

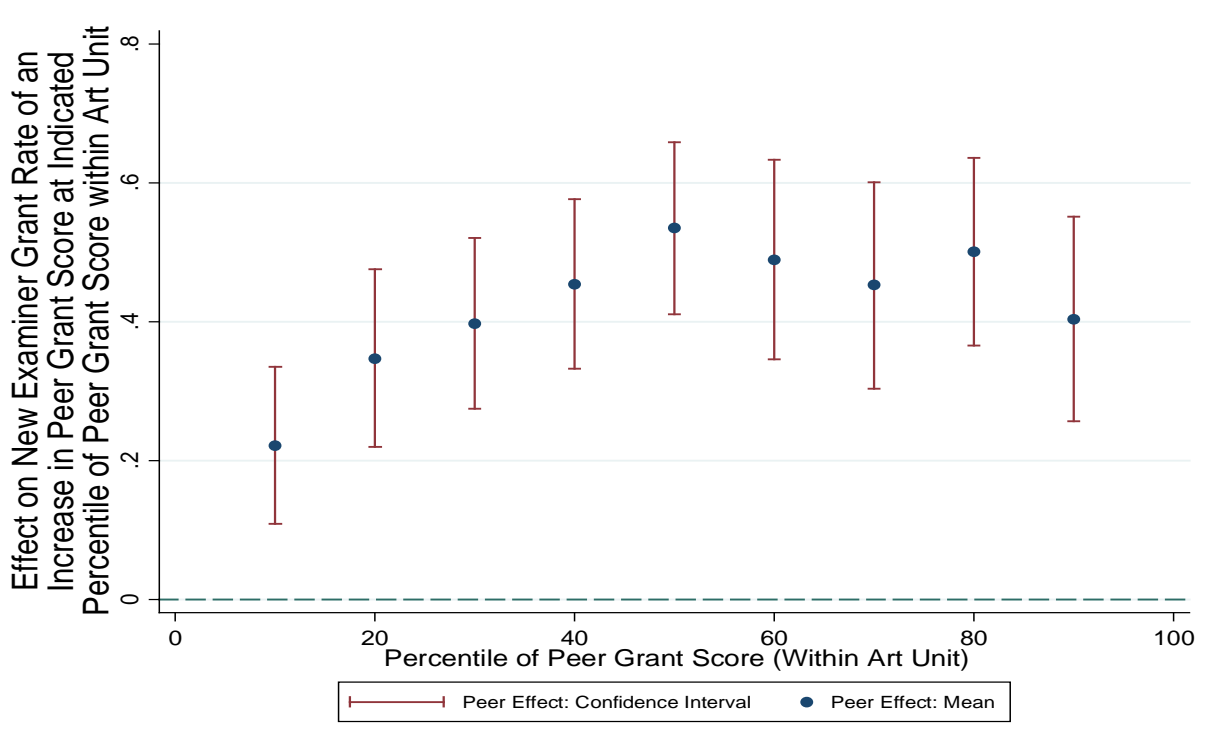
ONLINE APPENDIX

KNOWLEDGE SPILLOVERS AND LEARNING IN THE WORKPLACE: EVIDENCE FROM
THE U.S. PATENT OFFICE

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FIGURE A1

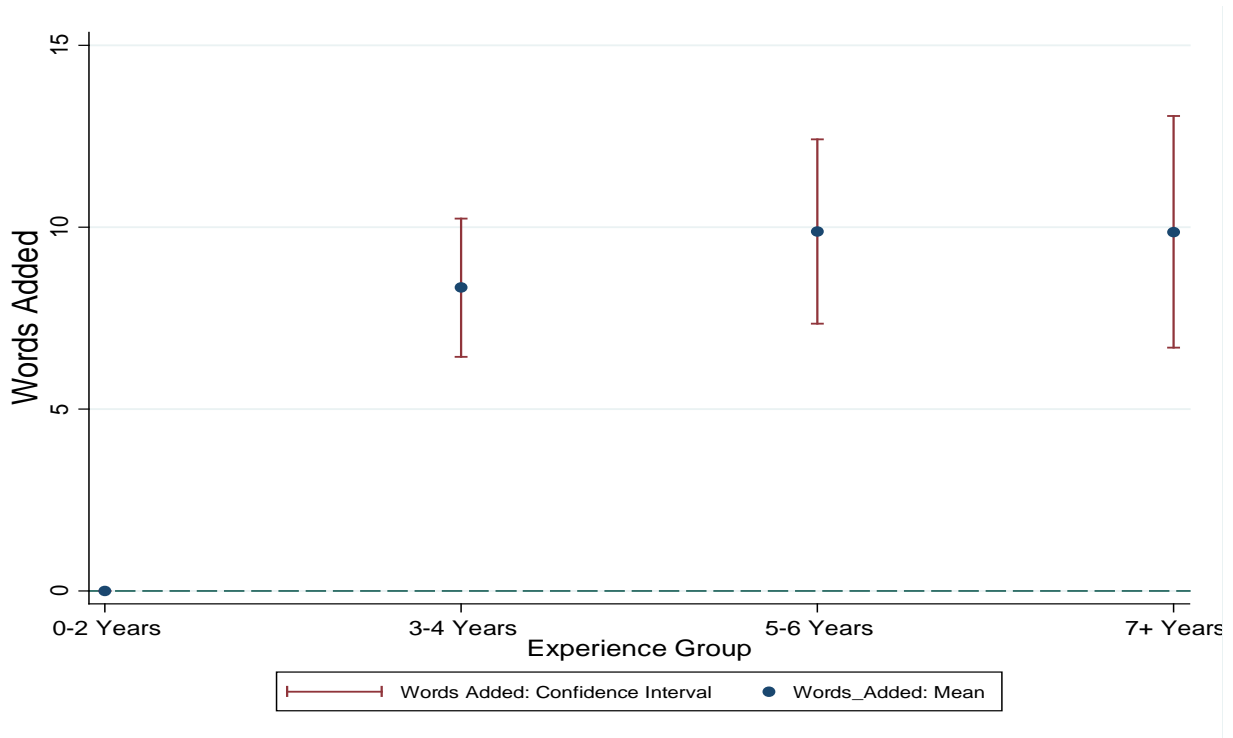
EFFECT OF INCREASE IN INHERENT PEER GRANTING TENDENCIES ON NEW EXAMINER GRANT RATE AT DIFFERENT PERCENTILES OF PEER GRANT SCORES



Notes: This figure presents results of 9 different regressions, reflecting the effects on new assistant examiner grant rates (grant rates of examiners within their first two years at the Patent Office) of an increase in the grant score of the peer assistant examiners in their Art Unit. Instead of focusing on the mean peer grant score of the Art-Unit-by-Year cell, however, this approach looks at increases in the peer grant score at different deciles of the distribution of peer grant scores within Art-Unit-by-Year cells. Each point in the graph represents the peer effect at the indicate decile. Specifications otherwise track those estimated in the balanced sample specifications of Table 2.

FIGURE A2

EFFECT OF EXAMINER EXPERIENCE ON THE NUMBER OF WORDS ADDED TO THE CLAIMS OF ISSUED PATENTS THROUGHOUT THE PATENT EXAMINATION PROCESS: EXAMINER FIXED EFFECTS SPECIFICATION



Notes: This figure presents results of a regression of the number of words added to a given patent throughout the examination process on a series of bins for different examiner experience groups, along with year fixed effects, examiner fixed effects, Art Unit fixed effects, examiner GS-level fixed effects and controls for applicant entity size and foreign priority status. Each observation is a given patent issued in the Kuhn and Thompson (2017) data set.

TABLE A1: UNBALANCED SPECIFICATION INCLUDING ALL YEARS OF EXPERIENCE AND POOLING ASSISTANT AND PRIMARY EXAMINERS (MOST INCLUSIVE SPECIFICATION)

	(1)
Peer Score	0.733*** (0.064)
(Omitted: Peer Score X 0-2 Years Experience)	
Peer Score X 2-4 Years Experience	-0.249*** (0.024)
Peer Score X 4-6 Years Experience	-0.346*** (0.031)
Peer Score X 6-8 Years Experience	-0.386*** (0.042)
Peer Score 8+ Years Experience	-0.401*** (0.055)
N	1195886

* significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors are reported in parentheses and are clustered to correct for autocorrelation within given Art Units. Each observation is a given application from the PAIR database that reached a final disposition and that was published in the PAIR records between March, 2001 and July, 2012. All specifications include examiner fixed effects, Art Unit fixed effects, year fixed effects and controls for various application-level characteristics. Coefficients of the experience group dummies are omitted for purposes of brevity.

TABLE A2: NON-PARAMETRIC ESTIMATES OF EFFECT OF CHANGES IN MEAN INHERENT PEER GRANT SCORES ON INDIVIDUAL EXAMINER GRANT RATES

	(1)
Omitted: Dummy for First Quartile of Peer Score	-
Dummy for Second Quartile of Peer Score	0.023 (0.014)
Dummy for Third Quartile of Peer Score	0.077*** (0.017)
Dummy for Fourth Quartile of Peer Score	0.096*** (0.023)
N	153906

* significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors are reported in parentheses and are clustered to correct for autocorrelation within given Art Units. Each observation is a given application from the PAIR database that reached a final disposition and that was published in the PAIR records between March, 2001 and July, 2012. Each specifications tracks the granting decisions of assistant examiners (GS-level 13 and below) over the first six years of their careers at the Patent Office, focusing on a balanced set of examiners that we can observe practicing at the Patent Office over the entirety of their first six years at the Patent Office. All specifications include examiner fixed effects, Art Unit fixed effects, year fixed effects and controls for various application-level characteristics

TABLE A3: EFFECT OF CHANGES IN INHERENT PEER GRANT SCORES ON INDIVIDUAL EXAMINER GRANT RATES, SEPARATELY AT THE 25TH AND 75TH PERCENTILES OF INHERENT PEER GRANT RATE DISTRIBUTION

	(1)	(2)
	PEER SCORE: 25 TH PERCENTILE OF WITHIN- ART-UNIT-YEAR PEER GRANT RATE DISTRIBUTION	PEER SCORE: 75 TH PERCENTILE OF WITHIN- ART-UNIT-YEAR PEER GRANT RATE DISTRIBUTION
Peer Score	0.355*** (0.063)	0.485*** (0.076)
(Omitted: Peer Score X 0-2 Years Experience)		-
Peer Score X 2-4 Years Experience	-0.113*** (0.028)	-0.159*** (0.033)
Peer Score X 4-6 Years Experience	-0.076* (0.043)	-0.154*** (0.051)
N	153906	153906

* significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors are reported in parentheses and are clustered to correct for autocorrelation within given Art Units. Each observation is a given application from the PAIR database that reached a final disposition and that was published in the PAIR records between March, 2001 and July, 2012. Each specification tracks the granting decisions of assistant examiners (GS-level 13 and below) over the first six years of their careers at the Patent Office, focusing on a balanced set of examiners that we can observe practicing at the Patent Office over the entirety of their first six years at the Patent Office. All specifications include examiner fixed effects, Art Unit fixed effects, year fixed effects and controls for various application-level characteristics