Appendix C: Non-I-Corps PI Survey Instrument

Count	NSF Awai	NSF Award Commercialization History (Survey Screener)				
1	Have you ever received an I-Corps Team award from the National Science Foundation (NSF)? O Yes [Exit Survey] O No					
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 receive	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.				
	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
		Dunings 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	'ES, THE RESPONDENT	WOULD PROCEED TO Q4		
	You have indicated that you made efforts to explore commercialization on more than one NSF project since 2009. Select the one project that you think has advanced the most in terms of commercialization. For the remainder of the survey, we will refer to this project as "your NSF project." [LIST OF PROJECTS SELECTED YES IN ITEM 3]					
	Your Com	nmercialization 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]					
	Did and the last few days to the last and th		-P			
6	Did you develop a formal written business strategy to guide your efforts t	o commercia	alize research related to your			
	NSF project?					
	o Yes					
	o No					
7	Enter the approximate number of times you have participated in each of	he following	g experiences/activities prior			
	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					
	Conducted market research					
	Applied for a patent as an inventor or co-inventor					
	pp and a production of the pro		<u> </u>			
8	For each of the following types of entrepreneurial training, indicate the le	ngth of time	e. if any, you received training			
			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			
		•				
			less than 1 year			
		•				
	Courses using Customer Discovery or the Business Model Canvas	•				
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	•	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),	s), in leadership role(s) I I I I I I I I I I I I I I I I I I I
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		
\dashv	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 (the Have 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 to 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 direc 	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	d stage funding				
	☐ Funding from foundations and	I non-profits				
	□ Other (Specify)					
	Incubator or Accelerator Support					
41	Has your NSF project participated in or i	received non-financial incubator of	or accelerator support?			
	• Yes					
	• No					
42	Please check the types of support your I	NSF project has received from inc	ubators or accelerators.			
	□ Physical office space					
	☐ Wet labs/bench space					
	☐ Training and/or mentorship					
	☐ Access to investment network	(S)				
	□ Other (specify):					
	Sales of new products, Services, or Products	cesses				
43	Are there any products, services, or pro-	cesses in the market, market read	ly, or awaiting regulatory approval whose			
	commercialization you can attribute (to					
	o Yes					
	o No					
44		[If response to item 42 (commercialization) Is "Yes"]				
	Please enter the following information a	about products, services or proces	sses.			
	Describe Product	Describe Product				
	• Status					
45	Are you currently pursuing a new venture?					
	• Yes					
	• No					
46	Since the start of your commercializatio	n effort, have you developed any	entrepreneurial curricula?			
	o Yes					
	o No					
47	Did your NSF project lead to any collabo	-				
	Industry 2	Yes	No			
	Industry?					
	Investors?					
	Local or state government?					
	Non-profit organization?					
	Other?(Specify)					
48	[If response is "Yes "for "Industry" in ite					
	Please describe your industry collaborat	ion(s).				

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		Yes Uncertain No O O O O O O O O O O O O O O O O O O O			
			rsity you are currently affiliated	with and the external	
	community did the NSF award				
	Industry			0	
	Investors				
	Local or State Government	0	0	0	
	Non-profit organization	0		0	
	Other (Specify)				
	Current Employment			· ·	
52	Do you currently work for a co	llege or university?			
	o Yes				
	o No [go to demographics]				
	 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 up	ivorcity		
			a private company.		
	3,	.,			
54	[If response is "Yes" in item 53				
			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 				
	 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.			
58	What is your race? (Select one or more) American Indian or	Alaska 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				
	 Prefer not to answer 				
50	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 	National 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	0	
	Other serious disability related to a physical, mental, or emotional OOOOO				
63	Anything Else [If yes to item 2]				
- •	Thanks for your responses! Is there anything else you would	like us to know about	vour commerci	alization	
	experience that wasn't captured by this survey?	as to know about	, - 41 - 511111111111111		
	[TEXT BOX]				