Appendix C: Non-I-Corps PI Survey Instrument

Count	NSF Awar	d Commercialization Hist	tory (Survey Screener)			
1	Have you o	ever received an I-Corps T Yes [Exit Survey] No	Team award from the	National Science Foundati	ion (NSF)?	
2	Have you o o	ever received an I-Corps a Yes [Exit Survey] No	at NIH award from the	National Institutes of Hea	alth (NIH)?	
3	Our recor	ds indicate that you receiv	ved the following awar	rds from NSF between 200	09 and 2013.	
	For each project listed below, please indicate whether you have made any effort to explore the commercialization of your NSF research.				nercialization of	
	Examples	of steps that might be tak	ken to commercialize y	our NSF research include	:	
	 Conducting outreach to prospective customers; Receiving entrepreneurial training/education; Seeking funding to promote research translation; Contributing to R&D to bring product/technology to market; and Seeking support from technology transfer or entrepreneurial office. 					
		Project Name	Award Number	Start and end dates	Have you taken commercialize (select one for e	this project
		Duning to Title A	Aand Nanhan	Chart and End Dates	Yes	No
	1.	Project Title A Project Title B	Award Number Award Number	Start and End Dates Start and End Dates		
	3.	Project Title C	Award Number	Start and End Dates		
	4.	Project Title D	Award Number	Start and End Dates		
	5.	Other (please specify)				
3.a.	IF ONLY C	OJECTS LISTED ABOVE AR INE PROJECT IS MARKED Y	'ES, THE RESPONDENT	WOULD PROCEED TO Q4		
	Select the survey, w	indicated that you made of one project that you thin e will refer to this project	k has advanced the m as " <i>your NSF project</i> ."	ost in terms of commercia		
	Your Com	mercialization Effort				
4	apply)	vities did you undertake v Led efforts to conduct ou Participated in entrepren	treach with prospectiv		your NSF project?	(Select all that

	☐ Applied for grants to promote commercialization				
	☐ Contributed to R&D of product/technology to get it to market				
	□ Sought support from university entrepreneurial office				
	Sought support from university technology transfer office				
	☐ Other (Please specify)				
5	What was the first year in which you undertook any of the above commer survey, we will consider this to be the year in which year you started the [YYYY]				
6	Did you develop a formal written business strategy to guide your efforts t NSF project?	o commerci	alize research related to your		
	o Yes				
7	Enter the approximate number of times you have participated in each of to the start of the commercialization of your NSF project. Enter zero (0) if experience/activity:				
	Contributed ideas utilized by a company to improve a product, service, or	or process			
	Presented a business idea to investors				
	Generated trade secrets				
	Served on a corporate advisory board				
	Founded or cofounded a venture (for-profit, nonprofit, not-for-profit) that				
	developed or sold products or services based on your research				
	Participated in the technology transfer process at your university				
	Disclosed an invention to the university				
	Licensed your research/technology				
	Received royalties for your work				
	Participated in industry funded research				
	Issued a patent				
	Interviewed potential customers about a product, service, or technology	1			
	Conducted market research				
	Applied for a patent as an inventor or co-inventor				
8	For each of the following types of entrepreneurial training, indicate the le				
		Total	cumulative time for all		
			occurrences?		
	I-Corps-sponsored Courses (offered at I-Corps Site or Node programs	•	Never		
	but not associated with an I-Corps Team's award)	•	Less than 1 day		
		•	At least 1 day but less		
			than 1 week		
		•	At least 1 week but less		
			than1 month		
		•	At least 1 month but less		
			than 1 semester		
		•	At least 1 semester but		
			less than 1 year		
		•	1 year or more		
	Courses using Customer Discovery or the Business Model Canvas	•	Never		
		•	Less than 1 day		
		•	At least 1 day but less		
			than 1 week		

		•	At least 1 week but less
			than1 month
		•	At least 1 month but less
			than 1 semester
		•	At least 1 semester but
			less than 1 year
		•	1 year or more
	Accelerator Programs (e.g. Tech Stars or Y Combinator)	•	Never
		•	Less than 1 day
		•	At least 1 day but less
			than 1 week
		•	At least 1 week but less
			than1 month
		•	At least 1 month but less
			than 1 semester
		•	At least 1 semester but
			less than 1 year
		•	1 year or more
	Other entrepreneurial educational programs. Please specify.	•	Never
		•	Less than 1 day
		•	At least 1 day but less
			than 1 week
		•	At least 1 week but less
			than1 month
		•	At least 1 month but less
			than 1 semester
		•	At least 1 semester but
			less than 1 year
		•	1 year or more
9	What other types of commercialization support, excluding training, have Please choose all that apply: One-on-one coaching Group coaching Peer support University based mentor Industry based mentor Other (Please specify) None	e you received?	
10	Are you familiar with the Osterwalder Business Canvas Model?		
	o Yes		
	o No		
	Status of the Commercialization Effort		
11	Is this commercialization effort still active?		
	o Yes [go to item 13]		
	o No		
	o Uncertain [go to item 14]		
12	[If "No" he have 44]		
12	[If "No" to item 11] In what year would you say that your efforts to commercialize the NSF p	raiact racaarah	stannad?
	YYYY [go to item 12]	noject research	stopped:
	1111 [50 to item 12]		

13	[If "Yes" to item 11]
	How involved are you in the commercialization effort?
	o Very involved
	o Involved
	o Somewhat involved
	Not involved at all
14	[If item 11 (whether project is active) response is "Uncertain"]
1-7	
	Select any of the reasons listed below that explain why you are uncertain.
	We have not yet identified a large enough market for our product/technology
	The time to get the technology into market may be too great
	 We are encountering difficulties with our technology itself
	 We have not yet obtained needed financing/investment to continue
	We are having problems with intellectual property
	We are having problems with our team
	Other (specify)
15	[If item 11 (whether project is active) response is "No"]
13	Why is this project no longer active?
	We successfully commercialized our project
	 We decided to discontinue pursuing commercialization for our project
	Other (Specify)
16	Which of the following best describes your NSF project's main area of research or technology?
10	
	o Advanced Materials and Instrumentation (MI)
	o Advanced Manufacturing and Nanotechnology (MN)
	o Biological Technologies (BT)
	o Chemical and Environmental Technologies (CT)
	o Electronic Hardware, Robotics and Wireless Technologies (EW)
	5-14 (1)
	o Educational Technologies and Applications (EA)
	o Information and Communication Technologies (IC)
	 Semiconductors (S) and Photonic (PH) Devices and Materials
	 Smart Health (SH) and Biomedical Technologies (BM)
	Other: Please Specify
	Your Team
17	In this section, we will obtain information about any individuals whom you worked closely with in your efforts to
	commercialize your NSF project. By this we mean those who supported your efforts in a direct capacity (e.g.,
	individuals who were brought on to help you navigate any difficulties you might experience in advancing your
	commercialization efforts). We will refer to these individuals as members of <i>your team</i> . Do not count external firms
	that you have hired to provide advice or other services.
	that you have filled to provide advice of other services.
	Since you began exploring the commercial opportunities associated with your NSF project, have you worked closely
	individuals who supported your effort in direct capacity?
	marvadas wito supported your errore in direct capacity.
	o Yes
	O No [go to item 21]
	The IBO to item 211
17.a	Since you began exploring the commercial opportunities associated with your NSF project, how many team members
	have you worked closely with?
	[type number]
18	When the team collaboration began, were any of the members of your team:

	[check all that apply]
	☐ A post-doctoral or graduate student
	☐ A fellow faculty/researcher
	□ Someone outside of academia
	□ Someone associated with a technology transfer/entrepreneurial office
19	Did any of these team members have prior entrepreneurial background?
	o Yes
	o No
20	What activities did the team members undertake when working on the commercialization effort of your NSF project?
	(Check all that apply)
	☐ Led efforts to conduct outreach with prospective customers
	☐ Provided advice based on prior entrepreneurial background
	□ Contributed to R&D of product/technology
	□ Sought support from university entrepreneurial or technology transfer office
	☐ Represented or acted as a potential investor
	☐ Other (please specify)
	Unter (picase specify)
	Business creation
21	Has a company been incorporated based on your NSF project?
21	o Yes [go to item 23]
	o No
	0 110
22	[If no in item 21]
	Did you previously incorporate a company that you used to or could use to commercialize your NSF project
	research?
	o Yes
	o No [go to 38]
23	[if yes to 21 or 22] What is the name of this company? If you are unsure, please type "unsure."
	Please note that if there are multiple companies, we ask that you respond only for the company that was active
	most recently.
	Text: open
24	[if yes to item 21 or 22] What is the URL of the company's website, if any?
25	[if yes to item 21 or 22] When was the company incorporated? (mm/dd/yyyy)
26	[if yes to item 21 or 22] Is this company still in operation?
	o Yes
27	o No
27	[if yes to item 21 or 22] What sector best describes this company? O Agriculture
	_1
	o Energy & Materials
	o Environment
	o Healthcare/Medical
	o Information Technology and Communication
	Infrastructure/Building Societation (Motor)
	o Sanitation/Water
20	O Other (Specify) [If response to item 36 (whether company is operational) is "No"]
28	[If response to item 26 (whether company is operational) is "No"] Approximately when did this company close or dissolve?
	(mm/yyyy)
	V41111

29	The time to get theWe had problemsWe encountered	e to identify a large enough the technology into market we with our intellectual proper difficulties with the techno- ain necessary financing/inv	market for our product/tec was too great erty logy or product	hnology
30	☐ I am the Chief Ted☐ I am the Chief Op☐ I am a lead resear☐ I am not an office	npany? ecutive Officer (CEO) or equential chnology Officer (CTO) or experience of the company. In the company but serve with the company.	quivalent quivalent	
31	"If response to item 26 (when the property of the property o	majority owner(s),	co-owner(s),	in leadership role(s)
	prejudice or cultural bias be qualities."			been subjected to racial or ethnic t regard to their individual
32	["If response to item 26 (wh Not counting owner(s), app Full time employees*** Part time employees *** Full time: working 35 h	roximately how many peop		usiness?
	Licensing or Other Business	s Arrangements		
33		sed ents ns cing Royalties hts		
34	B. Since you started the cobusiness licensed?*** Enter		lated to your NSF project, h	ow many of the following has the

		Licensed OUT**	Licensed IN	***
	Patents			
	Copyrights			
	Trademarks			
	Trade Secrets			
	** Licensing out is licensing patent licensing agreement. *** Licensing in is acquiring the right by someone outside the business the state of the	ght to use intellectual property	•	
	Government funding			
35	Did you seek funding for your NSF	project from any of the followi	ng sources? Please check	all that apply?
	☐ Federal government fund		8	
	☐ State or regional government	_		
	□ Non-government funding	_		
	☐ I did not seek funding	1		
	T did flot seek fullding			
	Federal Funding			
36	[If checked government funding] Did you apply for government fund	ling from any of the following a	agencies? (Check all that a	pply)
			Yes	No
	National Science Foundation			
	Department of Agriculture			
	Department of Commerce			
	Department of Defense			
	Department of Education			
	Department of Energy			
	Department of Health and Human Ser	vices		
	Department of Homeland Security			
	Department of Transportation			
	Environmental Protection Agency			
	National Aeronautics and Space Admi	nistration		
	National Institute of Standards and Te	echnology		
	National Oceanic and Atmospheric Ad	lministration		

		Yes	No
	National Science Foundation		
	Department of Agriculture		
	Department of Commerce		
	Department of Defense		
	Department of Education		
	Department of Energy		
	Department of Health and Human Services		
	Department of Homeland Security		
	Department of Transportation		
	Environmental Protection Agency		
	National Aeronautics and Space Administration		
	National Institute of Standards and Technology		
	National Oceanic and Atmospheric Administration		
+	State and Regional Funding		
	[If "State or regional government funding" is selected in item 35 (to Please enter as much information as you can about any additional received for your I-Corps project below. Date awarded (mm/yyyy) Amount awarded State Abbreviation, if applicable (MA, NY etc.) Rregional funding, if applicable Description of award		
	[If "State or regional government funding" is selected in item 35 (that you received any additional government funding not covere above: O Yes O No Please explain:		
	Private Funding		
	[If "Non-government funding" is selected in item 35 (types of funding you seek funding or support for this NSF project from any of the Self-investment in the business entity □ Bootstrap or crowd-funding Bootstrap or crowd-funding Individual private investment from non-accredited investment	he following non-govern	

	 Incubator or accelerator direct 	t financing or equity exchange				
	☐ Debt financing (e.g., SBA loan	or convertible debt instrument)				
	☐ Accredited angel investor or g	roup				
	☐ Non-corporate institutional ve	enture capital/seed stage funding				
	☐ Corporate venture capital/see	ed stage funding				
	☐ Funding from foundations and	d non-profits				
	☐ Other (Specify)					
	Incubator or Accelerator Support					
41	Has your NSF project participated in or	received non-financial incubator o	r accelerator support?			
		• Yes				
	• No					
42	Please check the types of support your	NSF project has received from incu	ibators or accelerators.			
	□ Physical office space					
	☐ Wet labs/bench space					
	☐ Training and/or mentorship					
	☐ Access to investment network	K(S)				
	☐ Other (specify):					
	Sales of new products, Services, or Pro	cesses				
43	Are there any products, services, or pro	cesses in the market, market read	y, or awaiting regulatory approval whose			
	commercialization you can attribute (to some degree) to your NSF project?					
	o Yes					
	o No					
44	[If response to item 42 (commercialization) Is "Yes"]					
	Please enter the following information a	about products, services or proces	ses.			
	Describe Product Status					
	• Status					
45	Are you currently pursuing a new venture?					
	• Yes					
	• No					
46	Since the start of your commercialization	n effort, have you developed any	entrepreneurial curricula?			
	o Yes					
	o No					
47	Did your NSF project lead to any collabo					
		Yes	No			
	Industry?					
	Investors?					
	Local or state government?					
	Non-profit organization?					
	Other?(Specify)					
48	[If response is "Yes "for "Industry" in ite	m 46 (individual collaborations)]				
	Please describe your industry collaborate					
	, , , , , , , , , , , , , , , , , , , ,	• •				

49	[If response is "Yes "for "Indus	•		
	What do you gain from your co	oliaborations with industry vance the commercialization		
		vance your research agend		
		,	d	
	Neither of the aboveOther (specify)	:		
	Other (specify)			
50	Did your NSE project lead to a	ny collaborations between	the university you are currently	affiliated with and the
	external community?	ny conductorio between	the university you are currently	armatea with and the
	o Yes			
	o No			
	 I am no longer affilia 	ted with a university		
51	[If response is "Yes" for item 5			
			rsity you are currently affiliated	with and the external
	community did the NSF award			
		Yes	Uncertain	No
	Industry	0	0	0
	Investors	0	0	0
	Local or State Government	0	0	0
	Non-profit organization	0	0	0
	Other (Specify)	0	0	0
	Current Employment			· ·
52	Do you currently work for a co	llege or university?		
	o Yes			
	 No [go to demograp 			
	 Not currently emplo 	yed [go to demographics]		
F2	Do you gurrantly work for			
53	Do you currently work for O Yes, I am primarily e	mployed at a college or un	ivorcity	
		ge or university as well as		
	o No, I work outside o		a private company.	
	 No, I am not current 			
	3,	.,		
54	[If response is "Yes" in item 53			
	Which of the following best de		Multiple choice.	
	 Tenured faculty mer 	nber		
	 Faculty member on t 	track for Tenure and Prome	otion	
	 Non-tenured Faculty 			
		ersity appointment (e.g., P	rofessor of Practice, Visiting Sch	iolar, etc.)
	 Research scientist 			
	o University Leader (D			
		(Academic Advisor, Center	Director, etc.)	
	o Student			
	Other (specify):			
гг	Tif recognic (No. 1	side of academic " in it	E21	
55	[If response is "No, I work outs			
	Did your work with commercia	anzing your research lead t	o your current employment?	
	o No			
	o Unsure			
	2 22			

	Demographics				
56	What is your current gender identity?				
	o Male				
	o Female				
	 Another identity 				
	o Prefer not to answer				
57	What is your date of birth?				
	Date dropdown (month, day, year)				
	Help text: If you prefer not to answer, please leave the field blank	ζ.			
58	What is your race? (Select one or more) American Indian or Alask	a Native			
	o Asian				
	o Black or African American				
	 Native Hawaiian or Other Pacific Islander 				
	o White				
	o Other				
	o Prefer not to answer				
59	Are you of Hispanic, Latino, or Spanish origin?				
	o Yes				
	o No				
	o Prefer not to answer				
60	How do you describe your country of national identification?				
	Country dropdown				
	Help text: National identification is defined as the country with which you primarily associate.				
61	Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?				
	 Never served in the military 				
	 Only on active duty for training in the Reserves or Natio 	nal Guard			
	 Now on active duty 				
	On active duty in the past, but not now				
	o Prefer not to answer				
62	Please select yes if any of the following apply to you.				
		Yes	No	Prefer not to answer	
	Deaf or serious difficulty hearing	0	0	0	
	Blind or serious difficulty seeing even when wearing glasses	0	0	0	
	Serious difficulty walking or climbing stairs		0	0	
	Other serious disability related to a physical, mental, or emotional OOOOO				
	condition				
	Anything Else				
63	[If yes to item 2]				
	Thanks for your responses! Is there anything else you would like u	us to know about	your commerci	alization	
	experience that wasn't captured by this survey?				
	[TEXT BOX]				