"Whom you know matters: Venture capital networks and investment performance" by Hochberg, Ljungqvist and Lu.

Table VI
Pooled Portfolio Company Survival Models*

The sample pools 42,074 funding rounds for 13,761 portfolio companies that were concluded from 1980 onwards. We track each company from its first funding round across all rounds to the date of its exit or November 2003, whichever is sooner. In this panel structure, the dependent variable is an indicator equaling one in round *N* if the company survived to the next round *N*+1. Unless it subsequently exited via an IPO or M&A transaction, the dependent variable is zero in the company's last recorded round. All models are estimated using panel probit estimators with random company effects. Fund size is the amount of committed capital reported in the Venture Economics database. Sequence number denotes whether a fund is the parent firm's first, second and so forth fund. Sequence numbers are missing for 1,186 funds. The classification into seed or early-stage funds follows Venture Economics' fund focus variable. The VC inflows variable is the aggregate amount of capital raised by other VC funds in the year the sample fund was raised (its vintage year). B/M is the book/market ratio of *public* companies in the sample fund's industry of interest. We take a fund's industry of interest to be the Venture Economics industry that accounts for the largest share of the fund's portfolio, based on dollars invested. Venture Economics uses six industries: biotechnology, communications and media, computer related, medical/health/life science, semiconductors/other electronics, and nonhigh-technology. We map public-market B/M ratios to these industries based on four-digit SIC codes. The ratios are value-weighted averages measured over a sample fund's first three years of existence, to control for investment opportunities during the fund's most active investment phase. We measure the investment experience of a sample fund's parent firm as the aggregate dollars invested between the parent's creation and the fund's creation. The network measures are derived from adjacency matrices constructed using all VC syndicates over the five years prior to a sample fund's vintage year. We view networks as existing among VC management firms, not among VC funds, so that a newly-raised fund can benefit from its parent's pre-existing network connections. A management firm's *outdegree* is the number of unique VCs that have participated as non-lead investors in syndicates lead-managed by the firm. (The lead investor is identified as the fund that invests the largest amount in the portfolio company.) A firm's *indegree* is the number of unique VCs that have led syndicates the firm was a non-lead member of. A firm's *degree* is the number of unique VCs it has syndicated with (regardless of syndicate role). *Eigenvector* measures how close to all other VCs a given VC is. *Betweenness* is the number of shortest-distance paths between other VCs in the network upon which the VC sits. Each network measure is normalized by the theoretical maximum (e.g., the *degree* of a VC who has syndicated with every other VC in the network). In addition, we include a dummy coded one if in round *N*>1 a more influential VC takes over as lead investor (based on a comparison of its network centrality to that of the previous lead). The measures of the parent's investment experience and network centrality are estimated as of the year in which the funding round is concluded. Industry effects using the Venture Economics industry groups are included but not reported. Intercepts are not shown. Standard errors are shown in italics. We use ***, **, and * to denote significance at the 1%, 5%, and 10% level (two-sided), respectively.

Table VI (continued)

	(1)	(2)	(3)	(4)	(5)
Fund characteristics					
ln fund size	0.272***	0.248***	0.245***	0.293***	0.253***
	0.021	*0.021*	*0.021*	*0.021*	*0.021*
ln fund size squared	-0.025***	-0.021***	-0.020***	-0.027***	-0.022***
	0.003	*0.003*	*0.003*	*0.003*	*0.003*
=1 if first fund	-0.023	-0.022	-0.027	-0.041**	-0.022
	0.018	*0.018*	*0.018*	*0.018*	*0.018*
=1 if corporate VC	-0.068*	-0.060*	-0.089**	-0.092***	-0.089**
	0.035	*0.035*	*0.035*	*0.035*	*0.036*
Competition					
ln VC inflows in funding year	-0.022**	-0.022**	-0.006	-0.052***	-0.024**
	0.010	*0.010*	*0.010*	*0.010*	*0.010*
Investment opportunities					
mean B/M ratio in funding year	-0.526***	-0.490***	-0.594***	-0.425***	-0.570***
	0.070	*0.070*	*0.071*	*0.070*	*0.071*
Fund parent's experience					
ln aggregate $ amount parent has invested so far	-0.066***	-0.061***	-0.076***	-0.029***	-0.092***
	0.007	*0.007*	*0.007*	*0.007*	*0.008*
Network measures					
outdegree	0.056***				
	0.003				
Indegree		0.084***			
		0.005			
Degree			0.028***		
			0.001		
betweenness				0.101***	
				0.009	
eigenvector					0.044***
					0.002
=1 if new lead is more influential than previous lead	0.067***	0.052**	0.048**	0.105***	0.047**
	0.022	*0.022*	*0.022*	*0.022*	*0.022*
Diagnostics					
Pseudo-R^2	5.7 %	5.6 %	5.7 %	5.2 %	6.0 %
Test: all coeff. = 0 (χ^2)	1930.3***	1915.7***	1942.0***	1760.1***	1986.8***
No. of observations	42,074	42,074	42,074	42,074	42,074
No. of companies	13,761	13,761	13,761	13,761	13,761

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