


Erratum to: Time to patent at the USPTO: the case of emerging entrepreneurial firms

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The original version of this article unfortunately contained errors in Tables 2, 3, 4 and 5. The corrected tables are given below.

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Table 2 Pearson correlation coefficients

	DELAY	FNUMPATS	FAVGDELAY	ANUMPATS	AAVGDELAY	ENUMPATS	EAVGDELAY	CITECOUNT
FNUMPATS	0.11	1						
FAVGDELAY	0.34	-0.08	1					
ANUMPATS	-0.03	0.15	0.02	1				
AAVGDELAY	0.30	0.01	0.40	-0.13	1			
ENUMPATS	-0.06	0.18	0.03	0.12	0.05	1		
EAVGDELAY	0.39	0.05	0.31	0.01	0.19	-0.19	1	
CITECOUNT	-0.01	-0.06	0.04	-0.01	0.03	-0.01	-0.01	1
FAMSIZE	0.02	0.18	0.07	0.05	0.05	0.05	0.07	0.08
ORIGINAL	0.08	0.04	0.09	0.07	0.07	0.01	0.05	0.08
PATENTAGE	0.22	0.22	0.04	0.00	0.13	0.09	0.07	-0.06
INVENTS	0.11	0.05	0.08	0.05	0.08	0.09	0.02	0.08
SCOPE	0.12	0.04	0.12	0.05	0.07	0.05	0.13	0.07
PATREFS	0.16	0.01	0.13	0.07	0.09	0.06	0.03	0.25
NPRs	0.22	0.04	0.19	0.12	0.12	0.06	0.15	0.09
MULTEXAM	-0.07	-0.02	0.02	-0.02	-0.01	0.17	-0.07	0.02
CONTINUE	0.09	0.03	0.12	0.10	0.09	0.09	0.06	0.02

	FAMSIZE	ORIGINAL	PATENTAGE	INVENTS	SCOPE	PATREFS	NPRs	MULTEXAM
FNUMPATS								
FAVGDELAY								
ANUMPATS								
AAVGDELAY								
ENUMPATS								
EAVGDELAY								
CITECOUNT								
FAMSIZE	1							

Table 2 continued

	FAMSIZE	ORIGINAL	PATENTAGE	INVENTS	SCOPE	PATREFS	NPRs	MULTEXAM
ORIGINAL	0.05	1						
PATENTAGE	-0.04	-0.03	1					
INVENTS	0.03	0.05	0.06	1				
SCOPE	0.20	0.15	-0.03	0.07	1			
PATREFS	0.08	0.16	0.03	0.14	0.11	1		
NPRs	0.13	0.11	0.07	0.10	0.14	0.46	1	
MULTEXAM	-0.01	-0.03	-0.06	-0.03	-0.02	-0.06	-0.06	1
CONTINUE	0.07	0.06	0.06	0.15	0.16	0.12	0.13	-0.10

Table 3 Baseline results of OLS models with heteroskedasticity robust SEs

Variables/model	1		2		3		4	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Intercept	9.736***	1.964	11.155**	1.395	15.199***	1.423	4.737***	1.494
Firm NUMPATS	0.076***	0.003	0.026***	0.002	0.068***	0.002	0.019***	0.001
Firm AvgDelay	0.235***	0.019	0.251***	0.016	0.213***	0.019	0.237***	0.015
Attorney NUMPATS	-0.030***	0.003	-0.004*	0.002	-0.008***	0.001	-0.007***	0.001
Attorney AvgDelay	0.174***	0.021	0.162***	0.020	0.193***	0.016	0.223***	0.015
Examiner NUMPATS	-0.044***	0.007	-0.012*	0.006	-0.047***	0.006	-0.027***	0.007
Examiner AvgDelay	0.224***	0.014	0.244***	0.015	0.233***	0.015	0.243***	0.015
INVENTS	0.488***	0.058	0.538***	0.060	0.476***	0.060	0.578***	0.057
PATENTAGE	-0.368***	0.048	-0.116***	0.024	-0.358***	0.041	-0.119***	0.022
CITECOUNT	-0.346**	0.161	-0.385**	0.160	-0.383**	0.181	-0.450***	0.136
FAMSIZE	0.002**	0.001	-0.001	0.001	0.002***	0.001	-0.004***	0.001
ORIGINAL	0.283	0.521	-0.220	0.533	0.296	0.529	-0.474	0.524
SCOPE	0.225***	0.083	0.272***	0.087	0.396***	0.087	0.188**	0.085
PATREFS	0.028***	0.003	0.029***	0.003	0.028***	0.003	0.026***	0.003
NPRS	0.017***	0.003	0.017***	0.003	0.015***	0.003	0.020***	0.003
MULTEXAM	-0.450	0.336	-0.286	0.356	-0.318	0.345	-0.150	0.349
CONTINUE	-1.769***	0.374	-1.322***	0.386	-1.289***	0.377	-1.148***	0.381
<i>Fixed effects included</i>								
Examiner	YES		YES		YES		YES	
Attorney	YES		YES		NO		NO	
Firm	YES		NO		YES		NO	
Year	YES		NO		NO		YES	
<i>Tests of joint significance</i>								
Examiner fixed effects		1038.200***		1138.130***		1073.170***		1373.950***

Table 3 continued

Variables/model	1		2		3		4	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Attorney fixed effects	652.850***		703.150***					
Firm fixed effects	1374.470***				1555.490***			
Year fixed effects	568.480***						716.880***	
Adjusted R ²	0.432		0.344		0.384		0.355	
Multicollinearity condition number	43.706		28.595		29.092		32.879	
Number of observations	12,650		12,650		12,650		12,650	
Variables/model								
	5		6		7			
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Intercept	12.850***	1.551	2.183	1.663	3.327*	1.900	3.327*	1.900
Firm NUMPATS	0.076***	0.003	0.022***	0.001	0.065***	0.002	0.065***	0.002
Firm AvgDelay	0.221***	0.019	0.269***	0.016	0.248***	0.021	0.248***	0.021
Attorney NUMPATS	-0.030***	0.003	-0.013***	0.002	-0.008***	0.001	-0.008***	0.001
Attorney AvgDelay	0.168***	0.022	0.174***	0.021	0.204***	0.018	0.204***	0.018
Examiner NUMPATS	-0.018***	0.004	-0.018***	0.004	-0.022***	0.004	-0.022***	0.004
Examiner AvgDelay	0.281***	0.012	0.303***	0.012	0.284***	0.012	0.284***	0.012
INVENTS	0.394***	0.059	0.392***	0.057	0.394***	0.059	0.394***	0.059
PATENTAGE	-0.388***	0.044	-0.130***	0.024	-0.333***	0.046	-0.333***	0.046
CITECOUNT	-0.275	0.177	-0.300**	0.135	-0.369**	0.162	-0.369**	0.162
FAMSIZE	0.003***	0.001	-0.001	0.001	0.003***	0.001	0.003***	0.001
ORIGINAL	0.443	0.531	0.225	0.523	0.404	0.524	0.404	0.524
SCOPE	0.402***	0.084	0.129	0.084	0.192**	0.084	0.192**	0.084
PATREFS	0.024***	0.004	0.027***	0.003	0.028***	0.003	0.028***	0.003
NPRS	0.017***	0.003	0.020***	0.003	0.019***	0.003	0.019***	0.003

Table 3 continued

Variables/model	5		6		7	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
MULTEXAM	0.227	0.279	0.369	0.284	0.282	0.279
CONTINUE	-1.732***	0.376	-2.335***	0.387	-1.710***	0.379
<i>Fixed effects included</i>						
Examiner	NO		NO		NO	
Attorney	YES		YES		NO	
Firm	YES		NO		YES	
Year	NO		YES		YES	
<i>Tests of joint significance</i>						
Examiner fixed effects						
Attorney fixed effects	706.510***		814.450***		1745.440***	
Firm fixed effects	1761.760***				596.220***	
Year fixed effects			647.690***		0.384	
Adjusted R ²	0.379		0.343		0.384	
Multicollinearity condition number	29,834		33,251		36,697	
Number of observations	12,650		12,650		12,650	

Dependent variable is patent pendency time in months

*** .01 Significance, ** .05 Significance, * .10 Significance

Table 4 Baseline results of duration models

Variables	1		2		3		4	
	Hazard ratio	X ²	Hazard ratio	X ²	Hazard ratio	X ²	Hazard ratio	X ²
Firm NUMPATS	0.995***	877.042	0.999***	256.455	0.996***	980.379	0.999***	174.565
Firm AvgDelay	0.986***	169.618	0.986***	275.420	0.988***	152.951	0.987***	246.259
Attorney NUMPATS	1.002***	159.554	1.000*	2.739	1.001***	54.421	1.000***	38.830
Attorney AvgDelay	0.988***	105.966	0.991***	73.144	0.987***	206.042	0.987***	247.832
Examiner NUMPATS	1.003***	50.267	1.001*	2.741	1.003***	61.380	1.003***	36.671
Examiner AvgDelay	0.988***	211.625	0.988***	219.356	0.988***	219.493	0.988***	202.430
INVENTS	0.972***	39.361	0.973***	41.300	0.974***	36.311	0.970***	52.912
PATENTAGE	1.024***	71.461	1.008***	23.413	1.020***	67.275	1.009***	36.490
CITECOUNT	1.010**	5.032	1.013***	10.612	1.010**	5.381	1.021***	35.972
FAMSIZE	1.000***	15.769	1.000	0.002	1.000***	24.911	1.000***	18.559
ORIGINAL	0.995	0.017	1.022	0.321	0.976	0.388	1.040	1.113
SCOPE	0.984***	7.888	0.980***	12.698	0.970***	28.717	0.981***	12.986
PATREFS	0.998***	61.190	0.998***	62.671	0.998***	71.756	0.999***	49.012
NPRS	0.999***	20.846	0.999***	32.191	0.999***	16.234	0.999***	48.422
MULTEXAM	1.039	2.254	1.048	3.537	1.024	0.869	1.028	1.283
CONTINUE	1.115***	15.320	1.061**	4.958	1.079***	7.953	1.058**	4.717
<i>Fixed effects included</i>								
Examiner	YES		YES		YES		YES	
Attorney	YES		YES		NO		NO	
Firm	YES		NO		YES		NO	
Year	YES		NO		NO		YES	
<i>Tests of joint significance</i>								
Examiner fixed effects		950.066***		1049.015***		979.041***		1136.716***
Attorney fixed effects		642.232***		804.755***				

Table 4 continued

Variables	1		2		3		4	
	Hazard ratio	χ^2	Hazard ratio	χ^2	Hazard ratio	χ^2	Hazard ratio	χ^2
Firm fixed effects	1335.550***				1672.699***			
Year fixed effects	404.840***						634.723***	
-2(log likelihood)	207.485		209,364		208,573		209,505	
AIC	208,681		210,178		209,433		210,099	
Number of observations	12,650		12,650		12,650		12,650	
	5		6		7			
Variables	Hazard ratio	χ^2	Hazard ratio	χ^2	Hazard ratio	χ^2	Hazard ratio	χ^2
Firm NUMPATS	0.995***	990.133	0.999***	234.371	0.996***	886.776	0.987***	182.810
Firm AvgDelay	0.988***	142.482	0.986***	297.623	0.987***	48.405	1.001***	219.015
Attorney NUMPATS	1.002***	179.985	1.001***	40.456	1.001***	34.160	0.987***	540.798
Attorney AvgDelay	0.988***	113.873	0.990***	91.661	0.987***	23.955	1.001***	59.048
Examiner NUMPATS	1.001***	21.919	1.001***	20.125	1.001***	4.140	0.985***	20.437
Examiner AvgDelay	0.984***	582.052	0.984***	581.448	0.980***	0.957	0.980***	12.939
INVENTS	0.980***	22.632	0.982***	19.815	0.980***	65.076	0.999***	26.729
PATENTAGE	1.022***	73.861	1.009***	34.531	1.021***	0.035	0.999***	0.035
CITECOUNT	1.003	0.562	1.010***	6.801	1.009***	13.006	0.996	
FAMSIZE	1.000***	24.398	1.000	0.599	1.000***		1.101***	
ORIGINAL	0.970	0.634	0.982	0.239	0.963			
SCOPE	0.970***	29.909	0.986***	6.926	0.981***			
PATREFS	0.998***	51.972	0.999***	44.812	0.998***			
NPRS	0.999***	20.960	0.999***	48.829	0.999***			
MULTEXAM	0.994	0.090	0.996	0.038	0.996			
CONTINUE	1.092***	10.949	1.131***	21.948	1.101***			

Table 4 continued

Variables	5		6		7	
	Hazard ratio	X ²	Hazard ratio	X ²	Hazard ratio	X ²
<i>Fixed effects included</i>						
Examiner	NO		NO		NO	
Attorney	YES		YES		NO	
Firm	NO		NO		YES	
Year	YES		YES		YES	
<i>Tests of joint significance</i>						
Examiner fixed effects	734.725***		803.007***		1581.086***	
Attorney fixed effects	1602.820***		543.992***		428.838***	
Firm fixed effects	208.763		209,811		209,075	
Year fixed effects	209,397		210,179		209,489	
-2(log likelihood)						
AIC						
Number of observations	12,650		12,650		12,650	

Dependent variable is patent pendency time in months

*** .01 Significance, ** .05 Significance, * .10 Significance

Table 5 Robustness checks

Model number	1	2	3	4	5	6
Model description	Heckman model		GLM, SE clustered by firm	GLM, SE clustered by attorney	GLM, SE clustered by year	OLS with robust SEs
	First stage—grant Estimate	Second stage—pendency Estimate	Estimate	Estimate	Estimate	Estimate
Intercept	0.035	19.916	9.736***	9.736***	9.736***	18.317***
Firm NUMPATS	-0.001	0.006	0.076***	0.076***	0.076***	0.080***
Firm AvgDelay		0.190***	0.235***	0.235***	0.235***	0.332***
Attorney NUMPATS		-0.030***	-0.030***	-0.030**	-0.030***	
Attorney AvgDelay		0.061***	0.175***	0.175***	0.175***	
Examiner NUMPATS		-0.061***	-0.044***	-0.044***	-0.044***	
Examiner AvgDelay		0.118***	0.224***	0.224***	0.224***	
INVENTS	0.017***	0.381***	0.488***	0.488***	0.488***	0.554***
PATENTAGE	0.004**	-0.060	-0.368***	-0.368***	-0.368***	-0.429***
CITECOUNT		-0.281***	-0.346*	-0.346**	-0.346**	-0.422***
FAMSIZE	0.000	-0.003	0.002***	0.002***	0.002***	0.004***
ORIGINAL		0.513	0.283	0.283	0.283	0.396
SCOPE	0.039***	0.294	0.225	0.225*	0.225	0.326***
PATREFS		0.034***	0.028***	0.028***	0.028***	0.026***
NPRs		0.020***	0.018***	0.018***	0.018***	0.025***
MULTEXAM		-1.164**	-0.450	-0.450	-0.450	-1.775***
CONTINUE		-0.949	-1.769***	-1.769***	-1.769***	-1.581***
Inverse mills ratio		0.025				
<i>Tests of fixed effects joint significance</i>						
Examiner		658.56***	855.32***	855.32***	855.32***	1896.81***
Attorney		363.71***	578.24***	578.24***	578.24***	789.13***

Table 5 continued

Model number	1	2	3	4	5	6
Model description	Heckman model		GLM, SE clustered by examiner	GLM, SE clustered by attorney	GLM, SE clustered by year	OLS with robust SEs
	First stage—grant Estimate	Second stage—pendency Estimate	Estimate	Estimate	Estimate	Estimate
Firm		756.49***	1363.63***	1363.63***	1363.63***	1423.40***
Year		414.99***	605.16***	605.16***	605.16***	725.37***
-2(log likelihood)		78,456	855.32***	855.32***	855.32***	1896.81***
AIC		79,329				
QIC			12,953.3	13,180.9	13,553.0	
Adjusted R ²						0.402
Multicollinearity condition number	6.804	43.706	43.706	43.706	43.706	35.466
Number of observations	13,255	7353	12,650	12,650	12,650	13,430
Model number	7	8	9	10	11	12
Model description	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs; firms with <200 patents
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Intercept	26.437***	24.668***	36.620***	34.769***	6.323***	-7.180***
Firm NUMPATS			0.076***		0.074***	0.148***
Firm AvgDelay					0.267***	0.228***
Attorney NUMPATS					-0.029***	-0.021***
Attorney AvgDelay	-0.021***				0.192***	0.115***
Examiner NUMPATS					-0.044***	-0.053***
Examiner AvgDelay	0.253***	-0.029***			0.230***	0.195***

Table 5 continued

Model number	7	8	9	10	11	12
Model description	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs; firms with <200 patents
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
INVENTS	0.673***	0.607***	0.613***	0.688***		0.381***
PATENTAGE	-0.368***	-0.330***	-0.524***	-0.400***		0.976***
CITECOUNT	-0.620***	-0.543***	-0.516***	-0.621***		-0.256*
FAMSIZE	0.000	0.000	0.003***	0.000		-0.002
ORIGINAL	0.783	1.056**	1.134**	1.148**		0.893
SCOPE	0.283***	0.222**	0.387***	0.334***		0.459***
PATREFS	0.033***	0.038***	0.031***	0.036***		0.027***
NPRs	0.028***	0.021***	0.030***	0.030***		0.015***
MULTEXAM	-1.636***	-0.419	-1.734**	-1.948***		-0.310
CONTINUE	-0.989**	-1.087***	-0.715*	-0.739*		-1.890***
Inverse mills ratio						
<i>Tests of fixed effects joint significance</i>						
Examiner	2201.76***	1126.41***	2083.60***	2315.22***	1003.94***	801.25***
Attorney	628.21***	790.84***	794.17***	865.56***	686.30***	700.59***
Firm	1153.66***	1134.06***	1745.96***	1321.09***	1469.31***	1331.48***
Year	614.86***	576.25***	513.77***	562.84***	576.03***	731.03***
-2(log likelihood)						
AIC						
QIC						
Adjusted R ²	0.334	0.358	0.370	0.321	0.410	0.464
Multicollinearity condition number	33.826	32.659	30.373	27.896	32.397	42.330

Table 5 continued

Model number	7	8	9	10	11	12
Model description	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs	OLS with robust SEs; firms with <200 patents
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Number of observations	14,209	14,042	14,675	14,675	13,369	10,459

Dependent variable is patent pendency time in months

*** .01 Significance, ** .05 Significance, * .10 Significance