

User Productivity Across Remote Modalities (Pre-COVID Panel)

September 16, 2025

Full-Remote

Table 1: User Productivity – Lean (Precovid, FullRemote) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
$Full - Remote \times 1(Post)$	-0.86*** (0.31)	-0.71** (0.32)	-0.84*** (0.31)	-0.82*** (0.31)	-0.82*** (0.31)	-0.70** (0.32)	-0.67** (0.32)	-0.69** (0.32)
$Full - Remote \times 1(Post) \times Startup$	3.39*** (0.71)	2.79*** (0.72)	3.50*** (0.72)	3.35*** (0.71)	3.44*** (0.71)	2.90*** (0.72)	2.75*** (0.72)	2.86*** (0.72)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
Panel B: IV								
$Full - Remote \times 1(Post)$	-4.11** (1.77)	-3.75* (1.96)	-4.29** (1.72)	-4.10** (1.80)	-4.08** (1.77)	-3.98** (1.92)	-3.72* (2.01)	-3.71* (1.96)
$Full - Remote \times 1(Post) \times Startup$	5.61** (2.45)	4.97* (2.68)	6.74*** (2.55)	5.53** (2.51)	5.72** (2.47)	6.08** (2.83)	4.91* (2.74)	5.09* (2.70)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
KP rk Wald F	311.51	247.30	326.09	299.86	313.15	253.61	236.73	248.05

Table 2: User Productivity – Lean (Precovid, FullRemote) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
<i>Full – Remote</i> \times 1(<i>Post</i>)	-0.82*** (0.31)	-0.80*** (0.31)	-0.79** (0.31)	-0.68** (0.32)	-0.68** (0.32)	-0.66** (0.32)	-0.78** (0.31)	-0.66** (0.32)
<i>Full – Remote</i> \times 1(<i>Post</i>) \times <i>Startup</i>	3.53*** (0.73)	3.55*** (0.72)	3.39*** (0.71)	2.91*** (0.73)	2.97*** (0.73)	2.82*** (0.72)	3.55*** (0.73)	2.96*** (0.74)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
Panel B: IV								
<i>Full – Remote</i> \times 1(<i>Post</i>)	-4.30** (1.77)	-4.26** (1.72)	-4.07** (1.81)	-3.97** (2.00)	-3.95** (1.93)	-3.69* (2.01)	-4.28** (1.78)	-3.95** (2.00)
<i>Full – Remote</i> \times 1(<i>Post</i>) \times <i>Startup</i>	6.99** (2.71)	6.88*** (2.59)	5.60** (2.52)	6.32** (3.00)	6.24** (2.86)	4.99* (2.75)	7.03*** (2.73)	6.36** (3.01)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
KP rk Wald F	306.94	328.25	301.51	234.74	254.73	237.43	308.94	235.72

Hybrid

Table 3: User Productivity – Lean (Precovid, Hybrid) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
$Hybrid \times 1(Post)$	1.00*** (0.30)	0.93*** (0.31)	0.99*** (0.30)	0.97*** (0.30)	0.93*** (0.30)	0.92*** (0.31)	0.90*** (0.31)	0.88*** (0.31)
$Hybrid \times 1(Post) \times Startup$	-2.69*** (0.71)	-2.87*** (0.73)	-2.81*** (0.73)	-2.65*** (0.72)	-2.68*** (0.72)	-2.99*** (0.74)	-2.84*** (0.73)	-2.89*** (0.73)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
Panel B: IV								
$Hybrid \times 1(Post)$	4.82** (2.07)	4.26* (2.23)	4.99** (2.00)	4.81** (2.12)	4.80** (2.08)	4.47** (2.16)	4.23* (2.28)	4.24* (2.24)
$Hybrid \times 1(Post) \times Startup$	-6.53** (2.84)	-5.69* (3.08)	-7.88*** (3.00)	-6.45** (2.91)	-6.67** (2.87)	-7.03** (3.32)	-5.62* (3.16)	-5.84* (3.12)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
KP rk Wald F	181.74	154.21	197.48	174.55	183.40	166.74	147.37	155.87

Table 4: User Productivity – Lean (Precovid, Hybrid) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
$Hybrid \times 1(Post)$	0.97*** (0.30)	0.92*** (0.30)	0.91*** (0.30)	0.90*** (0.31)	0.87*** (0.31)	0.85*** (0.31)	0.90*** (0.30)	0.85*** (0.31)
$Hybrid \times 1(Post) \times Startup$	-2.82*** (0.74)	-2.80*** (0.73)	-2.63*** (0.72)	-3.00*** (0.75)	-3.01*** (0.74)	-2.85*** (0.73)	-2.79*** (0.74)	-3.01*** (0.75)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
Panel B: IV								
$Hybrid \times 1(Post)$	5.00** (2.07)	4.97** (2.01)	4.79** (2.13)	4.45** (2.24)	4.44** (2.17)	4.21* (2.29)	4.99** (2.07)	4.43** (2.25)
$Hybrid \times 1(Post) \times Startup$	-8.28** (3.26)	-8.05*** (3.04)	-6.55** (2.93)	-7.39** (3.59)	-7.23** (3.37)	-5.73* (3.18)	-8.33** (3.27)	-7.45** (3.61)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
KP rk Wald F	185.89	199.43	176.30	155.01	168.98	149.01	187.80	157.10

In-Person

Table 5: User Productivity – Lean (Precovid, InPerson) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
$In - Person \times 1(Post)$	-0.75 (0.59)	-1.04* (0.60)	-0.74 (0.59)	-0.77 (0.59)	-0.62 (0.59)	-1.02* (0.60)	-1.05* (0.60)	-0.91 (0.60)
$In - Person \times 1(Post) \times Startup$	-6.85*** (2.07)	-1.41 (1.96)	-6.80*** (2.07)	-6.84*** (2.06)	-7.11*** (2.07)	-1.39 (1.97)	-1.39 (1.96)	-1.67 (1.97)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
Panel B: IV								
$In - Person \times 1(Post)$	27.88** (13.32)	30.99* (18.47)	30.54** (13.77)	27.71** (13.54)	27.26** (13.07)	36.38* (20.68)	30.80 (18.90)	29.94* (17.86)
$In - Person \times 1(Post) \times Startup$	-40.10** (19.24)	-39.51* (22.40)	-46.52** (18.56)	-38.87** (19.21)	-40.82** (19.41)	-48.24** (23.76)	-38.84* (22.72)	-39.56* (22.08)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
KP rk Wald F	12.30	6.73	12.28	11.86	12.68	5.97	6.40	7.09

Table 6: User Productivity – Lean (Precovid, InPerson) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
$In - Person \times 1(Post)$	-0.76 (0.59)	-0.61 (0.59)	-0.64 (0.59)	-1.04* (0.60)	-0.89 (0.60)	-0.93 (0.60)	-0.62 (0.59)	-0.91 (0.60)
$In - Person \times 1(Post) \times Startup$	-6.79*** (2.07)	-7.05*** (2.07)	-7.12*** (2.07)	-1.37 (1.97)	-1.64 (1.97)	-1.65 (1.97)	-7.06*** (2.07)	-1.63 (1.97)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
Panel B: IV								
$In - Person \times 1(Post)$	30.70** (14.24)	29.84** (13.48)	27.16** (13.31)	37.06* (22.00)	35.27* (20.01)	29.83 (18.32)	30.11** (13.98)	36.11* (21.38)
$In - Person \times 1(Post) \times Startup$	-45.62** (18.29)	-47.08** (18.61)	-39.26** (19.27)	-48.70** (24.67)	-48.18** (23.31)	-38.69* (22.36)	-45.42** (18.15)	-48.08** (24.15)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
KP rk Wald F	11.52	12.65	12.20	5.33	6.25	6.72	11.82	5.55

Any Remote

Table 7: User Productivity – Lean (Precovid, Any Remote) – Part 1

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent		✓				✓	✓	✓
HHI			✓			✓		
Seniority				✓			✓	
Wage					✓			✓
Panel A: OLS								
<i>AnyRemote</i> × 1(<i>Post</i>)	0.75 (0.59)	1.04* (0.60)	0.74 (0.59)	0.77 (0.59)	0.62 (0.59)	1.02* (0.60)	1.05* (0.60)	0.91 (0.60)
<i>AnyRemote</i> × 1(<i>Post</i>) × <i>Startup</i>	6.85*** (2.07)	1.41 (1.96)	6.80*** (2.07)	6.84*** (2.06)	7.11*** (2.07)	1.39 (1.97)	1.39 (1.96)	1.67 (1.97)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
Panel B: IV								
<i>AnyRemote</i> × 1(<i>Post</i>)	-27.88** (13.32)	-30.99* (18.47)	-30.54** (13.77)	-27.71** (13.54)	-27.26** (13.07)	-36.38* (20.68)	-30.80 (18.90)	-29.94* (17.86)
<i>AnyRemote</i> × 1(<i>Post</i>) × <i>Startup</i>	40.10** (19.24)	39.51* (22.40)	46.52** (18.56)	38.87** (19.21)	40.82** (19.41)	48.24** (23.76)	38.84* (22.72)	39.56* (22.08)
N	224,708	218,112	224,596	224,708	224,708	218,032	218,112	218,112
KP rk Wald F	12.30	6.73	12.28	11.86	12.68	5.97	6.40	7.09

Table 8: User Productivity – Lean (Precovid, Any Remote) – Part 2

Specification	Total Contrib. (pct. rk)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rent				✓	✓	✓		✓
HHI	✓	✓		✓	✓		✓	✓
Seniority	✓		✓	✓		✓	✓	✓
Wage		✓	✓		✓	✓	✓	✓
Panel A: OLS								
<i>AnyRemote</i> × 1(<i>Post</i>)	0.76 (0.59)	0.61 (0.59)	0.64 (0.59)	1.04* (0.60)	0.89 (0.60)	0.93 (0.60)	0.62 (0.59)	0.91 (0.60)
<i>AnyRemote</i> × 1(<i>Post</i>) × <i>Startup</i>	6.79*** (2.07)	7.05*** (2.07)	7.12*** (2.07)	1.37 (1.97)	1.64 (1.97)	1.65 (1.97)	7.06*** (2.07)	1.63 (1.97)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
Panel B: IV								
<i>AnyRemote</i> × 1(<i>Post</i>)	-30.70** (14.24)	-29.84** (13.48)	-27.16** (13.31)	-37.06* (22.00)	-35.27* (20.01)	-29.83 (18.32)	-30.11** (13.98)	-36.11* (21.38)
<i>AnyRemote</i> × 1(<i>Post</i>) × <i>Startup</i>	45.62** (18.29)	47.08** (18.61)	39.26** (19.27)	48.70** (24.67)	48.18** (23.31)	38.69* (22.36)	45.42** (18.15)	48.08** (24.15)
N	224,596	224,596	224,708	218,032	218,032	218,112	224,596	218,032
KP rk Wald F	11.52	12.65	12.20	5.33	6.25	6.72	11.82	5.55