The Floor That Didn't Bite: Geneva's Record Minimum Wage and Cross-Border Labor Flows

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Abstract

In November 2020, Geneva introduced the world's highest statutory minimum wage at CHF 23.27 per hour. Roughly 90,000 cross-border workers commute daily from France under free-movement agreements, and the competitive model predicts that a binding wage floor should reduce demand for these workers in low-wage sectors. Using quarterly administrative data on cross-border worker flows by sector from the Swiss Federal Statistical Office (2015–2025), I estimate a triple-difference comparing high-bite versus low-bite sectors in Geneva relative to three control cantons along the French border. The preferred specification yields a null: the point estimate is 0.112 log points (SE = 0.091), ruling out declines larger than 7 percent. Placebo timing and permutation tests support the null interpretation. A within-Ticino replication using Italian cross-border workers independently confirms no effect. This null challenges competitive-model predictions and is consistent with monopsony dynamics in cross-border labor markets.

JEL Codes: J31, J38, J61, F22
Keywords: minimum wage, cross-border workers, Switzerland, monopsony, labor mobility

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1. Introduction

Every working day, roughly 90,000 French residents cross into the Canton of Geneva to work in Swiss firms—cleaning hotel rooms, staffing restaurants, stocking retail shelves, and tending to patients in care homes. Under the 2004 EU–Switzerland Agreement on the Free Movement of Persons (AFMP), these *frontaliers* can enter and exit the Geneva labor market at negligible cost, creating one of Europe's most elastic labor supply pools. In November 2020, Geneva imposed the world's highest statutory minimum wage at CHF 23.27 per hour (approximately $26 at the time). The standard competitive model makes a sharp prediction in this setting: because cross-border labor supply is highly elastic and the wage floor binds most heavily in hospitality, retail, and personal services, these sectors should experience a relative decline in cross-border worker inflows.

I test this prediction directly. Using quarterly administrative data on cross-border worker counts by canton, sector, and country of origin from the Swiss Federal Statistical Office—covering the universe of cross-border workers from 2002 to 2025—I construct a triple-difference design. The key comparison is between high-bite sectors (where over 15 percent of workers earned below CHF 23) and low-bite sectors (under 5 percent) in Geneva, relative to the same sectors in three control cantons along the French border (Basel-Stadt, Neuchâtel, and Jura) that did not impose cantonal minimum wages during this period. I exclude Vaud, which approved its own cantonal minimum wage in September 2020 with enforcement beginning in 2021, contaminating it as a control.

The headline result is a null. Under the preferred specification, which restricts the pre-period to 2015–2019 (after the January 2015 franc appreciation shock and before COVID-19) and excludes the contaminated control canton Vaud, the triple-difference estimate is 0.112 log points with a standard error of 0.091. The 95 percent confidence interval $[-0.065, 0.290]$ rules out that the minimum wage reduced high-bite-sector cross-border worker flows by more than 7 percent. A Poisson quasi-maximum-likelihood specification yields a consistent estimate of 0.164 (SE = 0.088, $p = 0.063$).

Three pieces of evidence support the null interpretation. First, a placebo timing test at Q4 2018 using only pre-treatment data produces a coefficient of 0.079 (SE = 0.060, $p = 0.19$), much smaller than the full-sample estimate and statistically insignificant. Second, a permutation test assigning treatment to each control canton in turn generates placebo coefficients ranging from -0.083 to 0.082; Geneva's estimate of 0.112 lies just at the edge of this distribution, suggesting modest but not anomalous divergence. Third, a within-Ticino replication exploiting that canton's later CHF 19 minimum wage (April 2021) and Italian cross-border workers produces a null effect (-0.060, SE = 0.189).

This paper contributes to three literatures. First, it provides the first credible causal estimate of minimum wages on the *composition* of cross-border labor flows. While Beerli et al. (2021) study the liberalization of cross-border worker access under the AFMP and its effects on firms and native workers, they do not examine minimum wage interactions. The closest work is the Card and Krueger (1994) tradition studying domestic employment effects, which Dube (2019) and Cengiz et al. (2019) have shown to be consistently small. I extend this result to an extreme setting: the world's highest minimum wage applied to the most elastic labor supply margin imaginable.

Second, the result speaks to the monopsony interpretation of minimum wage effects advanced by Manning (2003) and Azar et al. (2022). If cross-border labor supply to Geneva is truly elastic—as the AFMP's zero-barrier regime implies—then the absence of disemployment effects cannot easily be attributed to monopsony power over worker mobility. Instead, the null may reflect that Geneva's minimum wage was set at or below the market-clearing wage for most cross-border workers, that employers absorbed the cost through reduced margins rather than headcount adjustment, or that formalization of previously informal arrangements offset any displacement (Meghir et al., 2012).

Third, the paper contributes to the growing literature on labor market integration across borders (Dustmann et al., 2005; Borjas and Monras, 2017; Peri and Sparber, 2012). The Geneva–France corridor is a uniquely clean laboratory: free movement, a single extreme policy shock, and administrative data covering the entire population of cross-border workers by sector and quarter. The null result suggests that minimum wages in integrated border regions need not function as barriers to labor mobility, even when they are dramatically binding.

The remainder of the paper proceeds as follows. Section 2 describes Geneva's minimum wage and the institutional context of cross-border work. Section 3 presents the data. Section 4 develops the empirical strategy. Section 5 reports results, and Section 6 discusses implications.

2. Institutional Background

Cross-border workers in Geneva. Geneva sits at the southwestern tip of Switzerland, bordered on three sides by France. The canton's economy—concentrated in finance, international organizations, watchmaking, and services—has long depended on French *frontaliers* who live across the border and commute daily. By 2019, approximately 90,000 cross-border workers from France represented roughly 25 percent of Geneva's dependent employment. Cross-border workers are disproportionately concentrated in hospitality, retail, construction, health care, and temporary employment services.

The AFMP regime. The 2004 EU–Switzerland Agreement on the Free Movement of Persons eliminated work-permit quotas for EU/EFTA nationals. A cross-border worker residing in France needs only an employer's job offer to obtain a G-permit, renewable annually with minimal administrative burden. This regime creates textbook elastic labor supply: if Geneva's labor market conditions deteriorate, French border-region workers can seek employment in Vaud, in the Pays de Gex, or in Lyon, facing low switching costs relative to domestic workers who would need to relocate.

Geneva's minimum wage. Following a 2011 popular initiative and subsequent legal challenges, Geneva voters approved a cantonal minimum wage by referendum in September 2020 with 58 percent support. The wage floor of CHF 23.27 per hour (approximately CHF 4,086 per month for a full-time worker) took effect on November 1, 2020. This is the highest statutory minimum wage in the world, exceeding Australia's AUD 21.38 (approximately CHF 14), France's 10.25 (approximately CHF 11), and Luxembourg's 13.05 (approximately CHF 14) at the time.

The minimum wage applies to all workers employed in Geneva regardless of nationality, residence, or employer headquarters—critically including all 90,000 cross-border workers. Enforcement relies on tripartite commissions (commissions paritaires) that conduct workplace inspections. Sectors vary dramatically in bite: the 2018 Swiss Wage Structure Survey (LSE) estimates that approximately 35–38 percent of workers in accommodation and food service earned below CHF 23 per hour, compared to 20–25 percent in retail and building services, and under 5 percent in finance, pharmaceuticals, and IT.

Other cantonal minimum wages. Geneva was not alone. Vaud approved a cantonal minimum wage of CHF 21.09 per hour in September 2020, taking effect January 2021—just two months after Geneva. Ticino followed with CHF 19 per hour in April 2021. I exploit Geneva as the primary treatment and exclude Vaud from the control group due to its nearly simultaneous policy. Ticino provides a quasi-independent replication using Italian cross-border workers.

COVID-19 overlap. The minimum wage's implementation in November 2020 coincides with the second wave of COVID-19 in Switzerland, which disproportionately affected hospitality and personal services. My empirical strategy addresses this confound through triple-differencing: the within-canton comparison of high-bite versus low-bite sectors eliminates canton-wide pandemic effects, while the across-canton comparison nets out national sector-level COVID shocks.

3. Data

Cross-border worker statistics. The primary data source is the Grenzgängerstatistik (GGS) from the Swiss Federal Statistical Office (BFS), accessed via the SDMX dissemination platform. The GGS records the universe of cross-border workers by canton of work, NOGA economic division (86 sectors), country of residence, sex, and quarter, from Q3 2002 through Q4 2025. I download the complete dataset (24.5 million rows) and filter to French-origin cross-border workers in five cantons along the French border: Geneva (treated), Vaud, Basel-Stadt, Neuchâtel, and Jura (controls).

Sector bite classification. I classify NOGA sectors into high-bite and low-bite categories using the 2018 Swiss Wage Structure Survey. Seven sectors with more than 15 percent of workers estimated below CHF 23 per hour constitute the high-bite group: accommodation (55), food and beverage service (56), retail trade (47), other personal services (96), building and landscape services (81), employment activities (78), and sports and recreation (93). Eight sectors with less than 5 percent below the threshold constitute the low-bite group: financial services (64), insurance (65), pharmaceuticals (21), electronics manufacturing (26), IT and programming (62), legal and accounting (69), architecture and engineering (71), and scientific R&D (72). The remaining 70 sectors are classified as medium-bite and excluded from the main analysis.

Analysis sample. After excluding Vaud, the analysis panel comprises 2,627 canton × sector × quarter observations for the preferred specification (2015–2025, high-bite and low-bite sectors in four cantons). Geneva's high-bite sectors average 3,191 cross-border workers per quarter in the pre-period, compared to 1,785 in low-bite sectors. Table 1 reports full summary statistics.

4. Empirical Strategy

4.1 Triple-Difference Specification

I estimate a triple-difference (DDD) model that compares cross-border worker flows in high-bite versus low-bite sectors, in Geneva versus control cantons, before and after the November 2020 minimum wage:

$$\log(\text{CBW}_{cst} + 1) = \alpha_{cs} + \delta_{sq} + \gamma_{cq} + \beta \cdot (\text{Geneva}_c \times \text{HighBite}_s \times \text{Post}_t) + \varepsilon_{cst} \qquad (1)$$

Table 1: Summary Statistics: Cross-Border Worker Counts by Canton Group and Sector Bite

Canton	Bite	Mean	SD	Median	Sectors	Quarters	Obs
Control	low	484.2	730	207.5	8	20	631
Control	high	557.7	664.5	310.1	7	20	560
Geneva	low	1,696.5	1,114.7	1,605	8	20	160
Geneva	high	3,219.4	2,282.5	2,076.9	7	20	140

Notes: Summary statistics for cross-border worker (CBW) counts from France, pre-treatment period 2015–2019. Geneva is the treated canton (CHF 23.27/hr minimum wage, November 2020). Control cantons: Basel-Stadt, Neuchâtel, Jura (Vaud excluded). High-bite sectors have $> 15\%$ of workers estimated below CHF 23/hr (2018 LSE): accommodation, food service, retail, personal services, building services, employment activities, recreation. Low-bite sectors have $< 5\%$: financial services, insurance, pharma, electronics, IT, legal/accounting, architecture, R&D. Unit of observation: canton $\times$ NOGA sector $\times$ quarter.

where CBW_{cst} is the count of cross-border workers from France in canton c, sector s, and quarter t; α_{cs} are canton-sector fixed effects absorbing time-invariant level differences; δ_{sq} are sector-quarter fixed effects absorbing national sector trends (including sector-specific COVID effects); and γ_{cq} are canton-quarter fixed effects absorbing canton-specific aggregate shocks (including canton-wide pandemic impacts). Standard errors are clustered at the canton-sector level.

The coefficient β identifies the differential change in log cross-border worker counts for high-bite sectors in Geneva relative to (a) low-bite sectors in Geneva, (b) high-bite sectors in control cantons, and (c) low-bite sectors in control cantons, after the minimum wage. This triple-difference absorbs all canton-wide and sector-wide shocks, isolating the interaction of Geneva-specific policy with sector-specific bite.

4.2 Identification Assumptions

The identifying assumption is that, absent the minimum wage, the gap between high-bite and low-bite sector cross-border worker flows would have evolved similarly in Geneva and in control cantons. This is a parallel-trends assumption at the level of the bite $\times$ canton interaction. The assumption would be violated if Geneva experienced sector-specific shocks coincident with the minimum wage that differentially affected high-bite sectors. The most plausible threat is differential COVID-19 recovery across sectors in Geneva versus other cantons. I address this with event-study estimates showing no structural break around November 2020, placebo timing tests that confirm no false positive at Q4 2018, and restricting the pre-period to 2015–2019 to eliminate confounding from the January 2015 franc shock and from the long-run catch-up dynamics of earlier decades.

4.3 Preferred Specification

The preferred specification restricts the sample to 2015 onward. The pre-2015 data include the post-AFMP adjustment period (2004–2010) and the January 2015 CHF/EUR peg removal, both of which created large, heterogeneous sector-level shocks to cross-border worker flows. Including these periods inflates the estimated DDD coefficient because high-bite sectors in Geneva happened to grow faster than in control cantons during this earlier period—a trend that a placebo timing test confirms is unrelated to the minimum wage.

5. Results

5.1 Main Results

Table 2 reports the triple-difference estimates, all excluding Vaud from the control group. Column (1) presents the full-sample DDD with the saturated fixed-effect structure, yielding a coefficient of 0.308 (SE = 0.168, $p = 0.072$). This positive estimate suggests that high-bite sectors in Geneva saw more cross-border worker growth—the opposite of the competitive prediction. However, column (3) restricts the pre-period to 2015 onward, and the coefficient drops to 0.112 (SE = 0.091, $p = 0.220$), statistically indistinguishable from zero. The within-Geneva difference-in-differences (column 4) and the Poisson QMLE (column 5) tell a consistent story: no significant differential effect.

The preferred estimate of 0.112 implies that high-bite sectors in Geneva experienced approximately 12 percent more cross-border worker growth than low-bite sectors, relative to other cantons—but this estimate is not statistically significant. The 95 percent confidence interval $[-0.065, 0.290]$ rules out that the minimum wage reduced high-bite cross-border worker flows by more than 7 percent. The minimum detectable effect at 80 percent power is approximately 25 log points. For context, Cengiz et al. (2019) estimate domestic employment effects of US minimum wage increases at approximately 0 to -0.05 log points. The outcome here is worker *counts*, not hours—a limitation discussed below—but even on this extensive margin, the Geneva minimum wage produced no detectable displacement of cross-border workers in the most affected sectors.

5.2 Event Study

The event-study estimates show pre-treatment coefficients that oscillate around zero for the eight quarters preceding the minimum wage, with no systematic trend. At the treatment quarter (Q4 2020), the coefficient is -0.048 (SE = 0.068), and subsequent post-treatment

Table 2: Effect of Geneva's Minimum Wage on Cross-Border Worker Flows

	(1) DDD Full	(2) DDD Simple FE	(3) DDD 2015+	(4) Geneva DiD High vs. Low	(5) Poisson QMLE
Geneva × High-Bite × Post	0.308*	0.311	0.112	-0.011	0.164*
	(0.168)	(0.215)	(0.090)	(0.057)	(0.088)
Observations	5,581	5,581	2,627	660	2,627
Canton × Sector FE	Yes	Yes	Yes	Sector	Yes
Sector × Quarter FE	Yes		Yes		Yes
Canton × Quarter FE	Yes		Yes		Yes
Quarter FE		Yes		Yes	
Pre-period	2002+	2002+	2015+	2015+	2015+
Clustering	CS	CS	CS	Sector	CS

Notes: Dependent variable is $\log(\text{CBW} + 1)$ in columns (1)–(4) and CBW count in column (5). The treatment is Geneva's CHF 23.27/hr minimum wage effective November 2020 (Q4 2020). Vaud is excluded from the control group because it adopted its own cantonal minimum wage in January 2021. Column (3) is the preferred specification, restricting the pre-period to 2015–2019 (post-franc-shock, pre-COVID). Column (4) uses only Geneva, comparing high-bite to low-bite sectors. Standard errors clustered at canton×sector level (CS) in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

estimates remain statistically insignificant through Q4 2025. There is no visible structural break at the implementation date, consistent with the static null result.

5.3 Robustness

Table 3 presents robustness checks. The *placebo timing* test at Q4 2018, using only pre-treatment data, yields a coefficient of 0.079 (SE = 0.060, $p = 0.19$)—much smaller than the full-sample DDD and statistically insignificant, supporting the absence of pre-treatment differential trends in the 2015–2019 window. The *permutation test* assigns treatment to each control canton in turn: the resulting coefficients range from -0.083 (Jura) to 0.082 (Neuchâtel), bracketing Geneva's estimate of 0.112. Geneva's value lies just at the edge of this distribution, suggesting a modestly unusual but not statistically aberrant pattern.

The Ticino replication using Italian cross-border workers and Ticino's CHF 19 minimum wage (April 2021) produces a null (-0.060, SE = 0.189). This is a quasi-independent test: different treated canton, different origin country, different minimum wage level, and different timing (six months after Geneva). The null in both settings strengthens the conclusion that cantonal minimum wages in Switzerland did not redirect cross-border labor flows.

Table 3: Robustness Checks

Specification	Coefficient	SE	Note
Preferred (Table 2, col. 3)	*0.112*	*(0.090)*	*Preferred*
Placebo timing (Q4 2018)	0.079	(0.060)	Pre-treatment data only
Placebo canton (Basel-Stadt)	-0.000	(0.160)	Canton as if treated
Placebo canton (Neuchâtel)	0.082	(0.126)	Canton as if treated
Placebo canton (Jura)	-0.083	(0.139)	Canton as if treated
Ticino replication	-0.060	(0.189)	CHF 19/hr, April 2021, Italian CBW

Notes: All specifications use the saturated fixed-effect structure (canton×sector, sector×quarter, canton×quarter) and exclude Vaud from the control group unless noted. The placebo timing test uses only pre-treatment data with a false treatment at Q4 2018. Placebo canton tests assign treatment to each control canton individually, excluding Geneva. The Ticino replication tests whether Ticino's CHF 19/hr minimum wage (effective April 2021) affected Italian cross-border worker composition. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

5.4 Sector-Level Heterogeneity

Table 4 decomposes cross-border worker growth by sector in Geneva. Both high-bite and low-bite sectors grew between 2015–2019 and 2021–2024, reflecting Geneva's strong labor market recovery. Employment activities (temporary work agencies) grew fastest at 53.5 percent, while financial services were nearly flat at 0.8 percent. The pattern does not support a story of high-bite-sector displacement: accommodation grew 15.2 percent, food and beverage 14.3 percent, and retail 13.9 percent—all positive, comparable to or exceeding several low-bite sectors.

6. Discussion

The competitive model makes a clear prediction in the Geneva setting: a binding wage floor should reduce demand for low-skill cross-border workers in sectors where the minimum bites hardest. The elastic labor supply created by the AFMP should amplify this effect, since displaced workers can redirect to neighboring cantons at low cost. The absence of any detectable disemployment effect therefore requires explanation.

Why might the competitive prediction fail?. Three mechanisms could explain the null. First, Geneva's pre-existing wage distribution may have been sufficiently compressed above CHF 23 that the minimum wage was not strongly binding, despite the LSE estimates suggesting 35–38 percent of hospitality workers earned below the threshold. If employers had already been raising wages toward CHF 23 in anticipation of the long-debated policy, the actual bite at implementation may have been smaller than the cross-sectional estimates

Table 4: Cross-Border Worker Growth by Sector in Geneva

Bite	Sector	Pre-Mean	Post-Mean	Growth (%)
Panel A: High-bite sectors (> 15% below CHF 23/hr)				
	Retail trade	6,742	7,679	13.9
	Employment activities	6,139	9,424	53.5
	Food & beverage	3,867	4,421	14.3
	Building services	2,040	2,642	29.5
	Accommodation	1,925	2,217	15.2
	Personal services	1,217	1,455	19.6
	Sports & recreation	605	753	24.5
Panel B: Low-bite sectors (< 5% below CHF 23/hr)				
	Electronics mfg.	3,292	3,595	9.2
	Architecture & eng.	2,889	3,734	29.2
	Financial services	2,711	2,733	0.8
	Legal & accounting	1,891	2,386	26.2
	IT & programming	1,424	1,833	28.7
	Pharmaceuticals	655	762	16.3
	Insurance	429	615	43.5
	Scientific R&D	281	382	36.0

Notes: Pre-treatment mean is the average quarterly cross-border worker count from France in Geneva for 2015–2019. Post-treatment mean covers 2021–2024. Growth is the percentage change from pre- to post-treatment mean. Bite classification based on estimated fraction of workers below CHF 23/hr from the 2018 Swiss Wage Structure Survey.

suggest. Second, monopsony power—even in a setting with elastic cross-border supply—could mean that the minimum wage raised wages along the upward-sloping part of the labor supply curve, leaving employment unchanged or even increasing it (Manning, 2003). Third, formalization effects could offset displacement: if some cross-border workers were previously employed in informal or quasi-formal arrangements below the minimum, the wage floor may have shifted these workers into recorded employment (Meghir et al., 2012; Almeida and Carneiro, 2012).

Counts versus hours. The most important limitation is that the data measure the count of cross-border workers by sector, not their hours or wages. If employers responded to the minimum wage by reducing hours per worker rather than headcount—a plausible margin given that many hospitality and retail positions involve variable scheduling—the null on worker counts would mask real adjustment along the intensive margin (Harasztosi and Lindner, 2019; Dustmann et al., 2022). Similarly, the data do not distinguish skill levels within sectors: the minimum wage could have upgraded the skill composition of cross-border workers without changing total counts. Without administrative wage or hours data matched to the GGS, this paper identifies the extensive-margin effect only.

Statistical power. With only one primarily treated canton and three control cantons, the design has limited statistical power. The minimum detectable effect at 80 percent power is 0.25 log points—approximately a 28 percent change. Smaller effects, on the order of the 0–5 percent disemployment effects documented in the domestic US literature (Cengiz et al., 2019), would not be detected. The null should therefore be interpreted as ruling out *large* disemployment effects, not as evidence that the minimum wage had zero impact.

Implications for policy. The European debate over minimum wages in border regions often invokes the fear that high wage floors will redirect mobile workers to lower-cost jurisdictions. The Geneva result suggests this concern is not borne out even in the most extreme case: the world's highest minimum wage, applied to one of Europe's most mobile labor forces, produced no detectable change in the sectoral composition of cross-border worker flows. For policymakers in other border regions considering minimum wages—the EU's Adequate Minimum Wages Directive (2022/2041) is driving national implementations across member states—this is a reassuring, if preliminary, data point.

7. Conclusion

Geneva set the world's highest minimum wage and applied it to 90,000 freely mobile cross-border commuters from France. In the sectors where the wage floor bit hardest—hospitality, retail, personal services—the competitive model predicts a measurable decline in cross-border labor inflows. Five years of post-implementation data show no such decline. The preferred triple-difference estimate is 0.112 log points with a standard error of 0.091, a null that rules out displacement effects larger than 7 percent and is independently confirmed by a null result in Ticino. The question is no longer whether the minimum wage caused a large shift in cross-border worker composition—it did not—but whether employers in one of the world's most open labor markets adjusted through channels invisible to headcount data: hours, tasks, or wages themselves.

Acknowledgements

References

Almeida, Rita and Pedro Carneiro, "Enforcement of Labor Regulation and Informality," *American Economic Journal: Applied Economics*, 2012, *4* (3), 64–89.

Azar, José, Ioana Marinescu, and Marshall Steinbaum, "Labor Market Concentration," *Journal of Human Resources*, 2022, *57* (S), S167–S199.

Beerli, Andreas, Jan Ruffner, Michael Siegenthaler, and Giovanni Peri, "The Abolition of Immigration Restrictions and the Performance of Firms and Workers: Evidence from Switzerland," *American Economic Review*, 2021, *111* (3), 976–1012.

Borjas, George J. and Joan Monras, "The Labour Market Consequences of Refugee Supply Shocks," *Economic Policy*, 2017, *32* (91), 361–413.

Card, David and Alan B. Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *American Economic Review*, 1994, *84* (4), 772–793.

Cengiz, Doruk, Arindrajit Dube, Attila Lindner, and Ben Zipperer, "The Effect of Minimum Wages on Low-Wage Jobs," *Quarterly Journal of Economics*, 2019, *134* (3), 1405–1454.

Dube, Arindrajit, "Minimum Wages and the Distribution of Family Incomes," *American Economic Journal: Applied Economics*, 2019, *11* (4), 268–304.

Dustmann, Christian, Attila Lindner, Uta Schönberg, Matthias Umkehrer, and Philipp vom Berge, "Reallocation Effects of the Minimum Wage," *Quarterly Journal of Economics*, 2022, *137* (1), 267–328.

_ , Francesca Fabbri, and Ian Preston, "The Impact of Immigration on the British Labour Market," *Economic Journal*, 2005, *115* (507), F324–F341.

Harasztosi, Peter and Attila Lindner, "Who Pays for the Minimum Wage?," *American Economic Review*, 2019, *109* (8), 2693–2727.

Manning, Alan, *Monopsony in Motion: Imperfect Competition in Labor Markets*, Princeton University Press, 2003.

Meghir, Costas, Renata Narita, and Jean-Marc Robin, "Wages and Informality in Developing Countries," *American Economic Review*, 2012, *102* (2), 1009–1018.

Peri, Giovanni and Chad Sparber, "Task Specialization, Immigration, and Wages,"
American Economic Journal: Applied Economics, 2012, *4* (3), 188–224.

A. Standardized Effect Sizes

Table 5: Standardized Effect Sizes

Outcome	$\hat{\beta}$	SE	SD(Y)	SDE	SE(SDE)	Classification
Panel A: Pooled						
Cross-border worker count (log)	0.1123	0.0905	1.9237	0.0584	0.0470	Moderate positive
Panel B: Heterogeneous (sample splits)						
Hospitality CBW (accomm. + food service)	-0.0647	0.0433	0.8654	-0.0747	0.0500	Moderate negative
Service CBW (retail + personal + building)	-0.0131	0.0527	0.9015	-0.0145	0.0585	Small negative

Notes: **Country:** Switzerland. **Research question:** Does Geneva's CHF 23.27/hr minimum wage—the world's highest statutory wage floor—alter the sectoral composition of cross-border workers commuting from France? **Policy mechanism:** The cantonal minimum wage raises the effective floor for all employees working in Geneva, including approximately 90,000 cross-border commuters from France who enter freely under the 2004 EU–Switzerland Agreement on Free Movement of Persons; sectors with large fractions of workers previously paid below CHF 23/hr face the strongest bite. **Outcome definition:** Quarterly count of cross-border workers from France in a given NOGA sector within Geneva, from the BFS Grenzgänger Statistics (GGS), measured in logs. **Treatment:** Binary; sector-level bite classification based on the estimated fraction of workers below CHF 23/hr from the 2018 Swiss Wage Structure Survey (high-bite > 15%, low-bite < 5%), interacted with Geneva canton and post-November 2020 indicator. **Data:** BFS Grenzgänger Statistics (SDMX), quarterly, 2015–2025, canton × NOGA sector × quarter; $N = 2,627$ (high- and low-bite sectors across four French border cantons, excluding Vaud). **Method:** Triple-difference (canton × bite × post) with canton×sector, sector×quarter, and canton×quarter fixed effects; standard errors clustered at canton×sector level. **Sample:** Restricted to high-bite ($N_{\text{sectors}} = 7$) and low-bite ($N_{\text{sectors}} = 8$) NOGA sectors in four French border cantons (Geneva, Basel-Stadt, Neuchâtel, Jura); Vaud excluded due to own minimum wage; pre-period restricted to 2015+ (post-franc-shock). SDE $= \hat{\beta}/\text{SD}(Y)$ where SD(Y) is the pre-treatment standard deviation. Classification refers to magnitude, not statistical significance: Large ($|\text{SDE}| > 0.15$), Moderate (0.05–0.15), Small (0.005–0.05), Null (< 0.005).