1 Figures
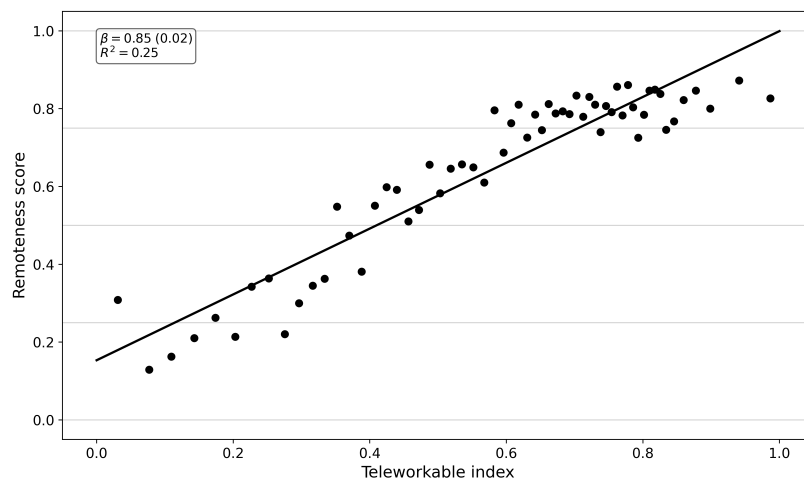

Figure 1: Remote v. Teleworkabe Scores
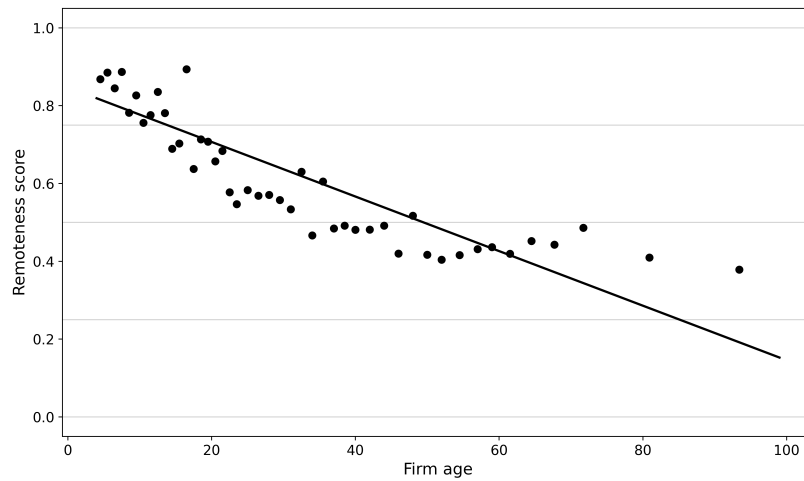

Figure 2: Remote v. Firm Age

2 Table of Means

Table 1: Table of Means

	Startup	Incumbent	All Firms
Panel A: Firm-level			
Growth	0.20	0.06	0.09
	(0.31)	(0.16)	(0.22)
Leave	0.26	0.21	0.22
	(0.31)	(0.28)	(0.29)
Join	0.35	0.17	0.22
	(0.32)	(0.18)	(0.24)
Teleworkable Score (0–1)	0.67	0.54	0.57
	(0.18)	(0.25)	(0.24)
Remote Score (0–1)	0.85	0.57	0.64
	(0.30)	(0.41)	(0.40)
Employees (Count)	271	2740	2126
	(1432)	(9555)	(8380)
Age	7	43	34
	(2)	(34)	(33)
Rent ($/sq ft)	49	37	40
	(21)	(19)	(20)
Centrality Score	1419	949	1066
	(1830)	(1309)	(1470)
Seniority Levels (Count)	3.62	3.86	3.80
	(0.77)	(0.50)	(0.59)
Number of firms	878	2630	3508
Observations	10450	31530	41980
Panel B: User-level			
Total Contributions	362.95	192.73	225.70
	(817.44)	(522.28)	(594.89)
Restricted Contributions	320.05	139.96	174.84
	(746.65)	(359.56)	(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 × $\mathbb{1}$(Post)	0.013**	0.003	-0.003	-0.000	-0.004
	(0.005)	(0.005)	(0.006)	(0.007)	(0.011)
Remote × $\mathbb{1}$(Post) × Startup		0.070***	0.077***	0.080***	0.090***
		(0.024)	(0.024)	(0.027)	(0.035)
Time FE	✓	✓			
Firm FE	✓	✓	✓	✓	✓
Industry × Time FE			✓		✓
HQ × Time FE				✓	✓
N	41,980	41,980	41,644	33,710	24,003

Panel B: Additional Outcomes

	Outcome	
	Join	Leave
Remote × $\mathbb{1}$(Post)	0.012**	0.016***
	(0.005)	(0.002)
Remote × $\mathbb{1}$(Post) × Startup	0.050*	-0.013
	(0.026)	(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 $\times \mathbb{1}$(Post)	0.022*	0.006	-0.010	0.010	0.134
	(0.012)	(0.009)	(0.027)	(0.017)	(0.119)
Remote $\times \mathbb{1}$(Post) $\times$ Startup		0.209**	0.211*	0.318**	0.933
		(0.102)	(0.109)	(0.158)	(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 $\times \mathbb{1}$(Post)	0.042***	0.051***
	(0.010)	(0.005)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	0.228**	0.092
	(0.112)	(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 $\times$ $\mathbb{1}(\text{Post})$	Remote $\times$ $\mathbb{1}(\text{Post})$ $\times$ Startup
Teleworkable $\times$ $\mathbb{1}(\text{Post})$	0.826***	-0.000
	(0.028)	(0.000)
Teleworkable $\times$ $\mathbb{1}(\text{Post})$ $\times$ Startup	-0.412***	0.414***
	(0.077)	(0.072)
$\mathbb{1}(\text{Post})$ $\times$ Startup	0.455***	0.575***
	(0.055)	(0.052)
Time FE	✓	✓
Firm FE	✓	✓
Partial F	437.86	16.54
N	41,980	41,980

3.4 Remote → Teleworkable: First Stage

Table 5: First-Stage Estimate: Remote → Teleworkable

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

4 User Productivity

4.1 OLS – Unbalanced Panel

Table 6: User Productivity (unbalanced) – OLS

Panel A: Total Contrib. (pct. rk)

	(1)	(2)	(3)	(4)	(5)	(6)
Remote $\times \mathbb{1}$(Post)	0.29	0.32	0.27	0.16	0.34	0.29
	(0.24)	(0.25)	(0.26)	(0.26)	(0.26)	(0.29)
Remote $\times \mathbb{1}$(Post) $\times$ Startup		-0.41	0.19	-0.49	-0.42	-0.82
		(0.81)	(0.84)	(0.83)	(0.82)	(0.88)
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm $\times$ User FE			✓			
Industry $\times$ Time FE				✓		✓
MSA $\times$ Time FE					✓	✓
N	1,226,437	1,226,437	1,209,494	1,218,839	1,226,025	1,209,405

Panel B: Additional Outcomes

	Outcome		
	Restricted (pct. rk)	Total (wins.)	Restr. (wins.)
Remote $\times \mathbb{1}$(Post)	-0.28**	-0.52	-0.20
	(0.12)	(0.52)	(0.29)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	1.94***	5.01**	5.28***
	(0.49)	(2.47)	(1.56)
Pre-COVID mean	16.33	34.89	15.84
N	1,226,437	1,226,437	1,226,437

4.2 OLS – Balanced Panel

Table 7: User Productivity (balanced) – OLS

Panel A: Total Contrib. (pct. rk)

	(1)	(2)	(3)	(4)	(5)	(6)
Remote × $\mathbb{1}$(Post)	0.25	0.40	0.43	0.39	0.34	0.13
	(0.35)	(0.36)	(0.36)	(0.37)	(0.38)	(0.42)
Remote × $\mathbb{1}$(Post) × Startup		-3.11**	-3.27**	-3.39**	-3.04**	-3.14**
		(1.44)	(1.48)	(1.48)	(1.45)	(1.57)
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm × User FE			✓			
Industry × Time FE				✓		✓
MSA × Time FE					✓	✓
N	519,099	519,099	516,442	515,817	518,431	508,510

Panel B: Additional Outcomes

	Outcome		
	Restricted (pct. rk)	Total (wins.)	Restr. (wins.)
Remote × $\mathbb{1}$(Post)	-0.15	-0.98	-0.44
	(0.11)	(0.69)	(0.36)
Remote × $\mathbb{1}$(Post) × Startup	0.95	2.31	3.31
	(0.62)	(4.01)	(2.43)
Pre-COVID mean	9.52	29.47	11.86
N	519,099	519,099	519,099

4.3 OLS – Pre-COVID Panel

Table 8: User Productivity (precovid) – OLS

Panel A: Total Contrib. (pct. rk)

	(1)	(2)	(3)	(4)	(5)	(6)
Remote × $\mathbb{1}$(Post)	0.52	0.04	-0.19	-0.05	0.31	0.30
	(0.41)	(0.45)	(0.46)	(0.46)	(0.48)	(0.51)
Remote × $\mathbb{1}$(Post) × Startup		3.35***	4.42***	3.47***	3.07***	2.53**
		(1.05)	(1.06)	(1.12)	(1.07)	(1.21)
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm × User FE			✓			
Industry × Time FE				✓		✓
MSA × 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 × $\mathbb{1}$(Post)	-0.39	-6.93***	-4.44***
	(0.55)	(2.26)	(1.51)
Remote × $\mathbb{1}$(Post) × Startup	4.56***	22.99***	16.58***
	(1.21)	(6.19)	(4.10)
Pre-COVID mean	75.54	126.64	77.02
N	229,862	229,862	229,862

4.4 Instrumental Variables – Unbalanced Panel

Table 9: User Productivity (unbalanced) – IV

Panel A: Total Contrib. (pct. rk)

	(1)	(2)	(3)	(4)	(5)	(6)
Remote × $\mathbb{1}$(Post)	15.34***	18.02***	15.22***	24.35***	15.79***	11.26
	(2.31)	(2.77)	(2.86)	(6.59)	(2.42)	(7.86)
Remote × $\mathbb{1}$(Post) × Startup						-9.02*
						(5.01)
		-14.02***	-12.53***	-16.61***	-12.82***	
		(4.20)	(4.25)	(4.88)	(4.07)	
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm × User FE			✓			
Industry × Time FE				✓		✓
MSA × Time FE					✓	✓
N	1,226,437	1,226,437	1,209,494	1,218,839	1,226,025	1,209,405
KP rk Wald F	1090.65	382.38	329.92	103.64	536.93	79.14

Panel B: Additional Outcomes

	Outcome		
	Restricted (pct. rk)	Total (wins.)	Restr. (wins.)
Remote × $\mathbb{1}$(Post)	0.24	-1.28	-5.45**
	(1.19)	(4.70)	(2.62)
Remote × $\mathbb{1}$(Post) × Startup	1.76	2.59	11.38
	(2.18)	(11.81)	(7.31)
Pre-COVID mean	16.33	34.89	15.84
N	1,226,437	1,226,437	1,226,437
KP rk Wald F	382.38	382.38	382.38

4.5   Instrumental Variables – Balanced Panel

Table 10: User Productivity (balanced) – IV

Panel A: Total Contrib. (pct. rk)

	(1)	(2)	(3)	(4)	(5)	(6)
Remote $\times$ $\mathbb{1}$(Post)	17.80***	19.24***	17.37***	19.07	16.64***	-4.54
	(3.96)	(4.46)	(4.48)	(18.16)	(3.72)	(23.63)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup		-10.96	-13.31	-12.50	-9.70	-0.90
		(8.12)	(8.23)	(10.56)	(7.92)	(9.15)
Time FE	✓	✓	✓			
Firm FE	✓	✓		✓	✓	✓
User FE	✓	✓		✓	✓	✓
Firm $\times$ User FE			✓			
Industry $\times$ Time FE				✓		✓
MSA $\times$ Time FE					✓	✓
N	519,099	519,099	516,442	515,817	518,431	508,510
KP rk Wald F	323.34	128.03	120.82	11.52	195.26	7.50

Panel B: Additional Outcomes

	Outcome		
	Restricted (pct. rk)	Total (wins.)	Restr. (wins.)
Remote $\times$ $\mathbb{1}$(Post)	-0.35	-8.04	-6.13*
	(1.23)	(6.99)	(3.60)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	6.04*	40.55*	37.12***
	(3.44)	(23.35)	(14.11)
Pre-COVID mean	9.52	29.47	11.86
N	519,099	519,099	519,099
KP rk Wald F	128.03	128.03	128.03

4.6 Instrumental Variables – Pre-COVID Panel

Table 11: User Productivity (precovid) – IV

Panel A: Total Contrib. (pct. rk)

	(1)	(2)	(3)	(4)	(5)	(6)
Remote $\times \mathbb{1}$(Post)	4.10	3.88	2.24	10.69**	3.83	8.99
	(2.74)	(4.00)	(4.04)	(5.44)	(4.30)	(8.33)
Remote $\times \mathbb{1}$(Post) $\times$ Startup		0.61	1.16	-3.35	0.39	-4.77
		(4.86)	(4.78)	(4.68)	(5.41)	(6.46)
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 $\times \mathbb{1}$(Post)	5.65	-51.50***	-43.05***
	(4.80)	(17.23)	(11.69)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	-2.61	62.77**	53.17***
	(5.67)	(26.20)	(17.41)
Pre-COVID mean	75.54	126.64	77.02
N	229,862	229,862	229,862
KP rk Wald F	140.60	140.60	140.60

4.7 First Stage – Unbalanced Panel

Table 12: First-Stage Estimates – User Productivity (unbalanced)

	Remote × $\mathbb{1}$(Post)	Remote × $\mathbb{1}$(Post) × Startup
Teleworkable × $\mathbb{1}$(Post)	0.15***	-0.00
	(0.01)	(0.00)
Teleworkable × $\mathbb{1}$(Post) × Startup	0.19***	0.34***
	(0.01)	(0.01)
$\mathbb{1}$(Post) × Startup	0.10***	0.62***
	(0.01)	(0.01)
Time FE	✓	✓
Firm FE	✓	✓
User FE	✓	✓
Partial F	698.82	317.93
N	1,226,437	1,226,437

4.8 First Stage – Balanced Panel

Table 13: First-Stage Estimates – User Productivity (balanced)

	Remote × $\mathbb{1}$(Post)	Remote × $\mathbb{1}$(Post) × Startup
Teleworkable × $\mathbb{1}$(Post)	0.14***	0.00
	(0.01)	(0.00)
Teleworkable × $\mathbb{1}$(Post) × Startup	0.14***	0.28***
	(0.03)	(0.02)
$\mathbb{1}$(Post) × Startup	0.14***	0.66***
	(0.02)	(0.02)
Time FE	✓	✓
Firm FE	✓	✓
User FE	✓	✓
Partial F	189.93	62.09
N	519,099	519,099

4.9   First Stage – Pre-COVID Panel

Table 14: First-Stage Estimates – User Productivity (precovid)

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

Full Horse–Race

Core interactions

$$v_3 = \text{Post} \times \text{Remote}, \quad v_4 = \text{Post} \times \text{Startup}, \quad v_5 = \text{Post} \times \text{Remote} \times \text{Startup}.$$

For each mechanism $Z \in \{\text{Rent}, \text{HHI}, \text{Seniority}, \text{Wage}\}$ create

$$v_Z = \text{Post} \times Z, \quad v_{Zr} = \text{Post} \times Z \times \text{Remote}, \quad v_{Zt} = \text{Teleworkable} \times \text{Post} \times Z.$$

Equation

$$Y_{it} = \beta_3 v_{3,it} + \beta_5 v_{5,it} + \sum_{Z \in S} (\delta_Z v_{Z,it} + \theta_Z v_{Zr,it} + \kappa_Z v_{Zt,it}) + \varphi v_{4,it}.$$

Endogenous set $\{v_3, v_5, v_{Zr} | Z \in S\}$ *Instruments* $\{v_6, v_7, v_{Zt} | Z \in S\}$. Watching how $\widehat{\beta}_5$ changes as S expands reveals whether the mechanism works generally (v_Z) or only for remote roles (v_{Zr}).

4.10 User Mechanisms – Unbalanced Panel

Table 15: User Mechanisms (Unbalanced) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote × $\mathbb{1}$(Post)	0.32	-0.78	0.33	-1.85	-0.60	-0.80	-1.46	-1.70*
	(0.25)	(0.60)	(0.33)	(3.07)	(0.80)	(0.63)	(3.10)	(0.97)
Remote × $\mathbb{1}$(Post) × Startup	-0.41	-1.60*	-0.43	-0.35	-0.43	-1.71**	-1.59*	-1.62*
	(0.81)	(0.83)	(0.83)	(0.82)	(0.81)	(0.85)	(0.85)	(0.83)
N	1,226,437	1,180,667	1,226,029	1,226,437	1,226,427	1,180,358	1,180,667	1,180,657
Panel B: IV								
Remote × $\mathbb{1}$(Post)	18.02***	845.26	4.48	240571.36	-262.43	919.08	2917.11	-892.49
	(2.77)	(646.13)	(9.11)	(1215154.50)	(163.09)	(629.95)	(2491.35)	(1074.09)
Remote × $\mathbb{1}$(Post) × Startup	-14.02***	-69.00	-21.75***	919.03	68.85	-96.47	-33.46	218.64
	(4.20)	(44.97)	(5.76)	(5230.72)	(49.12)	(60.33)	(33.65)	(185.46)
N	1,226,437	1,065,931	1,106,382	1,106,741	1,106,736	1,065,655	1,065,931	1,065,926
KP rk Wald F	382.38	0.55	5.41	0.01	1.42	0.54	0.59	0.28

Table 16: User Mechanisms (Unbalanced) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote × 𝟙(Post)	-1.48	-0.58	-2.95	-1.36	-1.70*	-2.55	-2.55	-2.42
	(3.17)	(0.82)	(3.19)	(3.21)	(0.98)	(3.23)	(3.28)	(3.32)
Remote × 𝟙(Post) × Startup	-0.40	-0.45	-0.36	-1.71**	-1.72**	-1.60*	-0.41	-1.71**
	(0.84)	(0.83)	(0.82)	(0.86)	(0.85)	(0.85)	(0.84)	(0.86)
N	1,226,029	1,226,019	1,226,427	1,180,358	1,180,348	1,180,657	1,226,019	1,180,348
Panel B: IV								
Remote × 𝟙(Post)	33720.00	-302.38	-81.71	3005.56	-628.81	765.34	120.06	904.79
	(61878.55)	(192.67)	(1408.87)	(2287.14)	(722.94)	(2316.61)	(1350.80)	(2071.04)
Remote × 𝟙(Post) × Startup	114.21	71.24	69.48**	-62.19	170.19	191.51	67.86**	174.05
	(278.70)	(54.13)	(32.46)	(45.88)	(133.81)	(156.31)	(31.77)	(138.71)
N	1,106,382	1,106,377	1,106,736	1,065,655	1,065,650	1,065,926	1,106,377	1,065,650
KP rk Wald F	0.08	0.94	1.68	0.57	0.35	0.28	1.90	0.31

4.11 User Mechanisms – Balanced Panel

Table 17: User Mechanisms (Balanced) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote × 𝟙(Post)	0.40	-0.93	0.44	0.78	-1.63	-0.95	0.79	-2.88**
	(0.36)	(0.85)	(0.47)	(6.07)	(1.14)	(0.90)	(6.11)	(1.36)
Remote × 𝟙(Post) × Startup	-3.11**	-3.58**	-3.13**	-3.11**	-3.21**	-3.67**	-3.64**	-3.66**
	(1.44)	(1.47)	(1.46)	(1.46)	(1.44)	(1.49)	(1.49)	(1.47)
N	519,099	500,083	519,060	519,099	519,094	500,050	500,083	500,078
Panel B: IV								
Remote × 𝟙(Post)	19.24***	1837.31	2.11	-125924.72	-840.45	3257.15	5391.22	131.49
	(4.46)	(3116.01)	(13.25)	(206811.91)	(1228.61)	(7986.50)	(6485.41)	(788.38)
Remote × 𝟙(Post) × Startup	-10.96	-346.90	-18.42*	-488.88	317.53	-663.58	-152.78	79.16
	(8.12)	(575.45)	(10.58)	(855.40)	(470.50)	(1608.99)	(210.76)	(205.07)
N	519,099	451,402	468,515	468,548	468,543	451,375	451,402	451,397
KP rk Wald F	128.03	0.11	5.71	0.13	0.17	0.04	0.17	0.29

Table 18: User Mechanisms (Balanced) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote $\times$ $\mathbb{1}$(Post)	1.67	-1.57	-1.45	1.45	-2.87**	-1.34	-0.65	-0.79
	(6.18)	(1.17)	(6.11)	(6.23)	(1.38)	(6.15)	(6.21)	(6.26)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	-3.16**	-3.21**	-3.20**	-3.75**	-3.74**	-3.71**	-3.23**	-3.80**
	(1.47)	(1.46)	(1.46)	(1.50)	(1.49)	(1.49)	(1.47)	(1.50)
N	519,060	519,055	519,094	500,050	500,045	500,078	519,055	500,045
Panel B: IV								
Remote $\times$ $\mathbb{1}$(Post)	-43166.25	-1018.59	6225.49	6058.72	179.12	3299.48	6853.22	3118.27
	(53590.73)	(1657.74)	(13787.57)	(6988.07)	(671.99)	(4366.90)	(14953.05)	(3838.61)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	59.36	333.69	156.64	-311.39	45.00	38.12	112.87	-5.53
	(428.35)	(559.09)	(140.80)	(488.92)	(160.83)	(136.81)	(93.44)	(130.38)
N	468,515	468,510	468,543	451,375	451,370	451,397	468,510	451,370
KP rk Wald F	0.17	0.10	0.08	0.08	0.23	0.24	0.06	0.21

4.12 User Mechanisms – Pre-COVID Panel

Table 19: User Mechanisms (Precovid) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote × $\mathbb{1}$(Post)	0.04	-1.65	0.25	1.30	3.22**	-1.42	0.91	1.54
	(0.45)	(1.03)	(0.54)	(4.28)	(1.39)	(1.07)	(4.26)	(1.69)
Remote × $\mathbb{1}$(Post) × Startup	3.35***	0.96	3.54***	3.30***	3.14***	1.25	0.87	0.81
	(1.05)	(1.01)	(1.12)	(1.06)	(1.05)	(1.07)	(1.02)	(1.02)
N	229,862	223,003	229,741	229,862	229,862	222,919	223,003	223,003
Panel B: IV								
Remote × $\mathbb{1}$(Post)	3.88	1012.57	-2490.45	-39886.88	340.65	320.78	1542.21	-184.11
	(4.00)	(1603.17)	(111839.08)	(70451.93)	(359.29)	(487.83)	(2990.12)	(3864.92)
Remote × $\mathbb{1}$(Post) × Startup	0.61	-93.70	-1802.81	-519.51	-97.60	26.62	-68.69	-294.16
	(4.86)	(147.87)	(80905.72)	(970.39)	(110.53)	(131.26)	(140.65)	(1050.88)
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 20: User Mechanisms (Precovid) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote × $\mathbb{1}$(Post)	2.10	3.28**	4.65	1.73	1.57	4.27	5.14	4.73
	(4.34)	(1.40)	(4.53)	(4.31)	(1.70)	(4.51)	(4.56)	(4.54)
Remote × $\mathbb{1}$(Post) × Startup	3.49***	3.27***	3.08***	1.15	1.02	0.70	3.22***	0.92
	(1.12)	(1.12)	(1.06)	(1.07)	(1.07)	(1.02)	(1.13)	(1.08)
N	229,741	229,741	229,862	222,919	222,919	223,003	229,741	222,919
Panel B: IV								
Remote × $\mathbb{1}$(Post)	1449.81	284.91	-10522.64	721.06	429.86	7683.69	5922.00	1311.35
	(5204.81)	(228.60)	(30322.93)	(997.35)	(3709.52)	(42411.77)	(37198.34)	(2459.39)
Remote × $\mathbb{1}$(Post) × Startup	102.97	-46.47	-438.72	39.09	676.00	410.09	379.94	95.09
	(80.67)	(103.90)	(714.46)	(130.60)	(9773.36)	(2665.27)	(1995.63)	(148.05)
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

4.13 Firm Mechanisms

Table 21: Firm Mechanisms (Part 1)

Specification	Growth Rate							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote $\times$ $\mathbb{1}$(Post)	0.001	0.007	-0.019***	0.024	-0.041***	-0.016	0.028	-0.035**
	(0.005)	(0.011)	(0.007)	(0.024)	(0.012)	(0.013)	(0.026)	(0.015)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	0.070***	0.071***	0.063**	0.068***	0.066***	0.063**	0.068***	0.066***
	(0.025)	(0.026)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.026)
N	38,436	38,436	38,436	38,436	38,436	38,436	38,436	38,436
Panel B: IV								
Remote $\times$ $\mathbb{1}$(Post)	0.010	-0.113***	-0.039**	-0.037	-0.042	-0.157***	-0.150*	-0.153***
	(0.009)	(0.043)	(0.018)	(0.067)	(0.028)	(0.044)	(0.079)	(0.048)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	0.157	0.139	0.037	0.122	0.149	0.026	0.109	0.133
	(0.100)	(0.099)	(0.102)	(0.096)	(0.100)	(0.101)	(0.096)	(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 22: Firm Mechanisms (Part 2)

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

Lean Horse–Race

Only the two–way interaction of each mechanism is added:

$$v_Z = \text{Post} \times Z.$$

Equation

$$Y_{it} = \beta_3 v_{3,it} + \beta_5 v_{5,it} + \sum_{Z \in S} \delta_Z v_{Z,it} + \varphi v_{4,it}.$$

Endogenous variables $\{v_3, v_5\}$ *Instruments* $\{v_6, v_7\}$.

4.14 User Mechanisms (Lean) – Unbalanced Panel

Table 23: User Mechanisms – Lean (Unbalanced) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote $\times \mathbb{1}$(Post)	0.32	0.22	0.32	0.32	0.34	0.21	0.22	0.22
	(0.25)	(0.26)	(0.25)	(0.25)	(0.25)	(0.26)	(0.26)	(0.26)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	-0.41	-1.34	-0.45	-0.42	-0.75***	-1.41*	-1.35	-1.35
	(0.81)	(0.82)	(0.81)	(0.81)	(0.26)	(0.83)	(0.82)	(0.82)
N	1,226,437	1,180,667	1,226,029	1,226,437	1,226,437	1,180,358	1,180,667	1,180,657
Panel B: IV								
Remote $\times \mathbb{1}$(Post)	18.02***	22.96***	17.93***	18.14***	18.09***	23.12***	23.23***	23.01***
	(2.77)	(3.71)	(2.79)	(2.79)	(2.79)	(3.81)	(3.76)	(3.73)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	-14.02***	-20.78***	-14.38***	-13.37***	-14.04***	-20.62***	-19.99***	-20.74***
	(4.20)	(5.21)	(4.21)	(4.18)	(4.20)	(5.17)	(5.15)	(5.20)
N	1,226,437	1,180,667	1,226,029	1,226,437	1,226,427	1,180,358	1,180,667	1,180,657
KP rk Wald F	382.38	219.92	382.78	377.88	378.68	212.49	215.20	218.49

Table 24: User Mechanisms – Lean (Unbalanced) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote × $\mathbb{1}$(Post)	0.31	0.31	0.32	0.20	0.20	0.21	0.31	0.20
	(0.25)	(0.25)	(0.25)	(0.26)	(0.26)	(0.26)	(0.25)	(0.26)
Remote × $\mathbb{1}$(Post) × Startup	-0.48	-0.45	-0.42	-1.45*	-1.42*	-1.37*	-0.48	-1.46*
	(0.81)	(0.81)	(0.81)	(0.83)	(0.83)	(0.82)	(0.81)	(0.83)
N	1,226,029	1,226,019	1,226,427	1,180,358	1,180,348	1,180,657	1,226,019	1,180,348
Panel B: IV								
Remote × $\mathbb{1}$(Post)	18.17***	17.99***	18.20***	23.76***	23.15***	23.27***	18.22***	23.78***
	(2.83)	(2.80)	(2.80)	(3.94)	(3.81)	(3.77)	(2.84)	(3.94)
Remote × $\mathbb{1}$(Post) × Startup	-13.37***	-14.41***	-13.38***	-19.21***	-20.60***	-19.97***	-13.40***	-19.21***
	(4.19)	(4.22)	(4.18)	(5.07)	(5.17)	(5.15)	(4.19)	(5.07)
N	1,226,029	1,226,019	1,226,427	1,180,358	1,180,348	1,180,657	1,226,019	1,180,348
KP rk Wald F	373.35	379.45	374.54	200.91	211.53	213.96	370.60	200.33

4.15 User Mechanisms (Lean) – Balanced Panel

Table 25: User Mechanisms – Lean (Balanced) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote × $\mathbb{1}$(Post)	0.40	0.28	0.40	0.41	0.37	0.27	0.28	0.22
	(0.36)	(0.37)	(0.36)	(0.36)	(0.35)	(0.37)	(0.37)	(0.37)
Remote × $\mathbb{1}$(Post) × Startup	-3.11**	-3.22**	-3.15**	-3.10**	-2.14***	-3.28**	-3.24**	-3.29**
	(1.44)	(1.45)	(1.44)	(1.44)	(0.43)	(1.45)	(1.45)	(1.45)
N	519,099	500,083	519,060	519,099	519,099	500,050	500,083	500,078
Panel B: IV								
Remote × $\mathbb{1}$(Post)	19.24***	24.26***	19.06***	19.42***	19.06***	24.30***	24.63***	24.23***
	(4.46)	(6.36)	(4.47)	(4.49)	(4.50)	(6.50)	(6.46)	(6.39)
Remote × $\mathbb{1}$(Post) × Startup	-10.96	-17.67*	-11.71	-9.57	-10.83	-17.67*	-16.20	-17.65*
	(8.12)	(9.99)	(8.12)	(8.14)	(8.13)	(9.89)	(9.90)	(10.00)
N	519,099	500,083	519,060	519,099	519,094	500,050	500,083	500,078
KP rk Wald F	128.03	65.53	128.13	126.37	125.37	63.42	63.87	64.88

Table 26: User Mechanisms – Lean (Balanced) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote $\times \mathbb{1}$(Post)	0.40	0.36	0.36	0.26	0.21	0.22	0.36	0.21
	(0.36)	(0.36)	(0.36)	(0.37)	(0.37)	(0.37)	(0.36)	(0.37)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	-3.17**	-3.20**	-3.15**	-3.33**	-3.34**	-3.30**	-3.21**	-3.39**
	(1.44)	(1.44)	(1.44)	(1.45)	(1.45)	(1.45)	(1.44)	(1.45)
N	519,060	519,055	519,094	500,050	500,045	500,078	519,055	500,045
Panel B: IV								
Remote $\times \mathbb{1}$(Post)	19.38***	18.91***	19.25***	25.07***	24.28***	24.61***	19.23***	25.07***
	(4.54)	(4.50)	(4.53)	(6.73)	(6.50)	(6.49)	(4.58)	(6.74)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	-9.82	-11.49	-9.46	-15.40	-17.62*	-16.19	-9.59	-15.35
	(8.16)	(8.14)	(8.15)	(9.75)	(9.93)	(9.90)	(8.18)	(9.78)
N	519,060	519,055	519,094	500,050	500,045	500,078	519,055	500,045
KP rk Wald F	125.06	125.80	123.73	59.77	63.17	63.24	122.88	59.62

4.16 User Mechanisms (Lean) – Pre-COVID Panel

Table 27: User Mechanisms – Lean (Precovid) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote × 𝟙(Post)	0.04	0.36	0.03	0.03	0.42	0.36	0.36	0.37
	(0.45)	(0.47)	(0.45)	(0.45)	(0.43)	(0.47)	(0.47)	(0.47)
Remote × 𝟙(Post) × Startup	3.35***	1.29	3.35***	3.34***	0.05	1.30	1.30	1.14
	(1.05)	(1.00)	(1.06)	(1.05)	(0.32)	(1.01)	(1.00)	(1.00)
N	229,862	223,003	229,741	229,862	229,862	222,919	223,003	223,003
Panel B: IV								
Remote × 𝟙(Post)	3.88	5.89	3.95	3.91	3.98	5.96	5.98	6.01
	(4.00)	(4.77)	(3.96)	(4.03)	(4.00)	(4.76)	(4.83)	(4.78)
Remote × 𝟙(Post) × Startup	0.61	-3.95	0.78	0.71	0.16	-3.79	-3.75	-4.32
	(4.86)	(5.96)	(5.01)	(4.78)	(4.90)	(6.07)	(5.86)	(5.99)
N	229,862	223,003	229,741	229,862	229,862	222,919	223,003	223,003
KP rk Wald F	140.60	96.50	143.89	138.52	140.31	97.63	94.20	96.34

Table 28: User Mechanisms – Lean (Precovid) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote $\times \mathbb{1}$(Post)	0.03	0.06	0.07	0.36	0.37	0.38	0.06	0.38
	(0.45)	(0.45)	(0.45)	(0.47)	(0.47)	(0.47)	(0.45)	(0.47)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	3.34***	3.15***	3.16***	1.31	1.15	1.15	3.16***	1.16
	(1.07)	(1.06)	(1.05)	(1.01)	(1.01)	(1.00)	(1.07)	(1.01)
N	229,741	229,741	229,862	222,919	222,919	223,003	229,741	222,919
Panel B: IV								
Remote $\times \mathbb{1}$(Post)	4.02	4.05	4.02	6.18	6.07	6.12	4.16	6.33
	(4.03)	(3.97)	(4.04)	(4.90)	(4.76)	(4.84)	(4.04)	(4.90)
Remote $\times \mathbb{1}$(Post) $\times$ Startup	1.02	0.31	0.30	-3.32	-4.18	-4.10	0.64	-3.65
	(4.90)	(5.06)	(4.82)	(5.88)	(6.10)	(5.89)	(4.94)	(5.91)
N	229,741	229,741	229,862	222,919	222,919	223,003	229,741	222,919
KP rk Wald F	139.96	143.60	138.11	92.79	97.46	93.98	139.41	92.50

4.17 Firm Mechanisms (Lean)

Table 29: Firm Mechanisms – Lean (Part 1)

Specification	Growth Rate							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
Remote $\times$ $\mathbb{1}$(Post)	0.003	0.004	0.004	-0.001	0.003	0.004	-0.001	0.004
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	0.070***	0.068***	0.073***	0.073***	0.070***	0.072***	0.072***	0.067***
	(0.024)	(0.025)	(0.023)	(0.023)	(0.024)	(0.024)	(0.025)	(0.025)
N	41,980	38,794	41,946	41,980	41,943	38,760	38,794	38,763
Panel B: IV								
Remote $\times$ $\mathbb{1}$(Post)	0.006	0.017*	0.019**	0.001	0.003	0.027**	0.008	0.013
	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	0.209**	0.206*	0.166*	0.156	0.223**	0.164	0.151	0.219**
	(0.102)	(0.111)	(0.095)	(0.096)	(0.102)	(0.103)	(0.104)	(0.112)
N	41,980	38,794	41,946	41,980	41,943	38,760	38,794	38,763
KP rk Wald F	16.53	14.17	16.28	16.57	16.18	13.96	14.27	13.81

Table 30: Firm Mechanisms – Lean (Part 2)

Specification	Growth Rate							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
Remote $\times$ $\mathbb{1}$(Post)	0.002	0.004	-0.002	0.002	0.003	-0.002	0.002	0.001
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	0.074***	0.073***	0.073***	0.073***	0.071***	0.071***	0.073***	0.072***
	(0.023)	(0.023)	(0.023)	(0.024)	(0.025)	(0.025)	(0.023)	(0.024)
N	41,946	41,920	41,943	38,760	38,740	38,763	41,920	38,740
Panel B: IV								
Remote $\times$ $\mathbb{1}$(Post)	0.016*	0.015	-0.003	0.021**	0.023**	0.004	0.011	0.017
	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.009)	(0.010)
Remote $\times$ $\mathbb{1}$(Post) $\times$ Startup	0.153	0.168*	0.169*	0.149	0.164	0.163	0.155	0.148
	(0.094)	(0.095)	(0.096)	(0.102)	(0.103)	(0.105)	(0.094)	(0.102)
N	41,946	41,920	41,943	38,760	38,740	38,763	41,920	38,740
KP rk Wald F	16.26	16.24	16.20	13.99	13.88	13.89	16.20	13.90

5 Dynamic Event-Study Evidence
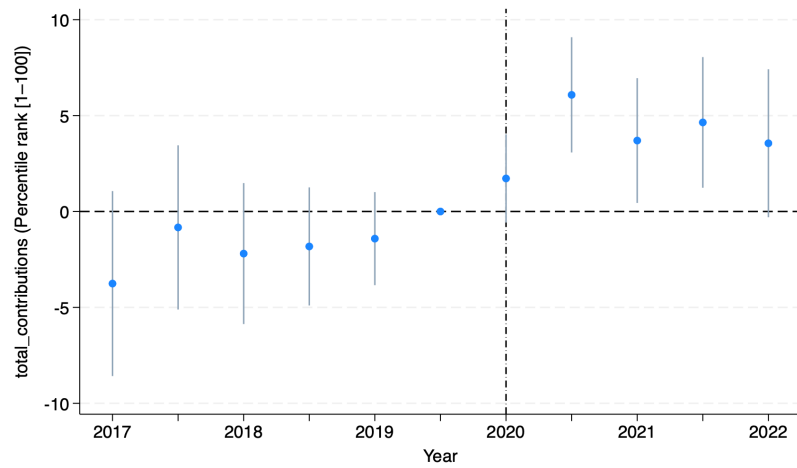
Figure 3: *
OLS – Total Contributions
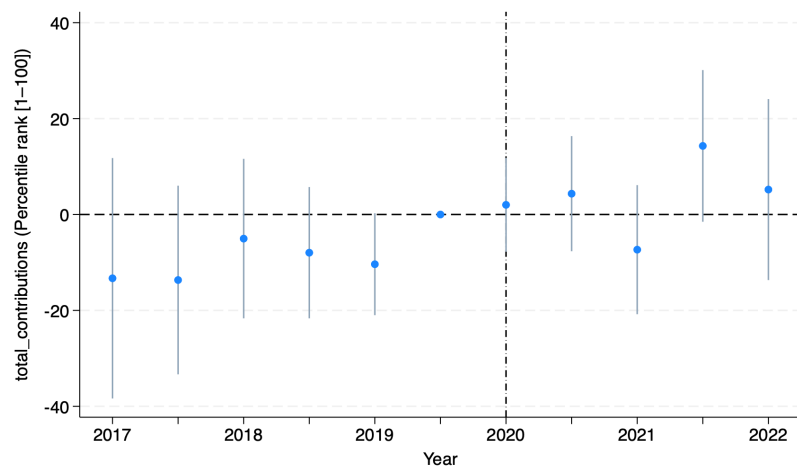
Figure 4: *
IV – Total Contributions
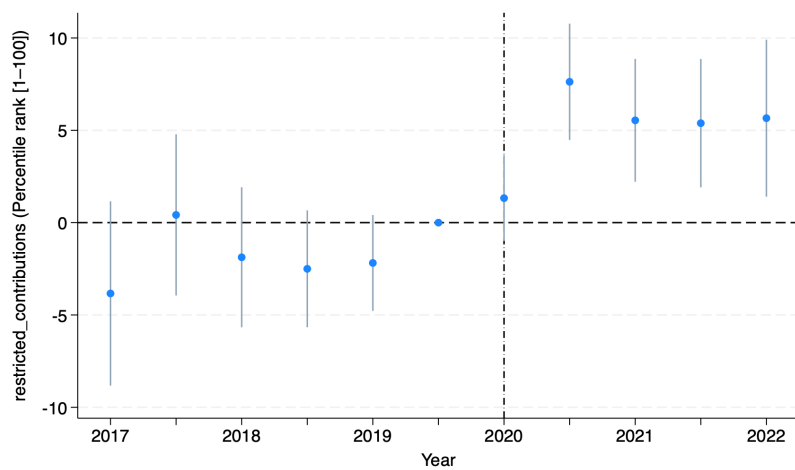
Figure 5: *
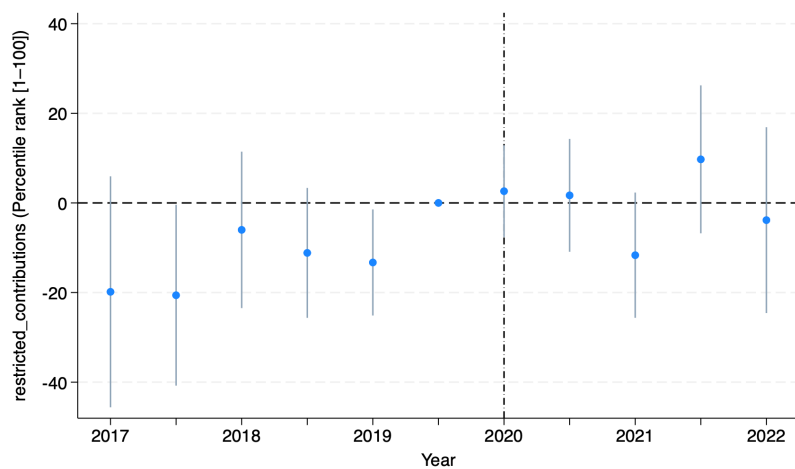OLS – Restricted Contributions
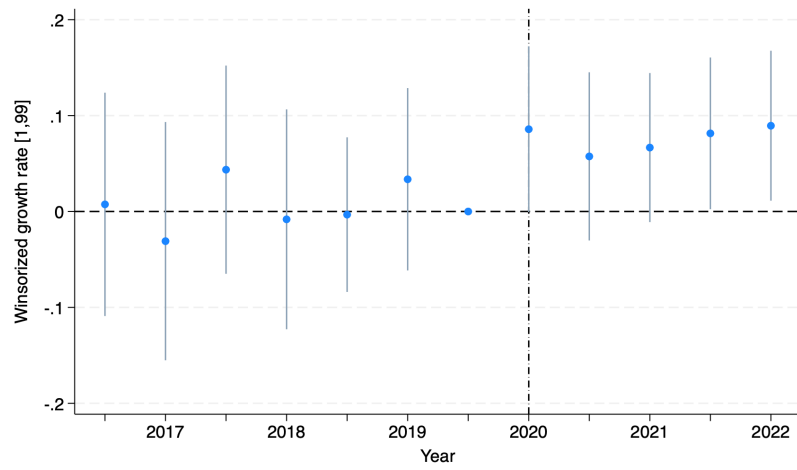

Figure 6: *
IV – Restricted Contributions

Figure 7: *
OLS – Employment Growth
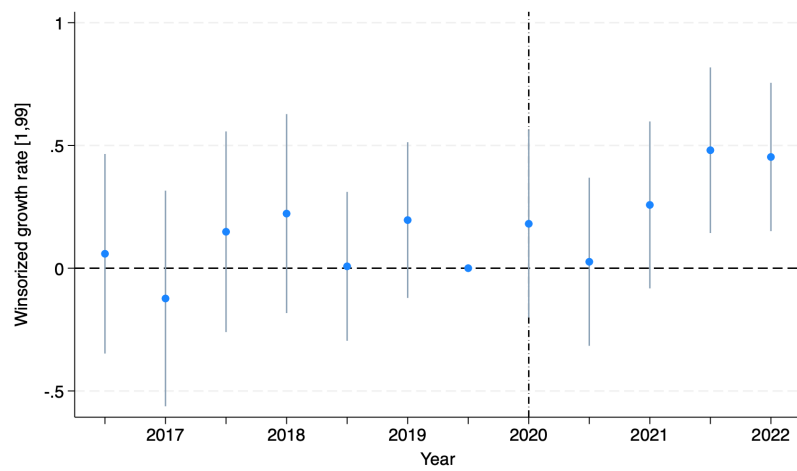

Figure 8: *
IV – Employment Growth
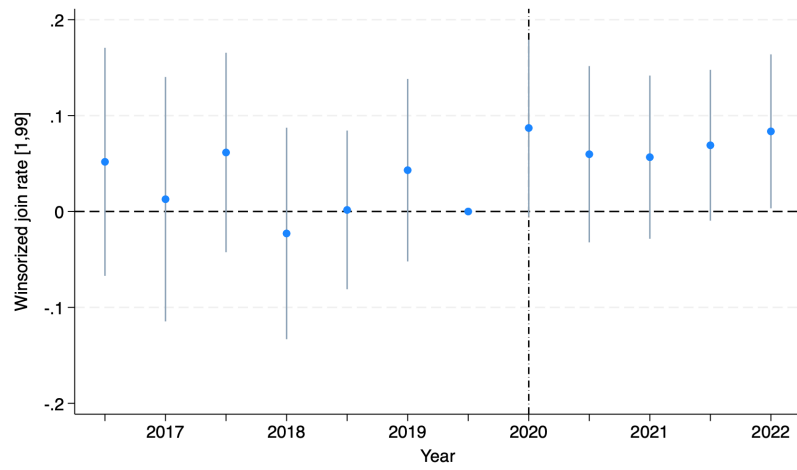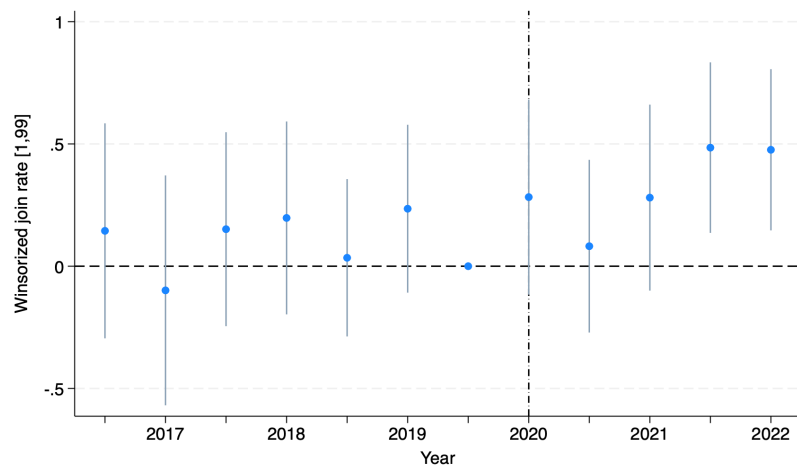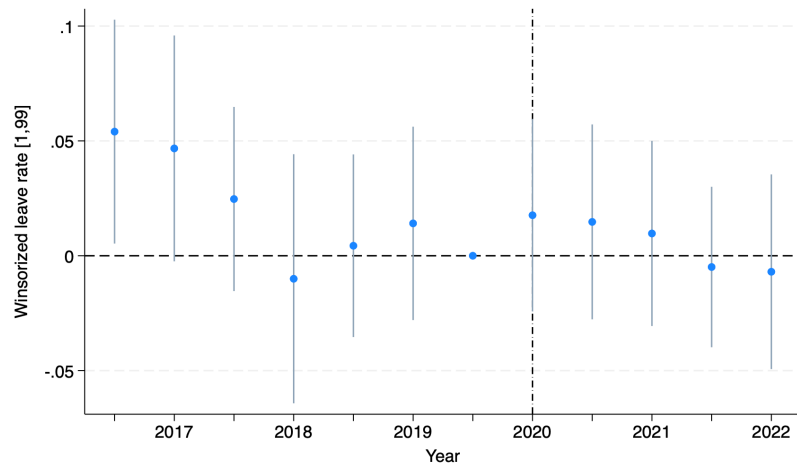
Figure 9: *
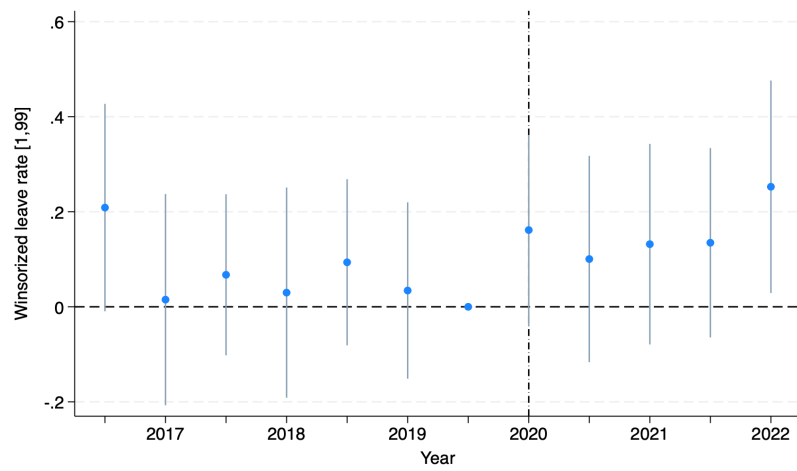OLS – Join Rate

Figure 10: *
IV – Join Rate

35

Figure 11: *
OLS – Leave Rate

Figure 12: *
IV – Leave Rate