

Pandemic Inequalities: Income Distribution and Migrant Disadvantages in Switzerland During COVID-19

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Motivation

- ▶ The COVID-19 pandemic, a health crisis, caused a substantial reduction in economic activity due to containment measures aimed at controlling the virus
- ▶ Previous literature shows that ethnic and racial gaps in labor market outcomes tend to widen during recessions (e.g., Hoynes et al. 2012, *Journal of Economic Perspectives*)
- ▶ Early empirical evidence suggests that the COVID-19-induced recession affected income disparities between natives and migrants similarly, although strong government interventions were implemented

This Project

What we do:

- ▶ We assess the impact of the COVID-19 pandemic on labor market outcomes of male native and foreign workers
 - ▶ Data: Social security records linked to population registry data and survey data
 - ▶ Focus on wages and unemployment benefits
 - ▶ Use a difference-in-differences design

What we find:

- ▶ For **lower income deciles**, we find that the COVID-19 pandemic **reduced average monthly wages** and **increased UI benefits** for foreign workers compared to native workers
 - ▶ Effect is particularly pronounced for **Non-EU/EFTA workers**
 - ▶ DiD estimates: Wages dropped by **3 percent**, unemployment rate increased by **1.7 percentage points**
- ▶ No effect or less conclusive results for workers in higher income brackets
- ▶ Effect also sizable using only within industry or industry × occupation variation

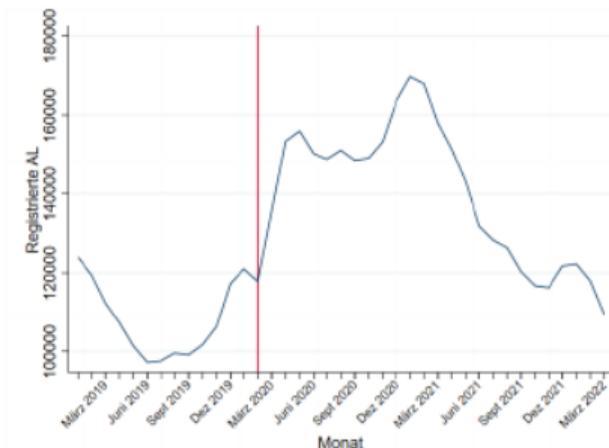
Immigrant workers during the Covid-19 pandemic

- ▶ Fasani and Mazza (2023, *ILR Review*):
 - ▶ Migrants were more likely to experience employment loss relative to natives (especially non-EU migrants) based on data from 14 EU countries (EU-LFS)
 - ▶ Sorting: Half of the gap can be explained by job (essentiality, temporariness, teleworkability) and industry characteristics
- ▶ Auer (2022, *PLoS ONE*):
 - ▶ Migrants were more likely to lose their job than natives, adjusting for job-related characteristics (survey data from Germany)
 - ▶ Firms made more efforts to substitute firing with short-term working schemes for native workers than for migrant workers (“firing discrimination in times of crisis”)

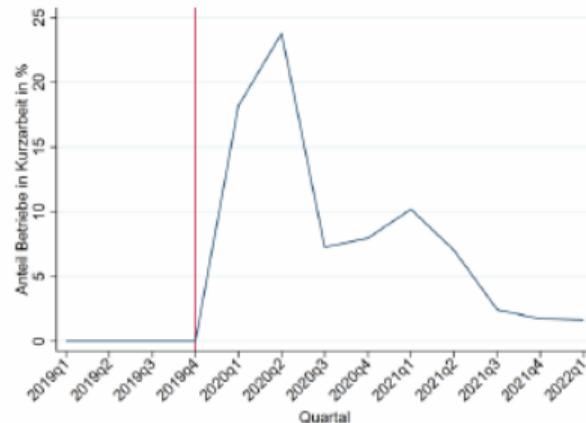
→ Important to consider sorting into industries and occupation

→ Individual-specific productivity related factors (education, tenure, etc.) vs. firing discrimination

Background: Unemployment and short-term work compensation during the pandemic



(a) Number of registered unemployed



(b) Share of firms that implemented short-term work compensation schemes

Source: Felder et al. (2023): "Auswirkungen der Coronapandemie auf den Arbeitsmarkt und Rolle der Arbeitslosenversicherung," *Grundlagen für die Wirtschaftspolitik Nr. 38*, Staatssekretariat für Wirtschaft SECO, Bern.

→ ca. 30% increase in the number of unemployed: 02/20-02/21

→ Almost one quarter of firms were covered by extended short-term work compensation schemes

- ▶ Social security records from 2016-2022
 - ▶ Individuals with income from **self-employment were excluded**
 - ▶ Only individuals who earned **at least CHF 24'000 in each year** were included
 - ▶ Wages include short-term work compensation
 - ▶ **Here:** Focus on male worker (1.47 million individuals, 84 month)
- ▶ Linked with population registry data (entire Swiss population)
 - ▶ Information on gender, age, and nationality
- ▶ Linked with large structural survey (ca. 10 % of the sample)
 - ▶ Information on, e.g., occupation, industry
- ▶ Calculation of income deciles
 - ▶ Income over the entire observation period

Composition by income decile

| | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
|--------------------|------|------|------|------|------|------|-------|-------|-------|-------|
| Nationality | | | | | | | | | | |
| Swiss | 55.6 | 60.0 | 64.5 | 70.1 | 76.5 | 81.0 | 83.3 | 83.6 | 82.3 | 75.8 |
| EU / EFTA | 28.6 | 28.0 | 26.1 | 22.4 | 18.9 | 16.1 | 14.9 | 14.9 | 16.0 | 21.3 |
| Non EU / EFTA | 15.8 | 12.3 | 9.3 | 6.8 | 4.6 | 2.9 | 1.9 | 1.5 | 1.7 | 2.9 |
| Age | | | | | | | | | | |
| 15-24 | 9.8 | 6.9 | 2.6 | 1.0 | 0.4 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 |
| 25-44 | 57.4 | 62.1 | 62.0 | 57.5 | 54.2 | 51.1 | 47.8 | 42.7 | 34.8 | 28.3 |
| 45-64 | 31.6 | 30.5 | 35.1 | 41.2 | 45.1 | 48.4 | 51.6 | 56.8 | 64.6 | 70.2 |
| >65 | 1.1 | 0.5 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 1.4 |
| Income | | | | | | | | | | |
| Yearly (x 1'000) | 50.0 | 62.4 | 69.8 | 76.6 | 84.1 | 93.1 | 104.9 | 121.1 | 146.7 | 283.9 |

Note: Mean values of selected variables by position in the income distribution.

Wages of workers in lowest decile by nationality (Non EU/EFTA)



(a) Average monthly wages

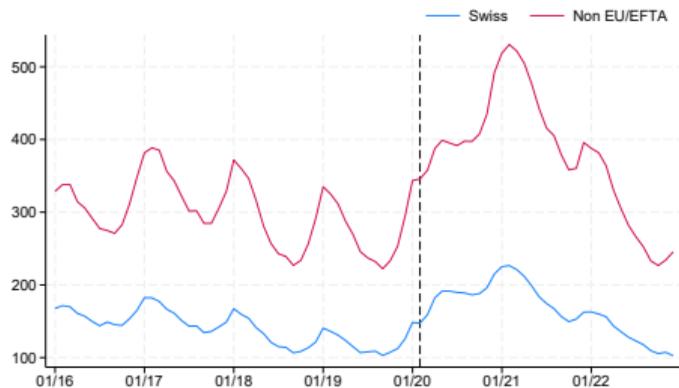


(b) Difference in average monthly wages (normalized 02/20)

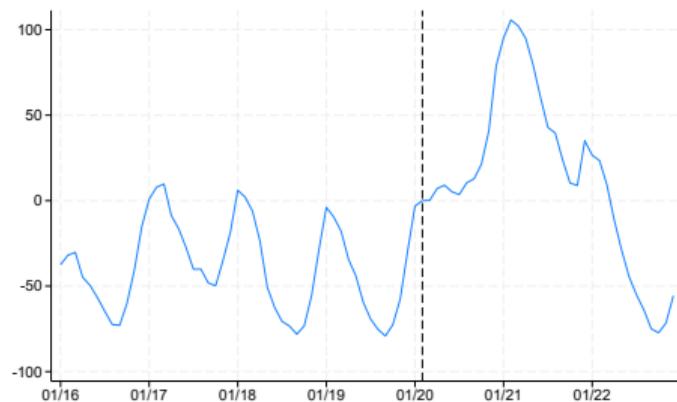
Note: Mean values of reported wages by month and nationality for workers in the lowest income decile (left). Mean differences of reported wages by nationality (Swiss vs. Non EU/EFTA), normalized at wage differential of February 2020.

(see Table EU workers) (see Table other income deciles)

UI benefits of workers in lowest decile by nationality (Non EU/EFTA)



(a) Average monthly UI benefits



(b) Difference in average monthly UI benefits (normalized 02/20)

Note: Mean values of reported unemployment insurance benefits by month and nationality for workers in the lowest income decile (left). Mean differences of reported unemployment insurance benefits by nationality (Swiss vs. Non EU/EFTA), normalized at wage differential of February 2020 (right).

(see Table EU workers) (see Table other income deciles)

Simple difference-in-difference estimates, lowest income decile

| | Wages | | No wages | |
|---------------------------------------|---------------------|--------------------|-----------------|----------------|
| | (1) | (2) | (3) | (4) |
| Post x Migrant | -113.6*** (13.7) | -71.8*** (19.3) | 1.7*** (0.0) | 0.9** (0.0) |
| Sample | Non-EU | EU | Non-EU | EU |
| Migrant and Time FE | Yes | Yes | Yes | Yes |
| Number of observations (× 1,000) | 8,853.6 | 10,444.1 | 8,853.6 | 10,444.1 |
| Number of individuals (× 1,000) | 105.4 | 124.3 | 105.4 | 124.3 |
| Mean outcome (Migrant, pre-treatment) | 3,742.7 | 3,808.2 | 8.2 | 8.1 |
| Relative effect (in %) | -3.0 | -1.8 | 20.7 | 11.1 |

Note: Table shows estimates of the equation

$$y_{it} = \beta_0 + \beta_1 \text{Migrant}_i + \beta_2 \text{Post}_t + \beta_3 \text{Post}_t \times \text{Migrant}_i + \epsilon_{it},$$

where y_{it} indicates wages (columns 1-2) of individual i in period t or a binary variable if i received any wages in period t . Migrant_i represents a binary variable indicating individual i 's migration status. Post_t is a binary variable equal to 1 if t is after 02/2020. Standard errors, clustered and year × month level, in parentheses. Significance level: $p < 0.01$: ***.

Within industry and within industry x occupation results (migrant-specific time trends included)



(a) Industry: Trade, transport, hospitality



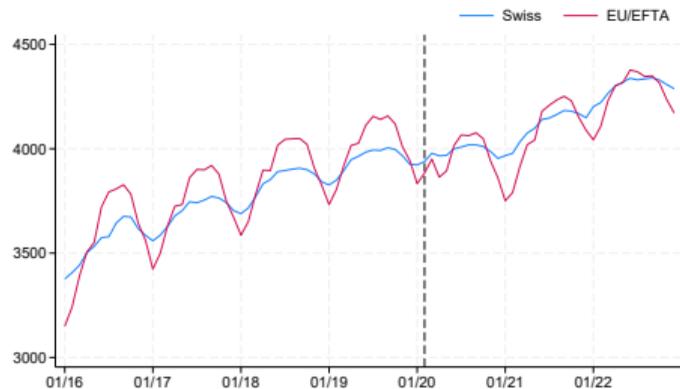
(b) Industry: Trade, transport, hospitality. Occupation: Personal services and sales occupations.

Note: Estimates of differences in average monthly wages between natives and non EU/EFTA migrants (02/20 reference period). Migrant-specific linear time trends included. Number of observations: 29,895 (left), 3,852 (right).

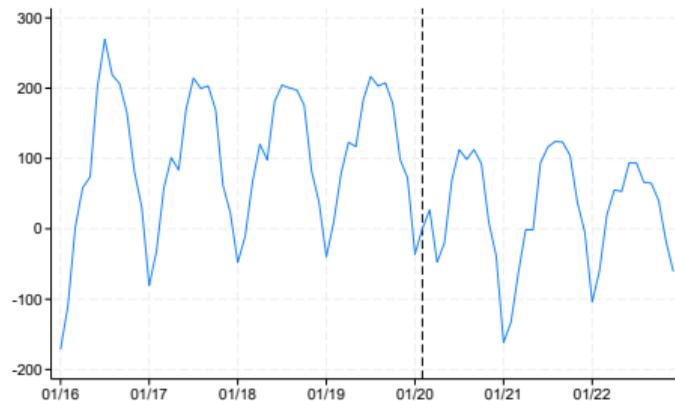
Conclusion

- ▶ We study the impact of the COVID-19 pandemic on labor market outcomes of native and foreign workers
- ▶ Low-income foreign workers experienced a sharper decline in wages and a stronger increase in UI benefits compared to native workers
- ▶ The effect was particularly pronounced for Non-EU/EFTA workers
- ▶ Sorting is likely not the only driving factor, as effect can also be seen using within industry or within industry \times occupation variation
- ▶ It remains open to what extent other individual-specific productivity related factors or “firing discrimination” play a role

Wages of workers in lowest decile by nationality (EU/EFTA)



(a) Average monthly wages

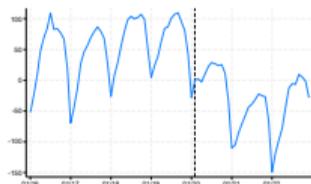


(b) Difference in average monthly wages (normalized 02/20)

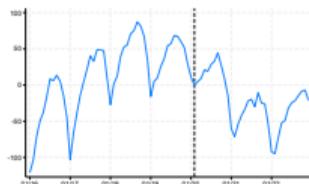
Note: Mean values of reported wages by month and nationality for workers in the lowest income decile (left). Mean differences of reported wages by nationality (Swiss vs. EU/EFTA), normalized at wage differential of February 2020 (right).

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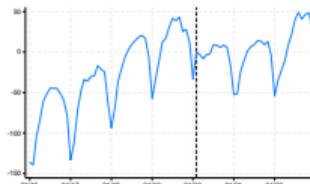
Wage difference by nationality in other deciles (Non EU/EFTA) (normalized 02/20)



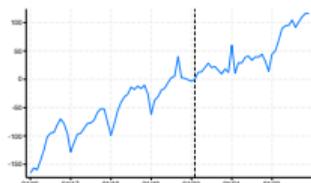
(a) 2nd



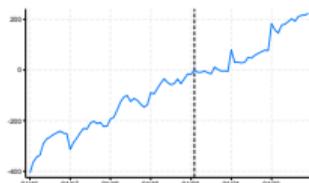
(b) 3rd



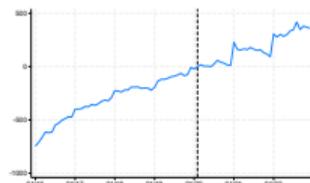
(c) 4th



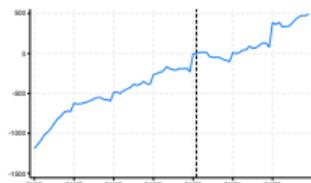
(d) 5nd



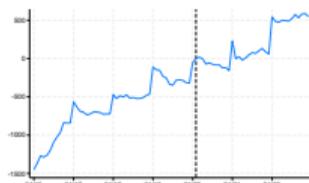
(e) 6rd



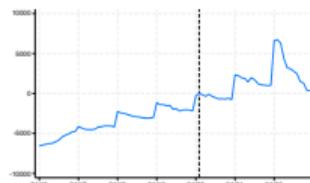
(f) 7th



(g) 8nd



(h) 9rd

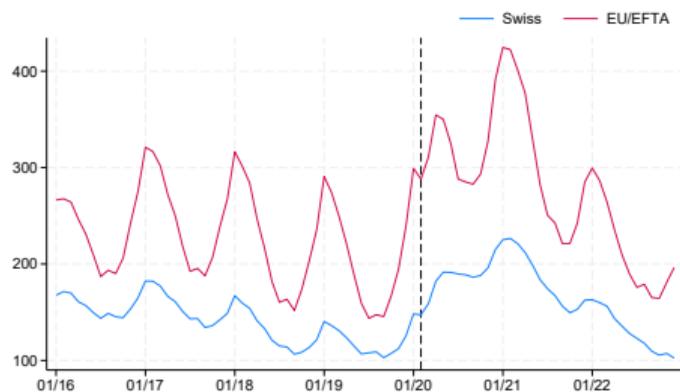


(i) 10th

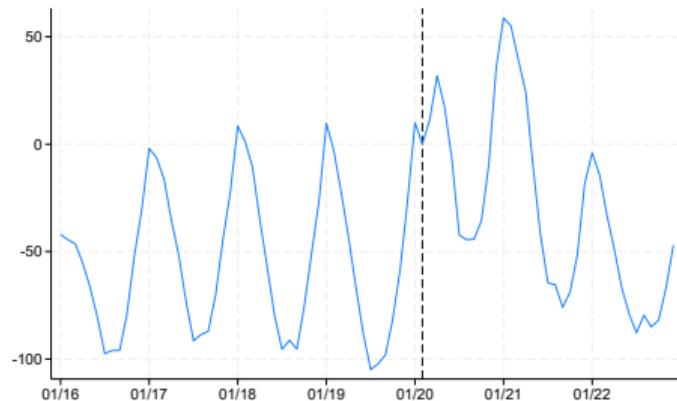
Note: Mean differences of reported wages by nationality (Swiss vs. Non EU/EFTA), normalized at wage differential of February 2020.

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UI benefits of workers in lowest decile by nationality (EU/EFTA)



(a) Average monthly UI benefits

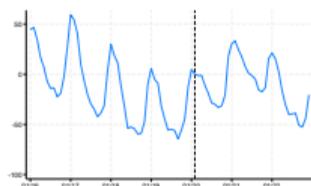


(b) Difference in average monthly UI benefits (normalized 02/20)

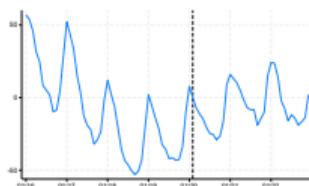
Note: Mean values of reported UI benefits by month and nationality for workers in the lowest income decile (left). Mean differences of reported UI benefits by nationality (Swiss vs. EU/EFTA), normalized at wage differential of February 2020 (right).

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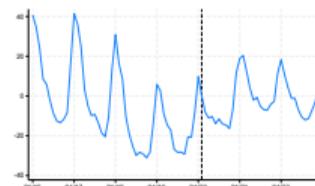
UI benefit difference by nationality in other deciles (Non EU/EFTA) (normalized 02/20)



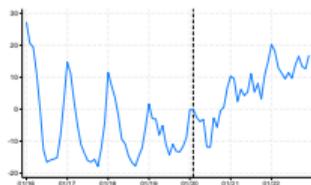
(a) 2nd



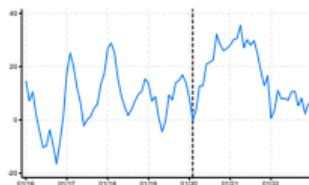
(b) 3rd



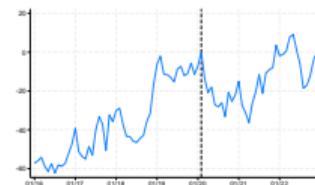
(c) 4th



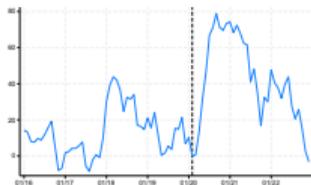
(d) 5nd



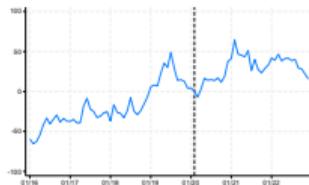
(e) 6rd



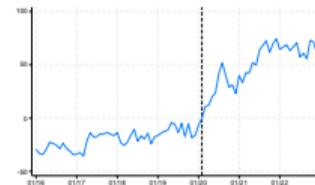
(f) 7th



(g) 8nd



(h) 9rd



(i) 10th

Note: Mean differences of reported UI benefits by nationality (Swiss vs. EU/EFTA), normalized at wage differential of February 2020.

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