

Labor Demand and Wage Growth During and After the Pandemic

Lisa B. Kahn

University of Rochester, NBER, and IZA

Labor Markets During and After the Pandemic Conference
November 19, 2022

Draws heavily from:

Forsythe, Eliza, Lisa B. Kahn, Fabian Lange, and David Wiczer (2022), "Where have all the workers gone? Recalls, retirements, and reallocation in the COVID recovery," *Labour Economics*, vol 78, October.

Forsythe, Eliza, Lisa B. Kahn, Fabian Lange, and David Wiczer (2020), "Searching, Recalls, and Tightness: An Interim Report on the COVID Labor Market," NBER wp #28083, Nov.

Forsythe, Eliza, Lisa B. Kahn, Fabian Lange, and David Wiczer (2020), "Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims," *Journal of Public Economics*, vol 189, September.

How Has the Pandemic Changed Labor Demand?

1. Long-run trend of rising inequality and polarization
2. Recessionary forces push towards reallocation
 - ▶ **Accelerated automation** in the Great Recession (Hershbein and Kahn 2018, Jaimovich and Siu 2020)
 - ▶ **Low-skilled workers** disproportionately harmed (Hoynes et al. 2012)
3. COVID-specific factors could have exacerbated these trends
 - ▶ **Exposure risk** impacted product demand
 - ▶ **Technological adoption** rapidly expanded remote work/consumption
 - ▶ **25 million layoffs** in spring, 2020.
 - ▶ **Labor supply** changes will feedback into demand

How Has the Pandemic Changed Labor Demand?

1. Do we see evidence of widespread reallocation?
2. Have employers changed what they are looking for?
3. If so, what has that meant for inequality?
4. What should we expect moving forward?

How Has the Pandemic Changed Labor Demand?

1. Do we see evidence of widespread reallocation?
 2. Have employers changed what they are looking for?
 3. If so, what has that meant for inequality?
 4. What should we expect moving forward?
- 2.5 years after the onset of COVID-19, the labor market looks remarkably as it did before
- Labor supply factors drive the main changes we do see

The Acute Phase

What Happened to 25 Million Displaced Workers?

- ▶ Vast majority were not searching for work in April, 2020
 - ▶ 60% on temp layoff
 - ▶ <10% searching unemp
 - ▶ 30% out of labor force

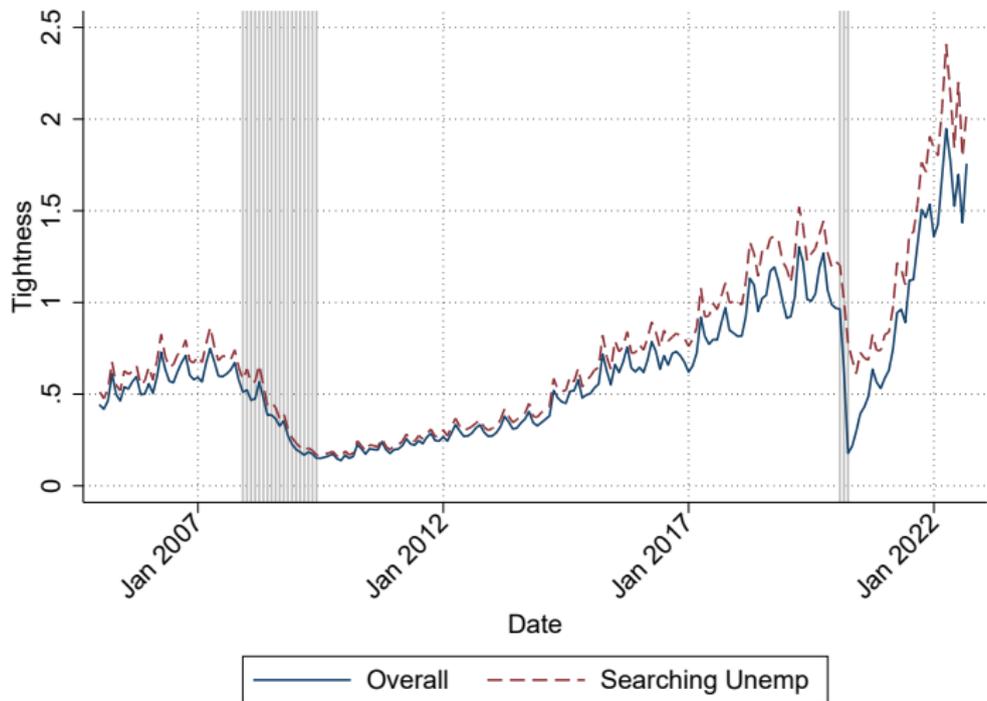
What Happened to 25 Million Displaced Workers?

- ▶ Vast majority were not searching for work in April, 2020
 - ▶ 60% on temp layoff
 - ▶ <10% searching unemp
 - ▶ 30% out of labor force
- ▶ All evidence suggests the temporarily laid off were recalled
FKLW 2022, Hall and Kudlyak 2022, Gertler et al. 2021, Bartik et al. 2020

What Happened to 25 Million Displaced Workers?

- ▶ Vast majority were not searching for work in April, 2020
 - ▶ 60% on temp layoff
 - ▶ <10% searching unemp
 - ▶ 30% out of labor force
- ▶ All evidence suggests the temporarily laid off were recalled
 - FKLW 2022, Hall and Kudlyak 2022, Gertler et al. 2021, Bartik et al. 2020
- ▶ Limited scope for reallocation given widespread recalls
- ▶ The labor market was fairly tight throughout the pandemic

Market Tightness is Now at a Historic Peak



The Mix of Industries and Occupations

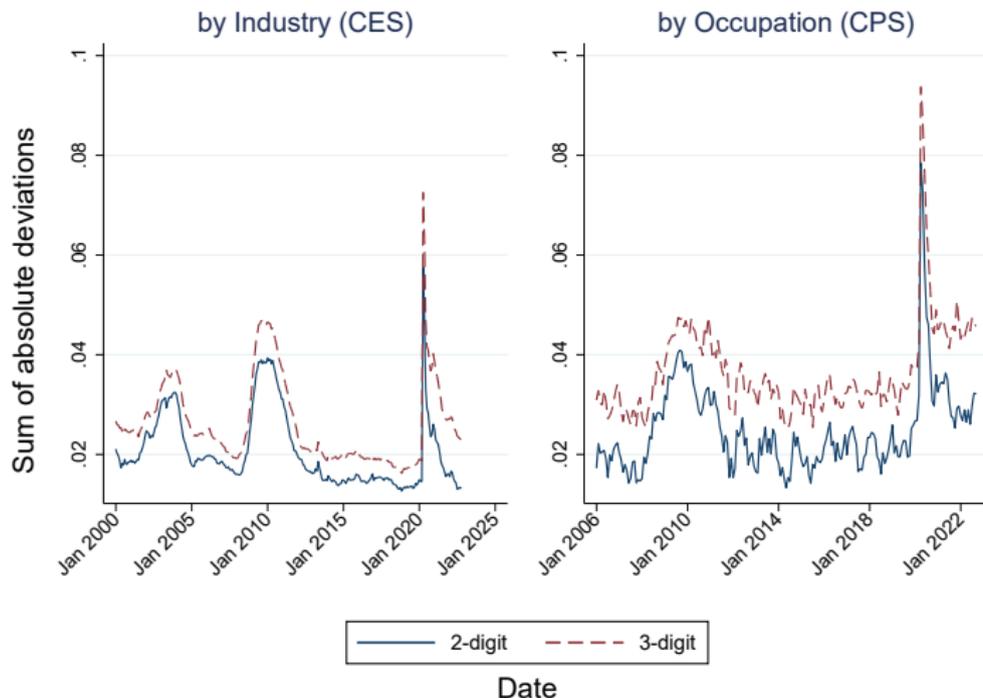
Was COVID a Reallocation Shock?

$$R_t = \frac{1}{2} \sum_{g \in G} \left| \frac{Emp_{g,t}}{\sum_{g \in G} Emp_{g,t}} - \frac{Emp_{g,t-3}}{\sum_{g \in G} Emp_{g,t-3}} \right|$$

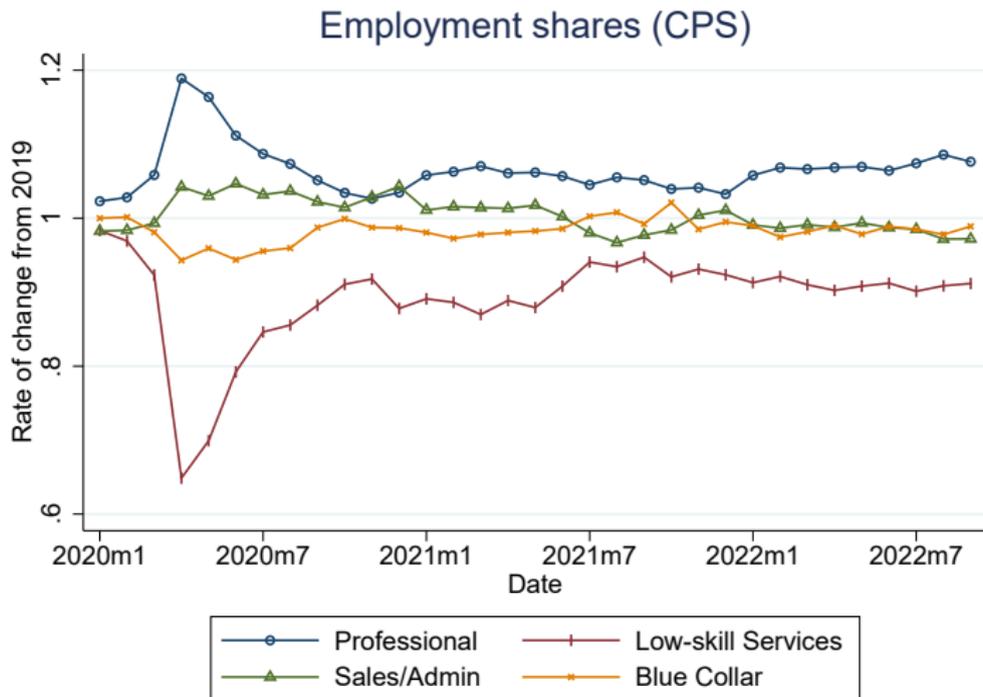
t – time periods, g – groups (e.g., industries or occupations)

- ▶ Tracks *net* movements across areas of economic activity
- ▶ Rolling to better compare with earlier time periods:
 - How different is the economy today from 3 years ago?
 - “New normal” will be reflected by complete reversion at 3 years

The Reallocation Rate has Almost Entirely Converged Back

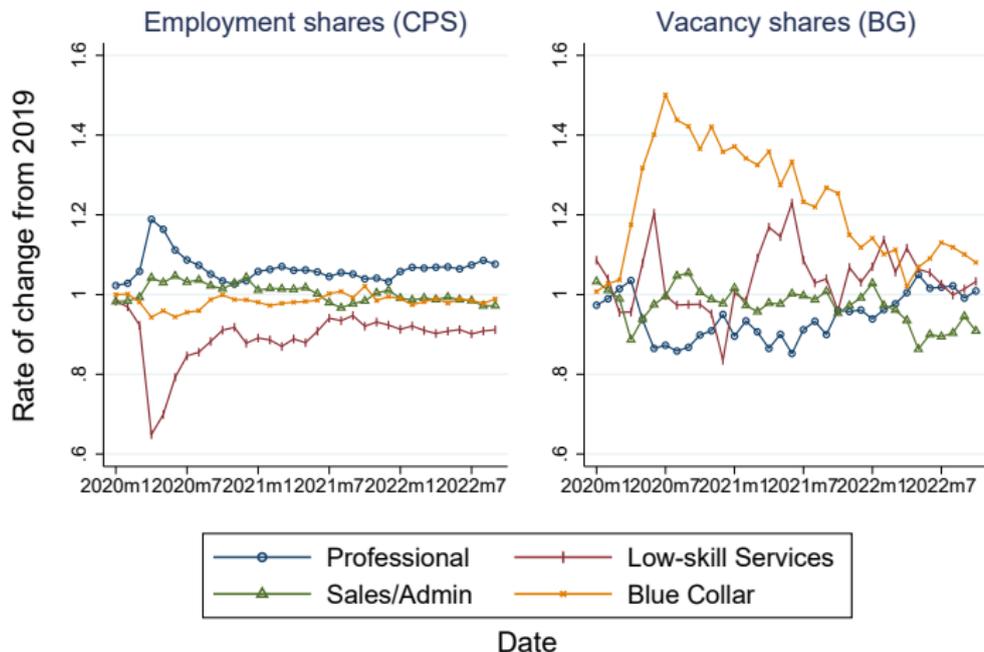


Reallocation Driven by Low-Skilled Services



Reallocation Driven by Low-Skilled Services

Occupations



Summing Up Employment Reallocation

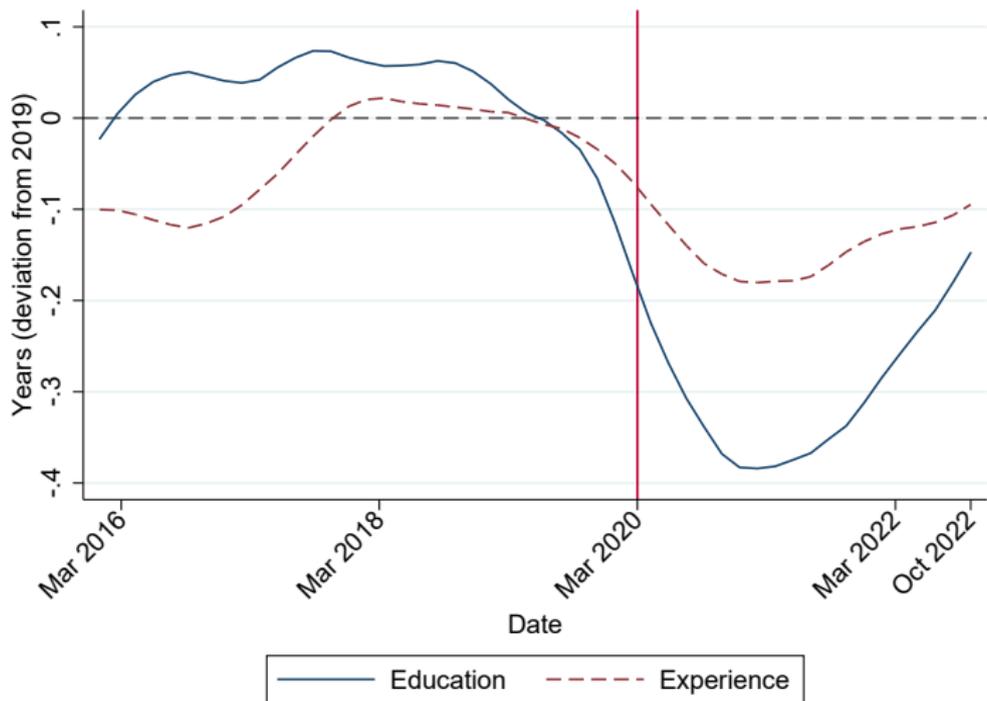
- ▶ No evidence of reallocation in excess of a typical 3-yr amount
- ▶ Stark contrast to earlier recessions → new normal
- ▶ Labor supply driven employment shortfall in low-skilled services

Summing Up Employment Reallocation

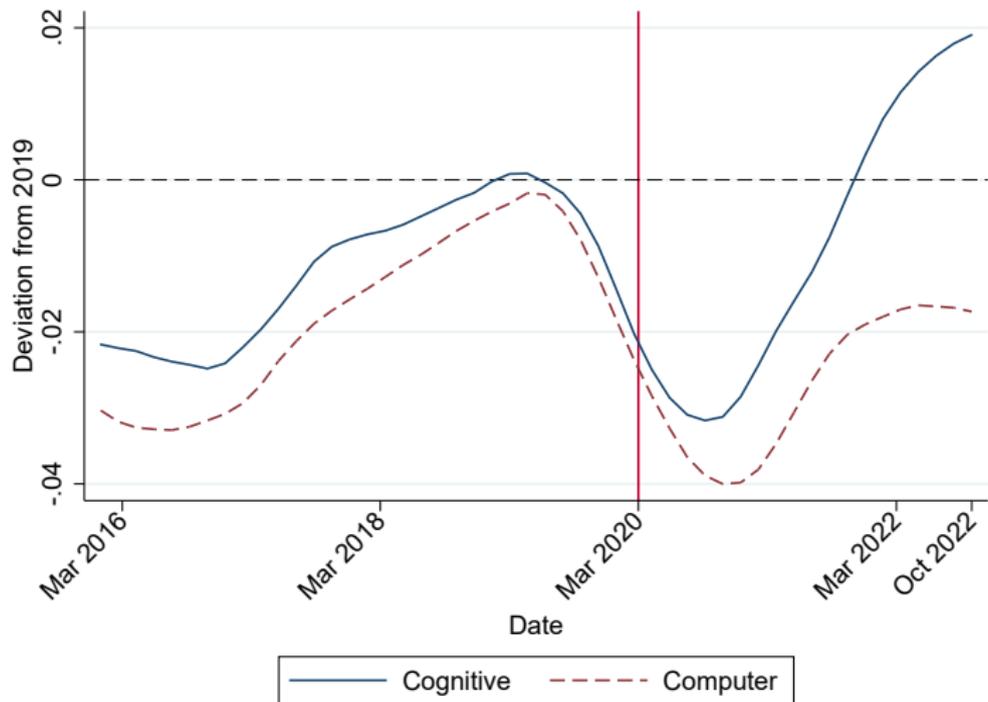
- ▶ No evidence of reallocation in excess of a typical 3-yr amount
- ▶ Stark contrast to earlier recessions → new normal
- ▶ Labor supply driven employment shortfall in low-skilled services
- ▶ Are employers demanding a different mix of skills?
 - ▶ Leverage rich content of the near-universe of jobs posted online using Burning Glass (now Lightcast)

Skill Requirements

Downskilling of Education and Experience Requirements Mid-Pandemic



No Shift Towards Job Descriptions Typically Associated with Automation



Summing Up Skill Requirements

- ▶ Downskilling is in sharp contrast to persistent upskilling in GR
- ▶ Regression analyses show similar results holding constant composition of ads (ind/occ/firm)
- ▶ Effects are similar across service/non-service occupations

Summing Up Skill Requirements

- ▶ Downskilling is in sharp contrast to persistent upskilling in GR
- ▶ Regression analyses show similar results holding constant composition of ads (ind/occ/firm)
- ▶ Effects are similar across service/non-service occupations

- ▶ Consistent with employer reactions to tightening labor market
- ▶ No evidence of strong changes to job descriptions from keywords
Hansen, Lambert, Bloom, Davis, Sadun, Taska (2022) on WFH

Worker Mobility

Has Individual Worker Mobility Increased?

- ▶ Individuals could still be doing very different things
 - ▶ The “Great Resignation” suggests this channel

Has Individual Worker Mobility Increased?

- ▶ Individuals could still be doing very different things
 - ▶ The “Great Resignation” suggests this channel
- ▶ We explore monthly individual-level transitions in the CPS

$$Occgroup_{i,t+1}^j = \beta_1 Acute_t + \beta_2 Recovery_t + I^{month} + \varepsilon_{i,t+1}$$

conditional on Occ group status in t

for $j \in$ prof, admin, blue collar, service occs, or non-emp

Has Individual Worker Mobility Increased?

- ▶ Individuals could still be doing very different things
 - ▶ The “Great Resignation” suggests this channel
- ▶ We explore monthly individual-level transitions in the CPS

$$Occgroup_{i,t+1}^j = \beta_1 Acute_t + \beta_2 Recovery_t + I^{month} + \varepsilon_{i,t+1}$$

conditional on Occ group status in t

for $j \in$ prof, admin, blue collar, service occs, or non-emp

$\beta_2 \rightarrow$ change in transition matrix across large occ groups in the last 18 months, rel to 2015-2019

Table: Occupational Monthly Transitions

Status in t :	Status in $t + 1$				
	(1) Prof	(2) Admin	(3) Blue	(4) Serv	(5) NE
Prof	0.03 (0.083)	-0.05 (0.047)	0.02 (0.028)	-0.02 (0.027)	0.08 (0.146)
Admin	0.23 (0.041)	-0.45 (0.106)	0.12 (0.04)	-0.08 (0.04)	0.4 (0.189)
Blue	0.19 (0.04)	0.23 (0.045)	-0.68 (0.116)	0.01 (0.041)	0.16 (0.273)
Serv	0.14 (0.047)	0.21 (0.071)	0.06 (0.047)	-0.79 (0.174)	0.59 (0.442)
NE	0.22 (0.061)	0.04 (0.064)	-0.09 (0.097)	-0.30 (0.11)	-0.01 (0.105)

Percentile point coefficients on 4/2021-10/2022 period; standard errors in parentheses clustered by date; controls for seasonality.

Baseline rates

Table: Occupational Monthly Transitions

Status in t :	Status in $t + 1$				
	(1) Prof	(2) Admin	(3) Blue	(4) Serv	(5) NE
Prof	0.03 (0.083)	-0.05 (0.047)	0.02 (0.028)	-0.02 (0.027)	0.08 (0.146)
Admin	0.23 (0.041)	-0.45 (0.106)	0.12 (0.04)	-0.08 (0.04)	0.4 (0.189)
Blue	0.19 (0.04)	0.23 (0.045)	-0.68 (0.116)	0.01 (0.041)	0.16 (0.273)
Serv	0.14 (0.047)	0.21 (0.071)	0.06 (0.047)	-0.79 (0.174)	0.59 (0.442)
NE	0.22 (0.061)	0.04 (0.064)	-0.09 (0.097)	-0.30 (0.11)	-0.01 (0.105)

Percentile point coefficients on 4/2021-10/2022 period; standard errors in parentheses clustered by date; controls for seasonality.

Baseline rates

Table: Occupational Monthly Transitions

Status in t :	Status in $t + 1$				
	(1) Prof	(2) Admin	(3) Blue	(4) Serv	(5) NE
Prof	0.03 (0.083)	-0.05 (0.047)	0.02 (0.028)	-0.02 (0.027)	0.08 (0.146)
Admin	0.23 (0.041)	-0.45 (0.106)	0.12 (0.04)	-0.08 (0.04)	0.4 (0.189)
Blue	0.19 (0.04)	0.23 (0.045)	-0.68 (0.116)	0.01 (0.041)	0.16 (0.273)
Serv	0.14 (0.047)	0.21 (0.071)	0.06 (0.047)	-0.79 (0.174)	0.59 (0.442)
NE	0.22 (0.061)	0.04 (0.064)	-0.09 (0.097)	-0.30 (0.11)	-0.01 (0.105)

Percentile point coefficients on 4/2021-10/2022 period; standard errors in parentheses clustered by date; controls for seasonality.

Baseline rates

Table: Occupational Monthly Transitions

Status in t :	Status in $t + 1$				
	(1) Prof	(2) Admin	(3) Blue	(4) Serv	(5) NE
Prof	0.03 (0.083)	-0.05 (0.047)	0.02 (0.028)	-0.02 (0.027)	0.08 (0.146)
Admin	0.23 (0.041)	-0.45 (0.106)	0.12 (0.04)	-0.08 (0.04)	0.4 (0.189)
Blue	0.19 (0.04)	0.23 (0.045)	-0.68 (0.116)	0.01 (0.041)	0.16 (0.273)
Serv	0.14 (0.047)	0.21 (0.071)	0.06 (0.047)	-0.79 (0.174)	0.59 (0.442)
NE	0.22 (0.061)	0.04 (0.064)	-0.09 (0.097)	-0.30 (0.11)	-0.01 (0.105)

Percentile point coefficients on 4/2021-10/2022 period; standard errors in parentheses clustered by date; controls for seasonality.

Baseline rates

Table: Occupational Monthly Transitions

Status in t :	Status in $t + 1$				
	(1) Prof	(2) Admin	(3) Blue	(4) Serv	(5) NE
Prof	0.03 (0.083)	-0.05 (0.047)	0.02 (0.028)	-0.02 (0.027)	0.08 (0.146)
Admin	0.23 (0.041)	-0.45 (0.106)	0.12 (0.04)	-0.08 (0.04)	0.4 (0.189)
Blue	0.19 (0.04)	0.23 (0.045)	-0.68 (0.116)	0.01 (0.041)	0.16 (0.273)
Serv	0.14 (0.047)	0.21 (0.071)	0.06 (0.047)	-0.79 (0.174)	0.59 (0.442)
NE	0.22 (0.061)	0.04 (0.064)	-0.09 (0.097)	-0.30 (0.11)	-0.01 (0.105)

Percentile point coefficients on 4/2021-10/2022 period; standard errors in parentheses clustered by date; controls for seasonality.

Baseline rates

Conclusion

Conclusion

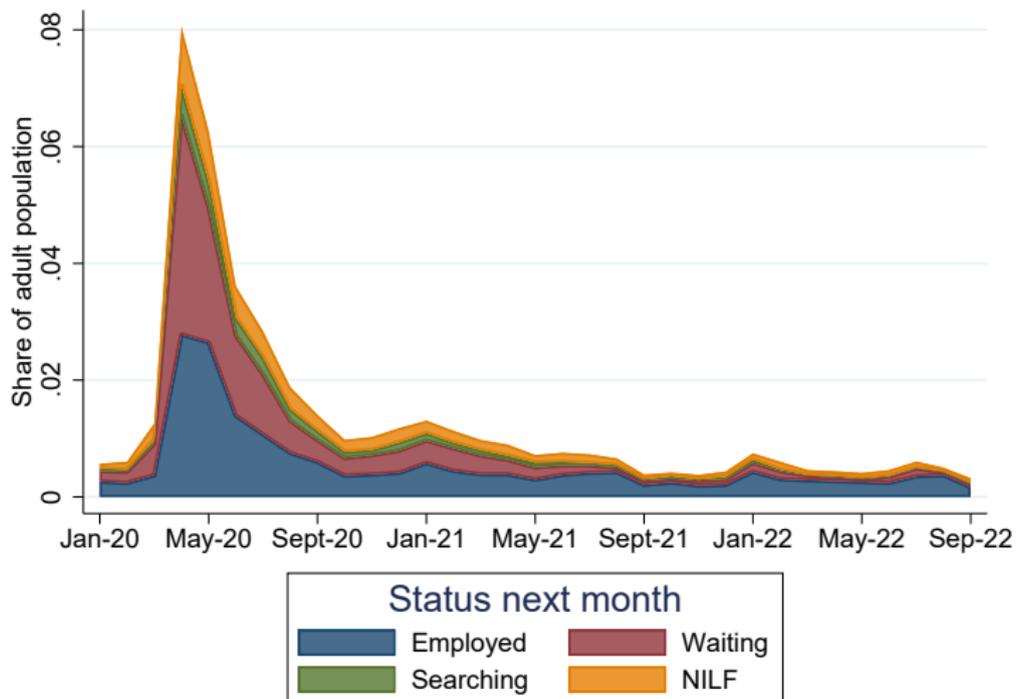
- ▶ 2.5 years into the COVID crisis, the labor market looks remarkably as it did before
 - ▶ Industrial and occupation mixes show no signs of broadbased shifts
 - ▶ Job vacancies are elevated but composition is similar
 - ▶ Job descriptions appear similar
- ▶ Employment has shifted away from low-skilled services
 - ▶ Not due to labor demand
 - ▶ Early retirements opened positions further up the job ladder

Conclusion

- ▶ 2.5 years into the COVID crisis, the labor market looks remarkably as it did before
 - ▶ Industrial and occupation mixes show no signs of broadbased shifts
 - ▶ Job vacancies are elevated but composition is similar
 - ▶ Job descriptions appear similar
- ▶ Employment has shifted away from low-skilled services
 - ▶ Not due to labor demand
 - ▶ Early retirements opened positions further up the job ladder
- ▶ COVID is a constant fixture in our lives still
 - ▶ Is it too early to look for widespread reallocation?
 - ▶ Is reallocation restricted to more subtle forms, i.e., more WFH in a given job, more variation in how we consume
- ▶ Even while COVID presented ripe conditions for increasing inequality, we have not seen it on the labor demand side

Extra Slides

The Waiting Room emptied, largely back to employment



[Back](#)

Table: Mean Transition Rates

Status in t :	Status in $t + 1$				
	(1) Prof	(2) Admin	(3) Blue	(4) Serv	(5) NE
Prof	94.67	1.71	0.86	0.57	4.71
Admin	2.06	92.46	0.94	1.25	6.88
Blue	1.22	1.17	92.71	1.27	8.96
Serv	1.15	2.2	1.79	88.84	12.22
NE	2.4	3.08	3.15	3.38	94.24

Percentile points.

[Back](#)