

Minimum Wage, Employment, and Margins of Adjustment: Evidence from
Employer–Employee Matched Panel Data

Online Appendix

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June 11, 2023

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Appendix A Wage Spillover

Since the fraction of bound employees is not high, one might wonder if the effect of the minimum wage on bound employees that we found in Table 2 is large enough as a cost shock to induce firms to adjust their employment. Regarding this question, it is important to note that the wage effect of the minimum wage can extend beyond the direct effect on bound employees. Another possible channel is a spillover effect over non-bound employees within bound establishments. In fact, previous studies have found that minimum wage increases affect not only those employees directly affected by the increases but also those who are currently paid higher than bound employees (Lee, 1999; Autor, Manning, and Smith, 2016). The spillover effect can be substantial if firms have a hierarchical compensation structure (where some wage differences between ranks of workers should be kept) or firms accommodate their employees' relative pay concerns (Breza, Kaur, and Shamdasani, 2018; Dube, Giuliano, and Leonard, 2019). To check this, we use the sample of non-bound employees and estimate the equation as follows:

$$\Delta w_{ijt} = \sum_{k=1}^{15} \beta_k d_{ijt-1}^k BOUND_{jt-1} + \sum_{k=2}^{15} \alpha_k d_{ijt-1}^k + X_{ijt-1} \gamma + \delta_t + \epsilon_{ijt} \quad (1)$$

where d_{ijt-1}^k is an indicator for wage group k , $k = 1, 2, \dots, 15$ based on the distance between the employee's wage and the new minimum wage. Note that to estimate the model, the sample should be restricted to those employees in small establishments where we can identify individual employees over years. Furthermore, note that the dependent variable (wage growth) is only defined for continuing workers. The wage group specification follows Neumark, Schweitzer, and Wascher (2004). As a measure of the distance, we define the ratio of the employee's current wage to the next year's minimum wage (w_{it-1}/MW_t). $k = 1$ if $1 \leq w_{it-1}/MW_t \leq 1.2$, $k = 2$ if $1.2 < w_{it-1}/MW_t \leq 1.4$, and so on. As k is larger, the employee's wage is much higher than the minimum wage. $BOUND_{jt-1}$ is the indicator for bound establishments which have at least one bound employee.

Note that non-bound employees can be found in both bound and non-bound establishments. With the wage group and year dummies controlled for, the model is similar to a difference-in-differences model in the sense that we estimate the effect of bound establishments on individual wages, but the effect is allowed to differ by the distance of individual wages from the next year's minimum wage. After estimating β_k , we calculate $\beta_k \bar{d}_k$, where \bar{d}_k is the share of employees of group k in bound establishments.

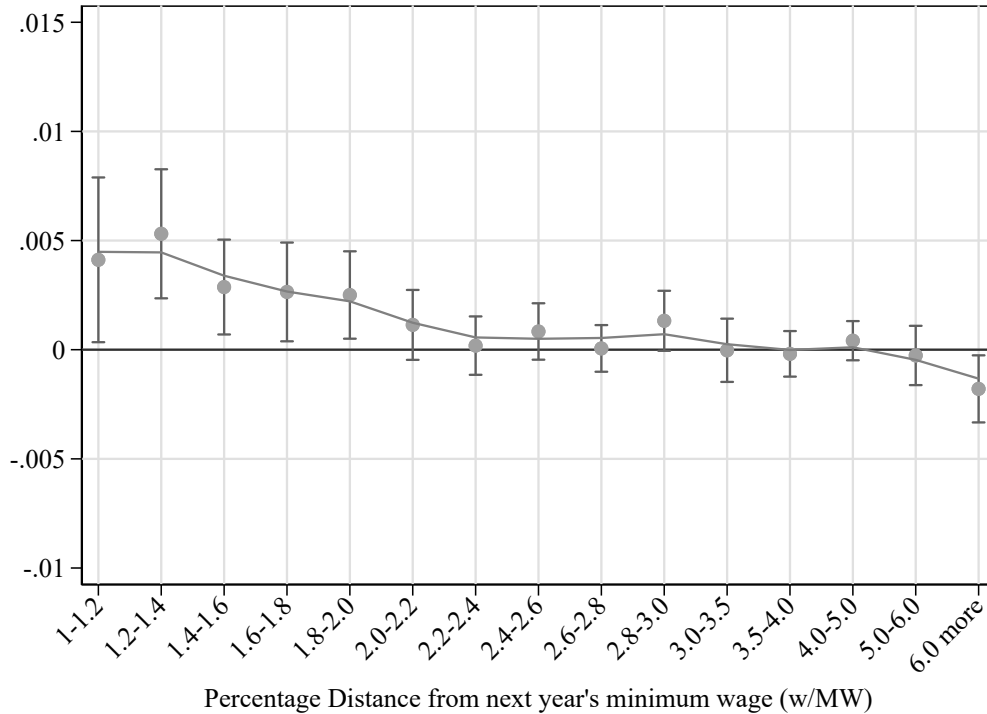
Figure A1 presents the point estimates for β_k multiplied by the proportions of wage groups and the 95% confidence intervals.¹ The graph shows that having bound employees increases non-bound coworkers' wage growth rates, and the effect is observed up to the groups within 2 times of the next year's minimum wage ($k = 1$ to 5). The spillover effect amounts to about 0.3 to 0.5 percentage points of the wage growth rate. As non-bound employees in bound establishments are paid lower than those in non-bound establishments and, thus, they are more likely to belong to lower k groups, the spillover effect actually applies to more than 50% of non-bound employees. In fact, about 67% of non-bound employees in bound establishments belong to the lower wage distance group with $k \leq 5$. The results confirm the presence of the spillover effect; the effects of minimum wage increases are extended to low-wage non-bound employees. The presence of the spillover effect within establishments implies that our estimates in Table 2 for the minimum wage's effect on bound employees' wages are likely underestimated.

One last point to note here is that the above estimation assumes that the spillover effect occurs

¹The detailed regression results are presented in Appendix C.

only within bound establishments. However, in reality, a spillover effect from bound to non-bound establishments can also occur. For example, a spillover effect can occur within local labor markets or within industries. To the extent that non-bound employees in non-bound establishments (the comparison group) are also influenced by the minimum wage increases, we underestimate the spillover effect.

Figure A1: Spillover Effects



Note: The graph is based on the results for the interactions between percentage wage distance groups and bound establishments from estimating equation (1) in appendix A. The regression sample includes only non-bound employees in either bound or non-bound establishments. We group those employees depending on the percentage distance of their hourly wage to the next year's minimum wage. For example, the 1-1.2 group represents employees whose hourly wage is within 1.2 times the next year's minimum wage. Then, we compare the wage growth of employees within the bound establishments and those in non-bound establishments within each wage group. We assume that those employees in non-bound establishments are not affected by the minimum wage increase because they are not bound by the increase and they don't have any bound coworkers who could give rise to a spillover effect within establishments. The point estimates, multiplied by the share of employees of each group, and the corresponding 95% confidence intervals are presented. The full results are presented in the Appendix C.

Appendix B More Robustness Checks

B.1 Effects on New Establishment Entries

A limitation of our data is that the data do not represent new establishment entries. This is because the data are collected as 3-year panel data, that is, the data follow those which are randomly selected in the initial year of each panel, 2008 and 2011 in our data. But note that, by design, it is reasonable to assume that the data in 2008 and 2011 include a representative sample of new establishments. Also, in the subsequent years, new establishments might be included as a refreshment sample. But they should not be well representative of the population of new establishments. Therefore, our data are not suitable to study the minimum wage’s effect on new establishment entries.

Despite of the limitation, we try to obtain at least a hint about the possible impact of the minimum wage on new establishment entries given its importance for evaluating the employment effect of the minimum wage. Theoretically, it is ambiguous. An increase of the minimum wage might depress the entries of new establishments because labor costs are higher. On the other hand, as lower-productive establishments go out of business, some new establishments, presumably higher-productive ones, might enter the market to fill the void in the market share.

For our purpose of estimating the effect on new entries, there are two technical challenges. First, we have no direct information on establishment age. So we define those establishments where all employees work less than one year as “new establishments.” This operational definition should include new establishments as well as those where employee turnover is extremely high. In two initial years, 2008 and 2011, when new establishments should be legitimately sampled, we indeed find more “new establishments” according to our definition, compared to the other years. This somehow supports the validity of our operational definition. The second challenge is that we cannot apply the same estimation model because new establishments do not have the previous year’s wage distribution. Thus, similar to Harasztosi and Lindner (2019) and Jardim and van Inwegen (2019), we use a *grouping estimator* in the style of Blundell, Duncan, and Meghir (1998). To do this, we aggregate data by region (establishment location) and workers’ demographic characteristics (gender, education, and decennial birth cohort)² and construct a variable of the minimum wage’s bite per group and year, given the previous year’s wage distribution of each group.³ Then, we estimate the impact of the minimum wage’s bite on the employment growth rate contributed by new establishments. Our estimation model is as follows:

$$\Delta E_{gt}^{New} = \beta \cdot Gap_{gt-1} + X_{gt-1}\gamma + \alpha_g + \delta_t + \epsilon_{gt} \quad (2)$$

where the dependent variable, ΔE_{gt}^{New} , represents the employment growth rate by new establishments in group g between year $(t-1)$ and t . Gap_{gt-1} is the group-specific wage gap. For robustness, we also try to use the alternative measure, the fraction of bound workers. X_{gt-1} includes the same set of control variables as we used in our main analysis, but the variables are averaged at the group and year level. α_g is the group fixed effect, δ_t the year fixed effect, and ϵ_{gt} the standard error term. Robust standard errors, clustered by group, are obtained.

Table B1 presents the results. We control for group and year fixed effects, the group averages of our control variables such as age and education, and the non-bound low-wage workers within

²There are 15 regions in the data, because the payroll record data are collected by 15 local offices of the MOEL. To avoid any bias due to a small number of groups, we add gender, education and birth cohort as additional grouping variables. Education consists of 3 categories and there are 5 decennial birth cohorts. Thus, there are 450 group observations per year.

³To calculate the wage gap variable for 2008, we used the data from 2007, which we did not use in our main analysis because we do not have unique establishment identifiers in the data before 2008.

groups. Columns 1 and 3 show the estimate for the minimum wage bite variable when we use the whole data from 2008 to 2013. Note that here we use the data of 2007, which we cannot use in our main analysis because the establishment ID is not provided. However, in our group-level analysis, we do not need the ID. Columns 2 and 4 present the results using the data from 2008 and 2011 only, the years when new establishments are supposed to be appropriately represented. In both columns, we find that minimum wage increases do not significantly affect new establishment entries. In particular, the estimates are small and close to zero.

Table B1: The Effects of the Minimum Wage on New Establishment Entries

	(1)	(2)	(3)	(4)
	Establishment wage gap	Establishment wage gap	Fraction of bound workers	Fraction of bound workers
	All years	2008 & 2011	All years	2008 & 2011
Group-level MW bite	0.017 (0.012)	0.031 (0.033)	0.001 (0.026)	0.026 (0.090)
Non-bound low-wage employees	-0.022 (0.017)	-0.004 (0.065)	-0.020 (0.017)	-0.005 (0.065)
between $MW(t)$ and $MW(t) + 500$	0.035 (0.022)	0.082 (0.068)	0.033 (0.022)	0.079 (0.069)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.046 (0.015)	-0.055 (0.052)	-0.048 (0.015)	-0.056 (0.051)
between $MW(t) + 1000$ and $MW(t) + 1500$	0.007 (0.018)	0.023 (0.045)	0.006 (0.018)	0.025 (0.045)
sub-minimum wage worker	-0.005 (0.002)	-0.006 (0.005)	-0.005 (0.002)	-0.006 (0.005)
Average age	0.004 (0.001)	0.003 (0.003)	0.004 (0.001)	0.003 (0.003)
Average age squared/100	0.005 (0.002)	0.001 (0.004)	0.005 (0.002)	0.001 (0.004)
Average tenure	-0.020 (0.007)	-0.003 (0.013)	-0.020 (0.007)	-0.004 (0.013)
Average tenure squared/100	-0.005 (0.007)	0.013 (0.013)	-0.006 (0.007)	0.012 (0.013)
Union share	0.000 (0.007)	0.025 (0.020)	0.001 (0.007)	0.028 (0.020)
Share of 4-year college or above	0.000 (0.012)	0.025 (0.045)	0.001 (0.012)	0.028 (0.045)
Constant	0.128 (0.046)	0.176 (0.132)	0.127 (0.046)	0.153 (0.132)
Year fixed effects	Y	Y	Y	Y
Group fixed effects	Y	Y	Y	Y
Observations	2,700	900	2,700	900
Adj. R-squared	0.150	0.169	0.148	0.164

Note: The dependent variable is the part of the employment growth rate contributed by new entrants from the year $(t - 1)$ to t . Columns 2 and 4 include only two years, 2008 and 2011, the first year of each 3-year establishment panel. We use either wage gap or fraction of bound workers as the measure of the minimum wage's bite. Groups are defined by region (15 regions), gender, education (3), and decennial birth cohort (5). Control variables include average age, age squared, tenure, tenure squared, union share, four-year college share, and low-wage workers. All control variables are group-level average characteristics in $(t - 1)$. In all specifications, year dummies and group fixed effects are controlled and weighted by the number of employees within groups. Robust standard errors, clustered by group, are presented in parentheses.

B.2 Results from Regional Panel Data

We take an alternative empirical model and check the robustness of our findings. Specifically, we estimate the employment effect of the minimum wage using the regional panel data that we constructed in Appendix B.1. We restrict the data to the same period (2008-2013) in columns 1 and 3 as that in our main analysis. We include establishments of all sizes. If we restrict the data to smaller establishments as in the main analysis and apply the same grouping criteria as before, we have some empty groups.

Table B2 presents the results. In columns 2 and 4, we use all the available data, which include two more years, 2006 and 2007. The data from those years could not be used for our main analysis because we do not have unique establishment identifiers. In all specifications, we control for group and year fixed effects, a set of control variables, and the not bound low-wage workers. We find in all the columns that a larger minimum wage bite induced by an increase in the minimum wage decreases the net employment growth. Using the estimate in column 1, we compute the elasticity with respect to the minimum wage and obtain the estimate of -0.09 . This is similar to what we found before for bound establishments.

Table B2: Results from Grouped Data by Region and Demographic Characteristics

	(1)	(2)	(3)	(4)
	Establishment wage gap	Establishment wage gap	Fraction of bound workers	Fraction of bound workers
	2008–2013	2006–2013	2008–2013	2006–2013
Group-level MW bite	-0.310 (0.121)	-0.177 (0.081)	-0.778 (0.290)	-0.735 (0.251)
Non-bound low-wage employees				
between $MW(t)$ and $MW(t) + 500$	-0.292 (0.224)	-0.257 (0.166)	-0.274 (0.222)	-0.222 (0.165)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.222 (0.212)	-0.128 (0.191)	-0.212 (0.211)	-0.146 (0.192)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.697 (0.200)	-0.233 (0.157)	-0.704 (0.201)	-0.246 (0.156)
sub-minimum wage worker	-0.520 (0.218)	-0.552 (0.165)	-0.530 (0.221)	-0.574 (0.168)
Average age	0.004 (0.026)	-0.036 (0.015)	0.004 (0.026)	-0.038 (0.015)
Average age squared/100	0.012 (0.021)	0.050 (0.012)	0.012 (0.021)	0.052 (0.012)
Average tenure	0.051 (0.026)	0.037 (0.014)	0.051 (0.026)	0.037 (0.014)
Average tenure squared/100	-0.227 (0.119)	-0.129 (0.063)	-0.227 (0.119)	-0.130 (0.063)
Union share	-0.346 (0.184)	0.075 (0.093)	-0.346 (0.183)	0.075 (0.093)
Share of 4-year college or above	-0.724 (0.219)	-0.901 (0.143)	-0.728 (0.219)	-0.906 (0.143)
Constant	-0.107 (0.677)	0.822 (0.407)	-0.099 (0.680)	0.862 (0.410)
Year fixed effects	Y	Y	Y	Y
Group fixed effects	Y	Y	Y	Y
Observations	2,250	3,600	2,250	3,600
Adj. R-squared	0.099	0.197	0.099	0.198

Note: The dependent variable is the employment growth rate from the year $(t-1)$ to t . We use either wage gap or fraction of bound workers as the measure of the minimum wage's impact. Groups are defined by region (15 regions), gender (2), education (3), and decennial birth cohort (5). Control variables include average age, age squared, tenure, tenure squared, union share, four-year college share and low-wage workers. All control variables are group-level average characteristics in $(t-1)$. Columns 1 and 3 are based on the main sample periods (2008-2013) and columns 2 and 4 are extended with samples of additional years 2006 and 2007. In all specifications, year dummies and group fixed effects are controlled and weighted by the number of employees within groups. Robust standard errors, clustered by group, are presented in parentheses.

B.3 Results without Controls

We conduct another robustness check for our main results. These analyses are similar to those in Table 2 from estimating equation (4), but we exclude the control variables to show that our results are robust without controlling additional variables. First, columns 1 to 3 restrict the results without controlling not bound low-wage workers, so control variables include only establishment characteristics in the year $(t - 1)$ and the year fixed effects. Next, in columns 4 to 6, we check the results without any control variables and year fixed effects.

Table B3 presents the results. The estimates in columns 1–3 are very similar to what we found in our main analysis. In columns 4–6, the implied minimum wage impacts on employment growth are significant across all the establishment sizes. Since the effects on the larger size establishments vanish after controlling additional variables, it further suggests that the minimum wage effects are concentrated more in the small establishments.

Table B3: Robustness Checks by Control Variables

	(1)	(2)	(3)	(4)	(5)	(6)
	Without low-wage controls			Without control variables		
	All	5-29	30+	All	5-29	30+
A. Establishment wage gap						
A.1 Net employment growth						
MW bite	-0.063	-0.109	-0.044	-0.114	-0.123	-0.085
	(0.022)	(0.028)	(0.028)	(0.023)	(0.027)	(0.029)
Observations	67,418	42,284	25,134	67,418	42,284	25,134
R-squared	0.018	0.015	0.013	0.001	0.001	0.000
A.2 Wage growth						
MW bite	0.137	0.143	0.135	0.151	0.152	0.150
	(0.014)	(0.012)	(0.018)	(0.013)	(0.012)	(0.017)
Observations	59,592	35,751	23,841	59,592	35,751	23,841
R-squared	0.051	0.037	0.055	0.005	0.009	0.005
B. Fraction of bound workers						
B.1 Net employment growth						
MW bite	-0.171	-0.279	-0.105	-0.357	-0.336	-0.258
	(0.062)	(0.072)	(0.087)	(0.062)	(0.071)	(0.086)
Observations	67,418	42,284	25,134	67,418	42,284	25,134
R-squared	0.018	0.015	0.013	0.001	0.001	0.000
B.2 Wage growth						
MW bite	0.462	0.450	0.470	0.502	0.468	0.514
	(0.034)	(0.030)	(0.048)	(0.032)	(0.030)	(0.045)
Observations	59,592	35,751	23,841	59,592	35,751	23,841
R-squared	0.053	0.040	0.056	0.007	0.011	0.006

Note: All estimates are obtained from separate regressions. Panel A uses the establishment wage gap as a measure of the minimum wage increase. Panel B uses the fraction of bound employees instead. In panels A.1 and B.1, the dependent variable is the net employment growth from year $(t - 1)$ to t . In panels A.2 and B.2, the dependent variable is the average hourly wage growth between year $(t - 1)$ to t . Columns are divided by the establishment sizes. All regressions are weighted by the number of observed employees in the establishment at year $(t - 1)$. Robust standard errors, clustered by the establishment, are presented in parentheses.

B.4 Different Sample Specifications for Small Establishments

We try another specification to address the sample-selection bias regarding the definition of small-sized establishments. Note that our sample of small establishments does not include establishments that become smaller or larger beyond the range of 5–29 employees. Thus, we try to put back in the sample those establishments that started with 5–29 employees initially but became larger than 29 employees in the subsequent year. Then, we re-estimate the employment effect of the minimum wage for this new (extended) sample of small establishments.

A downside of the above robustness check is that the extended sample adds only those establishments that became larger than 29 employees, so the sample is one-sidedly biased. It is likely that the BSWS does not follow those which get smaller than 5 employees. Therefore, some establishments which become smaller than 5 are recorded as closed establishments in our sample. To address this concern, we check the robustness of our results to restricting the sample to those with at least 10 employees. The idea is that, if any, misclassification errors should be smaller for these establishments with 10. To minimize the possibility that establishments go beyond the range of 5 to 29, we restrict the sample to those with 10 to 25 employees.

Table B4 presents the results. The estimated coefficients are very close what we find in Table 2. Also, the estimated effects on wage growth are very similar to those from our main specification.

Table B4: Alternative Sample Restrictions

	(1)	(2)
	Extended 5-29	10-25
A.Establishment wage gap		
A.1 Net employment growth		
MW bite	-0.083 (0.028)	-0.104 (0.039)
Observations	43,731	19,722
R-squared	0.015	0.018
A.2 Wage growth		
MW bite	0.104 (0.011)	0.104 (0.013)
Observations	37,198	17,866
R-squared	0.099	0.108
B.Fraction of bound workers		
B.1 Net employment growth		
MW bite	-0.209 (0.073)	-0.247 (0.100)
Observations	43,731	19,722
R-squared	0.014	0.018
B.2 Wage growth		
MW bite	0.336 (0.029)	0.349 (0.036)
Observations	37,198	17,866
R-squared	0.101	0.110

Note: All estimates are obtained from separate regressions. Panel A uses the establishment wage gap as a measure of the minimum wage increase. Panel B uses the fraction of bound employees instead. All control variables are establishment characteristics in $(t-1)$. In all specifications, year dummies are controlled for. Columns are divided by the establishment sizes. All regressions are weighted by the number of observed employees in the establishment at year $(t-1)$. Robust standard errors, clustered by the establishment, are presented in parentheses.

Appendix C Full-Result Tables

Table C1: Employment and Wage Growth–Establishment Wage Gap

	(1)	(2)	(3)	(4)	(5)	(6)
	Net employment growth			Wage growth		
	All	5–29	30+	All	5–29	30+
MW bite	-0.042 (0.022)	-0.090 (0.028)	-0.022 (0.029)	0.085 (0.011)	0.102 (0.011)	0.081 (0.015)
Non-bound low-wage employees between $MW(t)$ and $MW(t) + 500$	-0.173 (0.041)	-0.188 (0.039)	-0.164 (0.059)	0.255 (0.019)	0.308 (0.015)	0.235 (0.026)
between $MW(t) + 500$ and $MW(t) + 1000$	0.002 (0.036)	-0.051 (0.035)	0.019 (0.053)	0.212 (0.017)	0.226 (0.012)	0.208 (0.025)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.065 (0.039)	-0.075 (0.032)	-0.055 (0.059)	0.217 (0.018)	0.202 (0.011)	0.231 (0.028)
sub-minimum wage worker	-0.026 (0.023)	-0.134 (0.037)	-0.016 (0.026)	0.295 (0.016)	0.395 (0.018)	0.281 (0.019)
Male share	-0.046 (0.016)	-0.036 (0.014)	-0.046 (0.021)	-0.000 (0.007)	0.027 (0.004)	-0.007 (0.009)
Average age	0.023 (0.007)	0.017 (0.005)	0.028 (0.010)	-0.006 (0.003)	0.007 (0.002)	-0.009 (0.004)
Average age squared/100	-0.027 (0.008)	-0.020 (0.006)	-0.032 (0.012)	0.002 (0.004)	-0.013 (0.002)	0.006 (0.005)
Average tenure	0.037 (0.003)	0.041 (0.003)	0.029 (0.004)	0.002 (0.001)	0.005 (0.001)	0.001 (0.002)
Average tenure squared/100	-0.143 (0.012)	-0.162 (0.013)	-0.111 (0.015)	0.004 (0.006)	-0.014 (0.004)	0.007 (0.008)
Union share	0.019 (0.014)	0.023 (0.018)	-0.002 (0.016)	-0.007 (0.006)	0.008 (0.007)	-0.004 (0.007)
Share of 4-year college or above	-0.048 (0.014)	-0.126 (0.013)	-0.038 (0.017)	-0.008 (0.006)	0.007 (0.004)	-0.009 (0.008)
Constant	-0.746 (0.144)	-0.692 (0.099)	-0.806 (0.201)	0.124 (0.066)	-0.176 (0.033)	0.205 (0.089)
Observations	67,418	42,284	25,134	59,592	35,751	23,841
R-squared	0.018	0.016	0.013	0.086	0.101	0.084

Note: Full results for Panel A in Table 2. In all specifications, year dummies are controlled for.

Table C2: Employment and Wage Growth—Fraction of Bound Employees

	(1)	(2)	(3)	(4)	(5)	(6)
	Net employment growth			Wage growth		
	All	5–29	30+	All	5–29	30+
MW bite	-0.088 (0.063)	-0.218 (0.073)	-0.001 (0.092)	0.285 (0.030)	0.323 (0.028)	0.274 (0.044)
Non-bound low-wage employees						
between $MW(t)$ and $MW(t) + 500$	-0.173 (0.041)	-0.186 (0.039)	-0.172 (0.061)	0.241 (0.019)	0.299 (0.015)	0.219 (0.027)
between $MW(t) + 500$ and $MW(t) + 1000$	0.002 (0.036)	-0.051 (0.035)	0.020 (0.053)	0.213 (0.017)	0.227 (0.012)	0.211 (0.025)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.065 (0.039)	-0.075 (0.032)	-0.054 (0.060)	0.218 (0.018)	0.202 (0.011)	0.231 (0.028)
sub-minimum wage worker	-0.028 (0.022)	-0.135 (0.037)	-0.018 (0.026)	0.294 (0.016)	0.393 (0.018)	0.281 (0.019)
Male share	-0.046 (0.016)	-0.036 (0.014)	-0.046 (0.021)	-0.000 (0.007)	0.027 (0.004)	-0.007 (0.009)
Average age	0.023 (0.007)	0.017 (0.005)	0.029 (0.010)	-0.006 (0.003)	0.007 (0.002)	-0.009 (0.004)
Average age squared/100	-0.027 (0.008)	-0.020 (0.006)	-0.033 (0.012)	0.001 (0.004)	-0.013 (0.002)	0.006 (0.005)
Average tenure	0.037 (0.003)	0.041 (0.003)	0.029 (0.004)	0.002 (0.001)	0.005 (0.001)	0.001 (0.002)
Average tenure squared/100	-0.143 (0.012)	-0.162 (0.013)	-0.111 (0.015)	0.004 (0.006)	-0.014 (0.004)	0.007 (0.008)
Union share	0.019 (0.014)	0.023 (0.018)	-0.002 (0.016)	-0.007 (0.006)	0.009 (0.007)	-0.004 (0.007)
Share of 4-year college or above	-0.048 (0.014)	-0.126 (0.013)	-0.038 (0.017)	-0.008 (0.006)	0.007 (0.004)	-0.009 (0.008)
Constant	-0.749 (0.144)	-0.693 (0.099)	-0.811 (0.201)	0.121 (0.066)	-0.180 (0.033)	0.203 (0.089)
Observations	67,418	42,284	25,134	59,592	35,751	23,841
R-squared	0.018	0.016	0.013	0.086	0.102	0.084

Note: Full results for Panel B in Table 2. In all specifications, year dummies are controlled for.

Table C3: Decomposing the Employment Effect of the Minimum Wage–Within Continuing Firms

	(1)	(2)	(3)	(4)	(5)	(6)
	Establishment wage gap			Fraction of bound workers		
	All	5–29	30+	All	5–29	30+
MW bite	-0.030 (0.014)	-0.041 (0.013)	-0.024 (0.020)	-0.064 (0.040)	-0.125 (0.032)	-0.031 (0.063)
Non-bound low-wage employees						
between $MW(t)$ and $MW(t) + 500$	-0.135 (0.027)	-0.128 (0.018)	-0.143 (0.040)	-0.135 (0.027)	-0.125 (0.018)	-0.147 (0.041)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.072 (0.025)	-0.055 (0.015)	-0.082 (0.038)	-0.071 (0.025)	-0.055 (0.015)	-0.081 (0.038)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.016 (0.026)	-0.047 (0.013)	-0.002 (0.041)	-0.015 (0.026)	-0.047 (0.013)	-0.002 (0.041)
sub-minimum wage worker	-0.121 (0.017)	-0.189 (0.019)	-0.107 (0.021)	-0.122 (0.017)	-0.189 (0.019)	-0.108 (0.021)
Male share	-0.008 (0.011)	-0.024 (0.005)	-0.006 (0.014)	-0.008 (0.011)	-0.024 (0.005)	-0.006 (0.014)
Average age	0.002 (0.005)	-0.003 (0.002)	0.002 (0.007)	0.002 (0.005)	-0.003 (0.002)	0.003 (0.007)
Average age squared/100	-0.002 (0.006)	0.004 (0.002)	-0.002 (0.009)	-0.002 (0.006)	0.004 (0.002)	-0.002 (0.009)
Average tenure	0.006 (0.002)	0.004 (0.001)	0.009 (0.003)	0.006 (0.002)	0.004 (0.001)	0.009 (0.003)
Average tenure squared/100	-0.032 (0.008)	-0.013 (0.005)	-0.042 (0.011)	-0.032 (0.008)	-0.013 (0.005)	-0.042 (0.011)
Union share	0.003 (0.009)	-0.029 (0.007)	0.010 (0.011)	0.003 (0.009)	-0.029 (0.007)	0.010 (0.011)
Share of 4-year college or above	0.038 (0.009)	0.002 (0.005)	0.047 (0.012)	0.038 (0.009)	0.002 (0.005)	0.047 (0.012)
Constant	-0.097 (0.093)	0.077 (0.041)	-0.121 (0.135)	-0.098 (0.093)	0.079 (0.041)	-0.124 (0.135)
Observations	67,418	42,284	25,134	67,418	42,284	25,134
R-squared	0.012	0.018	0.012	0.012	0.018	0.012

Note: Full results for Panel B in Table 3. In all specifications, year dummies are controlled for.

Table C4: Decomposing the Employment Effect of the Minimum Wage—Detailed Decomposition

	(1)	(2)	(3)	(4)	(5)	(6)
	Establishment wage gap			Fraction of bound workers		
	Δ Hour	Hiring	Separate	Δ Hour	Hiring	Separate
MW bite	-0.013 (0.003)	-0.026 (0.012)	-0.002 (0.015)	-0.037 (0.010)	-0.049 (0.033)	-0.038 (0.039)
Non-bound low-wage employees						
between $MW(t)$ and $MW(t) + 500$	-0.029 (0.004)	0.003 (0.018)	-0.101 (0.022)	-0.029 (0.004)	0.002 (0.018)	-0.099 (0.022)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.019 (0.003)	0.011 (0.016)	-0.047 (0.019)	-0.019 (0.003)	0.011 (0.016)	-0.047 (0.019)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.016 (0.003)	0.029 (0.016)	-0.060 (0.017)	-0.016 (0.003)	0.030 (0.016)	-0.061 (0.017)
sub-minimum wage worker	-0.067 (0.007)	-0.047 (0.017)	-0.076 (0.021)	-0.067 (0.007)	-0.048 (0.017)	-0.075 (0.021)
Male share	-0.004 (0.001)	-0.056 (0.007)	0.036 (0.007)	-0.004 (0.001)	-0.056 (0.007)	0.036 (0.007)
Average age	-0.003 (0.000)	-0.005 (0.002)	0.004 (0.003)	-0.003 (0.000)	-0.005 (0.002)	0.004 (0.003)
Average age squared/100	0.003 (0.001)	0.004 (0.003)	-0.003 (0.003)	0.003 (0.001)	0.003 (0.003)	-0.003 (0.003)
Average tenure	-0.001 (0.000)	-0.025 (0.001)	0.030 (0.001)	-0.001 (0.000)	-0.025 (0.001)	0.030 (0.001)
Average tenure squared/100	0.004 (0.001)	0.090 (0.007)	-0.108 (0.008)	0.004 (0.001)	0.090 (0.007)	-0.108 (0.008)
Union share	0.001 (0.002)	0.095 (0.009)	-0.124 (0.011)	0.001 (0.002)	0.095 (0.009)	-0.124 (0.011)
Share of 4-year college or above	-0.004 (0.001)	-0.068 (0.006)	0.074 (0.007)	-0.004 (0.001)	-0.068 (0.006)	0.074 (0.007)
Constant	0.072 (0.008)	0.708 (0.047)	-0.702 (0.053)	0.072 (0.008)	0.706 (0.047)	-0.700 (0.053)
Observations	42,284	42,284	42,284	42,284	42,284	42,284
R-squared	0.047	0.031	0.038	0.047	0.030	0.038

Note: Full results for the Panels B.1, B.2, and B.3 in Table 3 for small establishments. Columns 1-3 show the results in column 2 in Table 3 and columns 4-6 are for the results in column 5 in Table 3. In all specifications, year dummies are controlled for.

Table C5: Decomposing the Employment Effect of the Minimum Wage–Firm Exit

	(1)	(2)	(3)	(4)	(5)	(6)
	Establishment wage gap			Fraction of bound workers		
	All	5–29	30+	All	5–29	30+
MW bite	-0.013 (0.018)	-0.049 (0.028)	0.002 (0.023)	-0.024 (0.053)	-0.093 (0.072)	0.030 (0.073)
Non-bound low-wage employees						
between $MW(t)$ and $MW(t) + 500$	-0.037 (0.034)	-0.059 (0.037)	-0.021 (0.048)	-0.038 (0.034)	-0.060 (0.037)	-0.025 (0.049)
between $MW(t) + 500$ and $MW(t) + 1000$	0.073 (0.027)	0.004 (0.033)	0.101 (0.039)	0.073 (0.027)	0.004 (0.033)	0.102 (0.039)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.050 (0.030)	-0.028 (0.031)	-0.053 (0.044)	-0.049 (0.030)	-0.028 (0.031)	-0.052 (0.044)
sub-minimum wage worker	0.095 (0.016)	0.055 (0.034)	0.091 (0.018)	0.094 (0.016)	0.054 (0.034)	0.091 (0.018)
Male share	-0.037 (0.012)	-0.012 (0.014)	-0.040 (0.015)	-0.037 (0.012)	-0.012 (0.014)	-0.040 (0.015)
Average age	0.021 (0.005)	0.020 (0.005)	0.026 (0.007)	0.021 (0.005)	0.020 (0.005)	0.026 (0.007)
Average age squared/100	-0.025 (0.006)	-0.024 (0.005)	-0.030 (0.009)	-0.025 (0.006)	-0.024 (0.005)	-0.030 (0.009)
Average tenure	0.031 (0.002)	0.037 (0.002)	0.021 (0.003)	0.031 (0.002)	0.037 (0.002)	0.021 (0.003)
Average tenure squared/100	-0.111 (0.009)	-0.149 (0.013)	-0.069 (0.010)	-0.111 (0.009)	-0.149 (0.013)	-0.069 (0.010)
Union share	0.016 (0.010)	0.052 (0.017)	-0.012 (0.012)	0.016 (0.010)	0.052 (0.017)	-0.012 (0.012)
Share of 4-year college or above	-0.085 (0.011)	-0.128 (0.013)	-0.086 (0.013)	-0.085 (0.011)	-0.127 (0.013)	-0.085 (0.013)
Constant	-0.649 (0.112)	-0.769 (0.095)	-0.685 (0.152)	-0.650 (0.113)	-0.772 (0.095)	-0.687 (0.152)
Observations	67,418	42,284	25,134	67,418	42,284	25,134
R-squared	0.025	0.019	0.021	0.025	0.018	0.021

Note: Full results for Panel C in Table 3. In all specifications, year dummies are controlled for.

Table C6: Heterogeneity by Establishment Size and Industry–Net Employment Growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	F&L			Mfg.			Others		
	All	5–29	30+	All	5–29	30+	All	5–29	30+
MW bite	-0.113 (0.070)	-0.270 (0.080)	0.078 (0.123)	-0.089 (0.053)	-0.155 (0.058)	-0.071 (0.067)	-0.001 (0.025)	-0.029 (0.033)	0.012 (0.033)
Non-bound low-wage employees between $MW(t)$ and $MW(t) + 500$	-0.256 (0.103)	-0.156 (0.096)	-0.184 (0.284)	-0.128 (0.079)	-0.002 (0.080)	-0.203 (0.115)	-0.150 (0.051)	-0.202 (0.050)	-0.127 (0.070)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.177 (0.109)	-0.106 (0.098)	-0.300 (0.227)	0.066 (0.071)	-0.016 (0.073)	0.110 (0.099)	0.007 (0.044)	-0.030 (0.043)	0.013 (0.065)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.239 (0.102)	-0.196 (0.092)	-0.282 (0.204)	-0.104 (0.092)	0.028 (0.071)	-0.189 (0.130)	-0.009 (0.045)	-0.055 (0.039)	0.031 (0.069)
sub-minimum wage worker	-0.383 (0.138)	-0.316 (0.124)	-0.503 (0.257)	-0.181 (0.122)	-0.139 (0.117)	-0.151 (0.198)	0.000 (0.024)	-0.103 (0.041)	0.012 (0.028)
Male share	0.088 (0.083)	0.204 (0.071)	-0.003 (0.160)	0.069 (0.038)	0.090 (0.040)	0.087 (0.045)	-0.137 (0.020)	-0.093 (0.017)	-0.148 (0.027)
Average age	0.042 (0.016)	0.061 (0.017)	0.013 (0.032)	-0.013 (0.022)	0.034 (0.016)	-0.016 (0.028)	0.046 (0.008)	0.014 (0.005)	0.059 (0.011)
Average age squared/100	-0.052 (0.020)	-0.073 (0.021)	-0.011 (0.044)	0.009 (0.026)	-0.042 (0.019)	0.015 (0.035)	-0.050 (0.009)	-0.016 (0.006)	-0.063 (0.013)
Average tenure	0.056 (0.012)	0.100 (0.018)	0.031 (0.017)	0.026 (0.004)	0.043 (0.008)	0.017 (0.006)	0.041 (0.003)	0.040 (0.003)	0.034 (0.005)
Average tenure squared/100	-0.304 (0.070)	-0.714 (0.185)	-0.188 (0.092)	-0.079 (0.017)	-0.228 (0.056)	-0.056 (0.022)	-0.167 (0.015)	-0.151 (0.014)	-0.142 (0.020)
Union share	-0.027 (0.068)	0.121 (0.112)	-0.023 (0.075)	0.002 (0.024)	-0.160 (0.122)	-0.004 (0.025)	0.030 (0.017)	0.029 (0.019)	0.011 (0.021)
Share of 4-year college or above	0.224 (0.067)	0.164 (0.070)	0.212 (0.101)	-0.058 (0.034)	-0.136 (0.035)	-0.051 (0.040)	-0.027 (0.017)	-0.145 (0.015)	-0.006 (0.022)
Constant	-1.203 (0.291)	-1.935 (0.330)	-0.509 (0.555)	0.055 (0.435)	-1.119 (0.330)	0.117 (0.548)	-1.225 (0.156)	-0.579 (0.111)	-1.468 (0.227)
Observations	4,021	2,934	1,087	14,745	8,653	6,092	48,652	30,697	17,955
R-squared	0.066	0.066	0.048	0.018	0.015	0.012	0.022	0.017	0.021

Note: Full results for Panel A.1 in Table 4. In all specifications, year dummies are controlled for.

Table C7: Heterogeneity by Establishment Size and Industry—Within continuing firms

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	F&L			Mfg.			Others		
	All	5–29	30+	All	5–29	30+	All	5–29	30+
MW bite	-0.007 (0.052)	-0.043 (0.025)	0.062 (0.121)	-0.046 (0.032)	-0.038 (0.023)	-0.045 (0.044)	-0.023 (0.016)	-0.042 (0.018)	-0.015 (0.023)
Non-bound low-wage employees between $MW(t)$ and $MW(t) + 500$	-0.158 (0.079)	-0.140 (0.040)	-0.367 (0.265)	-0.184 (0.056)	-0.143 (0.035)	-0.207 (0.084)	-0.115 (0.032)	-0.122 (0.024)	-0.114 (0.045)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.166 (0.077)	-0.122 (0.040)	-0.188 (0.178)	-0.040 (0.047)	-0.063 (0.028)	-0.017 (0.069)	-0.074 (0.032)	-0.039 (0.019)	-0.100 (0.049)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.085 (0.054)	-0.110 (0.034)	-0.036 (0.111)	-0.053 (0.060)	-0.054 (0.029)	-0.048 (0.086)	0.013 (0.032)	-0.030 (0.016)	0.030 (0.050)
sub-minimum wage worker	-0.152 (0.113)	-0.102 (0.039)	-0.192 (0.224)	-0.175 (0.073)	-0.188 (0.056)	-0.178 (0.125)	-0.116 (0.018)	-0.196 (0.023)	-0.104 (0.021)
Male share	-0.035 (0.067)	-0.033 (0.028)	-0.040 (0.141)	-0.008 (0.027)	-0.013 (0.016)	-0.013 (0.034)	-0.022 (0.014)	-0.021 (0.006)	-0.028 (0.020)
Average age	-0.006 (0.011)	-0.015 (0.006)	-0.001 (0.025)	-0.009 (0.012)	0.001 (0.006)	-0.007 (0.016)	0.006 (0.006)	-0.004 (0.002)	0.009 (0.009)
Average age squared/100	0.013 (0.013)	0.020 (0.007)	0.005 (0.033)	0.011 (0.015)	0.000 (0.007)	0.007 (0.020)	-0.006 (0.007)	0.004 (0.003)	-0.009 (0.011)
Average tenure	0.011 (0.010)	-0.001 (0.006)	0.028 (0.015)	0.001 (0.003)	-0.003 (0.003)	0.002 (0.004)	0.010 (0.002)	0.005 (0.001)	0.013 (0.003)
Average tenure squared/100	-0.095 (0.059)	0.015 (0.048)	-0.176 (0.085)	-0.003 (0.012)	0.025 (0.018)	-0.003 (0.015)	-0.049 (0.011)	-0.017 (0.006)	-0.065 (0.016)
Union share	0.055 (0.048)	0.038 (0.046)	0.050 (0.058)	-0.011 (0.018)	-0.073 (0.063)	-0.006 (0.019)	0.007 (0.011)	-0.029 (0.008)	0.017 (0.014)
Share of 4-year college or above	0.112 (0.056)	0.051 (0.032)	0.172 (0.090)	0.047 (0.021)	-0.016 (0.013)	0.062 (0.026)	0.037 (0.012)	0.004 (0.005)	0.050 (0.016)
Constant	0.001 (0.198)	0.276 (0.113)	-0.173 (0.425)	0.123 (0.235)	-0.054 (0.125)	0.085 (0.303)	-0.170 (0.109)	0.092 (0.047)	-0.251 (0.164)
Observations	4,021	2,934	1,087	14,745	8,653	6,092	48,652	30,697	17,955
R-squared	0.020	0.023	0.034	0.014	0.016	0.015	0.015	0.021	0.017

Note: Full results for Panel A.2 in Table 4. In all specifications, year dummies are controlled for.

Table C8: Heterogeneity by Establishment Size and Industry—Detailed Decomposition

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	F&L			Mfg.			Others		
	Δ Hour	Hiring	Separate	Δ Hour	Hiring	Separate	Δ Hour	Hiring	Separate
MW bite	-0.011 (0.007)	-0.102 (0.030)	0.070 (0.035)	-0.013 (0.005)	-0.034 (0.024)	0.008 (0.029)	-0.015 (0.005)	-0.007 (0.015)	-0.021 (0.019)
Non-bound low-wage employees									
between $MW(t)$ and $MW(t) + 500$	-0.026 (0.007)	-0.041 (0.047)	-0.072 (0.054)	-0.030 (0.008)	0.035 (0.040)	-0.148 (0.047)	-0.033 (0.005)	-0.001 (0.023)	-0.088 (0.028)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.041 (0.008)	-0.065 (0.046)	-0.016 (0.050)	-0.015 (0.007)	-0.013 (0.035)	-0.034 (0.039)	-0.017 (0.004)	0.030 (0.020)	-0.052 (0.024)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.037 (0.007)	-0.070 (0.046)	-0.003 (0.047)	-0.014 (0.007)	0.006 (0.036)	-0.047 (0.038)	-0.013 (0.003)	0.047 (0.019)	-0.064 (0.020)
sub-minimum wage worker	-0.041 (0.010)	-0.154 (0.054)	0.093 (0.059)	-0.053 (0.012)	-0.151 (0.050)	0.016 (0.070)	-0.074 (0.009)	-0.016 (0.019)	-0.106 (0.024)
Male share	-0.013 (0.005)	0.021 (0.036)	-0.041 (0.037)	-0.012 (0.004)	0.016 (0.021)	-0.016 (0.023)	-0.001 (0.001)	-0.069 (0.008)	0.049 (0.009)
Average age	-0.005 (0.001)	0.005 (0.008)	-0.015 (0.009)	0.001 (0.001)	0.009 (0.008)	-0.009 (0.009)	-0.003 (0.001)	-0.008 (0.003)	0.007 (0.003)
Average age squared/100	0.006 (0.001)	-0.010 (0.010)	0.023 (0.011)	-0.001 (0.002)	-0.013 (0.010)	0.014 (0.010)	0.004 (0.001)	0.007 (0.003)	-0.007 (0.004)
Average tenure	-0.002 (0.001)	-0.010 (0.008)	0.011 (0.009)	-0.002 (0.001)	-0.025 (0.004)	0.023 (0.004)	-0.001 (0.000)	-0.024 (0.001)	0.030 (0.002)
Average tenure squared/100	0.012 (0.013)	0.002 (0.069)	0.001 (0.076)	0.006 (0.005)	0.083 (0.025)	-0.063 (0.028)	0.004 (0.001)	0.089 (0.007)	-0.110 (0.008)
Union share	-0.001 (0.008)	0.074 (0.053)	-0.034 (0.057)	0.019 (0.018)	-0.054 (0.038)	-0.038 (0.072)	-0.001 (0.002)	0.105 (0.010)	-0.133 (0.011)
Share of 4-year college or above	-0.004 (0.006)	-0.053 (0.037)	0.109 (0.040)	-0.011 (0.003)	-0.121 (0.017)	0.116 (0.018)	-0.003 (0.001)	-0.047 (0.007)	0.054 (0.008)
Constant	0.113 (0.019)	0.511 (0.157)	-0.348 (0.172)	0.004 (0.027)	0.396 (0.168)	-0.453 (0.179)	0.075 (0.010)	0.755 (0.053)	-0.738 (0.060)
Observations	2,934	2,934	2,934	8,653	8,653	8,653	30,697	30,697	30,697
R-squared	0.040	0.021	0.020	0.037	0.027	0.034	0.058	0.033	0.040

Note: Full results for Panel A.2 in columns 2, 5, and 8 (detailed decomposition) of Table 4. In all specifications, year dummies are controlled for.

Table C9: Heterogeneity by Establishment Size and Industry–Firm Exit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	F&L			Mfg.			Others		
	All	5–29	30+	All	5–29	30+	All	5–29	30+
MW bite	-0.105 (0.061)	-0.226 (0.085)	0.017 (0.041)	-0.043 (0.042)	-0.117 (0.063)	-0.026 (0.052)	0.022 (0.020)	0.014 (0.031)	0.027 (0.026)
Non-bound low-wage employees									
between $MW(t)$ and $MW(t) + 500$	-0.098 (0.079)	-0.016 (0.093)	0.183 (0.116)	0.056 (0.062)	0.141 (0.075)	0.004 (0.088)	-0.035 (0.043)	-0.080 (0.048)	-0.014 (0.058)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.011 (0.089)	0.016 (0.095)	-0.113 (0.160)	0.106 (0.055)	0.047 (0.069)	0.127 (0.076)	0.081 (0.033)	0.009 (0.040)	0.112 (0.046)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.154 (0.095)	-0.086 (0.089)	-0.245 (0.190)	-0.051 (0.068)	0.082 (0.067)	-0.142 (0.094)	-0.022 (0.034)	-0.025 (0.037)	0.001 (0.050)
sub-minimum wage worker	-0.230 (0.133)	-0.215 (0.125)	-0.311 (0.226)	-0.006 (0.102)	0.048 (0.110)	0.027 (0.162)	0.116 (0.016)	0.093 (0.037)	0.116 (0.019)
Male share	0.123 (0.054)	0.237 (0.067)	0.037 (0.087)	0.077 (0.027)	0.102 (0.038)	0.100 (0.031)	-0.115 (0.015)	-0.072 (0.016)	-0.120 (0.020)
Average age	0.048 (0.013)	0.075 (0.017)	0.014 (0.024)	-0.004 (0.017)	0.032 (0.015)	-0.009 (0.023)	0.039 (0.006)	0.017 (0.005)	0.050 (0.008)
Average age squared/100	-0.065 (0.017)	-0.093 (0.021)	-0.016 (0.033)	-0.002 (0.021)	-0.043 (0.018)	0.008 (0.028)	-0.043 (0.007)	-0.020 (0.006)	-0.054 (0.009)
Average tenure	0.044 (0.007)	0.102 (0.017)	0.003 (0.007)	0.025 (0.003)	0.046 (0.008)	0.016 (0.004)	0.031 (0.003)	0.035 (0.003)	0.021 (0.003)
Average tenure squared/100	-0.209 (0.042)	-0.728 (0.178)	-0.012 (0.042)	-0.077 (0.014)	-0.253 (0.057)	-0.053 (0.017)	-0.118 (0.011)	-0.134 (0.013)	-0.077 (0.015)
Union share	-0.081 (0.052)	0.083 (0.100)	-0.073 (0.052)	0.013 (0.015)	-0.088 (0.120)	0.002 (0.016)	0.023 (0.013)	0.058 (0.018)	-0.006 (0.015)
Share of 4-year college or above	0.113 (0.045)	0.113 (0.066)	0.040 (0.055)	-0.105 (0.028)	-0.120 (0.033)	-0.113 (0.033)	-0.065 (0.013)	-0.149 (0.014)	-0.055 (0.016)
Constant	-1.205 (0.253)	-2.210 (0.331)	-0.336 (0.416)	-0.069 (0.355)	-1.065 (0.312)	0.032 (0.442)	-1.055 (0.124)	-0.671 (0.105)	-1.218 (0.174)
Observations	4,021	2,934	1,087	14,745	8,653	6,092	48,652	30,697	17,955
R-squared	0.056	0.068	0.027	0.027	0.019	0.020	0.029	0.019	0.030

Note: Full results for Panel A.3 in Table 4. In all specifications, year dummies are controlled for.

Table C10: Year-by-Year Results–Net Employment Growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	2008–2009			2009–2010			2011–2012			2012–2013		
	All	5-29	30+	All	5-29	30+	All	5-29	30+	All	5-29	30+
MW bite	-0.052 (0.040)	-0.124 (0.065)	-0.019 (0.050)	-0.021 (0.156)	0.058 (0.176)	-0.081 (0.230)	-0.031 (0.037)	-0.130 (0.049)	0.010 (0.046)	-0.025 (0.036)	-0.053 (0.039)	-0.010 (0.053)
Non-bound low-wage employees												
between $MW(t)$ and $MW(t) + 500$	-0.172 (0.085)	-0.037 (0.085)	-0.249 (0.122)	-0.138 (0.083)	-0.184 (0.079)	-0.129 (0.119)	-0.179 (0.082)	-0.182 (0.081)	-0.156 (0.120)	-0.268 (0.077)	-0.333 (0.070)	-0.210 (0.118)
between $MW(t) + 500$ and $MW(t) + 1000$	0.013 (0.067)	-0.061 (0.079)	0.017 (0.092)	0.268 (0.066)	0.087 (0.071)	0.331 (0.094)	-0.171 (0.077)	-0.051 (0.063)	-0.224 (0.119)	-0.190 (0.070)	-0.200 (0.066)	-0.197 (0.113)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.010 (0.080)	-0.100 (0.081)	0.014 (0.113)	-0.047 (0.077)	-0.044 (0.069)	-0.063 (0.112)	-0.191 (0.081)	-0.072 (0.063)	-0.222 (0.128)	-0.012 (0.072)	-0.100 (0.052)	0.066 (0.116)
sub-minimum wage worker	0.080 (0.038)	-0.152 (0.080)	0.087 (0.044)	0.018 (0.040)	-0.138 (0.069)	0.030 (0.047)	-0.262 (0.058)	-0.188 (0.071)	-0.285 (0.072)	-0.113 (0.061)	-0.040 (0.072)	-0.127 (0.078)
Male share	-0.148 (0.035)	-0.147 (0.030)	-0.152 (0.046)	-0.009 (0.037)	-0.003 (0.029)	-0.012 (0.048)	-0.059 (0.032)	-0.002 (0.028)	-0.069 (0.041)	0.014 (0.027)	0.012 (0.024)	0.017 (0.034)
Average age	0.030 (0.016)	0.038 (0.011)	0.022 (0.024)	0.022 (0.014)	0.010 (0.011)	0.030 (0.019)	0.006 (0.017)	-0.009 (0.009)	0.017 (0.023)	0.014 (0.010)	0.026 (0.008)	0.014 (0.015)
Average age squared/100	-0.030 (0.019)	-0.047 (0.013)	-0.017 (0.029)	-0.026 (0.016)	-0.012 (0.013)	-0.034 (0.023)	-0.010 (0.019)	0.010 (0.010)	-0.022 (0.027)	-0.018 (0.012)	-0.028 (0.009)	-0.018 (0.017)
Average tenure	0.060 (0.007)	0.055 (0.006)	0.052 (0.010)	0.051 (0.007)	0.050 (0.006)	0.044 (0.009)	0.025 (0.005)	0.036 (0.005)	0.017 (0.006)	0.020 (0.004)	0.021 (0.004)	0.014 (0.005)
Average tenure squared/100	-0.252 (0.030)	-0.192 (0.029)	-0.226 (0.040)	-0.188 (0.030)	-0.196 (0.029)	-0.160 (0.037)	-0.087 (0.020)	-0.162 (0.024)	-0.052 (0.024)	-0.074 (0.017)	-0.091 (0.022)	-0.047 (0.022)
Union share	0.039 (0.026)	0.024 (0.039)	0.008 (0.031)	-0.039 (0.031)	-0.024 (0.036)	-0.071 (0.037)	0.046 (0.025)	0.071 (0.033)	0.040 (0.028)	0.005 (0.025)	0.007 (0.035)	-0.011 (0.028)
Share of 4-year college or above	-0.046 (0.032)	-0.213 (0.030)	-0.021 (0.039)	-0.091 (0.033)	-0.145 (0.028)	-0.093 (0.041)	-0.020 (0.028)	-0.092 (0.024)	-0.009 (0.034)	-0.037 (0.025)	-0.051 (0.022)	-0.037 (0.030)
Constant	-0.984 (0.304)	-1.062 (0.221)	-0.826 (0.451)	-0.843 (0.286)	-0.608 (0.217)	-0.959 (0.396)	-0.327 (0.346)	-0.149 (0.185)	-0.489 (0.472)	-0.499 (0.224)	-0.830 (0.171)	-0.459 (0.310)
Observations	16,331	10,074	6,257	16,863	10,599	6,264	16,667	10,415	6,252	17,557	11,196	6,361
R-squared	0.032	0.030	0.027	0.019	0.015	0.017	0.021	0.013	0.020	0.012	0.013	0.007

Note: Full results for Panel A.1 in Table 5. In all specifications, year dummies are controlled for.

Table C11: Year-by-Year Results—Within Continuing Firms

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	2008–2009			2009–2010			2011–2012			2012–2013		
	All	5-29	30+	All	5-29	30+	All	5-29	30+	All	5-29	30+
MW bite	-0.060 (0.033)	-0.008 (0.023)	-0.088 (0.048)	-0.028 (0.078)	-0.039 (0.073)	-0.025 (0.119)	-0.010 (0.023)	-0.058 (0.022)	0.014 (0.033)	-0.015 (0.021)	-0.044 (0.022)	0.004 (0.031)
Non-bound low-wage employees												
between $MW(t)$ and $MW(t) + 500$	-0.130 (0.058)	-0.091 (0.034)	-0.148 (0.087)	-0.066 (0.045)	-0.117 (0.033)	-0.052 (0.066)	-0.150 (0.065)	-0.074 (0.037)	-0.191 (0.099)	-0.218 (0.054)	-0.210 (0.038)	-0.230 (0.085)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.073 (0.055)	-0.043 (0.029)	-0.094 (0.081)	0.090 (0.036)	-0.001 (0.026)	0.131 (0.053)	-0.153 (0.054)	-0.042 (0.028)	-0.198 (0.083)	-0.181 (0.053)	-0.136 (0.035)	-0.249 (0.087)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.018 (0.057)	-0.074 (0.033)	0.000 (0.084)	-0.041 (0.044)	-0.027 (0.027)	-0.057 (0.066)	-0.117 (0.061)	-0.047 (0.025)	-0.155 (0.098)	0.108 (0.047)	-0.054 (0.021)	0.216 (0.077)
sub-minimum wage worker	-0.035 (0.033)	-0.282 (0.044)	-0.003 (0.038)	-0.106 (0.028)	-0.160 (0.033)	-0.093 (0.033)	-0.279 (0.047)	-0.174 (0.039)	-0.306 (0.059)	-0.135 (0.045)	-0.097 (0.034)	-0.150 (0.059)
Male share	-0.033 (0.026)	-0.039 (0.011)	-0.039 (0.035)	-0.011 (0.020)	-0.011 (0.010)	-0.012 (0.026)	-0.010 (0.024)	-0.013 (0.011)	-0.011 (0.031)	0.017 (0.022)	-0.027 (0.011)	0.028 (0.028)
Average age	-0.007 (0.014)	0.005 (0.005)	-0.024 (0.022)	0.010 (0.009)	-0.004 (0.004)	0.014 (0.012)	0.001 (0.010)	-0.003 (0.004)	0.003 (0.014)	0.001 (0.009)	-0.003 (0.004)	0.002 (0.013)
Average age squared/100	0.012 (0.018)	-0.009 (0.007)	0.033 (0.028)	-0.012 (0.010)	0.004 (0.005)	-0.018 (0.015)	-0.002 (0.012)	0.004 (0.005)	-0.005 (0.017)	0.000 (0.010)	0.005 (0.005)	-0.001 (0.015)
Average tenure	0.013 (0.006)	0.006 (0.002)	0.019 (0.009)	0.012 (0.004)	0.005 (0.002)	0.015 (0.005)	-0.001 (0.003)	0.002 (0.002)	0.000 (0.004)	0.005 (0.003)	0.002 (0.002)	0.008 (0.005)
Average tenure squared/100	-0.078 (0.026)	-0.010 (0.011)	-0.106 (0.036)	-0.054 (0.020)	-0.019 (0.011)	-0.064 (0.025)	0.010 (0.015)	-0.005 (0.010)	0.006 (0.018)	-0.028 (0.014)	-0.012 (0.011)	-0.038 (0.018)
Union share	0.034 (0.019)	-0.021 (0.015)	0.040 (0.023)	-0.009 (0.017)	-0.047 (0.014)	-0.004 (0.020)	-0.008 (0.021)	-0.038 (0.016)	0.007 (0.024)	-0.012 (0.018)	-0.013 (0.018)	-0.008 (0.020)
Share of 4-year college or above	0.122 (0.023)	0.022 (0.011)	0.147 (0.029)	0.007 (0.018)	-0.016 (0.010)	0.014 (0.022)	0.014 (0.020)	-0.002 (0.010)	0.017 (0.025)	0.013 (0.020)	0.008 (0.010)	0.016 (0.024)
Constant	0.027 (0.265)	-0.055 (0.099)	0.284 (0.411)	-0.251 (0.178)	0.077 (0.084)	-0.350 (0.252)	-0.059 (0.194)	0.037 (0.087)	-0.093 (0.266)	-0.151 (0.187)	-0.004 (0.077)	-0.195 (0.265)
Observations	16,331	10,074	6,257	16,863	10,599	6,264	16,667	10,415	6,252	17,557	11,196	6,361
R-squared	0.019	0.034	0.024	0.008	0.011	0.009	0.016	0.010	0.020	0.007	0.014	0.008

Note: Full results for Panel A.2 in Table 5. In all specifications, year dummies are controlled for.

Table C12: Year-by-Year Results–Detailed Decomposition

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	2008–2009			2009–2010			2011–2012			2012–2013		
	Δ Hour	Hiring	Separate	Δ Hour	Hiring	Separate	Δ Hour	Hiring	Separate	Δ Hour	Hiring	Separate
MW bite	-0.016 (0.007)	-0.053 (0.024)	0.060 (0.027)	-0.008 (0.013)	-0.014 (0.065)	-0.018 (0.086)	-0.016 (0.007)	-0.053 (0.019)	0.011 (0.027)	-0.009 (0.004)	0.009 (0.019)	-0.043 (0.024)
Non-bound low-wage employees												
between $MW(t)$ and $MW(t) + 500$	-0.037 (0.006)	0.041 (0.039)	-0.095 (0.043)	-0.024 (0.006)	0.039 (0.036)	-0.131 (0.042)	-0.022 (0.009)	0.012 (0.039)	-0.064 (0.046)	-0.031 (0.008)	-0.072 (0.032)	-0.107 (0.044)
between $MW(t) + 500$ and $MW(t) + 1000$	-0.025 (0.006)	0.050 (0.036)	-0.067 (0.039)	-0.009 (0.006)	0.028 (0.032)	-0.019 (0.035)	-0.022 (0.007)	-0.032 (0.033)	0.012 (0.034)	-0.020 (0.007)	-0.010 (0.031)	-0.106 (0.041)
between $MW(t) + 1000$ and $MW(t) + 1500$	-0.031 (0.007)	0.069 (0.039)	-0.112 (0.042)	-0.015 (0.005)	0.047 (0.031)	-0.059 (0.033)	-0.015 (0.006)	-0.000 (0.031)	-0.031 (0.032)	-0.010 (0.005)	0.014 (0.026)	-0.058 (0.029)
sub-minimum wage worker	-0.094 (0.017)	-0.069 (0.032)	-0.119 (0.045)	-0.051 (0.009)	-0.033 (0.031)	-0.075 (0.038)	-0.067 (0.023)	-0.093 (0.034)	-0.013 (0.041)	-0.045 (0.009)	0.009 (0.035)	-0.062 (0.038)
Male share	-0.005 (0.003)	-0.074 (0.014)	0.040 (0.015)	-0.002 (0.002)	-0.046 (0.012)	0.038 (0.014)	-0.005 (0.003)	-0.064 (0.013)	0.056 (0.015)	-0.004 (0.003)	-0.040 (0.012)	0.017 (0.014)
Average age	-0.002 (0.001)	0.001 (0.005)	0.005 (0.006)	-0.001 (0.001)	-0.004 (0.004)	0.000 (0.005)	-0.004 (0.001)	-0.014 (0.004)	0.014 (0.005)	-0.003 (0.001)	-0.004 (0.004)	0.004 (0.005)
Average age squared/100	0.002 (0.001)	-0.003 (0.006)	-0.007 (0.007)	0.001 (0.001)	0.002 (0.005)	0.001 (0.006)	0.005 (0.001)	0.015 (0.005)	-0.015 (0.006)	0.003 (0.001)	0.003 (0.005)	-0.001 (0.006)
Average tenure	0.001 (0.001)	-0.022 (0.003)	0.027 (0.003)	-0.001 (0.000)	-0.026 (0.002)	0.032 (0.003)	-0.003 (0.000)	-0.022 (0.002)	0.026 (0.003)	-0.002 (0.001)	-0.029 (0.002)	0.033 (0.003)
Average tenure squared/100	-0.001 (0.003)	0.093 (0.015)	-0.103 (0.016)	0.005 (0.002)	0.100 (0.013)	-0.125 (0.015)	0.010 (0.003)	0.070 (0.012)	-0.085 (0.014)	0.005 (0.002)	0.103 (0.011)	-0.120 (0.014)
Union share	-0.004 (0.005)	0.076 (0.019)	-0.092 (0.020)	-0.008 (0.003)	0.090 (0.017)	-0.128 (0.019)	0.005 (0.005)	0.094 (0.018)	-0.136 (0.021)	0.009 (0.004)	0.115 (0.017)	-0.136 (0.022)
Share of 4-year college or above	0.010 (0.002)	-0.078 (0.013)	0.090 (0.014)	-0.007 (0.002)	-0.065 (0.012)	0.056 (0.013)	-0.006 (0.003)	-0.071 (0.012)	0.075 (0.013)	-0.011 (0.003)	-0.056 (0.011)	0.075 (0.013)
Constant	0.047 (0.019)	0.585 (0.097)	-0.688 (0.114)	0.022 (0.017)	0.640 (0.091)	-0.585 (0.104)	0.073 (0.021)	0.919 (0.090)	-0.955 (0.102)	0.046 (0.017)	0.708 (0.081)	-0.758 (0.099)
Observations	10,074	10,074	10,074	10,599	10,599	10,599	10,415	10,415	10,415	11,196	11,196	11,196
R-squared	0.060	0.025	0.036	0.016	0.028	0.035	0.021	0.030	0.033	0.013	0.034	0.044

Note: Full results for Panel A.2 in columns 2, 5, 8, and 11 (detailed decomposition) of Table 5. In all specifications, year dummies are controlled for.

Table C13: Year-by-Year Results–Firm Exit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	2008–2009			2009–2010			2011–2012			2012–2013		
	All	5-29	30+	All	5-29	30+	All	5-29	30+	All	5-29	30+
MW bite	0.008 (0.028)	-0.115 (0.065)	0.068 (0.026)	0.007 (0.137)	0.097 (0.174)	-0.055 (0.196)	-0.020 (0.032)	-0.072 (0.051)	-0.004 (0.038)	-0.010 (0.032)	-0.009 (0.038)	-0.014 (0.046)
Non-bound low-wage employees												
between $MW(t)$ and $MW(t) + 500$	-0.041 (0.068)	0.054 (0.082)	-0.101 (0.093)	-0.072 (0.075)	-0.067 (0.076)	-0.078 (0.106)	-0.029 (0.057)	-0.108 (0.077)	0.034 (0.077)	-0.050 (0.062)	-0.123 (0.066)	0.020 (0.095)
between $MW(t) + 500$ and $MW(t) + 1000$	0.086 (0.043)	-0.018 (0.075)	0.110 (0.052)	0.178 (0.056)	0.088 (0.068)	0.199 (0.078)	-0.018 (0.063)	-0.009 (0.060)	-0.026 (0.096)	-0.009 (0.050)	-0.065 (0.062)	0.052 (0.076)
between $MW(t) + 1000$ and $MW(t) + 1500$	0.008 (0.058)	-0.026 (0.076)	0.014 (0.077)	-0.006 (0.066)	-0.017 (0.066)	-0.006 (0.093)	-0.074 (0.060)	-0.025 (0.059)	-0.068 (0.094)	-0.119 (0.052)	-0.046 (0.051)	-0.150 (0.084)
sub-minimum wage worker	0.116 (0.022)	0.130 (0.075)	0.090 (0.023)	0.124 (0.030)	0.022 (0.065)	0.124 (0.036)	0.017 (0.040)	-0.014 (0.066)	0.022 (0.049)	0.022 (0.047)	0.058 (0.067)	0.023 (0.058)
Male share	-0.115 (0.025)	-0.108 (0.029)	-0.113 (0.031)	0.001 (0.031)	0.008 (0.028)	-0.000 (0.040)	-0.048 (0.023)	0.011 (0.027)	-0.057 (0.028)	-0.003 (0.017)	0.040 (0.023)	-0.012 (0.021)
Average age	0.038 (0.009)	0.033 (0.010)	0.046 (0.012)	0.013 (0.011)	0.014 (0.010)	0.016 (0.015)	0.005 (0.014)	-0.005 (0.008)	0.014 (0.020)	0.013 (0.006)	0.028 (0.008)	0.012 (0.008)
Average age squared/100	-0.042 (0.011)	-0.039 (0.013)	-0.050 (0.015)	-0.014 (0.013)	-0.016 (0.012)	-0.016 (0.018)	-0.007 (0.016)	0.006 (0.010)	-0.017 (0.023)	-0.018 (0.007)	-0.033 (0.009)	-0.016 (0.009)
Average tenure	0.047 (0.004)	0.050 (0.005)	0.033 (0.005)	0.039 (0.005)	0.044 (0.005)	0.029 (0.007)	0.026 (0.004)	0.035 (0.004)	0.017 (0.005)	0.015 (0.003)	0.019 (0.004)	0.006 (0.003)
Average tenure squared/100	-0.174 (0.018)	-0.182 (0.028)	-0.120 (0.023)	-0.133 (0.022)	-0.177 (0.028)	-0.096 (0.028)	-0.097 (0.015)	-0.158 (0.023)	-0.058 (0.018)	-0.047 (0.011)	-0.079 (0.020)	-0.010 (0.013)
Union share	0.006 (0.019)	0.045 (0.036)	-0.032 (0.022)	-0.030 (0.027)	0.023 (0.034)	-0.067 (0.032)	0.054 (0.016)	0.109 (0.030)	0.033 (0.017)	0.017 (0.018)	0.020 (0.032)	-0.002 (0.021)
Share of 4-year college or above	-0.167 (0.023)	-0.234 (0.029)	-0.168 (0.027)	-0.099 (0.028)	-0.129 (0.027)	-0.107 (0.034)	-0.034 (0.021)	-0.090 (0.023)	-0.026 (0.025)	-0.050 (0.017)	-0.058 (0.020)	-0.053 (0.020)
Constant	-1.011 (0.194)	-1.006 (0.210)	-1.110 (0.256)	-0.592 (0.230)	-0.685 (0.208)	-0.609 (0.312)	-0.268 (0.304)	-0.185 (0.173)	-0.396 (0.413)	-0.347 (0.126)	-0.826 (0.165)	-0.264 (0.164)
Observations	16,331	10,074	6,257	16,863	10,599	6,264	16,667	10,415	6,252	17,557	11,196	6,361
R-squared	0.042	0.029	0.040	0.018	0.014	0.016	0.017	0.011	0.011	0.012	0.009	0.007

Note: Full results for Panel A.3 in Table 5. In all specifications, year dummies are controlled for.

Table C14: Spillover Effects: Results from Individual Data

	(1)	(2) Interaction with bound establishment ($d^k \times Bound$)
Non-bound employee wage group ($w_{i,t-1}/MW_t$)		
1.0 – 1.2	Omitted	0.018 (0.009)
1.2 – 1.4	-0.058 (0.005)	0.033 (0.009)
1.4 – 1.6	-0.083 (0.005)	0.025 (0.010)
1.6 – 1.8	-0.096 (0.005)	0.029 (0.013)
1.8 – 2.0	-0.116 (0.005)	0.032 (0.013)
2.0 – 2.2	-0.136 (0.005)	0.019 (0.014)
2.2 – 2.4	-0.154 (0.005)	0.004 (0.013)
2.4 – 2.6	-0.172 (0.006)	0.021 (0.017)
2.6 – 2.8	-0.176 (0.006)	0.002 (0.016)
2.8 – 3.0	-0.191 (0.006)	0.048 (0.025)
3.0 – 3.5	-0.204 (0.005)	-0.001 (0.015)
3.5 – 4.0	-0.214 (0.005)	-0.007 (0.020)
4.0 – 5.0	-0.243 (0.005)	0.018 (0.020)
5.0 – 6.0	-0.286 (0.006)	-0.025 (0.067)
6.0 or more	-0.346 (0.007)	-0.200 (0.087)
Year fixed effects		Y
Control variables		Y
Observations		193,548
R-squared		0.107

Note: Full results for Figure A1.

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