

Supplementary material

Are public subsidies effective for university spinoffs? Evidence from SBIR awards in the University of California system

Fini, R; Perkmann, M; Kenney, M; Maki, KM.

Table S1: Distribution of firms across UC campuses

	N of firms	%
UC San Diego	121	23
UC Los Angeles	120	23
UC Berkeley	84	16
UC Irvine	56	11
UC San Francisco	47	9
UC Davis	39	7
UC Santa Barbara	35	7
UC Riverside	15	3
UC Santa Cruz	11	2
UC Merced	3	1
Total	531	100

Table S2: First stage probit model – propensity score

	M1
Industry: digital	0.06 (0.24)
Industry: biomedical	-0.08 (0.24)
UC equity	0.19 (0.16)
Inventor involvement	0.27 (0.34)
Star inventor	0.10 (0.17)
VC funding	-0.36 (0.34)
Number of federal grants	0.10 (0.05)
Patents	-0.13 (0.13)
Grant: defence	-0.01 (0.19)
Grant: NIH	0.04 (0.18)
Grant: NSF	0.00 (0.20)
Grant: other	0.01 (0.23)
Number of tech tags	0.17*** (0.05)
Time to license	0.01 (0.02)
Year of establishment dummies	Included
Campus dummies	Included
Constant	-10.77 (474.7)
Observations	531
Log likelihood	-248.30

*p<0.1; **p<0.05; ***p<0.01; DV=Probability for a firm of obtaining a given treatment (i.e., 'having received at least one SBIR), conditional on pre-treatment characteristics assessed at firm foundation; Industry: environment and energy is the omitted category

Table S3a: Pairwise correlations

	1	2	3	4	5	6	7	8	9	10	11
1 VC (Y/N)	1										
2 Number of VC deals	0.7214*	1									
3 VC deals per year	0.7449*	0.8623*	1								
4 VC (total \$)	0.9520*	0.7976*	0.7997*	1							
5 VC (\$ per year)	0.9504*	0.7928*	0.8114*	0.9992*	1						
6 First sale (Y/N)	0.2229*	0.2240*	0.1981*	0.2301*	0.2260*	1					
7 IPO (Y/N)	0.1385*	0.1991*	0.1283*	0.1733*	0.1714*	0.0064	1				
8 Exit (Y/N)	0.2023*	0.1731*	0.1721*	0.1917*	0.1925*	0.1978*	0.0403	1			
9 Failure (Y/N)	-0.1379*	-0.1097*	-0.1252*	-0.1350*	-0.1355*	-0.1228*	-0.0452	-0.1411*	1		
10 Industry: digital	-0.0309	-0.045	-0.0311	-0.0427	-0.0428	0.2303*	-0.0583	0.1862*	-0.0088	1	
11 Industry: biomedical	-0.0032	-0.0259	-0.0039	0.0177	0.0188	-0.1963*	-0.0032	-0.1350*	0.0316	-0.7576*	1
12 Industry: environment and energy	0.0465	0.0996*	0.0479	0.0314	0.0299	-0.0184	0.0837	-0.0503	-0.0353	-0.2215*	-0.4687*
13 UC equity	0.2413*	0.1620*	0.1122*	0.2348*	0.2273*	0.1301*	0.1338*	0.0943*	-0.0265	-0.0167	0.0472
14 Inventor involvement	-0.078	-0.0986*	-0.0874*	-0.0870*	-0.0865*	0.1001*	-0.0392	0.0322	-0.0947*	0.1730*	-0.0874*
15 Star inventor	0.1596*	0.1385*	0.1262*	0.1510*	0.1498*	0.0345	0.0614	-0.0083	0.0321	0.0667	-0.0749
16 VC funding	0.3475*	0.3698*	0.5743*	0.3685*	0.3817*	0.0589	-0.0239	0.0134	-0.0708	-0.0539	0.0256
17 Number of federal grants	0.1653*	0.1856*	0.1259*	0.1507*	0.1454*	-0.037	-0.0121	-0.0899*	0.0434	-0.1825*	0.1594*
18 Patents	0.1231*	0.0891*	0.0768	0.1358*	0.1354*	0.1013*	-0.0461	0.0013	0.0578	-0.0288	0.0601
19 Grant: defence	0.1188*	0.0988*	0.0836	0.1054*	0.1036*	-0.066	0.0541	0.0121	0.0464	0.0459	-0.1332*
20 Grant: NIH	0.0169	0.0116	-0.0043	0.02	0.0183	-0.0657	-0.0424	-0.1324*	0.0907*	-0.3645*	0.5071*
21 Grant: NSF	0.0534	0.0787	0.0409	0.0369	0.0359	0.0499	0.0123	0.0758	-0.007	0.1701*	-0.1875*
22 Grant: other	0.0333	0.0788	0.0664	0.0389	0.0377	-0.0298	0.0353	-0.075	-0.0144	-0.0758	-0.0503
23 Number of tech tags	0.0202	0.0236	0.0175	0.0338	0.033	-0.0641	0.0187	-0.085	-0.1405*	-0.0547	0.0867*
24 Time to license	0.0643	0.0517	0.0646	0.0754	0.0773	-0.0241	-0.0771	-0.0512	0.0044	-0.1009*	0.1089*
25 At least one SBIR1	0.1374*	0.1682*	0.0815	0.1503*	0.1433*	0.1064*	0.1297*	0.0224	-0.1062*	0.0105	0.0002

N=531; * significant at 5% or more

Table S3b: Pairwise correlations cont'd

	12	13	14	15	16	17	18	19	20	21	22	23	24
12	1												
13	-0.0479	1											
14	-0.1035*	0.006	1										
15	0.0217	0.0377	-0.0953*	1									
16	0.0347	0.0628	-0.005	0.0445	1								
17	0.0088	0.0469	-0.2136*	0.1297*	-0.0079	1							
18	-0.0508	0.0197	-0.1499*	0.0821	-0.0079	0.2077*	1						
19	0.1370*	0.0099	-0.1612*	0.1666*	0.0308	0.4442*	0.1680*	1					
20	-0.2644*	0.0391	-0.1288*	-0.0356	-0.0733	0.4594*	0.1139*	-0.0749	1				
21	0.0499	-0.0066	-0.0898*	0.0898*	-0.0594	0.2957*	0.0476	0.2400*	-0.0844	1			
22	0.1777*	-0.0046	-0.1063*	0.0817	0.0049	0.3077*	0.1032*	0.1791*	-0.0225	-0.0664	1		
23	-0.0555	-0.038	0.0091	0.0474	-0.0032	0.0612	-0.0327	-0.0548	0.0960*	-0.0214	0.031	1	
24	-0.0261	-0.0011	-0.1124*	0.0379	-0.0085	0.1988*	0.6130*	0.1243*	0.1357*	0.0398	0.061	0.0935*	1
25	-0.0145	0.0717	-0.021	0.0870*	-0.0396	0.1729*	0.0309	0.1022*	0.047	0.0577	0.0643	0.0154	0.0498

N=531; * significant at 5% or more

Table S4: Main analysis – single neighbour matching

	VC (Y/N)	Number of VC deals	VC deals per year	VC (total \$)	VC (\$ per year)	First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Full sample									
ATT	0.01	-0.03	-0.01	0.16	0.13	0.06	0.03**	-0.03	-0.15**
SE	0.07	0.28	0.04	1.18	1.03	0.06	0.02	0.05	0.06
Treated	123	123	123	123	123	123	123	123	123
Untreated	406	406	406	406	406	406	406	406	406
N	529	529	529	529	529	529	529	529	529
T-stat	0.2	-0.12	-0.27	0.13	0.13	0.94	2.03	-0.67	-2.55
Digital sample									
ATT	-0.24*	-0.44*	-0.10*	-3.45*	-3.11*	0.12	0.00	0.00	-0.08
SE	0.14	0.29	0.05	2.04	1.79	0.13	0.00	0.13	0.10
Treated	25	25	25	25	25	25	25	25	25
Untreated	99	99	99	99	99	99	99	99	99
N	124	124	124	124	124	124	124	124	124
T-stat	-1.72	-1.51	-1.88	-1.69	-1.74	0.90	0.00	0.00	-0.82
Non-Digital sample									
ATT	0.03	0.44	0.04	0.55	0.48	0.13**	0.03*	-0.02	-0.08
SE	0.10	0.35	0.05	1.55	1.36	0.06	0.02	0.05	0.07
Treated	87	87	87	87	87	87	87	87	87
Untreated	300	300	300	300	300	300	300	300	300
N	387	387	387	387	387	387	387	387	387
T-stat	0.36	1.26	0.92	0.36	0.35	2.09	1.75	-0.49	-1.10

Single nearest neighbour matching with a 0.05 Caliper; ATT= average effect of treatment on the treated; SE=Standard Error; *p<0.1; **p<0.05; ***p<0.01

Table S5: Main analysis - three neighbours matching

	VC (Y/N)	Number of VC deals	VC deals per year	VC (total \$)	VC (\$ per year)	First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Full sample									
ATT	0.04	0.15	0.00	0.60	0.48	0.12**	0.03**	-0.02	-0.15***
SE	0.06	0.23	0.03	1.00	0.88	0.05	0.02	0.04	0.05
Treated	123	123	123	123	123	123	123	123	123
Untreated	406	406	406	406	406	406	406	406	406
N	529	529	529	529	529	529	529	529	529
T-stat	0.67	0.66	0.15	0.60	0.54	2.30	2.03	-0.42	-3.05
Digital sample									
ATT	-0.25**	-0.56**	-0.10**	-3.33**	-2.98**	0.00	0.00	-0.04	0.00
SE	0.10	0.28	0.04	1.57	1.37	0.12	0.00	0.10	0.07
Treated	25	25	25	25	25	25	25	25	25
Untreated	99	99	99	99	99	99	99	99	99
N	124	124	124	124	124	124	124	124	124
T-stat	-2.41	-1.98	-2.48	-2.13	-2.18	0.00	0.00	-0.38	0.00
Non-Digital sample									
ATT	0.04	0.43	0.04	0.79	0.68	0.15***	0.03	-0.03	-0.11*
SE	0.08	0.31	0.04	1.31	1.15	0.05	0.02	0.04	0.06
Treated	87	87	87	87	87	87	87	87	87
Untreated	300	300	300	300	300	300	300	300	300
N	387	387	387	387	387	387	387	387	387
T-stat	0.52	1.41	1.05	0.60	0.59	2.88	1.35	-0.70	-1.78

Three nearest neighbours matching with a 0.05 Caliper; ATT= average effect of treatment on the treated; SE=Standard Error; *p<0.1; **p<0.05; ***p<0.01

Table S6: Sensitivity analysis

	VC (Y/N)	Number of VC deals	VC deals per year	VC (total \$)	VC (\$ per year)	First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Full sample									
Bandwith (0.01)							+		-
Bandwith (0.05)						+	+		-
Bandwith (0.08)						+	+		-
Trim (2)						+	+		-
Trim (5)						+			-
Trim (10)						+			-
Digital sample									
Bandwith (0.01)		-	-	-	-				
Bandwith (0.05)		-	-	-	-				
Bandwith (0.08)		-	-	-	-				
Trim (2)		-	-	-	-				
Trim (5)		-	-	-	-				
Trim (10)		-	-	-	-				
Non-digital sample									
Bandwith (0.01)		+						-	-
Bandwith (0.05)						+			-
Bandwith (0.08)						+	+		-
Trim (2)		+				+	+		-
Trim (5)						+			-
Trim (10)						+			-

Treatment=at least one SBIR1; Models include all pre-treatment characteristics and are specified with a kernel matching; - or + Indicates that the result is negative/positive and significant at least at $p < .1$

Table S7: Main analysis – excludes firms that obtained first SBIR after obtaining VC

	VC (Y/N)	Number of VC deals	VC deals per year	VC (total \$)	VC (\$ per year)	First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Full sample									
ATT	0.00	0.21	0.02	0.20	0.18	0.06	0.02	-0.02	-0.09**
SE	0.06	0.22	0.03	0.89	0.79	0.05	0.01	0.03	0.04
Treated	106	106	106	106	106	106	106	106	106
Untreated	406	406	406	406	406	406	406	406	406
N	512	512	512	512	512	512	512	512	512
T-stat	0.00	0.96	0.69	0.23	0.23	1.18	1.14	-0.53	-2.23
Digital sample									
ATT	-0.29***	-0.56***	-0.09***	-3.94***	-3.50***	-0.04	0.00	-0.02	-0.04
SE	0.08	0.20	0.03	1.22	1.07	0.11	0.00	0.10	0.08
Treated	23	23	23	23	23	23	23	23	23
Untreated	96	96	96	96	96	96	96	96	96
N	119	119	119	119	119	119	119	119	119
T-stat	-3.5	-2.88	-2.74	-3.25	-3.26	-0.39	0.00	-0.18	-0.54
Non-digital sample									
ATT	0.00	0.31	0.04	0.09	0.09	0.10**	0.01	-0.04	-0.11**
SE	0.07	0.30	0.04	1.17	1.03	0.05	0.01	0.03	0.05
Treated	73	73	73	73	73	73	73	73	73
Untreated	300	300	300	300	300	300	300	300	300
N	373	373	373	373	373	373	373	373	373
T-stat	0.00	1.04	0.95	0.07	0.09	1.98	0.61	-1.26	-1.99

The 17 firms with VC before SBIR are excluded from the analysis; Treatment=at least one SBIR1; ATT= Average effect of Treatment on the Treated; SE=Standard Error; Models include all pre-treatment characteristics and are specified with a kernel matching; *p<0.1; **p<0.05; ***p<0.01

Table S8: Summary table – alternative ways of operationalizing the treatment

	N	Treated	% of Treated	VC	First Sale	IPO	Exit	Failure
Treatment=Only one SBIR 1*								
Full sample	431	50	11.6					-
Digital sample	93	10	10.8	-				-
Non-Digital sample	256	35	13.7				-	-
Treatment=At least one SBIR 1 and one SBIR 2*								
Full sample	344	47	13.7		+			-
Digital sample	49	4	8.2	-				
Non-Digital sample	225	35	15.6		+			-
Treatment=At least one SBIR 1 and one STTR								
Full sample	529	124	23.4			+		-
Digital sample	124	25	20.2	-				
Non-Digital sample	387	88	22.7		+		-	-

+ = positive and statistically significant average effect of treatment on the treated; - = negative and statistically significant average effect of treatment on the treated; Kernel matching algorithm; *Other SBIR recipients are excluded from the analysis

Table S9: Main analysis - excludes firms that received VC only (not in conjunction with SBIR)

		First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Full sample	ATT	0.11**	0.03*	0.02	-0.22***
	SE	0.05	0.01	0.03	0.05
	Treated	116	116	116	116
	Untreated	286	286	286	286
	N	402	402	402	402
	T-stat	2.23	1.75	0.64	-4.03
Digital sample	ATT	-0.06	0.00	0.04	-0.10
	SE	0.12	0.00	0.09	0.09
	Treated	23	23	23	23
	Untreated	66	66	66	66
	N	89	89	89	89
	T-stat	-0.48	0.00	0.40	-1.11
Non-Digital sample	ATT	0.14**	0.03	0.04	-0.31***
	SE	0.06	0.02	0.04	0.08
	Treated	74	74	74	74
	Untreated	214	214	214	214
	N	288	288	288	288
	T-stat	2.48	1.42	1.14	-4.15

The 120 firms that received VC only (i.e. firms that obtained VC but no SBIR awards) are excluded from the analysis; Treatment=at least one SBIR1;
ATT= Average effect of Treatment on the Treated; SE=Standard Error; Models include all pre-treatment characteristics and are specified with a kernel matching; *p<0.1; **p<0.05; ***p<0.01

Table S10: Boundary conditions – top campus

		VC (Y/N)	Number of VC deals	VC deals per year	VC (total \$)	VC (\$ per year)	First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Digital & Non-top Campus	ATT	-0.25	-0.17	-0.07	-3.38	-3.07	-0.12	0.00	0.10	-0.33**
	SE	0.29	1.04	0.19	4.41	3.94	0.31	0.00	0.23	0.15
	Treated	6	6	6	6	6	6	6	6	6
	Untreated	15	15	15	15	15	15	15	15	15
	N	21	21	21	21	21	21	21	21	21
	T-stat	-0.87	-0.16	-0.36	-0.77	-0.78	-0.37	0.00	0.45	-2.16
Digital & Top Campus	ATT	-0.21*	-0.42**	-0.07***	-2.86*	-2.56*	-0.01	0.00	-0.13	-0.06
	SE	0.11	0.20	0.03	1.63	1.42	0.13	0.00	0.11	0.10
	Treated	17	17	17	17	17	17	17	17	17
	Untreated	73	73	73	73	73	73	73	73	73
	N	90	90	90	90	90	90	90	90	90
	T-stat	-1.88	-2.14	-2.67	-1.75	-1.81	-0.05	0.00	-1.13	-0.62
Non-digital & Non-top Campus	ATT	0.21	1.28	0.12	3.57	3.06	0.14	0.00	-0.02	-0.09
	SE	0.16	0.90	0.09	2.63	2.30	0.14	0.00	0.04	0.11
	Treated	15	15	15	15	15	15	15	15	15
	Untreated	87	87	87	87	87	87	87	87	87
	N	102	102	102	102	102	102	102	102	102
	T-stat	1.30	1.41	1.31	1.36	1.33	1.01	0.00	-0.50	-0.82
Non-digital & Top Campus	ATT	0.02	0.26	0.01	0.55	0.45	0.10	0.04	-0.06*	-0.12*
	SE	0.09	0.26	0.04	1.40	1.24	0.06	0.03	0.04	0.07
	Treated	65	65	65	65	65	65	65	65	65
	Untreated	205	205	205	205	205	205	205	205	205
	N	270	270	270	270	270	270	270	270	270
	T-stat	0.2	0.98	0.35	0.39	0.36	1.56	1.47	-1.63	-1.87

Treatment=at least one SBIR1; ATT= Average effect of Treatment on the Treated; SE=Standard Error; Models include all pre-treatment characteristics and are specified with a kernel matching; *p<0.1; **p<0.05; ***p<0.01

Table S11: Boundary conditions – Silicon Valley

		VC (Y/N)	Number of VC deals	VC deals per year	VC (total \$)	VC (\$ per year)	First sale (Y/N)	IPO (Y/N)	Exit (Y/N)	Failure (Y/N)
Digital & Non-Silicon Valley	ATT	-0.04	-0.10	-0.02	0.02	-0.05	-0.21	0.00	0.03	0.03
	SE	0.14	0.44	0.07	2.09	1.83	0.15	0.00	0.12	0.11
	Treated	19	19	19	19	19	19	19	19	19
	Untreated	67	67	67	67	67	67	67	67	67
	N	86	86	86	86	86	86	86	86	86
	T-stat	-0.3	-0.23	-0.32	0.01	-0.02	-1.41	0.00	0.26	0.28
Digital & Silicon Valley	ATT	.	.	.	.	.	.	.	.	.
	SE	.	.	.	.	.	.	.	.	.
	Treated	0	0	0	0	0	0	0	0	0
	Untreated	12	12	12	12	12	12	12	12	12
	N	12	12	12	12	12	12	12	12	12
	T-stat	.	.	.	.	.	.	.	.	.
Non-digital & Non-Silicon Valley	ATT	0.15*	0.82**	0.09*	3.10**	2.70**	0.10	0.01	-0.05	-0.14**
	SE	0.08	0.36	0.05	1.31	1.16	0.06	0.02	0.03	0.06
	Treated	56	56	56	56	56	56	56	56	56
	Untreated	239	239	239	239	239	239	239	239	239
	N	295	295	295	295	295	295	295	295	295
	T-stat	1.78	2.24	1.92	2.36	2.34	1.63	0.57	-1.52	-2.34
Non-digital & Silicon Valley	ATT	0.04	0.21	-0.01	0.44	0.31	0.08	0.05	-0.02	-0.37**
	SE	0.20	0.63	0.08	3.28	2.90	0.13	0.05	0.09	0.15
	Treated	20	20	20	20	20	20	20	20	20
	Untreated	54	54	54	54	54	54	54	54	54
	N	74	74	74	74	74	74	74	74	74
	T-stat	0.17	0.34	-0.16	0.14	0.11	0.58	1.00	-0.28	-2.53

Treatment=at least one SBIR1; ATT= Average effect of Treatment on the Treated; SE=Standard Error; Models include all pre-treatment characteristics and are specified with a kernel matching; *p<0.1; **p<0.05; ***p<0.01

Table S12a: Pairwise correlations – DV and instruments – panel models

	1	2	3
1 Cumulative N of SBIR 1 (up to t)	1		
2 Budget allocated to SMEs by SBIR (up to t-1)	0.0814*	1	
3 SBIR acceptance rate in t-1	-0.014	-0.1033*	1

N=3,073; * Correlations significant at 5% or above

Table S12b: Descriptive statistics – DV and instruments – panel models

	Obs	Mean	Std. dev	Min	Max
Cumulative N of SBIR 1 (up to t)	3073	0.55	1.67	0.00	40.00
Budget allocated to SMEs by SBIR (up to t-1)	3073	22,500,000	6,814,791	6,069,777	31,100,000
SBIR acceptance rate in t-1	3073	0.21	0.01	0.19	0.25

Table S13: Panel models 2SLS – effect of SBIR 1 on the amount of VC financing received in t

	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage
	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]
UC equity	0.293*** (0.067)	0.490** (0.229)	-0.363** (0.155)	1.407*** (0.480)	0.495*** (0.071)	0.138 (0.303)	0.740*** (0.090)	0.209 (0.227)	-0.135 (0.267)	0.00704 (0.309)	0.909*** (0.090)	0.0908 (0.306)
Inventor involvement	0.259* (0.145)	-0.878* (0.463)	0.3 (0.253)	-0.695 (0.738)	0.866*** (0.185)	-1.300* (0.711)	0.361** (0.176)	0.0512 (0.363)	0.341 (0.321)	0.143 (0.377)	1.298*** (0.223)	-0.202 (0.629)
Star inventor	0.316*** (0.077)	0.355 (0.263)	0.318* (0.175)	0.471 (0.532)	0.225*** (0.085)	0.545* (0.306)	0.329*** (0.101)	0.775*** (0.213)	0.648** (0.271)	0.204 (0.345)	0.00613 (0.105)	0.997*** (0.260)
VC funding	-0.0475 (0.130)	6.015*** (0.410)	-0.838** (0.415)	8.277*** (1.283)	-0.152 (0.129)	5.881*** (0.451)	0.874*** (0.307)	6.776*** (0.646)	0.642 (0.903)	4.815*** (1.055)	0.734** (0.302)	6.980*** (0.770)
Number of federal grants	-0.0386* (0.021)	0.0681 (0.067)	0.0869 (0.075)	-0.0845 (0.220)	-0.0426** (0.021)	0.0587 (0.073)	-0.0732*** (0.027)	0.0587 (0.057)	-0.0093 (0.098)	0.351*** (0.113)	-0.0753*** (0.026)	0.0267 (0.067)
Patents	-0.287*** (0.054)	0.326* (0.193)	-0.0953 (0.160)	1.457*** (0.456)	-0.322*** (0.056)	0.068 (0.224)	-0.171** (0.077)	-0.0424 (0.159)	0.173 (0.236)	0.0263 (0.274)	-0.253*** (0.077)	-0.125 (0.199)
Grant: defence	0.336*** (0.087)	-0.306 (0.289)	0.251 (0.212)	-0.236 (0.609)	0.462*** (0.094)	-0.348 (0.363)	0.509*** (0.112)	-0.0672 (0.243)	0.34 (0.295)	-0.327 (0.342)	0.686*** (0.118)	-0.0402 (0.331)
Grant: NIH	0.0548 (0.080)	0.0726 (0.252)	-0.0419 (0.248)	0.0903 (0.701)	0.0931 (0.081)	0.178 (0.281)	0.107 (0.099)	0.299 (0.202)	-0.0245 (0.321)	-0.433 (0.371)	0.217** (0.099)	0.412* (0.249)
Grant: NSF	0.484*** (0.090)	0.392 (0.317)	0.22 (0.189)	-0.116 (0.548)	0.580*** (0.106)	0.814* (0.418)	0.552*** (0.111)	0.840*** (0.246)	0.683*** (0.256)	-0.291 (0.330)	0.610*** (0.124)	1.178*** (0.337)
Grant: other	0.126 (0.105)	-0.113 (0.334)	-0.659* (0.347)	1.821* (1.075)	0.180* (0.104)	-0.168 (0.366)	0.0385 (0.132)	0.247 (0.268)	-0.118 (0.497)	-1.044* (0.576)	0.186 (0.125)	0.373 (0.313)
Number of tech tags	0.0679***	0.272***	0.104*	0.25	0.0550**	0.206**	0.131***	0.142**	0.153*	0.113	0.104***	0.115

Time to licence	(0.023) 0.0447***	(0.074) -0.00373	(0.058) -0.0175	(0.177) -0.151*	(0.023) 0.0556***	(0.084) 0.0521	(0.029) 0.0305**	(0.064) 0.0709***	(0.083) -0.0815**	(0.102) 0.0377	(0.029) 0.0566***	(0.075) 0.0884**
Year of establishment	(0.010) -0.193***	(0.034) -0.124***	(0.027) -0.168***	(0.078) -0.120*	(0.010) -0.205***	(0.041) -0.102**	(0.013) -0.255***	(0.026) -0.115***	(0.036) -0.251***	(0.045) -0.0448	(0.013) -0.263***	(0.035) -0.114***
Budget allocated to SMEs by SBIR up to t-1	7.88e-08*** (0.0)		7.85e-08*** (0.0)		7.82e-08*** (0.0)		1.07e-07*** (0.0)		1.18e-07*** (0.0)		1.04e-07*** (0.0)	
SBIR acceptance rate at t-1	-1.95 (2.368)		-1.296 (5.049)		-2.369 (2.522)		-3.409 (2.986)		-1.657 (6.676)		-3.371 (3.075)	
Cum N of SBIR 1 (up to t)		0.692** (0.302)		0.926 (0.589)		0.687* (0.352)		0.305* (0.180)		-0.0623 (0.217)		0.425* (0.230)
UC campus dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies	Included	Included										
Firm age dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Constant	385.7*** (31.810)	251.8*** (67.630)	334.9*** (70.320)	240.7* (127.0)	410.1*** (34.030)	208.8** (85.030)	509.6*** (39.930)	231.2*** (52.910)	500.5*** (94.880)	89.48 (69.990)	524.5*** (41.20)	227.5*** (70.70)
N of observations	3,073	3,073	789	789	2,284	2,284	2,292	2,292	566	566	1,726	1,726
R-squared	0.17		0.18		0.27		0.25		0.24		0.37	
F-Statistic	54.67		11.55		48.24		63.26		14.13		58.04	
Sample Observations	Full All	Full All	Digital All	Digital All	Non digital All	Non digital All	Full No VC only	Full No VC only	Digital No VC only	Digital No VC only	Non digital No VC only	Non digital No VC only
Test	Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value
CLR	5.95	0.02	3.44	0.07	4.08	0.04	2.90	0.09	0.09	0.77	3.47	0.06
AR	12.56	0.00	6.05	0.05	7.94	0.02	5.34	0.07	2.13	0.34	4.56	0.10
LM	5.59	0.02	3.08	0.08	3.92	0.05	2.84	0.09	0.08	0.78	3.44	0.06
J	6.97	0.01	2.97	0.08	4.02	0.04	2.50	0.11	2.05	0.15	1.12	0.29
Wald	5.26	0.02	2.58	0.10	3.80	0.05	2.85	0.09	0.08	0.77	3.41	0.07

Specifications: Single-equation instrumental-variables two-stage least squares (2SLS) regression; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All=all observations included; No VC only= sample excluding firms that obtained VC only

Table S14: Panel models probit – effect of SBIR 1 on VC financing received in t

	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage
	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]
UC equity	0.291*** (0.000)	0.156* (0.072)	-0.352** (0.023)	0.525** (0.017)	0.495*** (0.000)	0.0323 (0.796)	0.733*** (0.000)	0.0735 (0.658)	-0.488* (0.070)	-0.0287 (0.968)	0.898*** (0.000)	-0.146 (0.510)
Inventor involvement	0.242* (0.095)	-0.483** (0.019)	0.349 (0.169)	-0.467 (0.243)	0.853*** (0.000)	-0.694** (0.027)	0.343* (0.051)	-0.529 (0.210)	0.359 (0.279)	0.276 (0.770)	1.283*** (0.000)	-1.085* (0.077)
Star inventor	0.310*** (0.000)	0.0556 (0.561)	0.360** (0.040)	0.166 (0.481)	0.218** (0.010)	0.146 (0.179)	0.320*** (0.001)	0.360** (0.012)	1.504*** (0.000)	1.514** (0.042)	-0.0104 (0.920)	0.492*** (0.001)
VC funding	-0.0445 (0.732)	1.400*** (0.000)	-0.804* (0.053)	1.939*** (0.000)	-0.143 (0.267)	1.392*** (0.000)	0.893*** (0.004)	1.536*** (0.000)	2.243** (0.012)	1.158 (0.244)	0.796*** (0.008)	1.429*** (0.000)
N of federal grants	-0.0384* (0.069)	0.0201 (0.397)	0.0707 (0.344)	0.0348 (0.699)	-0.0433** (0.036)	0.0141 (0.585)	-0.0702** (0.010)	0.027 (0.433)	-0.0655 (0.518)	0.382*** (0.008)	-0.0713*** (0.006)	0.0136 (0.727)
Patents	-0.292*** (0.000)	0.139* (0.059)	-0.108 (0.497)	0.478** (0.019)	-0.330*** (0.000)	0.0655 (0.460)	-0.173** (0.024)	-0.122 (0.271)	-0.094 (0.696)	-0.0122 (0.977)	-0.253*** (0.001)	-0.123 (0.341)
Grant: defence	0.333*** (0.000)	-0.109 (0.318)	0.256 (0.227)	-0.159 (0.566)	0.453*** (0.000)	-0.127 (0.365)	0.496*** (0.000)	-0.0576 (0.731)	0.214 (0.481)	-0.48 (0.380)	0.661*** (0.000)	-0.126 (0.567)
Grant: NIH	0.0502 (0.528)	0.0426 (0.657)	-0.0212 (0.932)	-0.0986 (0.788)	0.0855 (0.285)	0.0651 (0.535)	0.0984 (0.320)	0.195 (0.183)	-0.0956 (0.773)	-0.122 (0.857)	0.199** (0.041)	0.257 (0.132)
Grant: NSF	0.486*** (0.000)	0.0615 (0.606)	0.236 (0.213)	-0.138 (0.571)	0.588*** (0.000)	0.173 (0.283)	0.553*** (0.000)	0.342** (0.039)	0.823*** (0.002)	-0.225 (0.682)	0.624*** (0.000)	0.329 (0.115)
Grant: other	0.126 (0.232)	-0.0214 (0.858)	-0.605* (0.082)	0.576 (0.185)	0.188* (0.069)	-0.05 (0.702)	0.0497 (0.706)	0.194 (0.250)	-0.0392 (0.939)	.	0.217* (0.081)	0.217 (0.234)
Number of tech tags	0.0688*** (0.002)	0.0919*** (0.001)	0.0937 (0.110)	0.102 (0.185)	0.0566** (0.015)	0.0688** (0.026)	0.132*** (0.000)	0.0548 (0.218)	-0.00879 (0.915)	-0.0202 (0.919)	0.106*** (0.000)	0.0336 (0.492)
Time to licence	0.0457*** (0.000)	-0.00642 (0.628)	-0.0161 (0.555)	-0.0669 (0.111)	0.0570*** (0.000)	0.0126 (0.440)	0.0311** (0.013)	0.0451** (0.011)	-0.0151 (0.673)	0.0866 (0.193)	0.0566*** (0.000)	0.0438** (0.047)
Year of establishment	-0.175*** (0.000)	-0.0460*** (0.000)	-0.200*** (0.000)	-0.0515* (0.095)	-0.170*** (0.000)	-0.0365** (0.028)	-0.232*** (0.000)	-0.0831*** (0.000)	-0.298*** (0.000)	-0.0957 (0.159)	-0.217*** (0.000)	-0.0711*** (0.004)
Budget allocated to SMEs by SBIR up to t-1	7.02e-08*** (0.000)		9.33e-08*** (0.000)		6.20e-08*** (0.000)		9.64e-08*** (0.000)		0.000000149*** (0.000)		8.35e-08*** (0.000)	
SBIR acceptance rate at t-1	-1.761 (0.458)		-1.348 (0.791)		-2.17 (0.388)		-3.043 (0.309)		-1.915 (0.782)		-2.873 (0.347)	
Cumulative N of SBIR 1 (up to t)		0.318** (0.019)		0.365 (0.110)		0.314* (0.071)		0.290* (0.054)		-0.0827 (0.747)		0.453** (0.021)
UC campus dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies	Included	Included			Included	Included			Included	Included		
Firm age dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Constant	348.7*** (0.000)	90.75*** (0.001)	398.7*** (0.000)	98.92 (0.469)	339.9*** (0.000)	71.96** (0.031)	463.3*** (0.000)	161.9 (0.272)	595.4*** (0.000)	188.9 (0.165)	434.3*** (0.000)	138.2 (0.351)
N of observations	3073	3073	789	744	2284	2284	2292	2211	566	410	1726	1652

R-squared	0.17		0.19		0.28		0.25		0.2		0.38	
F-statistic	39		14.8		27.4		46		19.1		33.9	
Sample Observations	Full	Full	Digital	Digital	Non digital	Non digital	Full	Full	Digital	Digital	Non digital	Non digital
	All	All	All	All	All	All	No VC only	No VC only	No VC only	No VC only	No VC only	No VC only
Test	Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value
CLR	6.47	0.01	3.72	0.05	3.59	0.06	3.86	0.05	0.11	0.74	5.67	0.02
AR	12.16	0.01	7.07	0.03	6.47	0.04	5.64	0.06	1.90	0.38	6.25	0.04
LM	6.00	0.01	3.33	0.07	3.40	0.06	3.79	0.05	0.11	0.74	5.63	0.02
J	6.16	0.01	3.74	0.05	3.07	0.08	1.84	0.17	1.80	0.18	0.62	0.43
Wald	5.53	0.02	2.59	0.10	3.25	0.07	3.70	0.05	0.10	0.74	5.31	0.02

Specifications: probit model with a continuous endogenous covariate; Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All=all observations included; No VC only= sample excluding firms that obtained VC only

Table S15: Panel models GMM – effect of SBIR 1 on the amount of VC money received in t

	M1	M2	M3	M4	M5	M6
	[Ln(\$ amount of VC financing in t)]	[Ln(\$ amount of VC financing in t)]	[Ln(\$ amount of VC financing in t)]	[Ln(\$ amount of VC financing in t)]	[Ln(\$ amount of VC financing in t)]	[Ln(\$ amount of VC financing in t)]
Cumulative N of SBIR 1 (up to t)	0.400*	0.038	0.626**	0.207	0.04	0.512**
	(0.217)	(0.072)	(0.268)	(0.175)	(0.070)	(0.239)
Cumulative amount of VC financing (up to t-1)	-0.198***	-0.295***	-0.229***	-0.205**	-0.533***	-0.174*
	(0.067)	(0.075)	(0.073)	(0.099)	(0.160)	(0.096)
All controls	Included	Included	Included	Included	Included	Included
UC campus dummies	Included	Included	Included	Included	Included	Included
Industry dummies	Included			Included		
Firm age dummies	Included	Included	Included	Included	Included	Included
N of observations	2542	649	1893	1881	460	1421
Sample Observations	Full	Digital	Non digital	Full	Digital	Non digital
	All	All	All	No VC only	No VC only	No VC only
Serial correlation AR(1) test	0	0	0	0	0.042	0
Serial correlation AR(2) test	0.127	0.317	0.23	0.262	0.05	0.156

*p<0.1; **p<0.05; ***p<0.01; All variables are in first-difference which accounts for firm-fixed effects. All independent variables are assessed in t; Robust standard errors in parentheses; All=all observations included; No VC only= sample excluding firms that obtained VC only

Table S16: Panel models GMM – effect of SBIR 1 on VC deals concluded in t

	M1	M2	M3	M4	M5	M6
	VC deals in t [0;1]	VC deals in t [0;1]	VC deals in t [0;1]	VC deals in t [0;1]	VC deals in t [0;1]	VC deals in t [0;1]
Cumulative N of SBIR 1 (up to t)	0.026* (0.014)	-0.002 (0.006)	0.037** (0.018)	0.015 (0.012)	0.002 (0.005)	0.036** (0.017)
Cumulative N of VC deals (up to t-1)	-0.103*** (0.027)	-0.152*** (0.050)	-0.099*** (0.028)	-0.077** (0.036)	-0.269** (0.107)	-0.067* (0.036)
All controls	Included	Included	Included	Included	Included	Included
UC campus dummies	Included	Included	Included	Included	Included	Included
Industry dummies	Included			Included		
Firm age dummies	Included	Included	Included	Included	Included	Included
N of observations	2542	649	1893	1881	460	1421
Sample	Full	Digital	Non digital	Full	Digital	Non digital
Observations	All	All	All	No VC only	No VC only	No VC only
Serial correlation AR(1) test	0	0	0	0	0.04	0
Serial correlation AR(2) test	0.317	0.345	0.37	0.341	0.08	0.187

*p<0.1; **p<0.05; ***p<0.01; All variables are in first-difference which accounts for firm-fixed effects. All independent variables are assessed in t; Robust standard errors in parentheses; All=all observations included; No VC only= sample excluding firms that obtained VC only

Table S17: Panel models 2sls and probit with weighted instruments

	M1	M2	M3	M4	M5	M6	M7	M8
	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage	I-stage	II-stage
	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	[Ln(\$ amount of VC financing in t)]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]	Cumulative N of SBIR 1 (up to t)	VC deals in t [0;1]
UC equity	0.291*** (0.066)	0.474** (0.229)	0.733*** (0.090)	0.186 (0.226)	0.289*** 0.0	0.155* (0.072)	0.727*** 0.0	0.0734 (0.656)
Inventor involvement	0.264* (0.144)	-0.892* (0.465)	0.373** (0.176)	0.0393 (0.364)	0.246* (0.089)	-0.487** (0.018)	0.353** (0.044)	-0.53 (0.209)
Star inventor	0.313*** (0.077)	0.338 (0.263)	0.318*** (0.101)	0.765*** (0.213)	0.306*** 0.0	0.0543 (0.568)	0.309*** (0.002)	0.360** (0.011)
VC funding	-0.0435 (0.130)	6.017*** (0.412)	0.865*** (0.307)	6.747*** (0.647)	-0.0406 (0.755)	1.402*** 0.0	0.883*** (0.004)	1.537*** 0.0
Number of federal grants	-0.0393* (0.021)	0.0698 (0.068)	-0.0737*** (0.027)	0.0607 (0.057)	-0.0390* (0.064)	0.0202 (0.394)	-0.0705*** (0.010)	0.0271 (0.431)
Patents	-0.287*** (0.054)	0.341* (0.193)	-0.174** (0.077)	-0.0366 (0.159)	-0.291*** 0.0	0.141* (0.052)	-0.176** (0.022)	-0.123 (0.268)
Grant: defence	0.337*** (0.086)	-0.323 (0.290)	0.511*** (0.112)	-0.0821 (0.243)	0.334*** 0.0	-0.11 (0.310)	0.497*** 0.0	-0.0581 (0.728)
Grant: NIH	0.0569 (0.080)	0.0702 (0.253)	0.107 (0.099)	0.296 (0.202)	0.052 (0.513)	0.0435 (0.651)	0.0987 (0.318)	0.197 (0.180)
Grant: NSF	0.477*** (0.090)	0.367 (0.317)	0.543*** (0.111)	0.823*** (0.246)	0.479*** 0.0	0.0583 (0.621)	0.544*** 0.0	0.344** (0.035)

Grant: other	0.123 (0.105)	-0.119 (0.336)	0.0407 (0.132)	0.247 (0.268)	0.124 (0.239)	-0.0225 (0.851)	0.0526 (0.689)	0.196 (0.245)
Number of tech tags	0.0672*** (0.023)	0.268*** (0.074)	0.129*** (0.029)	0.137** (0.064)	0.0683*** (0.002)	0.0917*** (0.001)	0.130*** 0.0	0.0552 (0.214)
Time to licence	0.0448*** (0.010)	-0.00611 (0.034)	0.0307** (0.013)	0.0699*** (0.026)	0.0458*** 0.0	-0.00668 (0.611)	0.0314** (0.012)	0.0450** (0.011)
Year of establishment	-0.193*** (0.016)	-0.121*** (0.034)	-0.256*** (0.020)	-0.113*** (0.026)	-0.175*** 0.0	-0.0455*** 0.0	-0.234*** 0.0	-0.0822*** 0.0
Budget allocated to SMEs by SBIR up to t-1 (weighted by sector)	1.75e-07*** (0.0)		2.39e-07*** (0.0)		1.58e-07*** 0.0		2.17e-07*** 0.0	
SBIR acceptance rate at t-1 (weighted by sector)	-0.0998 (1.443)		-0.597 (1.832)		0.245 (0.865)		-0.151 (0.934)	
Cumulative N of SBIR 1 (up to t)		0.745** (0.297)		0.336* (0.178)		0.324** (0.013)		0.290** (0.049)
UC campus dummies	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummies	Included	Included	Included	Included	Included	Included	Included	Included
Firm age dummies	Included	Included	Included	Included	Included	Included	Included	Included
Constant	385.8*** (31.360)	245.7*** (67.550)	511.0*** (39.50)	226.8*** (52.810)	350.3*** 0.0	89.84*** (0.001)	466.3*** 0.0	160.1 (0.277)
N of observations	3,073	3,073	2,292	2,292	3073	3073	2292	2211
R-squared	0.171		0.249		0.17		0.25	
F-Statistic	57		65		41		48	
Sample Observations	Full All	Full All	Full No VC only	Full No VC only	Full All	Full All	Full No VC only	Full No VC only
Test	Statistics	P-value	Statistics	P-value	Statistics	P-value	Statistics	P-value
CLR	7.02	0.01	3.61	0.06	7.23	0.01	4.02	0.05
AR	11.66	0.00	3.93	0.14	12.48	0.00	5.62	0.06
LM	6.74	0.01	3.60	0.06	6.78	0.01	3.96	0.05
J	4.93	0.03	0.33	0.57	5.70	0.02	1.66	0.20
Wald	6.29	0.01	3.56	0.06	6.23	0.01	3.86	0.05

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; All=all observations included

See notes below on the construction of the weighted instrumental variables.

Construction of weighted instruments used in the specifications shown in Table S17

2) Instrumental variable: *SBIR acceptance rate at t-1*

We constructed an instrumental variable that accounts for the fact that (a) digital and non-digital companies are funded by different funding bodies, and (b) acceptance rates differ between funding bodies. Since we do not have US-wide figures for these differences, by industry, we extrapolated overall US-wide acceptance rates from our University of California sample.

a) For the sample of 531 University of California spin-offs, we calculated the percentage of awards to digital and non-digital firms by each grouping of granting bodies (i.e., Defence, NIH, NSF, and Other). For instance, defence funding bodies awarded 79.75% of their awards to digital firms (Table S17a).

Table S17a: SBIR 1 awards by funding body grouping

	IT==0 (non-digital)	IT==1 (digital)	Total
Defence	16	63	79
	20.25	79.75	100%
NIH	219	7	226
	96.9	3.1	100%
NSF	30	27	57
	52.63	47.37	100%
Other bodies	8	13	21
	38.1	61.9	100%
Total	273	110	383
	71.28	28.72	100%

b) For any given grouping of granting bodies and any given year (2000-2012), we calculated the number of proposals submitted and awarded.

Information on proposals is at agency level. Consistent with the operationalization used for grants in the main analysis, we group agencies as follows: *Defence* (proposals submitted to Air Force, Army, Department of Defence, Department of Homeland Security, NASA, National Oceanic & Atmospheric Administration, Navy, Veterans' Administration), *NIH* (proposals submitted to National Institutes of Health), *NSF* (proposals submitted to National Science Foundation), and *other bodies* (proposals submitted to Department of Agriculture, Department of Energy, Environmental Protection Agency, Federal Railroad Administration, Joint Services Electronics Program, National Financial Services, National Institute of Environmental Health Sciences, National Institute of Standards and Technology).

c) Figures on the number of submitted proposals are only available for the US as a whole, and not for our UC sample specifically. Hence, we applied the weights included in table 1 (e.g. for Defence 20.25% non-digital and 79.75% digital) to US-wide figures, and obtained the number of proposals submitted and awarded, per year, per granting body, for digital and non-digital companies.

d) For any given year, differentiating between digital and non-digital companies, we calculated the sum of all proposals and awards, calculating the US-wide acceptance rate per year for digital and non-digital companies.

e) We then used the newly operationalized variable as instrument for digital and non-digital companies, respectively, in our models. For instance, in the main analysis, the acceptance rate in 2000 was 0.24 on average across all types of companies. With this new operationalization, now we have two acceptance rates, 0.22 for digital companies and 0.26 for non-digital companies.

1) Instrumental variable: *Budget allocated to SMEs by SBIR up to t-1*

a) Same as (a) above

b) Then, we calculated, for any grouping of granting bodies and given year (2000-2012), the budget allocated to SMEs by SBIR.

c) Using the weights included in table 1 (es. for Defence 20.25% non-digital and 79.75 for digital), we calculated the amount of budget allocated, per year, per granting body, to digital and non-digital companies.

d) For any given year, we cumulated the budget allocated to digital and non-digital companies, respectively.

e) We inserted the newly operationalized variable into our models as an instrument for digital and non-digital companies, respectively. To illustrate, in the main analysis, the budget allocated by SBIR in 2000 was \$1,2b. With this new operationalization, now we have two values, \$640m for digital firms, and \$560m for non-digital firms.

Table S18: “Time to” variables

	N	Mean	Std. Dev	Min	Max
Time to First sale	93	1089.8	700.9	0	3395
Time to IPO	5	2420.8	684.8	1424	3204
Time to Exit	45	1724.6	1035.0	0	4272
Time to Failure	94	1817.9	974.6	356	4628

Table S19: Descriptive analysis

	Sample	Mean	Std. Dev.	t	Pr(|T| > |t|)	Std. Err.
Time to first sale	U (62)	1,002	675	1.72	0.089	85.77
	T (31)	1,264	729			130.9
Time to IPO	U (1)	2,848	-	-	-	-
	T (4)	2,314	741			370.53
Time to Exit	U (33)	1,456	882	3.16	0.003	153.65
	T (12)	2,462	1,099			317.38
Time to Failure	U (81)	1,718	961	2.53	0.013	106.83
	T (13)	2,437	845			234.5

U = Untreated (non SBIR recipients); T = Treated (SBIR recipients); t-stat in bold are non-significant

Table S20: Cox regression models

	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Sample	Full	Digital	Non-digital	Full	Digital	Non-digital	Full	Digital	Non-digital	Full	Digital	Non-digital
DV	First Sale	First Sale	First Sale	IPO	IPO	IPO	Exit	Exit	Exit	Failure	Failure	Failure
Startup with a SBIR	0.466* (0.262)	-0.099 (0.624)	1.292** (0.513)	-46.712 0.0	0 0.0	-41.345 0.0	-0.138 (0.40)	-0.464 (0.628)	-1.382 (0.848)	-1.17*** (0.326)	-0.57 (1.474)	-1.44*** (0.401)
Co-variates included	All	All	All	All	All	All	All	All	All	All	All	All
Probability weights	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Log pseudolikelihood	-584.65	-168.32	-302.38	-4.52	0.00	-4.98	-249.55	-98.46	-83.91	-467.96	-60.49	-335.95
Observations	528	139	389	528	139	389	528	139	389	528	139	389
Failure events observed	93	45	48	5	0	5	45	24	21	94	24	70

3 observations dropped because off support; Cox regression coefficients reported; Standard errors in parentheses *p<0.10, **p<0.05, ***p<0.01