Figure 1: ROC score distribution for selection model

Out of Sample AUC: 0.71
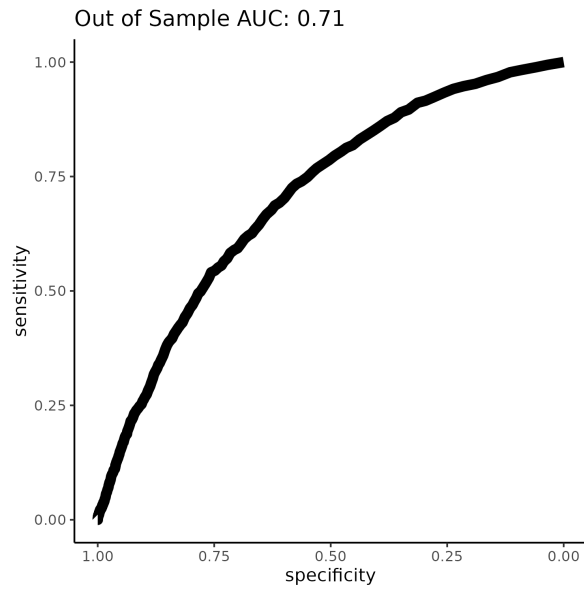
Notes: This figure reports the out of sample ROC score of a random forest model using a set of high dimensional startup observables to predict the probability that a venture capitalist has funded a startup's early stage round, in a sample of startups that received early stage financing.

Figure 2: Histogram of Predictions
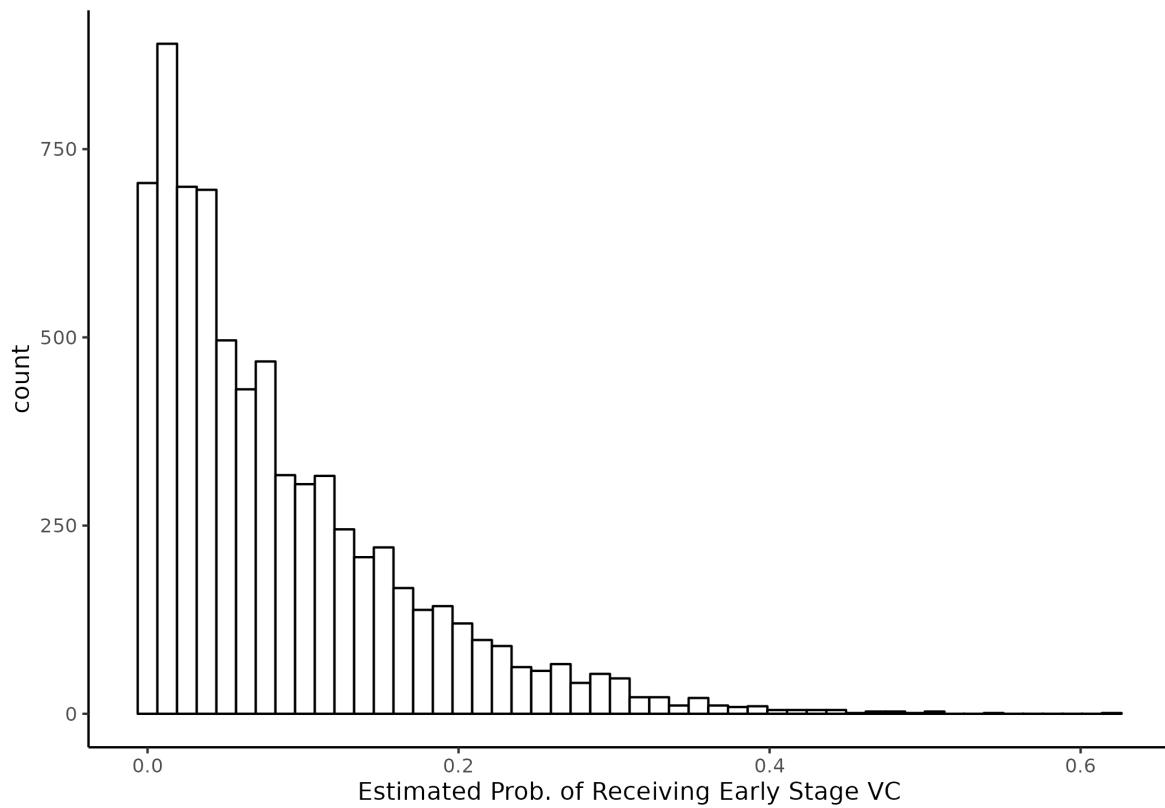
Notes: This figure reports the histogram of out of sample predicted probability of receiving venture capital financing from a random forest model using a set of high dimensional startup observables, in a sample consisting only of startups that received early stage financing.

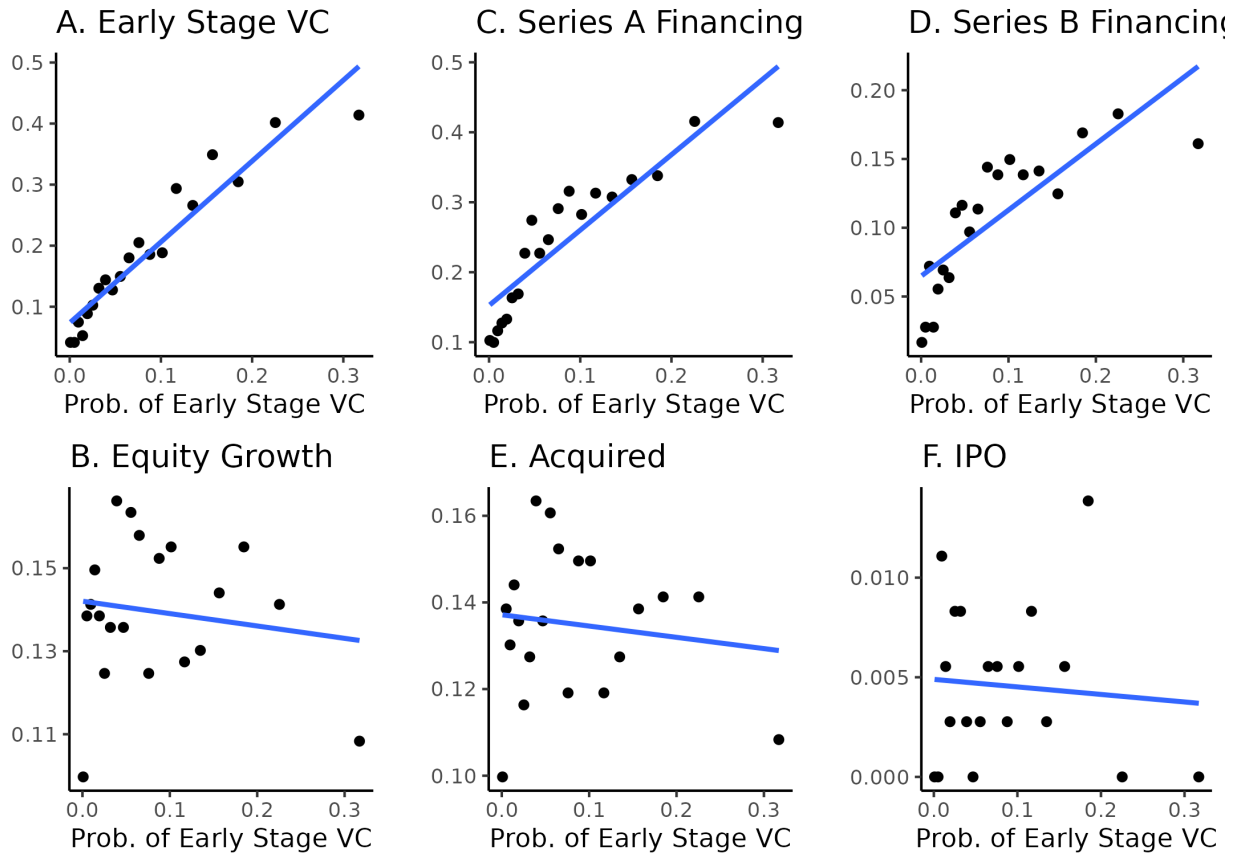Figure 3: Binned scatterplot for outcomes across predicted distribution

A. Early Stage VC
Prob. of Early Stage VC

C. Series A Financing
Prob. of Early Stage VC

D. Series B Financing
Prob. of Early Stage VC

B. Equity Growth
Prob. of Early Stage VC

E. Acquired
Prob. of Early Stage VC

F. IPO
Prob. of Early Stage VC

Figure 4: Distribution of treatment effects

A. Histogram of Equity Growth Total Treatment Effect
count

B. Histogram of Series B Total Treatment Effect
count

C. Histogram of Equity Growth Strategic Treatment Effect Only
count

D. Histogram of Series B Strategic Treatment Effect Only
count
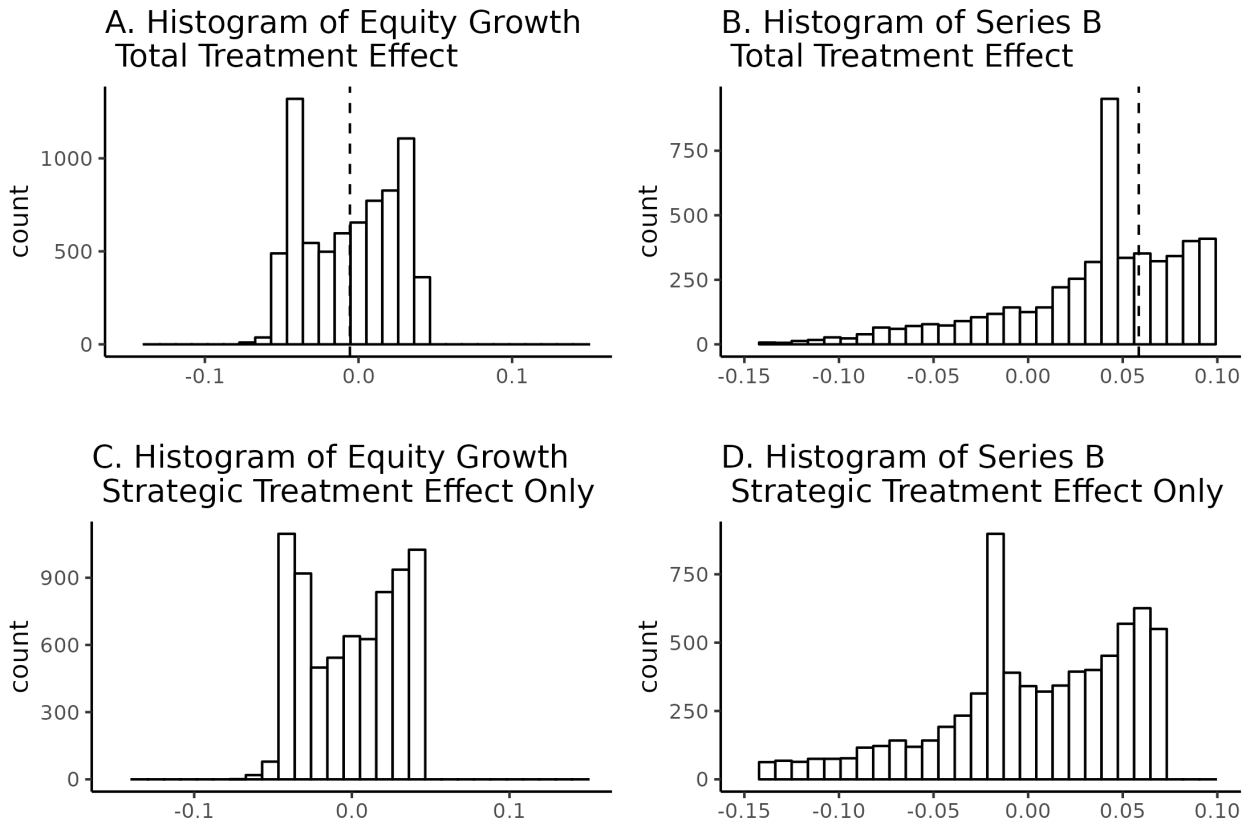
Table 1: Summary Statistics

Statistic	Mean	St. Dev.
Amount Raised Total	11,592,973.000	71,123,260.000
Seed Amount Raised	1,309,721.000	1,512,657.000
Angel Funding Amount Raised	114,929.200	452,395.500
Early Stage Amount Raised	1,593,344.000	1,608,507.000
Series A Amount Raised	1,923,141.000	4,852,012.000
Series B Amount Raised	2,150,582.000	8,973,669.000
Seed VC	0.199	0.399
Early Stage VC	0.187	0.390
Equity Growth	0.139	0.346
IPO	0.005	0.067
Acquisition	0.135	0.342

Table 2: Feature importance of random forest into who gets VC

rank	Variable	Mean Decrease Accuracy
1	Early Stage Financing Bin	36.826
2	City: SanFrancisco x Industry: Biotechnology	12.544
3	School: Universityof x Industry: ArtificialIntelligence	9.205
4	City: NewYork X Harvard	8.887
5	City: Portland x Industry: EnterpriseSoftware	8.877
6	City: Austin x Industry: MachineLearning	8.799
7	City: Boulder x Industry: Software	8.730
9	City: NewYork x Industry: PredictiveAnalytics	7.755
10	Industry: OpenSource	7.612
11	City: Boston x Industry: FinTech	7.554
12	Industry: MachineLearning	7.323
13	Industry: EdTech	6.988
14	City: Austin x Industry: ArtificialIntelligence	6.632
15	School: Stanford x Industry: Analytics	6.322
16	Industry: 3DTechnology	6.136
17	School: Stanford x Industry: ArtificialIntelligence	5.845
18	State: Michigan	5.727
19	City: MountainView x Industry: ECommerce	5.705
20	City: NewYork X Stanford	5.573
21	School: Harvard	5.549
22	City: SanFrancisco x Industry: Retail	5.539
23	City: SanFrancisco x Industry: HealthDiagnostics	5.454
24	City: Boulder x Industry: SaaS	5.416
25	Industry: ArtificialIntelligence	5.382
26	City: SanFrancisco x Industry: InformationTechnology	5.226
27	School: Stanford	5.226
28	City: Boston X Harvard	5.042
30	City: Atlanta x Industry: InformationTechnology	4.933
31	School: Universityof	4.933
32	Industry: SalesAutomation	4.850
33	City: SanJose X Universityof	4.829
34	School: Stanford x Industry: HealthCare	4.779
35	City: SanFrancisco x Industry: Education	4.721
36	City: Chicago X KelloggSchool	4.560
38	Industry: ComputerVision	4.460
39	School: MIT x Industry: Analytics	4.378
40	City: SanFrancisco x Industry: CloudComputing	4.335
41	City: Austin X Berkeley	4.299
42	City: SanFrancisco x Industry: Robotics	4.265
44	City: NewYork x Industry: VirtualReality	4.145

Table 3: Strategic Determinant Function: Top Features for Equity Growth Treatment Effect

	Variable	Coefficient	Coefficient/ATE	variable
Panel A: Most Positive Features				
1	Icity_Denver_X_UCLA	0.023	-4.190	Icity_Denver_X_UCLA
2	Icity_Boulder_X_NYU	0.016	-2.830	Icity_Boulder_X_NYU
3	Icity_Seattle_X_WhartonSchool	0.010	-1.700	Icity_Seattle_X_Wharton Sc...
4	Icity_PaloAlto_X_UCLA	0.009	-1.570	Icity_Palo Alto_X_UCLA
5	Icity_SanMateo_X_Columbia	0.009	-1.570	Icity_San Mateo_X_Colum...
6	Icity_Cambridge_X_Universityof	0.008	-1.490	Icity_Cambridge_X_Univers...
7	X_Icity_NewYork_Iind_Legal	0.008	-1.470	X_Icity_New York_Iind_Le...
8	Icity_Washington_X_MIT	0.008	-1.430	Icity_Washington_X_MIT...
9	Icity_SanFrancisco_X_Stanford	0.008	-1.410	Icity_San Francisco_X_Stan...
10	Icity_Boston_X_Stanford	0.008	-1.400	Icity_Boston_X_Stanford...
11	X_Icity_SanFrancisco_Iind_Music	0.007	-1.320	X_Icity_San Francisco_Iind_N...
12	Iyear_2	0.007	-1.310	Iyear_2
13	X_Icity_SanFrancisco_Iind_CloudInfrastructure	0.007	-1.290	X_Icity_San Francisco_Iind_Cloud I...
14	Icity_Portland_X_NYU	0.007	-1.230	Icity_Portland_X_NYU
15	Icity_Atlanta_X_KelloggSchool	0.006	-1.130	Icity_Atlanta_X_Kellogg Sc...
16	Icity_SanFrancisco_X_MIT	0.006	-1.070	Icity_San Francisco_X_MI...
17	Icity_SanMateo_X_MIT	0.006	-1.020	Icity_San Mateo_X_MIT...
18	Icity_Miami_X_Harvard	0.005	-0.980	Icity_Miami_X_Harvard...
19	Icity_SanFrancisco_X_Harvard	0.005	-0.970	Icity_San Francisco_X_Harv...
20	X_Icity_SanFrancisco_X_Stanford_Iind_Internet	0.005	-0.880	X_Icity_San Francisco_X_Stanford_...
Panel B: Most Negative Features				
592	X_Icity_Philadelphia_Iind_HealthCare	-0.020	3.490	X_Icity_Philadelphia_Iind_Heal...
593	X_Icity_LosAngeles_Iind_Marketplace	-0.020	3.560	X_Icity_Los Angeles_Iind_Marl...
594	X_Icity_NewYork_Iind_PredictiveAnalytics	-0.021	3.700	X_Icity_New York_Iind_Predictive...
595	X_Icity_SanFrancisco_Iind_Biotechnology	-0.021	3.740	X_Icity_San Francisco_Iind_Biote...
596	Icity_Chicago_X_KelloggSchool	-0.021	3.790	Icity_Chicago_X_Kellogg Sc...
597	X_Icity_SantaMonica_Iind_Internet	-0.021	3.850	X_Icity_Santa Monica_Iind_In...
598	X_Icity_SantaClara_Iind_Software	-0.022	3.900	X_Icity_Santa Clara_Iind_Sof...
599	X_Icity_Austin_Iind_Analytics	-0.022	3.940	X_Icity_Austin_Iind_Analy...
600	Icity_LosAngeles_X_WhartonSchool	-0.022	4.010	Icity_Los Angeles_X_Wharton...
601	Iind_CloudInfrastructure	-0.023	4.040	Iind_Cloud Infrastructure...
602	ed_Berkeley	-0.023	4.190	ed_Berkeley
603	X_Icity_Boston_Iind_FinTech	-0.025	4.420	X_Icity_Boston_Iind_Fin T...
604	Iind_OpenSource	-0.027	4.760	Iind_Open Source
605	Iind_Aerospace	-0.027	4.780	Iind_Aerospace
606	X_Icity_Brooklyn_Iind_Software	-0.027	4.810	X_Icity_Brooklyn_Iind_Soft...
607	X_Icity_Brooklyn_Iind_SocialMedia	-0.027	4.870	X_Icity_Brooklyn_Iind_Social...
608	X_Icity_NewYork_Iind_Leisure	-0.028	4.970	X_Icity_New York_Iind_Lei...
609	X_Icity_Austin_Iind_ArtificialIntelligence	-0.029	5.140	X_Icity_Austin_Iind_Artificial Int...
610	X_Icity_Boulder_Iind_Software	-0.030	5.330	X_Icity_Boulder_Iind_Softw...
611	X_Icity_SantaMonica_Iind_Software	-0.030	5.350	X_Icity_Santa Monica_Iind_So...
612	X_Icity_MountainView_Iind_ECommerce	-0.042	7.430	X_Icity_Mountain View_Iind_EC...

Table 4: Strategic Determinant Function: Top Features for Series B Treatment Effect

	Variable	Coefficient	Coefficient/ATE	variable
Panel A: Most Positive Features				
1	Icity_Seattle_X_Universityof	0.021	0.360	Icity_Seattle_X_Universityof
2	Icity_Denver_X_UCLA	0.016	0.270	Icity_Denver_X_UCLA
3	Icity_Seattle_X_WhartonSchool	0.012	0.210	Icity_Seattle_X_Wharton Schoo
4	X_Icity_SanFrancisco_Iind_Music	0.011	0.190	X_Icity_San Francisco_Iind_Mus
5	Icity_SanFrancisco_X_Stanford	0.009	0.150	Icity_San Francisco_X_Stanford
6	Icity_Denver_X_Berkeley	0.009	0.150	Icity_Denver_X_Berkeley
7	Iyear_2	0.009	0.150	Iyear_2
8	Icity_Miami_X_Harvard	0.009	0.150	Icity_Miami_X_Harvard
9	X_Icity_SanFrancisco_Iind_SocialMedia	0.008	0.130	X_Icity_San Francisco_Iind_Social M
10	Icity_Sunnyvale_X_Universityof	0.007	0.120	Icity_Sunnyvale_X_Universityof
11	Iyear_5	0.007	0.110	Iyear_5
12	Icity_Portland_X_NYU	0.007	0.110	Icity_Portland_X_NYU
13	X_Icity_SanFrancisco_Iind_Apps	0.005	0.090	X_Icity_San Francisco_Iind_App
14	X_Icity_NewYork_Iind_Crowdsourcing	0.005	0.090	X_Icity_New York_Iind_Crowdsour
15	X_ed_Stanford_Iind_Internet	0.005	0.090	X_ed_Stanford_Iind_Internet
16	X_Icity_SanFrancisco_Iind_Fashion	0.005	0.080	X_Icity_San Francisco_Iind_Fashi
17	Iyear_3	0.005	0.080	Iyear_3
18	Iind_Mobile	0.004	0.080	Iind_Mobile
19	Icity_LasVegas	0.004	0.080	Icity_Las Vegas
20	Icity_SanMateo_X_MIT	0.004	0.080	Icity_San Mateo_X_MIT
Panel B: Most Negative Features				
531	X_Icity_PaloAlto_Iind_ArtificialIntelligence	-0.050	-0.850	X_Icity_Palo Alto_Iind_Artificial Intel
532	X_Icity_SanFrancisco_Iind_Robotics	-0.051	-0.870	X_Icity_San Francisco_Iind_Robot
533	X_Icity_NewYork_Iind_Leisure	-0.052	-0.890	X_Icity_New York_Iind_Leisure
534	X_Icity_NewYork_Iind_PredictiveAnalytics	-0.053	-0.910	X_Icity_New York_Iind_Predictive An
535	Icity_Chicago_X_KelloggSchool	-0.055	-0.930	Icity_Chicago_X_Kellogg Schoo
536	X_Icity_LosAngeles_Iind_Marketplace	-0.056	-0.960	X_Icity_Los Angeles_Iind_Marketp
537	Iind_Aerospace	-0.057	-0.970	Iind_Aerospace
538	X_Icity_SantaMonica_Iind_Software	-0.057	-0.980	X_Icity_Santa Monica_Iind_Softw
539	Iind_OpenSource	-0.058	-0.990	Iind_Open Source
540	X_Icity_SanFrancisco_Iind_FoodandBeverage	-0.059	-1.010	X_Icity_San Francisco_Iind_Foodand B
541	X_ed_Universityof_Iind_ArtificialIntelligence	-0.061	-1.040	X_ed_Universityof_Iind_Artificial Intel
542	X_Icity_Boulder_Iind_SaaS	-0.065	-1.110	X_Icity_Boulder_Iind_Saa S
543	X_Icity_Boston_Iind_FinTech	-0.072	-1.240	X_Icity_Boston_Iind_Fin Tech
544	Icity_NewYork_X_Harvard	-0.074	-1.270	Icity_New York_X_Harvard
545	Icity_SanJose_X_Universityof	-0.078	-1.330	Icity_San Jose_X_Universityof
546	Icity_MountainView_X_Columbia	-0.078	-1.330	Icity_Mountain View_X_Columbi
547	X_Icity_Portland_Iind_EnterpriseSoftware	-0.078	-1.330	X_Icity_Portland_Iind_Enterprise Sof
548	X_Icity_Austin_Iind_ArtificialIntelligence	-0.087	-1.490	X_Icity_Austin_Iind_Artificial Intelli
549	X_Icity_Boulder_Iind_Software	-0.088	-1.500	X_Icity_Boulder_Iind_Software
550	X_Icity_MountainView_Iind_ECommerce	-0.090	-1.550	X_Icity_Mountain View_Iind_EComm
551	X_Icity_SanFrancisco_Iind_Biotechnology	-0.114	-1.960	X_Icity_San Francisco_Iind_Biotechn

Table 5: Estimates of the Importance of Coherence

Statistic	Equity Growth Model	Series B Model
R Square Full Model	0.769	0.826
R Square Non Interacted Model	0.699	0.706
Value of Coherence	0.100	0.170