of Award. If the respondent is unaware of which SBIR award you are talking about, please read him the information in the box at the top of the first page of the survey. Read these two items:

1. ***Project Title***

2. ***Project Period***

Please note down the date and time of each contact attempt, and describe what happened and when to call again. Include enough information so that another interviewer will know how to follow up.

The Telephone Follow-Up Script

Learn Survey Preference. The telephone script is the initial questionnaire to use when you reach the respondent. After the introduction, the script asks if the respondent prefers to complete the survey online, using a paper questionnaire, or right then in a telephone interview. If they select online or on paper, please check the appropriate answer and go to the correct place on the questionnaire. Request the required information and confirm the spelling by reading it back to the respondent:

- ***Online Survey***: Email address and telephone number

- ***Paper Questionnaire***: Mailing address and telephone number

Use Personalized Page One for Telephone Interview. If they prefer to complete the survey right then in a telephone interview, please go directly to the next page, which is a *personalized* first page of the survey. Use any blank rest-of-survey (pages 2 through 12). When you are finished administering the survey, please staple the rest-of-survey to the call record form/follow-up script/personalized page one packet.

Record Reasons for Refusals. If a respondent refuses to complete a survey of any type, please note this down on the call record form. Include any explanation that the respondent might give you.

To summarize:

- For online surveys, get email address and telephone number.

- For paper questionnaires, get mailing address and telephone number.

- For a telephone interview, use the personalized first page of the survey.

- For refusals, note this and any explanation on the call record form.

- Print neatly and confirm the spelling of all information.

CONTACTS FOR ANSWERING QUESTIONS

Contact Names and Numbers. If the respondents ask any questions that you need help answering, or if the respondents want to talk to someone from NIH, please assure them that you will be glad to have someone call them. Confirm their telephone number. If they prefer to call themselves, please give them one of the following numbers.

1.   *JoAnne Goodnight, SBIR Coordinator*   301-435-2688

2.   *Maura Kephart, Survey Coordinator*   877-608-3290, x222 (toll free)

Give JoAnne's number for questions about the SBIR award, SBIR issues, and other NIH issues. Give Maura's number for questions about the online survey process, Humanitas (the survey contractor), and other technical issues.

THE TELEPHONE INTERVIEW

Begin With Introduction and Boxed Award Info. Begin the telephone interview by reading the introductory paragraph above the box. Next, read all the text in the box. This text describes the specifics about the SBIR award, which is the focus of the survey. Most respondents will recognize the SBIR award from its name and project period. However, if the respondent does not recognize this award or believes that the award information is not correct, please note this down on the call record form and return it to your supervisor. The SBIR Coordinator will call this respondent and clarify any misinformation about the award. Administer the survey only to respondents who appear to recognize their awards and do not indicate confusion or that something is not correct.

Do Not Read UPPER CASE Answers. Read all the survey questions ***slowly and clearly***. Please read the answers in mixed case in the gray boxes to respondents, so they can select their response. Do not read answers in UPPER CASE that are outside of the box. These types of answers are primarily things like OTHER, YES, NO, NOT SURE, and DON'T KNOW. Record the respondent's answer by checking the box in front of that response.

Record Volunteered OTHER Answers. If the respondent indicates that none of the responses are appropriate, or if he or she volunteers an answer that does not fall into one of the response categories, please enter it in the blank following OTHER. Record only one answer for each question, unless the specific instructions for that survey item say to do otherwise.

Record All Open-Ends. For the fully open-ended question, Q35, please write in exactly what the respondent says. You may have to ask him or her to go more slowly, repeat something, or spell complex words. If a respondent appears to have a lot to say or seems frustrated having to dictate his or her response, ask them if they would prefer to send their response directly to the survey contractor. If so, please note this down on the questionnaire and give the respondent this email address:

NIHSBIRSurveySupport@Humanitas.com

Give Email Address for Long Answers. Remind the respondent to include his or her full name in the text of the email message, so that the Q35 response can be added to the correct survey. Respondents who have questions about SBIR awards or the application process, unrelated to the survey, should send these directly to the survey contractor using the above email address. The survey contractor will forward these questions to the SBIR coordinator.

Schedule Callbacks if Survey is Interrupted. If respondents ask to interrupt the telephone interview because they need to retrieve some information or have some

_____

commitment that conflicts with the telephone interview, please schedule a callback time.

Note this on the call record form and plan to call back at the scheduled time.

Answer As Best You Can. Some respondents may not be able to answer some survey

items. Please reassure respondents that they should answer the best they can. If they

believe that they can't answer certain items, they can skip those items. Our goal is to

have respondents complete as much of the survey as they can. We do not want

respondents to drop out because they feel that they don't know the answers. It is better to

have the respondents skip difficult items than drop out of the survey. Please reassure

them that they need only answer as best they can, and that they may omit items that they

cannot answer.

Thank Respondents. At the conclusion of the telephone interview, thank all respondents

for their time and contributions. Make sure that the call record form contains the date

that the survey was administered. Also, please note down what type of "complete" the

survey is:

- *A Promise*: A promise to complete online or on paper
- *A Complete*: A completed telephone interview recorded on the paper survey

Staple All Materials Together. Staple the call record form, the telephone follow-up

script, the personalized first page, and the rest of the survey together. Surveys that are

not attached to their personalized call record forms and first pages will ***not*** be considered

to be complete.

_____

QUESTION BY QUESTION SPECIFICS

Beginning. Please begin with the personalized first page of the survey. Read the introduction and the text about the award in the gray box. Then continue with Section A. *Do not read "Section A."* Read the introductory text after the "⟶". Then read the first question. Please *do not read the question numbers*.

Q1. Record the four digits for the year.

Q2. Record the single best category that is the company's major field of business. Use the OTHER write-in answer only if the respondent volunteers a different category.

Q3. Please do not read YES/NO, NOT SURE, and DON'T KNOW answers.

Q4. Record the single best characterization for the project. Use the OTHER write-in answer only if the respondent volunteers a different category.

Q5. Please read the full text, including the phrase in parentheses. Follow the SKIP pattern carefully. If the respondent answers YES—the company has won other SBIR awards, then continue with Q6 and Q7. If the respondent answers NO or NOT SURE, please skip to Q8.

Q6. Please record the number of *Phase I* awards *related to the project supported by the SBIR award* mentioned earlier.

Q7. Please record the number of **other** *Phase II* awards *related to the project supported by the SBIR award* mentioned earlier. Do not include the Phase II award that is the focus of the survey in this count. Include only other Phase II awards related to this project.

Q8. Please read the answers. If the respondent has trouble selecting one, ask him or her to pick the best of the answers.

Q9. Read the introductory text. Follow this by reading the first item (in the gray box). Wait for the respondent to say YES, NO, or NOT SURE. Record the answer. If the respondent says DON'T KNOW or NOT APPLICABLE, please record it under NOT SURE. Reread the introductory text for the second item. You may omit the introductory text for the third and fourth items, if the respondent appears to understand the question.

Q10. Read the introductory text after the "⟶ ", and then read Q10. Record the single best thing that the respondent planned to commercialize. Use the OTHER write-in answer only if the respondent volunteers a different category.

Q11. Do not read YES or NO. Follow the SKIP pattern. If the respondent says YES (FDA approval is required), please continue. If he or she says NO, skip to Q14.

Q12. Do not read YES or NO. Follow the SKIP pattern. If the respondent says YES (the project has been submitted for FDA review), please continue. If he or she says NO, NOT YET, skip to Q14.

Q13. Read the answers in the gray box and record just one response (the stage of the FDA approval process). Use the OTHER write-in answer only if the respondent volunteers a different category.

Q14. Read the question, and then ask, "What is the… Trade or Commercial Name?" Record the answer. Then ask, "What is the… Generic Name?" Record the answer. Then ask, "What is the… Model Number (if applicable)?" If there is no model number, record "NA" for not applicable. If the respondent has trouble giving either type of name, please ask him to answer as best he or she can.

Q15. This is a two-part item. Please read the introductory question (*Part A*). Then read the first item in the gray box. If the respondent does not appear to understand, ask: "Is this an appropriate outcome?" If the respondent says, "Yes," please check the box. Then read the next item. If the respondent asks to hear all the outcomes before selecting any, please read him or her all the items in the gray box. Then, read each item and wait for a response. The goal for *Part A* of Q15 is for the respondent to select several categories that describe outcomes related to the SBIR project. Use the OTHER write-in answer only if the respondent volunteers a different category. Next, read the *Part B* question

_____

(after the " ⟶ "), and ***read only the categories that the respondent selected***. Check

the box for the *most important* outcome.

Q16. This is also a two-part item, just like Q15. Here, however, there are *categories* of

answers. Read the introductory question (*Part A*). Then *read the first category and the*

answers in that category: "Among Hospitals and Patients: Outpatients, Inpatients, and

Hospital Personnel." Ask: "Are any of these populations currently using or likely to use

the product, process, or service developed under this project?" Record any "Yes"

answers. Then repeat this process with the other categories. Use the OTHER write-in

answer only if the respondent volunteers a different category. Next, read the *Part B*

question (after the " ⟶ "), and ***read only the categories that the respondent selected***.

Check the box for the *most important* population.

Q17. Please read the response categories in the gray box. If the respondent volunteers a

number, please check the range in which that number falls. Do not read NOT SURE.

Q18. Please read the response categories in the gray box. Do not read OTHER. Follow

the SKIP pattern carefully. *Continue to Q19 only if the respondent says the project is*

discontinued. For all other answers, please skip to Q20.

Q19. Record YES or NO for each of the possible reasons for discontinuing the project.

Use the OTHER write-in answer only if the respondent volunteers a different category.

Repeat the introductory question as needed. ***Then skip to Q24.***

Q20. Read the introductory question. Then read the first item in the gray box:

"Preparation of marketing plan." Ask, "Is this… Not Yet Planned, Planned, Ongoing,

Complete, or In Need of Assistance?" Do not read NOT APPLICABLE. Use that

category only if the respondent volunteers information that the category does not apply.

Then, read the second item, "Hiring of marketing staff." Ask, "Is this… Not Yet

Planned, Planned, Ongoing, Complete, or In Need of Assistance?" Continue in this

manner with the third and fourth items.

Q21. Please read the introductory text (by the " ➡ "). Then read the Q21 question.

Do not read YES and NO. If the respondent says, "Yes," please continue. If the

respondent says, "No," skip to Q24.

Q22. Read the answers in the gray box. Use the OTHER write-in answer only if the

respondent volunteers a different category. Follow the SKIP instructions. If the

respondent says that, "Sales were realized," continue to Q23. If the respondent says that,

"Sales are anticipated" or "OTHER," please skip to Q24.

Q23. Please read the response categories in the gray box. If the respondent volunteers a

number, please check the range in which that number falls. (Note that the first category

is *fifty thousand* or less, the fourth category is *five hundred thousand* to just under one

million, the fifth category is *one million* to just under five million, and the last category is

_____

fifty million or more.) If the respondent says that he is not sure, please ask him to give his best answer. Reassure him that an estimate would be fine.

Q24. Record the current number of total employees. ("Full-time equivalents" are part-time employees who add up to full-time ones. For example, two half-time employees are one full-time equivalent.)

Q25. Please read the introductory text (by the " ➤ "). Next, read the Q25 question. If the respondent answers, "Yes," then continue to Q26. If not, skip to Q29.

Q26. Please do not read the YES, NO, and NOT SURE answers.

Q27; Q28. This survey item is a two-part one: Q27 and Q28. For Q27, please read the question. Then, read the first item: "Non-SBIR federal funds". Ask, "Was this an important source?" Record YES or NO. Continue this way, asking, "Was this an important source?", as necessary. Use the OTHER write-in answer only if the respondent volunteers a different category. Then, read the Q28 question, and read all the sources that the respondent indicated were important. Record the one most important source.

Q29. Read the question, and then read the first item in the gray box. Ask, "Has your company experienced this because of the product, process, or service developed during this project?" Record YES or NO. Use NOT SURE only if the respondent volunteers this or says DON'T KNOW or NOT APPLICABLE. Continue this way, repeating the

_____

question as necessary. ***Go to Q31 unless the respondent says "Yes" to "Public***

Offering."

Q30. Ask Part A and Part B. Read the answer categories for Q30A. Use the OTHER

write-in answer only if the respondent volunteers a different category.

Q31. Please read the introductory text (by the " ➔ "). Next, read the Q31 question.

This is a two-part survey item. Read the first item, "Patents," and ask, "Has your

company received or achieved any patents?" Record YES or NO. Continue this way for

the rest of the items in the gray box. Use the OTHER write-in answer only if the

respondent volunteers a different category. Repeat the question, "Has your company

received or achieved any…", until the respondent gets the idea.

Q32. For each YES item in Q31, please ask how many of that item the company

received or achieved. (Omit asking about the NO items.) Record the number of each

received or achieved. Please reassure respondents that an estimate is fine.

Q33. Please read the introductory text (by the " ➔ "). Next, read the Q33 question.

Read the response choices. Then, read the first item: "Obtaining information about the

SBIR". If necessary, add: "How satisfied were you with obtaining information about the

SBIR—Completely Satisfied, Mostly Satisfied, Mixed, Mostly Dissatisfied, or

Completely Dissatisfied?" Do not read NOT APPLICABLE. Use this category only if

the respondent volunteers this.

_____

Q34. Do not read YES and NO.

Q35. Read the question slowly and clearly, including the phrase in parentheses. Write down the complete answer neatly and legibly, asking the respondent to repeat or spell words as necessary. If the respondent would prefer to write his or her answer and email directly to the survey contractor, please give the respondent this email address:

> **NIHSBIRSurveySupport@Humanitas.com**

Q36. Read the answers in the gray box and record only one response. Use the OTHER write-in answer only if the respondent volunteers a different category.

Q37. Read each item in the gray box, and record YES or NO for each. A respondent may have more than one YES answer—that is, he or she may be an owner, part of management, and a shareholder. Use the OTHER write-in answer only if the respondent volunteers a different category.

Q38. Please read the responses in the gray box, and record one answer.

APPENDIX A6   Mail and Email Messages and Telephone Scripts

National Institutes of Health
Office of Extramural Programs
SBIR/STTR Programs
RK II Suite 6095, Room 6186
6701 Rockledge Drive
Bethesda, Maryland 20892
(**301) 435 2688**

> **APPENDIX A6.1**
>
> **Contact Update Letter and Form**

Date

Name of PI
Awardee Business Name
Address Line 1
Address Line 2
City, State, Zip Code

Dear Dr. _____:

The National Institutes of Health's SBIR Program needs to update its awardee database in preparation for the OMB-approved *National Survey to Evaluate the NIH SBIR Program.* We will be conducting this online survey to learn about companies' experiences with this program and how to enhance the support that the Program provides to small businesses. You will be receiving further information about the survey this coming fall, when we mail you an explanatory letter and send an email message about accessing the survey.

Please review the information, shown on the enclosed form, which is currently in the NIH database for your business. It is associated with the specified SBIR award (Phase II grant).

If any of the information needs updating or is missing, please correct or supply it using the enclosed paper form or an online version of the form. Return the paper form in the enclosed postage-paid envelope or fax it to the survey contractor, Humanitas, Inc. (Fax: 301-608-0513). Alternatively, you can access the online version of the form on the survey contractor's web site https://www.humanitas2.com/SBIRUpdate and correct or update it online. If you would like to update your information online, you will need to enter your user name and your password.

> **Your user name is:** **<<user name>>**
> **Your password is:** **<<002002>>**

When filling out the form, please make sure to include your **telephone number and business email address.** If you have any questions about this request for current contact information or the upcoming survey, please contact me:

> **JoAnne Goodnight, SBIR/STTR Coordinator**
> **Office of the Director, NIH**
> **(301) 435-2688 or jg128w@nih.gov**

I thank you in advance for your time and assistance in helping us update the NIH database. It is only with the generous help of people like you that our forthcoming evaluation can be successful.

Sincerely,

Jo Anne Goodnight
NIH SBIR/STTR Program Coordinator

NIH SBIR AWARD CONTACT INFORMATION

The following award was identified through the NIH databases as an SBIR Phase II grant.

Company:	
Grant Number:	Principal Investigator:
Project Period:	NIH Sponsoring Institute:
Project Title:	

If the Company Name has changed, please provide the new company name in full:

_____
Company Name

➢ Please correct the company mailing address, if necessary:

_____
Address Line 1   *Phone No.*   *Extension*

_____
Address Line 2   *FAX*

_____
City,   *State,*   *Zip*   *E-Mail Address*

_____
Web Page URL

➢ Please supply the **preferred business telephone number and email address** for the Principal Investigator:

_____
Investigator Name   *Phone No.*   *Extension*   *E-Mail Address*

➢ If the Principal Investigator is no longer with this company, whom should we be contacting?

_____
Name   *Phone No.*   *Extension*   *E-Mail Address*

Reply to SBIR Survey Coordinator:

Humanitas, Inc.
8630 Fenton Street—Suite 820
Silver Spring, MD 20910
Phone   877-608-3290 x 222
Fax   301-608-0513

HUMANITAS, INC. PAGE 1

SBIR CONTACT UPDATE TELEPHONE FOLLOW-UP SCRIPT

INTRODUCTION / LOCATE PI:

Hello, my name is _____, and I am calling for the National Institutes of Health (NIH). May I please speak with Dr. (*INSERT PI NAME*)_____?

➢ PI NOT HERE NOW:
When would be a good time to call back? Is this the best telephone number to use?

      CALL BACK DATE AND TIME: _____

      BEST TELEPHONE NUMBER: _____
      THANK AND SCHEDULE CALL BACK.

➢ NEVER HEARD OF PI:
Is this (*INSERT COMPANY NAME*) _____?

    (1) NO: Do you know their telephone number?

        NEW COMPANY TELEPHONE NUMBER: _____
        THANK AND TRY NEW COMPANY TELEPHONE NUMBER.

    (2) YES: Do you know how I can reach Dr. (*INSERT PI NAME*) _____?

        NEW PI TELEPHONE NUMBER: _____
        THANK AND TRY NEW COMPANY TELEPHONE NUMBER.

➢ YES / CONTINUE:
The NIH SBIR Program needs to update its awardee database in preparation for the OMB-approved ***National Survey to Evaluate the NIH SBIR Program.*** NIH will be conducting this online survey in the fall to learn about companies' experiences with this program and how to enhance the support that the Program provides to small businesses.

I would like your help in updating the contact information that is in the NIH database for this SBIR award.

➢ READ CONTACT UPDATE INFORMATION ON PAGE 2.

➢ <u>BEGIN HERE</u>:
The following award was identified through the NIH databases as an SBIR Phase II grant.

(READ ALL INFORMATION:)

Company:

Grant Number: Principal Investigator:

Project Period: NIH Sponsoring Institute:

Project Title:

---

1. Has the **<u>company name</u>** has changed? (IF YES:) Please provide the new company name in full:

_____
Company Name

2. Is the **<u>company mailing address</u>** correct? (READ EACH LINE AND CORRECT AS NECESSARY.)

_____
Address Line 1   *Phone No.*   *Extension*

_____
Address Line 2   *FAX*

_____
City,   *State,*   *Zip*   *E-Mail Address*

3. What is your **<u>preferred business telephone number</u>** and **<u>email address</u>**?

_____
Phone No.   *Extension*   *E-Mail Address*

➢ <u>IF THE PI IS NOT THE PERSON TO CONTACT OR IS NO LONGER WITH THIS COMPANY</u>:
Whom should we be contacting?

_____
Name   *Phone No.*   *Extension*   *E-Mail Address*

THANK AND END INTERVIEW.

National Institutes of Health
Office of Extramural Programs
SBIR/STTR Programs
6705 Rockledge Drive, RK I
Room 3534
Bethesda, Maryland 20892
(301) 435 2688
jg128w@nih.gov

DEPARTMENT OF HEALTH & HUMAN SERVICES

September 11, 2002

<table>
<tr><td>**APPENDIX A6.3**</td></tr>
<tr><td>**Advance Letter**</td></tr>
</table>

Name of PI
Awardee Business Name
Address Line 1
Address Line 2
City, State, Zip Code

Dear Dr. :

In about a week, you will receive an email request from the National Institutes of Health to participate in an important survey—the ***National Survey to Evaluate the NIH SBIR Program***. We are conducting this survey to learn about companies' experiences with this program. We recognize that SBIR projects yield a range of important outcomes, including Phase III commercialization and more general medical and societal benefits and technological innovations.

Participation in this survey is voluntary. The information you provide about your SBIR award and its outcomes will have no effect on current or future grant awards. However, your responses will be extremely valuable to NIH. They will help us enhance the administration of the SBIR Program and the support that it provides to small businesses.

Your company was scientifically selected specifically to participate in this survey. The information you provide will be kept confidential to the full extent permitted by law. If you have any questions about the survey, please contact me:

> **JoAnne Goodnight, SBIR/STTR Coordinator**
> **Office of the Director, NIH**
> **(301) 435-2688 or jg128w@nih.gov**

The survey will be conducted using a web-based questionnaire. It should take about 15 minutes to complete the survey. It may take an additional 15 minutes to retrieve any necessary information. Researchers who participated in the pretest of this survey found the survey to be very straightforward and easy to complete.

We look forward to your participation, and I thank you in advance for your time and consideration. It is only with the generous help of people like you that our evaluation can be successful.

Sincerely,

Jo Anne Goodnight
NIH SBIR/STTR Program Coordinator

P.S. If you have ***not*** yet supplied or confirmed your email address, please do so as soon as possible by using the online form at: www.Humanitas2.com/SBIRUpdate or by calling Humanitas, the survey contractor, at: 301-608-3290, ext. 230. If you are ***no longer*** associated with the SBIR awardee small business in the mailing address above, please call Humanitas: 301-608-3290, ext. 230. Thank you. JG

From: Jo Anne Goodnight [SBIRSurvey@Humanitas.com]
Sent: Date, Time
To: Dr. _____
Subject: Accessing the Online NIH/SBIR Survey
Importance: High
****

***** *National Survey to Evaluate the NIH SBIR Program* *****

As was explained in an earlier letter mailed to you, NIH is conducting the **National Survey to Evaluate the NIH SBIR Program** in order to enhance program administration and support for small businesses. The survey will be conducted online. It should take about 15 minutes to complete the survey, and it may take an additional 15 minutes to retrieve any necessary information.

The location of the survey is:

https://www.humanitas2.com/SBIRSurvey/GetAcct.htm

Please click on this link to access the survey, or copy and paste it into your Internet browser window. Once you have accessed the introductory screen, you will need to enter your user name and your password.

Your user name is: **<<user name>>**
Your password is: **<<002002>>**

The survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection. If you have trouble accessing the survey, please contact Humanitas, Inc. Survey Support at:

877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

Participation in this survey is voluntary, and your answers will have no effect on current or future grant awards. The information you provide will be extremely valuable to NIH, and it will be kept confidential to the full extent permitted by law.

If you have any questions or need additional information, please feel free to call or email me:

JoAnne Goodnight, NIH/SBIR   301-435-2688   jg128w@nih.gov

Thank you in advance for your help.

National Institutes of Health
Office of Extramural Programs
SBIR/STTR Programs
6705 Rockledge Drive, RK I
Room 3534
Bethesda, Maryland 20892
(301) 435 2688
jg128w@nih.gov

DEPARTMENT OF HEALTH & HUMAN SERVICES

APPENDIX A6.4
First Cover Mail Message

September 16, 2002

Name
Company
Address
City, State ZIP

Dear Dr.:

As was explained in an earlier letter mailed to you, NIH is conducting the **National Survey to Evaluate the NIH SBIR Program** in order to enhance program administration and support for small businesses. Please complete the enclosed survey and return it in the postage-paid envelope. It should take about 15 minutes to complete the survey, and it may take an additional 15 minutes to retrieve any necessary information.

If you would prefer to complete the survey *online*, please contact Humanitas, Inc. Survey Support at:

877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

The online survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection.

Participation in this survey is voluntary, and your answers will have no effect on current or future grant awards. The information you provide will be extremely valuable to NIH, and it will be kept confidential to the full extent permitted by law. The tracking number on your questionnaire is there solely so that follow-up letters are sent only to those who have *not* responded to the survey.

If you have any questions or need additional information, please feel free to call or email me:

JoAnne Goodnight, NIH/SBIR   301-435-2688   jg128w@nih.gov

Thank you in advance for your help.

Sincerely,

Jo Anne Goodnight

Jo Anne Goodnight
NIH SBIR/STTR Program Coordinator

From: Jo Anne Goodnight [SBIRSurvey@Humanitas.com]
Sent: Date, Time
To: Dr. _____
Subject: The Online NIH/SBIR Survey: Thanks!
Importance: High
****

***** *National Survey to Evaluate the NIH SBIR Program* *****

Last week, we sent you an email message asking for your help in completing the ***National Survey to Evaluate the NIH SBIR Program***. If you have already completed the online survey, please accept our sincere thanks. If not, please do so today.

We are especially appreciative of your help. It is only by asking individuals such as you, about your experiences with the NIH SBIR Program, that NIH can make changes to enhance the support that the Program provides for small businesses.

Thank you for your time and cooperation.

If you have misplaced the earlier email message, the survey location is:

    https://www.humanitas2.com/NIHSBIRSURVEY/Login.aspx

Please click on this link copy and paste it into your to access the survey, or Internet browser window. Once you have accessed the introductory screen, you will need to enter your user name and your password.

    Your user name is: <<user name>>
    Your password is: <<002002>>

The survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection. If you have trouble accessing the survey, please contact Humanitas, Inc. survey support at:

    877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

If you have any questions or need additional information, please feel free to call or email me:

    JoAnne Goodnight, NIH/SBIR   301-435-2688   jg128w@nih.gov

Thank you in advance for your help.

Last week, we sent you a letter asking for your help in completing the **National Survey to Evaluate the NIH SBIR Program**. If you have already completed the survey and mailed it back to us, please accept our sincere thanks. If not, please do so today.

We are especially appreciative of your help. It is only by asking individuals such as you, about your experiences with the NIH SBIR Program, that NIH can make changes to enhance the support that the Program provides for small businesses.
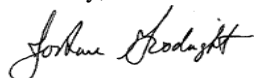
If you did not receive a survey or if it was misplaced, please contact Ms. Maura Kephart toll-free or via email (877-608-3290, x222 or mkephart@humanitas.com) today, and she will mail you a replacement. If you would prefer to complete the survey *online*, please contact Humanitas, Inc. Survey Support at:

877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

The online survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection.

Thank you in advance for your help.

Sincerely,

Jo Anne Goodnight
NIH SBIR/STTR Program Coordinator

«Next Record»«PI_First_Name» «PI_Last_Name»
«Grantee»
«Address_3»
«City», «State» «Zip_Code»

From: Jo Anne Goodnight [SBIRSurvey@Humanitas.com]
Sent: Date, Time
To: Dr. _____
Subject: Follow-Up About the Online NIH/SBIR Survey
Importance: High
****

***** *National Survey to Evaluate the NIH SBIR Program* *****

About three weeks ago, we sent you an email message giving the location of the online survey, the *National Survey to Evaluate the NIH SBIR Program*, and asking for your help in evaluating the support that the NIH provides to small businesses. To the best of our knowledge, the survey has not yet been completed.

Other awardees who have received NIH SBIR awards have responded and described their experiences with the SBIR program and project outcomes. Their information will help NIH enhance support for small businesses. NIH is interested in all kinds of project results. We recognize that SBIR projects yield a range of important outcomes, including Phase III commercialization and other medical and societal benefits that are equally important. We also understand that not all SBIR projects come to fruition, and that the pathway to realize Phase III commercialization may be as long as 10 or 12 years. What is of importance is that respondents represent a range of outcomes.

We are contacting you again because of the importance that your survey has for helping to get accurate results. Although we have contacted other awardees, it is only by hearing from nearly all awardees in the study time period that we can be sure that the results are representative. Please be assured that your answers will have no effect on current or future grant awards.

It should take about 15 minutes to complete the survey, and it may take an additional 15 minutes to retrieve any necessary information. The information you provide will be kept confidential to the full extent permitted by law. In case you have misplaced the earlier email message, the location of the survey is:

> https://www.humanitas2.com/SBIRSurvey/GetAcct.htm

Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your user name and your password.

> **Your user name is:**   **<<user name>>**
> **Your password is:**   **<<002002>>**

The survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection. If you have trouble accessing the survey, please contact Humanitas, Inc. Survey Support at:

877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

If you have any questions or need additional information, please feel free to call or email me:

JoAnne Goodnight   301-435-2688   jg128w@nih.gov

Thank you in advance for your help.

National Institutes of Health
Office of Extramural Programs
SBIR/STTR Programs
6705 Rockledge Drive, RK I
Room 3534
Bethesda, Maryland 20892
(301) 435 2688
jg128w@nih.gov

DEPARTMENT OF HEALTH & HUMAN SERVICES

Date

<table>
<tr><td colspan="2">**APPENDIX A6.6**</td></tr>
<tr><td colspan="2">**Second Cover Mail Message**</td></tr>
</table>

Name
Company
Address
City, State ZIP

Dear Dr.:

About three weeks ago, we sent you a mailing containing a survey, the ***National Survey to Evaluate the NIH SBIR Program,*** and a letter asking for your help in evaluating the support that the NIH provides to small businesses. To the best of our knowledge, we have not received your completed survey.

Other awardees who have received NIH SBIR awards have responded and described their experiences with the SBIR program and project outcomes. Their information will help NIH enhance support for small businesses. NIH is interested in all kinds of project results. We recognize that SBIR projects yield a range of important outcomes, including Phase III commercialization and other medical and societal benefits that are equally important. We also understand that not all SBIR projects come to fruition, and that the pathway to realize Phase III commercialization may be as long as 10 or 12 years. What is of importance is that respondents represent a range of outcomes.

We are contacting you again because of the importance that your survey has for helping to get accurate results. Although we have contacted other awardees, it is only by hearing from nearly all awardees in the study time period that we can be sure that the results are representative. Please be assured that your answers will have no effect on current or future grant awards.

It should take about 15 minutes to complete the survey, and it may take an additional 15 minutes to retrieve any necessary information. The information you provide will be kept confidential to the full extent permitted by law. In case you have misplaced the earlier survey, we are enclosing another copy.

If you would prefer to complete the survey *online*, please contact Humanitas, Inc. Survey Support at:

877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

The online survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection.

If you have any questions or need additional information, please feel free to call or email me:

JoAnne Goodnight   301-435-2688   jg128w@nih.gov

Thank you in advance for your help.

Sincerely,

Jo Anne Goodnight
NIH SBIR/STTR Program Coordinator

From: Jo Anne Goodnight [SBIRSurvey@Humanitas.com]
Sent: Date, Time
To: Dr. _____
Subject: Please help us ….
Importance: High
****

***** ***National Survey to Evaluate the NIH SBIR Program*** *****

We haven't heard from you yet, and I'd really appreciate your help with this important survey. The end of the survey field period is nearing. SBIR needs a good response from SBIR awardees to address governmental concerns about the value of the Program. Please take a few minutes to complete this survey.

Thanks!
Jo Anne

_____

In case you have misplaced the earlier email message, the location of the survey is:

    https://www.humanitas2.com/SBIRSurvey/GetAcct.htm

Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your user name and your password.

        Your user name is: **<<user name>>**
        Your password is: **<<002002>>**

If you have trouble accessing the survey, please contact Humanitas, Inc. Survey Support at:

    877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

If you have any questions or need additional information, please feel free to call or email me:

    301-435-2688   or   jg128w@nih.gov

Thanks again!

HUMANITAS, SBIR: Telephone Follow-Up Script

INTRODUCTION:

Hello, my name is _____, and I am calling for the National Institutes of Health. NIH is conducting ***The National Survey to Evaluate the NIH SBIR Program*** to learn about companies' experiences with this program.

Participation in this evaluation is voluntary and your responses will have no effect on current or future grant awards. However, the information you provide about your company's SBIR award and its outcomes will help NIH enhance the administration of the Program.

Would you prefer to complete the survey online, using a paper questionnaire, or right now in a telephone interview?

    __   Online ⟶ GO TO ONLINE SURVEY

    __   On Paper ⟶ GO TO PAPER SURVEY

    __   Telephone ⟶ GO TO TELEPHONE INTERVIEW ⟶

ONLINE SURVEY:

Please give me your ***business email address and telephone number:***

      PRINT AND CONFIRM EMAIL ADDRESS AND TELEPHONE NUMBER.

EMAIL:_____ TEL. NO.:_____

Humanitas, the survey contractor, will send you an email message giving you the web location of the survey and your unique ID number for accessing the questionnaire. Thank you.

      END INTERVIEW NOW.

PAPER SURVEY:

Please give me your ***business mailing address and telephone number:***

      PRINT AND CONFIRM MAILING ADDRESS AND TELEPHONE NUMBER.

ADDRESS: _____

                        _____

CITY, STATE, ZIP: _____

TELEPHONE NO.:   _____

Humanitas, the survey contractor, will send you a paper survey and postage-paid return envelope. Thank you.

      END INTERVIEW NOW

From: Jo Anne Goodnight [SBIRSurvey@Humanitas.com]
Sent: Date, Time
To: Dr. _____
Subject: Completing the NIH/SBIR Survey Online
Importance: High
****

***** _**National Survey to Evaluate the NIH SBIR Program**_ *****

Here is the information that you requested for the online _**National Survey to Evaluate the NIH SBIR Program**_. Thank you very much for agreeing to complete this important survey. The survey data will help NIH enhance the administration of the SBIR Program and the support that it provides to small businesses.

The survey should take only about 15 minutes to finish, and we are asking you to complete and submit the survey as soon as possible.

The location of the survey is:

     https://www.humanitas2.com/NIHSBIRSURVEY/

Please click on this link to access the survey, or copy and paste it into your Internet browser window. Once you have accessed the introductory screen, you will need to enter your user name and your password.

     Your user name is: **<<user name>>**
     Your password is: **<<002002>>**

The survey is implemented using SSL (Secure Socket Layer) encryption. You will see a "lock" in the lower right-hand corner indicating a secure connection. If you have trouble accessing the survey, please contact Humanitas, Inc. survey support at:

     877-608-3290, x222   or   NIHSBIRSurveySupport@Humanitas.com

If you have any questions about the survey, please contact:

     JoAnne Goodnight, NIH/SBIR   301-435-2688   jg128w@nih.gov

Thank you for your time and cooperation.

National Institutes of Health
Office of Extramural Programs
SBIR/STTR Programs
6705 Rockledge Drive, RK I
Room 3534
Bethesda, Maryland 20892
(301) 435 2688
jg128w@nih.gov

DEPARTMENT OF HEALTH & HUMAN SERVICES

> ### APPENDIX A6.9
>
> ### Promisers' Mail Message

Date

Dr.
Address 1
Address 2
City, State ZIP

Dear Dr.:

As a follow-up to your request, I am enclosing a paper copy of the ***National Survey to Evaluate the NIH SBIR Program.*** Thank you very much for agreeing to participate in this important survey. Your responses will help the NIH enhance program administration and support for small businesses.

Please complete the enclosed survey and return it in the postage-paid envelope. It should take only about 15 minutes to complete the survey, and it may take an additional 15 minutes to retrieve any necessary information. We would greatly appreciate it if you could complete and return the questionnaire as soon as possible. We value your input and want to make sure to include it among the survey findings.

If you have any questions or need additional information, please feel free to call or email:

     JoAnne Goodnight, NIH/SBIR   301-435-2688   jg128w@nih.gov

Thank you for your time and cooperation.

Sincerely,

Maura Kephart
NIH SBIR Survey Coordinator
Humanitas, Inc.

APPENDIX A7   Data Cleaning and Coding

A7.1   Cleaning and Coding Processes

A7.2 Limitations of Categorization and Coding

A7.3 Telephone Interview Validation Script

APPENDIX A7.1

Cleaning and Coding Processes

An important benefit of an online survey implementation is that it yields "clean" data—that is, data without keying entries, out of range values, missing pages, multiple answers in single-response items, stray check marks, and the like. Nonetheless, some minimal cleaning processes may be required. In the *National Survey to Evaluate the NIH SBIR Program*, where we gave respondents the options to complete the survey using a paper questionnaire or in a telephone interview, we had to key enter the respondents' answers into the survey database. Thus, the potential to introduce human error existed.

To minimize data entry errors, we double-keyed the data from all paper questionnaires (those the respondents answered directly and those used by the telephone interviewers to record respondents' answers). A computer program compared the two data records, and any discrepancies were resolved by inspecting the original survey instrument. Furthermore, to make use of the same built-in checks and skip logic that the online survey contained, we double-keyed the data into a stand-alone version of the online survey implementation (as opposed to keying the data into a data-entry program). Thus, it was not possible to select out-of-range response categories or to skip items that should be answered.

The online survey implementation also provided consistent and automatic codes for the various types of missing data. There were unique codes for missing responses for those items that should not be answered ("null")—those that the survey correctly skipped over. (These items were appropriate for just some of the respondents and not others. The skip pattern was determined by answers to prior items.) There were codes for items that the respondents elected to omit ("-1") to differentiate these from those that the survey logic skipped over. These built-in codes obviated the need to clean the data to distinguish between the types of missing data. We also used consistent codes for "Other" responses ("10") and "Not Sure"/"Don't Know" answers ("99").

Humanitas's data processing personnel merged data from the original NIH database files into the file of respondent data. These additional variables are background and explanatory variables that could possibly explain any differences among subgroups on important survey measures.

Because of a single fully open-ended question and many other items in the survey that allowed respondents to select an "Other" response category and write in a text response, it was necessary to code these verbatim responses. The coding process involved recoding some verbatim responses to newly created response categories and back coding other verbatim responses to existing categories. We used slightly different coding strategies for single response, multiple response, and the fully open-ended item. Single-response codes were stored in a single variable and went from 1 to n, where n was the number of different responses. Multiple-response codes were stored in multiple variables and were binary, with "1" indicating a selection ("yes") and "2" indicating no selection ("no") for each option. For the fully open-ended item (Q35), we used five variables to hold a maximum of five responses per respondent, and the codes went from 1 to n.

We checked frequency distributions of all the variable values—those merged from the NIH database, those collected by the survey, and those that we coded—for accuracy. The final step in the cleaning and coding processes was producing a codebook (data dictionary) documenting all variable names, their values, and the corresponding text labels.

APPENDIX A7.2

Limitations of Categorization and Coding

Categorizing verbatim answers (open-ended responses) is only part science and a certain amount of art. Thus, the categorization and subsequent coding processes introduce some subjectivity into the survey data. Our goals were to be as objective and consistent as possible.

Coding "Other (please specify)" responses presented less of a problem than coding fully open-ended responses. In the NIH SBIR survey, questions 2, 4, 10, 13, 15, 16, 18, 19, 22, 27, 30, 31, 33, 36, and 37 contained "Other (please specify)" response options. For these items, we back-coded some responses into existing categories, created new categories for responses that more than a few respondents gave that could not be appropriately back-coded, and left some remaining atypical or distinctive responses in the "Other" category. In general, relatively small numbers of respondents selected the "Other" response categories.

Some verbatim responses did not always map precisely into a category. For example, Question 2 (Q2) in the survey asks for the "company's <u>major</u> field of business." When respondents did not select the category that "<u>best</u> describes this company's <u>major</u> field of business," we attempted to discern the category that "best" described the company's "major" field of business from the respondent's words. Those words might describe, for example, a "medical device" used in "diagnosing" illness. However, "medical device" and "diagnostics" were two distinct initial categories. In such cases, we were forced to decide which of these two categories was more appropriate. When possible, we consulted other information in the respondent's survey data that could shed more light on this, such as the company name, Q4 which characterized the supported project, Q14 which gave the product's commercial and generic name, and the fully open-ended text (if any) given for Q35 which asked for more general comments about the SBIR program. Then, we made the best categorization that we could.

Our thinking was that categorization made the respondents' answers available for display or analysis. Leaving the response as an "Other" did not provide us with any usable information. It is likely that the categorization and coding process introduces some small amount of "noise" into the data, but perhaps no more than that introduced by the majority of respondents who did pick the "best" (though not perfect) category that described their company's "major" (though not other or minor) field of business. Additionally, the coded data represents only a small portion of all the data for the survey items enumerated above, and thus its effects are minimal. We also have included the original verbatim text in the data file, so that it is available for perusal.

Q35 was the single fully open-ended survey item. For this item, we created seven major categories with minor categories within them. We coded up to five separate responses for each of the respondents' verbatim answers. Coding other than a single response required that the answer contain additional separate, distinct ideas. Multiple expressions of the same concept yielded only a single categorization. Again, the categorization and coding process introduces some subjectivity, but it allows us to gain an overview of the responses that can be displayed or analyzed. The full verbatim textual answers for Q35 are included in the data file. Although they can't be displayed as other than examples, they give more of a flavor and the emotional context of what the respondents say, than do the "neat" categories.

SBIR: Quality Assurance for Telephone Interviews

Hello, my name is _____, and I am calling for NIH. Thank you very much for completing the survey recently with one of the telephone interviewers. As part of our quality assurance procedures, I would just like to ask you a few questions about the interviewer.

1.   Do you remember completing the survey?   _____

2.   Did the interviewer ask you for your preference in completing the survey—online, using a paper questionnaire, or right then in a telephone interview?

_____

3.   Was the interviewer polite and professional?

_____

Thanks for your help, and have a good day!