

1 Figures

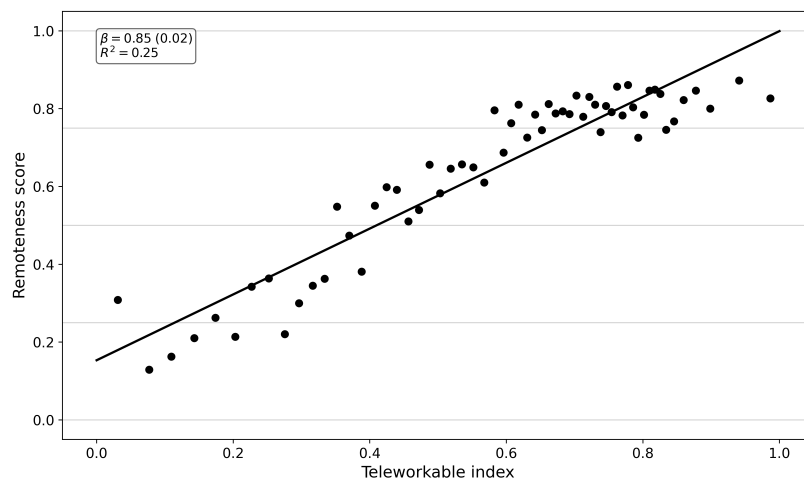


Figure 1: Remote v. Teleworkable Scores

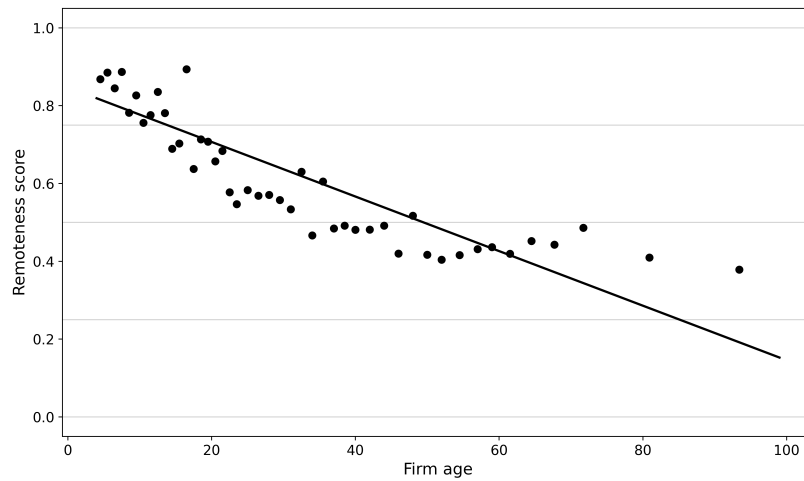


Figure 2: Remote v. Firm Age

2 Table of Means

Table 1: Table of Means

	Startup	Incumbent	All Firms
Panel A: Firm-level			
Growth	0.20 (0.31)	0.06 (0.16)	0.09 (0.22)
Leave	0.26 (0.31)	0.21 (0.28)	0.22 (0.29)
Join	0.35 (0.32)	0.17 (0.18)	0.22 (0.24)
Teleworkable Score (0–1)	0.67 (0.18)	0.54 (0.25)	0.57 (0.24)
Remote Score (0–1)	0.85 (0.30)	0.57 (0.41)	0.64 (0.40)
Employees (Count)	271 (1432)	2740 (9555)	2126 (8380)
Age	7 (2)	43 (34)	34 (33)
Rent (\$/sq ft)	49 (21)	37 (19)	40 (20)
Centrality Score	1419 (1830)	949 (1309)	1066 (1470)
Seniority Levels (Count)	3.62 (0.77)	3.86 (0.50)	3.80 (0.59)
Number of firms	878	2630	3508
Observations	10450	31530	41980
Panel B: User-level			
Total Contributions	362.95 (817.44)	192.73 (522.28)	225.70 (594.89)
Restricted Contributions	320.05 (746.65)	139.96 (359.56)	174.84 (466.14)
Number of firms	721	1503	2224
Number of users	8338	31993	37186
Observations	44801	186504	231305

Notes: Panel A uses firm-half-year observations; “Number of firms” counts distinct firm IDs that ever appear in each category over the full sample window, so Startup and Incumbent counts need not sum to the “All” column. Panel B relies on worker-half-year observations and its bottom rows list (i) distinct firms, (ii) distinct users, and (iii) total worker-half-year observations. Startup/Incumbent user counts are likewise distinct ID counts aggregated across the whole period and therefore can overlap. *Growth*, *Leave*, and *Join* rates are fractions between 0 and 1. *Teleworkable* and *Remote* scores are index values between 0 and 1. The sample period spans 2016 H2–2022 H1 at the firm level and 2017 H1–2022 H1 at the user level.

3 Firm Scaling

3.1 OLS

Table 2: Firm Scaling OLS

Panel A: Growth					
	(1)	(2)	(3)	(4)	(5)
Remote $\times \mathbb{1}(\text{Post})$	0.013** (0.005)	0.003 (0.005)	-0.003 (0.006)	-0.000 (0.007)	-0.004 (0.011)
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$		0.070*** (0.024)	0.077*** (0.024)	0.080*** (0.027)	0.090*** (0.035)
Time FE	✓	✓			
Firm FE	✓	✓	✓	✓	✓
Industry \times Time FE			✓		✓
HQ \times Time FE				✓	✓
N	41,980	41,980	41,644	33,710	24,003
Panel B: Additional Outcomes					
	Outcome				
	Join		Leave		
Remote $\times \mathbb{1}(\text{Post})$	0.012** (0.005)		0.016*** (0.002)		
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$	0.050* (0.026)		-0.013 (0.011)		
Pre-COVID mean	0.24		0.14		
N	41,980		41,980		

3.2 Instrumental Variables

Table 3: Firm Scaling IV

Panel A: Growth					
	(1)	(2)	(3)	(4)	(5)
Remote $\times \mathbb{1}(\text{Post})$	0.022* (0.012)	0.006 (0.009)	-0.010 (0.027)	0.010 (0.017)	0.134 (0.119)
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$		0.209** (0.102)	0.211* (0.109)	0.318** (0.158)	0.933 (0.712)
Time FE	✓	✓			
Firm FE	✓	✓	✓	✓	✓
Industry \times Time FE			✓		✓
HQ \times Time FE				✓	✓
N	41,980	41,980	41,644	33,710	24,003
KP rk Wald F	839.65	16.53	18.36	8.83	1.22
Panel B: Additional Outcomes					
	Outcome				
	Join	Leave			
Remote $\times \mathbb{1}(\text{Post})$	0.042*** (0.010)	0.051*** (0.005)			
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$	0.228** (0.112)	0.092 (0.058)			
Pre-COVID mean	0.24	0.14			
N	41,980	41,980			
KP rk Wald F	16.53	16.53			

3.3 First Stage

Table 4: First-Stage Estimates – Firm Scaling

	Remote \times $\mathbf{1}(\text{Post})$	Remote \times $\mathbf{1}(\text{Post}) \times \text{Startup}$
Teleworkable \times $\mathbf{1}(\text{Post})$	0.826*** (0.028)	-0.000 (0.000)
Teleworkable \times $\mathbf{1}(\text{Post}) \times \text{Startup}$	-0.412*** (0.077)	0.414*** (0.072)
$\mathbf{1}(\text{Post}) \times \text{Startup}$	0.455*** (0.055)	0.575*** (0.052)
Time FE	✓	✓
Firm FE	✓	✓
Partial F	437.86	16.54
N	41,980	41,980

3.4 Remote \rightarrow Teleworkable: First Stage

Table 5: First-Stage Estimate: Remote \rightarrow Teleworkable

	Remote
Teleworkable	0.846*** (0.025)
R^2	0.247
N	3,508

4 User Productivity

4.1 OLS

Table 6: User Productivity – OLS

Panel A: Total Contrib. (pct. rk)						
	(1)	(2)	(3)	(4)	(5)	(6)
Remote $\times \mathbb{1}(\text{Post})$	-0.28 (0.44)	-1.03** (0.48)	-1.23** (0.50)	-0.93* (0.49)	-0.66 (0.50)	-0.50 (0.55)
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$		5.18*** (1.24)	6.21*** (1.27)	5.41*** (1.29)	4.84*** (1.25)	4.66*** (1.38)
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm \times User FE			✓			
Industry \times Time FE				✓		✓
MSA \times Time FE					✓	✓
N	229,862	229,862	224,708	227,829	229,043	222,867
Panel B: Additional Outcomes						
	Outcome					
	Restricted (pct. rk)	Total (wins.)	Restr. (wins.)			
Remote $\times \mathbb{1}(\text{Post})$	-1.44*** (0.50)	-17.75*** (4.47)	-16.09*** (3.76)			
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$	6.37*** (1.24)	52.56*** (13.55)	48.60*** (12.15)			
Pre-COVID mean	48.48	184.71	138.15			
N	229,862	229,862	229,862			

4.2 Instrumental Variables

Table 7: User Productivity – IV

Panel A: Total Contrib. (pct. rk)						
	(1)	(2)	(3)	(4)	(5)	(6)
Remote $\times \mathbb{1}(\text{Post})$	-3.61 (2.82)	-7.15* (3.90)	-9.26** (4.01)	-5.11 (5.27)	-6.05 (4.17)	-11.55 (8.14)
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$		9.94* (5.37)	12.45** (5.39)	7.67 (5.07)	9.50 (5.85)	9.78 (6.68)
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm \times User FE			✓			
Industry \times Time FE				✓		✓
MSA \times Time FE					✓	✓
N	229,862	229,862	224,708	227,829	229,043	222,867
KP rk Wald F	543.26	140.60	123.43	109.16	130.48	49.49
Panel B: Additional Outcomes						
	Outcome					
	Restricted (pct. rk)	Total (wins.)		Restr. (wins.)		
Remote $\times \mathbb{1}(\text{Post})$	-6.60 (4.08)	-105.78*** (32.28)		-100.61*** (26.91)		
Remote $\times \mathbb{1}(\text{Post}) \times \text{Startup}$	9.07* (5.43)	104.41* (54.00)		92.22* (48.06)		
Pre-COVID mean	48.48	184.71		138.15		
N	229,862	229,862		229,862		
KP rk Wald F	140.60	140.60		140.60		

4.3 First Stage

Table 8: First-Stage Estimates – User Productivity

	Remote \times 1(Post)	Remote \times 1(Post) \times Startup
Teleworkable \times 1(Post)	0.23*** (0.01)	-0.00* (0.00)
Teleworkable \times 1(Post) \times Startup	0.16*** (0.02)	0.39*** (0.02)
1(Post) \times Startup	0.09*** (0.02)	0.60*** (0.01)
Time FE	✓	✓
Firm FE	✓	✓
User FE	✓	✓
Partial F	325.46	186.55
N	229,862	229,862

4.4 User Productivity Mechanisms

Table 9: User Mechanisms (Part 1)

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
Hhi			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote \times 1(Post)	-1.03** (0.48)	-1.90* (1.13)	-0.53 (0.59)	3.61 (5.80)	3.36** (1.56)	-1.39 (1.18)	4.09 (5.80)	2.19 (1.90)
Remote \times 1(Post) \times Startup	5.18*** (1.24)	2.84** (1.24)	5.58*** (1.29)	5.05*** (1.24)	5.02*** (1.23)	3.30*** (1.28)	2.66** (1.24)	2.74** (1.23)
N	229,862	223,003	229,741	229,862	229,862	222,919	223,003	223,003
Panel B: IV								
Remote \times 1(Post)	-7.15* (3.90)	1614.76 (2567.28)	-3684.24 (164768.92)	-51324.00 (88996.32)	392.75 (422.93)	478.37 (788.92)	2960.93 (4621.34)	-670.54 (7445.77)
Remote \times 1(Post) \times Startup	9.94* (5.37)	-136.36 (236.84)	-2647.94 (119195.68)	-659.19 (1228.12)	-106.43 (130.26)	63.78 (215.26)	-67.74 (192.86)	-507.07 (2079.33)
N	229,862	208,209	214,370	214,482	214,482	208,127	208,209	208,209
KP rk Wald F	140.60	0.14	0.00	0.11	0.31	0.30	0.10	0.01

Table 10: User Mechanisms (Part 2)

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
Hhi	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote \times 1(Post)	5.25 (5.90)	3.62** (1.59)	8.22 (6.07)	5.76 (5.89)	2.44 (1.92)	8.36 (6.07)	9.47 (6.14)	9.62 (6.13)
Remote \times 1(Post) \times Startup	5.43*** (1.29)	5.36*** (1.28)	4.88*** (1.24)	3.08** (1.28)	3.11** (1.28)	2.54** (1.24)	5.19*** (1.29)	2.89** (1.28)
N	229,741	229,741	229,862	222,919	222,919	223,003	229,741	222,919
Panel B: IV								
Remote \times 1(Post)	2182.52 (6953.64)	366.73 (292.28)	-13850.97 (39127.70)	1758.10 (2378.19)	737.38 (8406.16)	12481.54 (64336.38)	9846.55 (58067.27)	2954.48 (4723.43)
Remote \times 1(Post) \times Startup	143.73 (100.04)	-86.86 (104.48)	-553.72 (898.82)	95.45 (199.05)	1589.94 (22874.75)	683.23 (4059.39)	616.15 (3171.63)	206.46 (288.95)
N	214,370	214,370	214,482	208,127	208,127	208,209	214,370	208,127
KP rk Wald F	0.07	0.10	0.04	0.14	0.00	0.01	0.01	0.06

4.5 Firm Mechanisms

Table 11: Firm Mechanisms (Part 1)

Specification	Growth Rate							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
Hhi			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote \times $\mathbf{1}(\text{Post})$	0.001 (0.005)	0.007 (0.011)	-0.019*** (0.007)	0.024 (0.024)	-0.041*** (0.012)	-0.016 (0.013)	0.028 (0.026)	-0.035** (0.015)
Remote \times $\mathbf{1}(\text{Post}) \times \text{Startup}$	0.070*** (0.025)	0.071*** (0.026)	0.063** (0.025)	0.068*** (0.025)	0.066*** (0.025)	0.063** (0.025)	0.068*** (0.025)	0.066*** (0.026)
N	38,436	38,436	38,436	38,436	38,436	38,436	38,436	38,436
Panel B: IV								
Remote \times $\mathbf{1}(\text{Post})$	0.010 (0.009)	-0.113*** (0.043)	-0.039** (0.018)	-0.037 (0.067)	-0.042 (0.028)	-0.157*** (0.044)	-0.150* (0.079)	-0.153*** (0.048)
Remote \times $\mathbf{1}(\text{Post}) \times \text{Startup}$	0.157 (0.100)	0.139 (0.099)	0.037 (0.102)	0.122 (0.096)	0.149 (0.100)	0.026 (0.101)	0.109 (0.096)	0.133 (0.099)
N	38,436	38,436	38,436	38,436	38,436	38,436	38,436	38,436
KP rk Wald F	14.56	11.27	10.14	9.84	9.56	8.41	8.35	8.15

Table 12: Firm Mechanisms (Part 2)

Specification	Growth Rate							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
Hhi	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote \times $\mathbb{1}(\text{Post})$	-0.022 (0.026)	-0.053*** (0.012)	-0.016 (0.026)	-0.019 (0.029)	-0.050*** (0.016)	-0.011 (0.027)	-0.055** (0.028)	-0.052* (0.030)
Remote \times $\mathbb{1}(\text{Post}) \times \text{Startup}$	0.064*** (0.025)	0.059** (0.025)	0.064*** (0.025)	0.065** (0.025)	0.059** (0.025)	0.064** (0.025)	0.061** (0.025)	0.061** (0.025)
N	38,436	38,436	38,436	38,436	38,436	38,436	38,436	38,436
Panel B: IV								
Remote \times $\mathbb{1}(\text{Post})$	-0.159** (0.072)	-0.061* (0.033)	-0.083 (0.068)	-0.270*** (0.083)	-0.169*** (0.049)	-0.184** (0.078)	-0.174** (0.072)	-0.275*** (0.081)
Remote \times $\mathbb{1}(\text{Post}) \times \text{Startup}$	0.056 (0.101)	0.038 (0.101)	0.116 (0.097)	0.045 (0.100)	0.028 (0.100)	0.104 (0.096)	0.058 (0.101)	0.048 (0.100)
N	38,436	38,436	38,436	38,436	38,436	38,436	38,436	38,436
KPrk Wald F	7.70	7.54	7.29	6.62	6.54	6.48	6.11	5.36

5 Dynamic Event-Study Evidence

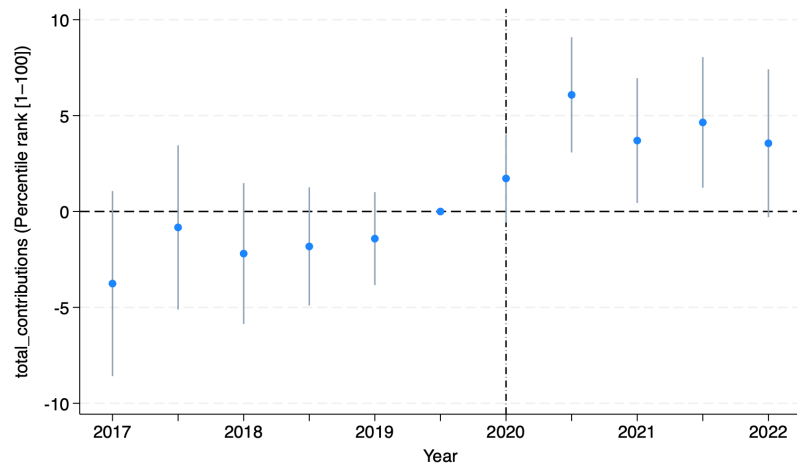


Figure 3: *
OLS – Total Contributions

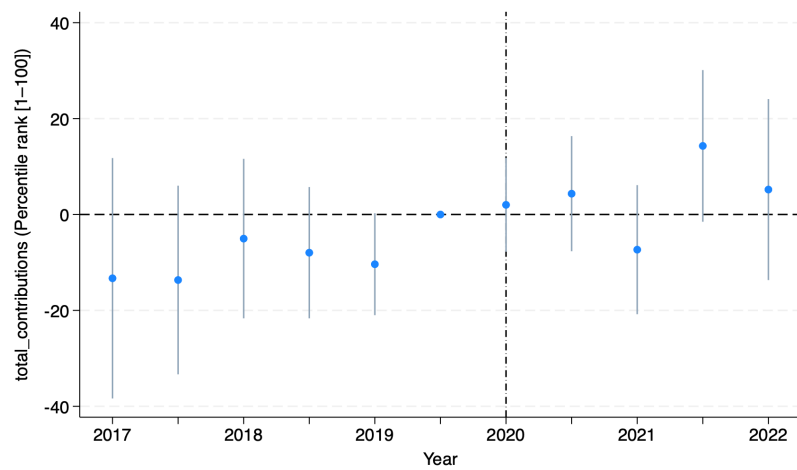


Figure 4: *
IV – Total Contributions

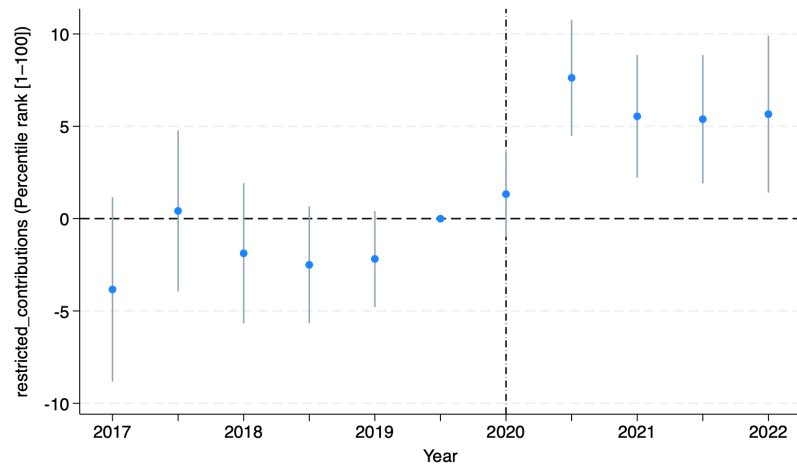


Figure 5: *
OLS – Restricted Contributions

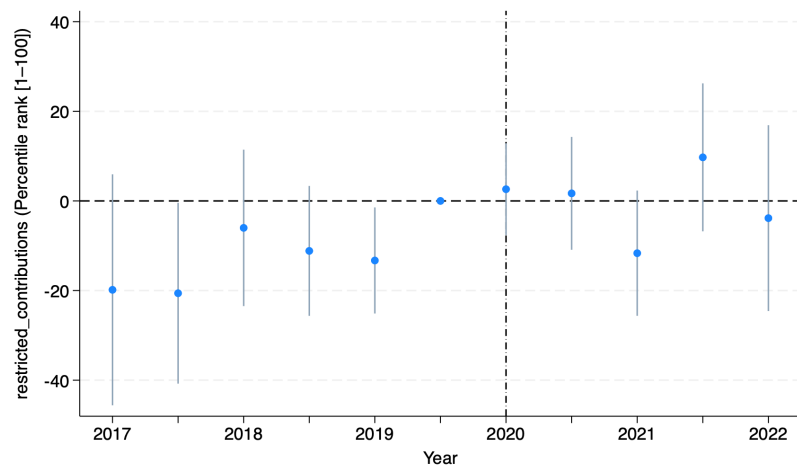


Figure 6: *
IV – Restricted Contributions

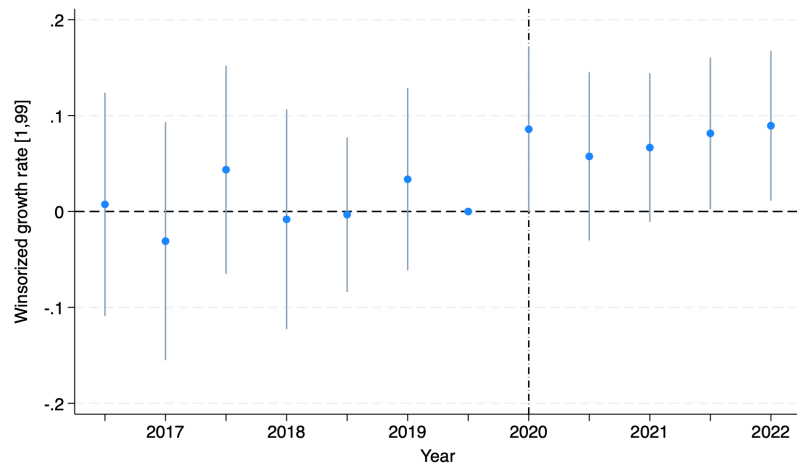


Figure 7: *
OLS – Employment Growth

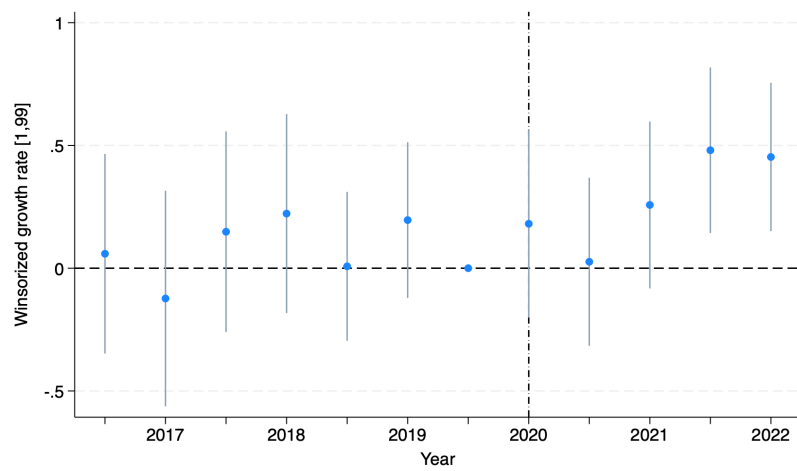


Figure 8: *
IV – Employment Growth

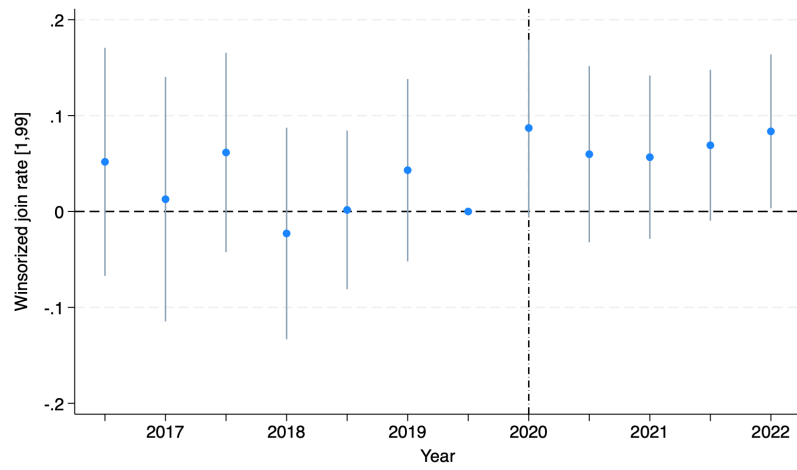


Figure 9: *
OLS - Join Rate

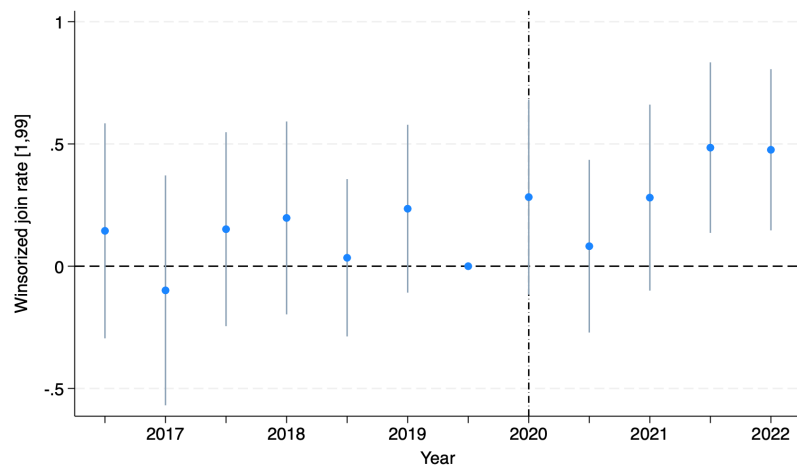


Figure 10: *
IV - Join Rate

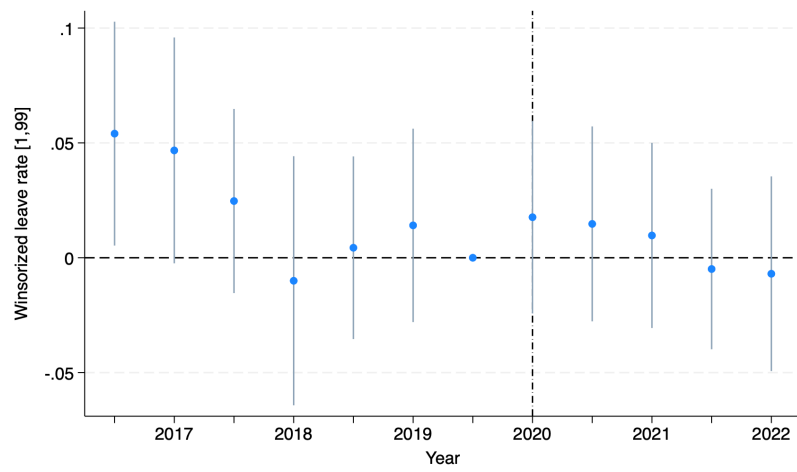


Figure 11: *
OLS – Leave Rate

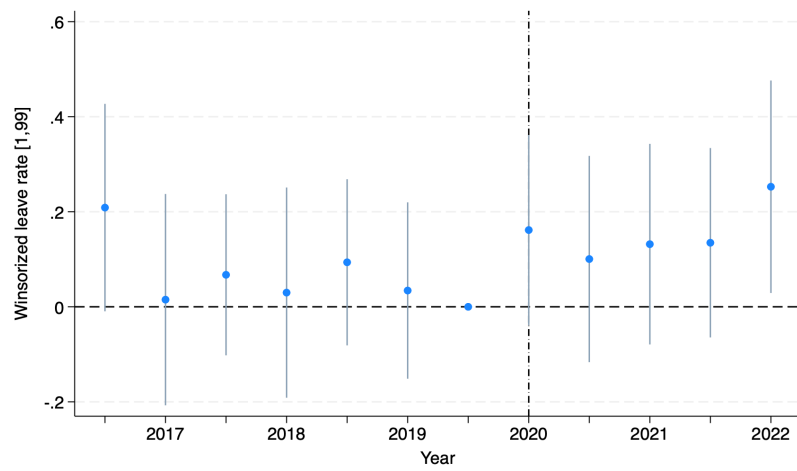


Figure 12: *
IV – Leave Rate