Internet Appendix for

"How Does Human Capital Matter? Evidence from Venture Capital"

(Not to be published)

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Section 1 Robustness Tests for Labor Mobility

In Subsection V.A of the paper, we show a significant reduction in inventor mobility after the adoption of the IDD. The passage of the IDD distorts human capital allocation across startups by reducing labor mobility. There is one caveat with the test: we cannot fully account for cases in which when a firm is acquired by another firm and the inventor joins the acquirer due to the merger. In the data the inventor will appear to have moved from the target to the acquirer. To show that our results are not driven by those cases, we exclude firms that have had M&A activities during the sample period. We report the results in Internet Appendix Table IA1. We want to note that about one-fifth of the sample is lost due to the restriction of merger cases. However, we still observe negative and statistically significant coefficients on the IDD dummy. Those findings are qualitatively similar to those reported in Table 3, in terms of both magnitude and economic significance.

Section 2 Additional Tests for VC Investment Likelihood

In this section, we provide additional evidence to support the results of the likelihood of VC investment. We use pseudo VC-startup pairs in the main test (Table 4) to gauge the likelihood of VC investment. To provide additional evidence, we carry out a robustness test using round-level VC investment data. We try to use observed VC actions to measure the change in the likelihood of receiving VC investment after the IDD is introduced. We begin with startups that received VC investments in the past and then measure the probability of subsequent investment (around the IDD year) in states that passed the IDD versus those states that did not pass the IDD.

We construct a panel data at the startup-year level (the beginning year is the year following the first round of investment for the startup and the ending year is the last year of

investment for the startup). The dependent variable, *Investment*, takes the value of one if the startup receives round financing in that year and zero otherwise. We exclude all first-round investments and those firms with only one round of VC financing, effectively studying the subsequent round investments. We regress the investment dummy on the IDD dummy along with startup-level controls and a battery of fixed effects. We report the results in Internet Appendix Table IA2. We find negative and statistically significant coefficients on the IDD dummy, suggesting that VCs indeed are less likely to invest in subsequent rounds after the adoption of the IDD. This test provides further support for the notion that the IDD negatively impacts VC investment likelihood.

Section 3 VC Investment Success

In this section, we run a startup-level robustness test on how the adoption of the IDD affects VC exits. We define six investment outcome variables: *success*, a dummy variable that equals one if the firm exits through either IPO or M&A and zero otherwise; *Total value/amount invested*, the IPO or M&A deal value scaled by the total amount invested by VCs; *IPO*, a dummy variable that equals one if the venture goes public and zero otherwise; *IPO value/amount invested*, the IPO deal value scaled by the total amount invested by VCs; a*cquisition*, a dummy variable that equals one if the startup is acquired and zero otherwise; and *M&A value/amount invested*, the M&A deal value scaled by the total amount invested by VCs.

Table IA3 presents our estimation results. In column (1), we use *success* as the dependent variable. We find a negative and significant relation between successful exits and the passage of the IDD. This result suggests that VCs' exit probabilities are significantly lower after the adoption of the IDD than before the adoption. In column (2), we use *Total value/amount invested*

as the dependent variable and find a similar result. Since those two variables consist of both IPOs and M&As, this evidence suggests that, overall, VCs are less likely to exit successfully.

In columns (3) and (4), we examine how IPOs are affected by IDD adoption, excluding the firms that are eventually acquired from the sample. In column (3), we report that, after the adoption of the IDD, VCs are 6.7% less likely to exit through an IPO. Given that the unconditional mean of an IPO is 26.1%, this result is economically sizable, representing a 25% (=6.7% ÷ 26.1%) lower likelihood of exiting through an IPO. In column (4), we find that, by using *IPO value/amount invested* as the dependent variable, the coefficient estimate on the IDD dummy is also negative and statistically significant, confirming the conjecture that, after adopting the IDD, VCs become less likely to exit through IPOs.

In columns (5) and (6), we examine how the IDD affects VCs' exits through mergers and acquisitions, excluding from the sample the firms that eventually go public. In column (5), we report that, after the adoption of the IDD, VCs are 8.1% less likely to exit through an acquisition. Given that the unconditional mean of an acquisition is 53.4%, this result is economically sizable, representing a 15.2% (= 8.1% ÷ 53.4%) lower likelihood of exiting through an acquisition. In column (6), we find that, by using *Deal value/amount invested* as the dependent variable, the coefficient estimate on the IDD dummy is also negative and statistically significant, confirming the conjecture that, after adopting the IDD, VCs become less likely to exit through acquisitions.

Section 4: VC Investment Portfolio

In Subsection V.F, we document that VCs are less likely to have successful exits after the adoption of the IDD. The ultimate payoff for VCs is the exit. One question naturally follows: do

VCs tilt their investments to startups outside states with the IDD to circumvent the negative effect of the IDD?

We answer this question by studying the effect of the IDD on VC investment portfolios. We construct a VC-state-year level panel that reflects the VC-startup pairs used in Table 4. More specifically, we assume that a VC potentially invests in a state only if the VC is matched to a startup in a given state, as indicated by our sample in Table 4. For a given year, we calculate each VC's investment amount in each state. We then regress the natural logarithm of VC investment amount on the IDD dummy along with state-level controls and firm, state, and year fixed effects. We report the results in Internet Appendix Table IA4. The dependent variable *Ln(amount invested)* is defined as the natural logarithm of a VC's investment amount in each state during year *t*. The coefficient estimates of the IDD dummy are negative and statistically significant at the 1% level, suggesting that VCs are adjusting their investment portfolios across states after the adoption of the IDD.

Table IA1 Robustness Test for Labor Mobility

This table presents OLS regression results related to the effect of the IDD on labor mobility by excluding cases in which firms are involved in M&A activities, which provides a robustness test to the results in Table 3. The sample includes inventors of all patents filed from 1980 through 2010. In column (1), the dependent variable, *Move*, equals one if an inventor moves and zero otherwise. In columns (2) and (3), we further divide *Move* into *In-state move* and *Out-of-state move*. *IDD* is the key independent variable that equals one if the state adopts the IDD and zero otherwise. Detailed variable definitions are provided in the Appendix. Industry-year fixed effects are defined at the inventor primary patent class-year level. All continuous variables are winsorized at the 1st and 99th percentiles. Robust standard errors clustered at the state level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	1	2	3
Variables	Move	In-state move	Out-of-state move
IDD	-0.013***	-0.012***	-0.002*
	(0.004)	(0.004)	(0.001)
Unemployment	0.002	0.002	0.000
	(0.002)	(0.002)	(0.000)
GDP growth	0.075*	0.062	0.018**
	(0.044)	(0.043)	(0.008)
Political balance	0.006	0.007	-0.001
	(0.007)	(0.007)	(0.001)
CNC	-0.004	-0.004	-0.000
	(0.003)	(0.003)	(0.001)
Inventor FE	Y	Y	Y
State FE	Y	Y	Y
Industry x year FE	Y	Y	Y
Observations	646,039	643,628	620,739
Adjusted R^2	0.144	0.143	0.043

Table IA2 Alternative Test for VC Investment Likelihood

This table presents OLS regression results related to the effect of the IDD on the likelihood of VC investment using round level data. The sample includes VC-backed firms from 1980 through 2012. Utility and financial services industries are excluded from the sample. We construct a panel data at the startup-year level (the beginning year is the year following the first round of investment for the startup and the ending year is the last year of investment for the startup). The dependent variable, *Investment*, is a dummy variable that equals one if the startup receives round financing in that year and zero otherwise. Here we exclude all first round investments and those firms with only one round of VC financing. We are studying the subsequent round investments. *IDD* is the key independent variable that equals one if the state adopts the IDD and zero otherwise. Detailed variable definitions are provided in the Appendix. Industry-year fixed effects are defined at the three-digit SIC industry-year level. All continuous variables are winsorized at the 1st and 99th percentiles. Robust standard errors clustered at the state level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Variables	1 Investment	2 Investment	3 Investment
IDD	-0.043**	-0.014**	-0.041**
	(0.016)	(0.006)	(0.020)
Early dummy		-0.161***	-0.317***
		(0.006)	(0.011)
Age		-0.052***	-0.156***
		(0.012)	(0.006)
Ln(number of VCs in previous round)		0.006	0.008
		(0.005)	(0.008)
Ln(amount in previous round)		-0.011***	-0.002
		(0.003)	(0.003)
Startup FE	N	N	Y
Lead VC FE	N	N	Y
State FE	N	N	Y
Industry x year FE	N	N	Y
Observations	43,319	43,319	39,646
Adjusted R^2	0.002	0.076	0.194

Table IA3 VC Investment Success

This table presents OLS regression results related to the effect of the IDD on VC-exit outcomes. The sample includes VC-backed firms from 1980 through 2012. Utility and financial services industries are excluded from the sample. In column (1), the dependent variable *Success* is a dummy variable that equals one if the firm exits by going public or by being acquired by another firm and zero otherwise. In column (2), the dependent variable *Total value/amount invested* is the value of the IPO or M&A deal scaled by the total amount invested by VCs. In column (3), the dependent variable *IPO* is a dummy variable that equals one if the venture goes public and zero otherwise. In column (4), the dependent variable *IPO Value/amount invested* is the IPO deal value scaled by the total amount invested by VCs. In column (5), the dependent variable *Acquisition* is a dummy variable that equals one if the venture is involved in a merger or acquisition and zero otherwise. In column (6), the dependent variable *Deal value/amount invested* is the M&A deal value scaled by the total amount invested by VCs. *IDD* is the key independent variable that equals one if the state adopts the IDD and zero otherwise. Detailed variable definitions are provided in the Appendix. Industry-year fixed effects are defined at the three-digit SIC industry-year level. All continuous variables are winsorized at the 1st and 99th percentiles. Robust standard errors clustered at the state level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Variables	1 Success	2 Total value/ amount invested	3 IPO	4 IPO value/ amount invested	5 Acquisition	6 M&A value/ amount invested
IDD	-0.086***	-0.273***	-0.067**	-0.316**	-0.081*	-0.163***
	(0.031)	(0.064)	(0.0230)	(0.125)	(0.046)	(0.059)
Incubation period	-0.047***	-0.172***	0.014*	-0.168***	-0.071***	-0.114***
	(0.007)	(0.031)	(0.007)	(0.024)	(0.009)	(0.038)
VC reputation	-3.801	-5.495	-9.635	11.140	-6.706	-3.359
	(3.360)	(12.932)	(6.376)	(25.986)	(4.198)	(8.631)
Early dummy	-0.025**	-0.034	-0.025**	-0.178***	-0.027**	0.041
	(0.011)	(0.044)	(0.010)	(0.054)	(0.013)	(0.049)
Age	0.004	0.034	-0.001	0.062*	-0.001	0.030
	(0.007)	(0.026)	(0.007)	(0.034)	(0.009)	(0.047)
Distance	-0.003	-0.003	0.007**	-0.001	-0.007***	-0.003
	(0.003)	(0.010)	(0.003)	(0.012)	(0.002)	(0.010)
Industry fit	0.088**	0.204	0.049	-0.046	0.092**	0.127
	(0.041)	(0.173)	(0.045)	(0.150)	(0.037)	(0.159)
CNC	-0.032*	-0.204***	-0.033*	-0.229***	-0.050	-0.033
	(0.018)	(0.059)	(0.017)	(0.065)	(0.031)	(0.048)
Lead VC FE	Y	Y	Y	Y	Y	Y
State FE	Y	Y	Y	Y	Y	Y
Industry x year FE	Y	Y	Y	Y	Y	Y
Observations	9,151	9,151	4,171	4,171	7,202	7,202
Adjusted R^2	0.161	0.036	0.260	0.178	0.168	0.027

Table IA4 VC Investment Portfolio

This table presents OLS regression results related to the effect of the IDD on VCs' investment portfolios. The sample includes VC-backed firms from 1980 through 2012. Utility and financial services industries are excluded from the sample. We construct a panel data at the VC-state-year level. The dependent variable, *Ln(amount invested)*, is defined as the natural logarithm of a VC's investment amount in each state during year *t*. *IDD* is the key independent variable that equals one if the state adopts the IDD and zero otherwise. Detailed variable definitions are provided in the Appendix. All continuous variables are winsorized at the 1st and 99th percentiles. Robust standard errors clustered at the state level are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	1	2
Variables	Ln(amount invested)	
IDD	-0.113***	-0.111***
	(0.037)	(0.041)
Unemployment		-0.016
		(0.019)
GDP growth		0.338
		(0.338)
Political balance		0.067
		(0.072)
CNC		0.044***
		(0.012)
Firm FE	Y	Y
State FE	Y	Y
year FE	Y	Y
Observations	693,234	693,234
Adjusted R^2	0.179	0.179