

Table 1: Negative binomial regression analysis of invention quality for all citations

Dependent Variable	Total Citations Received			Non-Self Citations Received		
Model	(1)	(2)	(3)	(4)	(5)	(6)
Sample	All Locations	U.S. Locations	Non-U.S. Locations	All Locations	U.S. Locations	Non-U.S. Locations
Share Citations Made[Same Region, Different Assignee]	-0.516 (0.054)	0.0657 (0.859)	-1.308 (0.001)	-0.604 (0.028)	0.189 (0.617)	-1.419 (0.000)
Share Citations Made[Different Region, Same Assignee]	-0.220 (0.273)	-0.0596 (0.837)	-0.563 (0.036)	-0.559 (0.008)	-0.166 (0.584)	-0.920 (0.001)
Share Citations Made[Different Region, Different Assignee]	-0.588 (0.001)	-0.149 (0.545)	-1.065 (0.000)	-0.579 (0.001)	0.0762 (0.766)	-1.049 (0.000)
Log (Total Citations Made)	0.168 (0.000)	0.162 (0.000)	0.174 (0.000)	0.120 (0.000)	0.105 (0.000)	0.138 (0.000)
Log (Number of Patents)	0.615 (0.000)	0.673 (0.000)	0.668 (0.000)	0.650 (0.000)	0.714 (0.000)	0.696 (0.000)
Log (Patent Pool Size)	-0.104 (0.000)	-0.287 (0.000)	-0.113 (0.000)	-0.0703 (0.000)	-0.219 (0.000)	-0.101 (0.000)
Constant	0.470 (0.009)	1.314 (0.000)	0.568 (0.019)	0.501 (0.007)	1.002 (0.000)	0.588 (0.023)
Observations	17166	6373	10793	17120	6371	10749
Groups	1929	601	1328	1914	600	1314

Reference category is Share Citations Made[Same Region, Same Assignee]

*p*-values in parentheses

All models include region fixed effects, year dummies and technology subcategory controls

Table 2: Negative binomial regression analysis of invention quality for applicant citations

Dependent Variable	Total Citations Received			Non-Self Citations Received		
Model	(1)	(2)	(3)	(4)	(5)	(6)
Sample	All Locations	U.S. Locations	Non-U.S. Locations	All Locations	U.S. Locations	Non-U.S. Locations
Share Citations Made[Same Region, Different Assignee]	0.150 (0.405)	0.113 (0.713)	0.148 (0.506)	0.261 (0.114)	0.238 (0.413)	0.274 (0.206)
Share Citations Made[Different Region, Same Assignee]	0.365 (0.020)	0.568 (0.018)	0.284 (0.168)	0.175 (0.248)	0.312 (0.174)	0.143 (0.493)
Share Citations Made[Different Region, Different Assignee]	0.178 (0.170)	0.316 (0.102)	0.0835 (0.631)	0.0835 (0.497)	0.183 (0.317)	0.0659 (0.704)
Log (Total Citations Made)	0.0198 (0.000)	0.0132 (0.025)	0.0252 (0.000)	0.0144 (0.000)	0.00658 (0.233)	0.0184 (0.002)
Log (Number of Patents)	0.783 (0.000)	0.848 (0.000)	0.830 (0.000)	0.780 (0.000)	0.824 (0.000)	0.843 (0.000)
Log (Patent Pool Size)	-0.117 (0.000)	-0.285 (0.000)	-0.113 (0.000)	-0.0903 (0.000)	-0.213 (0.000)	-0.116 (0.000)
Constant	-1.192 (0.000)	0.102 (0.688)	-1.553 (0.000)	-1.071 (0.000)	0.0237 (0.924)	-1.522 (0.000)
Observations	8947	3798	5149	8860	3782	5078
Groups	1309	518	791	1281	512	769

Reference category is Share Citations Made[Same Region, Same Assignee]

*p*-values in parentheses

All models include region fixed effects, year dummies and technology subcategory controls

Table 3: Negative binomial regression analysis of invention quality for examiner citations

Dependent Variable	Total Citations Received			Non-Self Citations Received		
	(1)	(2)	(3)	(4)	(5)	(6)
Model	All	U.S.	Non-U.S.	All	U.S.	Non-U.S.
Sample	Locations	Locations	Locations	Locations	Locations	Locations
Share Citations Made[Same Region, Different Assignee]	-0.555 (0.010)	-0.987 (0.001)	-0.114 (0.716)	-0.364 (0.114)	-0.570 (0.060)	-0.0850 (0.803)
Share Citations Made[Different Region, Same Assignee]	-0.466 (0.002)	-0.582 (0.003)	-0.290 (0.174)	-0.497 (0.002)	-0.389 (0.071)	-0.453 (0.054)
Share Citations Made[Different Region, Different Assignee]	-0.944 (0.000)	-0.705 (0.000)	-0.953 (0.000)	-0.677 (0.000)	-0.274 (0.110)	-0.796 (0.000)
Log (Total Citations Made)	0.255 (0.000)	0.200 (0.000)	0.299 (0.000)	0.248 (0.000)	0.179 (0.000)	0.300 (0.000)
Log (Number of Patents)	0.586 (0.000)	0.680 (0.000)	0.589 (0.000)	0.572 (0.000)	0.685 (0.000)	0.567 (0.000)
Log (Patent Pool Size)	-0.112 (0.000)	-0.274 (0.000)	-0.120 (0.000)	-0.0863 (0.000)	-0.252 (0.000)	-0.0974 (0.000)
Constant	1.200 (0.000)	2.443 (0.000)	0.821 (0.000)	0.913 (0.000)	2.067 (0.000)	0.607 (0.002)
Observations	16464	6246	10218	16410	6244	10166
Groups	1839	596	1243	1820	595	1225

Reference category is Share Citations Made[Same Region, Same Assignee]

*p*-values in parentheses

All models include region fixed effects, year dummies and technology subcategory controls

Table 4: Negative binomial regression analysis of invention quality for other citations

Dependent Variable	Total Citations Received			Non-Self Citations Received		
Model	(1)	(2)	(3)	(4)	(5)	(6)
Sample	All Locations	U.S. Locations	Non-U.S. Locations	All Locations	U.S. Locations	Non-U.S. Locations
Share Citations Made[Same Region, Different Assignee]	-1.176 (0.001)	-0.944 (0.050)	-1.351 (0.013)	-0.678 (0.077)	-0.674 (0.197)	-0.588 (0.301)
Share Citations Made[Different Region, Same Assignee]	-0.238 (0.290)	-0.433 (0.180)	-0.106 (0.741)	0.0426 (0.868)	-0.0363 (0.921)	0.131 (0.716)
Share Citations Made[Different Region, Different Assignee]	-0.607 (0.002)	-0.415 (0.114)	-0.720 (0.012)	0.0246 (0.911)	0.250 (0.411)	-0.0737 (0.817)
Log (Total Citations Made)	0.228 (0.000)	0.186 (0.000)	0.212 (0.000)	0.164 (0.000)	0.113 (0.000)	0.156 (0.000)
Log (Number of Patents)	0.554 (0.000)	0.586 (0.000)	0.646 (0.000)	0.610 (0.000)	0.633 (0.000)	0.726 (0.000)
Log (Patent Pool Size)	-0.0522 (0.002)	-0.101 (0.001)	-0.102 (0.000)	-0.00475 (0.792)	-0.0298 (0.339)	-0.0801 (0.001)
Constant	0.254 (0.218)	0.452 (0.119)	0.342 (0.259)	-0.569 (0.015)	-0.396 (0.232)	-0.567 (0.092)
Observations	13047	5618	7429	12924	5586	7338
Groups	1516	573	943	1484	566	918

Reference category is Share Citations Made[Same Region, Same Assignee]

*p*-values in parentheses

All models include region fixed effects, year dummies and technology subcategory controls

Table 5: Negative binomial regression analysis of invention quality for all citations

Dependent Variable Model	Total Citations Received		Non-Self Citations Received	
Sample	(1)	(2)	(3)	(4)
	All Locations	U.S. Locations	Non-U.S. Locations	All Locations
Share Citations Made[Same Region, Different Assignee]	-0.503 (0.044)	0.164 (0.650)	-1.336 (0.000)	-0.467 (0.065)
Share Citations Made[Different Region, Same Assignee]	-0.190 (0.299)	0.0390 (0.891)	-0.701 (0.002)	-0.492 (0.010)
Share Citations Made[Different Region, Different Assignee]	-0.591 (0.000)	-0.0538 (0.821)	-1.241 (0.000)	-0.523 (0.001)
Log (Total Citations Made)	0.188 (0.000)	0.175 (0.000)	0.205 (0.000)	0.136 (0.000)
Log (Num Patents)	0.605 (0.000)	0.646 (0.000)	0.671 (0.000)	0.653 (0.000)
Log (Patent Pool Size)	-0.00367 (0.634)	-0.143 (0.000)	-0.0306 (0.001)	0.0219 (0.005)
Constant	-0.112 (0.488)	0.387 (0.127)	0.235 (0.246)	-0.131 (0.432)
ln_r				
Constant	1.290 (0.000)	0.767 (0.000)	1.796 (0.000)	1.419 (0.000)
ln_s				
Constant	5.079 (0.000)	4.599 (0.000)	5.495 (0.000)	5.137 (0.000)
Observations	17626	6396	11230	17626
Groups	2322	623	1699	2322

*p*-values in parentheses

All models include random effects, year dummies and technology subcategory controls

Table 6: Negative binomial regression analysis of invention quality for applicant citations

Dependent Variable Model	Total Citations Received			Non-Self Citations Received		
	(1)	(2)	(3)	(4)	(5)	(6)
Sample	All Locations	U.S. Locations	Non-U.S. Locations	All Locations	U.S. Locations	Non-U.S. Locations
Share Citations Made[Same Region, Different Assignee]	0.125 (0.423)	-0.164 (0.537)	0.177 (0.350)	0.220 (0.116)	0.0219 (0.929)	0.300 (0.100)
Share Citations Made[Different Region, Same Assignee]	0.359 (0.009)	0.339 (0.098)	0.326 (0.067)	0.122 (0.348)	0.115 (0.548)	0.156 (0.382)
Share Citations Made[Different Region, Different Assignee]	0.165 (0.136)	0.148 (0.363)	0.103 (0.488)	0.0394 (0.703)	0.0395 (0.793)	0.0850 (0.564)
Log (Total Citations Made)	0.0219 (0.000)	0.0120 (0.022)	0.0311 (0.000)	0.0178 (0.000)	0.00601 (0.209)	0.0246 (0.000)
Log (Num Patents)	0.798 (0.000)	0.822 (0.000)	0.888 (0.000)	0.810 (0.000)	0.827 (0.000)	0.905 (0.000)
Log (Patent Pool Size)	0.0163 (0.250)	-0.0444 (0.117)	-0.0359 (0.037)	0.0244 (0.090)	-0.0126 (0.645)	-0.0408 (0.021)
Constant	-2.111 (0.000)	-1.343 (0.000)	-2.186 (0.000)	-1.886 (0.000)	-1.333 (0.000)	-2.154 (0.000)
ln_r						
Constant	1.240 (0.000)	1.225 (0.000)	1.742 (0.000)	1.463 (0.000)	1.555 (0.000)	1.898 (0.000)
ln_s						
Constant	5.181 (0.000)	5.406 (0.000)	5.521 (0.000)	5.279 (0.000)	5.588 (0.000)	5.582 (0.000)
Observations	9725	3891	5834	9725	3891	5834
Groups	1820	577	1243	1820	577	1243

*p*-values in parentheses

All models include random effects, year dummies and technology subcategory controls

Table 7: Negative binomial regression analysis of invention quality for examiner citations

Dependent Variable Model	Total Citations Received			Non-Self Citations Received		
	(1)	(2)	(3)	(4)	(5)	(6)
Sample	All Locations	U.S. Locations	Non-U.S. Locations	All Locations	U.S. Locations	Non-U.S. Locations
Share Citations Made[Same Region, Different Assignee]	-0.518 (0.009)	-1.121 (0.000)	0.0608 (0.822)	-0.232 (0.270)	-0.694 (0.019)	0.272 (0.359)
Share Citations Made[Different Region, Same Assignee]	-0.563 (0.000)	-0.751 (0.000)	-0.435 (0.017)	-0.559 (0.000)	-0.575 (0.006)	-0.522 (0.011)
Share Citations Made[Different Region, Different Assignee]	-1.089 (0.000)	-0.900 (0.000)	-1.103 (0.000)	-0.732 (0.000)	-0.414 (0.012)	-0.819 (0.000)
Log (Total Citations Made)	0.315 (0.000)	0.274 (0.000)	0.360 (0.000)	0.300 (0.000)	0.252 (0.000)	0.350 (0.000)
Log (Num Patents)	0.557 (0.000)	0.597 (0.000)	0.576 (0.000)	0.555 (0.000)	0.605 (0.000)	0.565 (0.000)
Log (Patent Pool Size)	0.00793 (0.270)	-0.0664 (0.000)	-0.0243 (0.005)	0.0262 (0.000)	-0.0406 (0.016)	-0.00864 (0.339)
Constant	0.485 (0.000)	1.194 (0.000)	0.359 (0.019)	0.150 (0.220)	0.700 (0.000)	0.0646 (0.707)
ln_r						
Constant	2.373 (0.000)	1.848 (0.000)	2.719 (0.000)	2.376 (0.000)	1.995 (0.000)	2.624 (0.000)
ln_s						
Constant	5.034 (0.000)	4.444 (0.000)	5.293 (0.000)	4.959 (0.000)	4.520 (0.000)	5.132 (0.000)
Observations	16988	6270	10718	16988	6270	10718
Groups	2262	619	1643	2262	619	1643

*p*-values in parentheses

All models include random effects, year dummies and technology subcategory controls

Table 8: Negative binomial regression analysis of invention quality for other citations

Dependent Variable Model	Total Citations Received		Non-Self Citations Received	
Sample	(1)	(2)	(3)	(4)
	All Locations	U.S. Locations	Non-U.S. Locations	All Locations
Share Citations Made[Same Region, Different Assignee]	-1.169 (0.000)	-1.142 (0.009)	-1.316 (0.006)	-0.274 (0.424)
Share Citations Made[Different Region, Same Assignee]	-0.369 (0.065)	-0.528 (0.068)	-0.443 (0.127)	0.113 (0.631)
Share Citations Made[Different Region, Different Assignee]	-0.796 (0.000)	-0.517 (0.027)	-1.099 (0.000)	0.0698 (0.732)
Log (Total Citations Made)	0.269 (0.000)	0.219 (0.000)	0.246 (0.000)	0.139 (0.000)
Log (Num Patents)	0.564 (0.000)	0.604 (0.000)	0.668 (0.000)	0.674 (0.000)
Log (Patent Pool Size)	0.0315 (0.014)	0.0169 (0.492)	-0.0336 (0.040)	0.0606 (0.000)
Constant	-0.349 (0.055)	-0.486 (0.058)	0.0204 (0.940)	-1.580 (0.000)
ln_r				
Constant	1.731 (0.000)	1.695 (0.000)	1.882 (0.000)	1.922 (0.000)
ln_s				
Constant	5.225 (0.000)	5.251 (0.000)	5.302 (0.000)	5.297 (0.000)
Observations	13722	5666	8056	13722
Groups	1975	607	1368	1975

*p*-values in parentheses

All models include random effects, year dummies and technology subcategory controls