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DO WAGE FLOORS INCREASE EMPLOYMENT RISK FOR WORKERS WITH DISABILITIES? EVIDENCE FROM MINIMUM WAGE INCREASES AND SUBMINIMUM WAGE REPEAL

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ABSTRACT

People with disabilities are disproportionately represented in low-wage work, raising concerns that higher wage floors may reduce their employment opportunities, particularly for workers with more severe disabilities. We examine the effects of state minimum wage increases and state subminimum wage terminations on employment outcomes for people with disabilities using American Community Survey data from 2010–2023. We find little evidence that minimum wage increases reduce employment or labor force participation among people with disabilities, including those with more severe disabilities. While many estimates are statistically imprecise, confidence intervals generally rule out economically meaningful negative employment effects. We likewise find no evidence that terminating subminimum wages reduces employment opportunities for affected workers, and some estimates suggest positive employment effects for groups most likely to have been employed under subminimum wage arrangements. These gains may reflect complementary policies that often accompany repeal, such as Employment First initiatives. Overall, the results provide little support for the view that higher wage floors create disproportionate employment barriers for people with disabilities.

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1 Introduction

People with disabilities are disproportionately represented in low-wage work, providing a natural setting in which to test a central claim in debates over wage floor policy: whether higher wage floors reduce employment opportunities for workers often presumed most vulnerable to labor-cost increases.[1] While this concern is longstanding, there is limited evidence on whether wage floor policies in fact increase employment risk for people with disabilities, particularly those with more severe impairments.

Economic theory offers competing predictions. Standard competitive models suggest higher wage floors may reduce employment, potentially especially for workers whose productivity may be perceived—accurately or inaccurately—as lower than that of other workers. Higher wage floors may also increase incentives for employer discrimination if employers seek to avoid accommodation costs or substitute away from workers perceived as relatively costly. At the same time, monopsony and search-friction models suggest limited employment losses may occur, while higher wages may strengthen labor supply incentives by making work more attractive relative to disability income supports or other labor market barriers. Whether wage floor policies increase employment risk for people with disabilities is therefore ultimately an empirical question.

This paper studies two wage floor policies relevant to that question: increases in state minimum wages and state termination of subminimum wages permitted under Section 14(c) of the Fair Labor Standards Act. This subminimum wage provision has been controversial, and 19 states have moved to abolish subminimum wages. Although these policies differ institutionally, both bear on a common question of whether raising wage floors constrains

1. We calculate in Appendix Table A1 that employees with disabilities were 64% more likely than employees without disabilities to work at or below the Federal minimum wage in the 2010-2023 period, and 45% more likely to work at or below the state or Federal minimum wage. This is based on combined Outgoing Rotation Group data from the Current Population Survey over the 2010-2023 period. These figures reflect the rate among all employees, with estimates of hourly wages for non-hourly workers based on usual weekly earnings divided by usual weekly hours. Restricted to hourly employees, people with disabilities are 35% more likely to work at or below the Federal minimum wage than people without disabilities, and 22% more likely to work at or below the Federal or state minimum wage.

employment opportunities for workers often viewed as vulnerable to displacement.

A central contribution of the paper is to evaluate this employment-risk hypothesis directly. Importantly, our contribution is not limited to whether estimated effects are statistically distinguishable from zero. In a setting where concerns often center on potentially harmful employment effects, estimates that rule out economically meaningful adverse effects are themselves substantively informative. Employment stability under higher wage floors is therefore not a null result in a weak sense, but evidence bearing directly on an important policy claim.

This paper contributes in three ways. First, we provide new evidence on whether state minimum wage increases raise employment risk for people with disabilities, including those with more severe disabilities. Second, we provide national evidence on the labor market effects of subminimum wage repeal, an area where empirical evidence remains limited. Third, and more broadly, we contribute to the wage floor literature by showing not only that estimated adverse effects are generally absent, but that in many specifications confidence intervals rule out economically meaningful negative employment effects. In this context, employment stability is itself an informative finding.

We analyze the effects of wage floors with American Community Survey data from 2010–2023 using a stacked difference-in-differences design with a not-yet-treated control group, supplemented by the Callaway and Sant'Anna (2021) and synthetic difference-in-differences for subminimum wage repeal analysis. We find little evidence that minimum wage increases reduce employment or labor force participation among people with disabilities, including those with more severe disabilities. While many point estimates are statistically imprecise, confidence intervals generally rule out sizable adverse effects. We likewise find no evidence that subminimum wage repeal reduces employment opportunities, and some estimates suggest gains among groups most likely affected. Those gains may reflect complementary Employment First policies that have been adopted in states repealing subminimum wages.

Because the analysis examines numerous subgroup estimates, we emphasize consistent patterns across specifications, outcomes, and estimation approaches rather than isolated significant coefficients. The relevant question is not simply whether effects differ statistically from zero, but whether the estimates permit adverse effects of policy-relevant magnitude. Across those approaches, the absence of negative effects is informative, as it suggests that concerns about potential employment losses for people with disabilities following wage floor increases may be limited and there is little support for the view that wage floor policies create disproportionate employment barriers for people with disabilities.

The remainder of the paper proceeds as follows. Following a review of the background and literature on minimum and subminimum wage policies, we describe our dataset and methods, present results of the main analysis and additional tests first for minimum wage increases and then for subminimum wage repeal, and end with conclusions.

2 Background

The Federal minimum wage was established by the 1938 Fair Labor Standards Act (FLSA), and has been raised 28 times since then, most recently in July 2009 to $7.25 per hour. States may have higher minimum wages than the Federal rate, which is true for 30 states and D.C. as of January 1, 2026.[2] People with disabilities may be particularly affected to minimum wage increases, as they are more likely to work at or below the minimum wage and face barriers to employment, so they may be disproportionately affected by rising labor costs.

Additionally, Section 14(c) of the FLSA allows employers with 14(c) certificates to hire workers with disabilities at wages below the federal minimum wage. Employers can obtain an authorized certificate from the U.S. Department of Labor's Wage and Hour Division. These certificates are issued annually or every two years, depending on the type of employer. Subminimum wages are set based on a worker's productivity relative to the productivity and wage of a worker without any disability performing the same job, for the same hours,

2. Consolidated Minimum Wage Table | U.S. Department of Labor, accessed 4/25/26.

in the same geographic area. These wages are reviewed regularly, at intervals ranging from at least six months to a year (U.S. Department of Labor, 2008). This provision has been in place since 1938, and its use increased after the 1986 legislation that removed the previously mandated 50% floor of the minimum wage (Ruppel 2024b). The policy was originally designed to facilitate the integration of people with disabilities into the workforce and protect them from public judgment and shame (Beckwith 2016). Most of the employers under this act operate sheltered workshops—segregated, facility-based programs that often have poor working conditions and are viewed as reinforcing the status quo rather than promoting workforce integration (Bates-Harris 2012; Crandell 2022; Jin 2022). Given concerns that subminimum wages serve as a barrier to full and fair workforce participation, there has been a push towards competitive integrated employment (CIE) that pays at or above the minimum wage and provides pay equity between people with and without disabilities performing similar jobs (J. P. Taylor et al. 2023; Osegueda 2022; Cimera et al. 2012; Heigl, Knackstedt, and Silva 2024). Vermont was the first state to eliminate the subminimum wage in 2002, followed by New Hampshire in 2015 and Maryland in 2016. As of May 2026, 19 states have terminated subminimum wages, which can be seen in Table A2. There have also been efforts at the federal level to eliminate the subminimum wage, including a rule proposed by the Biden administration that was reversed by the Trump administration in 2025. While subminimum wages have declined, they remain prevalent—especially in the Midwest (Smith 2024; Avellone et al. 2023).

As of April 1, 2026 there were 591 employers with 14(c) certificates authorized to employ 31,941 workers with disabilities.[3] Most workers employed under Section 14(c) earn less than $3.50 per hour. Participants in the program are predominantly white, of prime working age, and have intellectual or developmental disabilities. Although participation in the program has declined, issues persist regarding employer violations and unpaid wages (GAO, 2023, 2025).

3. 14(c) certificate holders | US Department of Labor, accessed 4/24/2026

3 Literature Review

3.1 Disability, employment, and wages

People with disabilities are less likely to be employed and earn, on average, less than those without disabilities (Sun 2024; Kruse et al. 2018), which contributes to their greater likelihood of experiencing poverty (Mehta 2022; Statista 2024). Their low employment rate partly reflects increased job search difficulties in attracting employer interest, as shown by field experiments based on otherwise-comparable job applicants with and without disabilities (Ameri et al. 2018; Lippens, Vermeiren, and Baert 2023; Bellemare et al. 2023). Experimental vignette studies indicate that while initial salary offers for individuals with and without disabilities are similar, final salaries tend to be lower for workers with disabilities due to employer perceptions that they are less likely to negotiate (Speach et al. 2023). Using longitudinal data, Mann and Wittenburg (2015) also find significant wage offer and employment gaps between individuals with and without disabilities that emerge early and persist over time.

Low levels of state disability benefits and limited earnings due to means-testing often push individuals with disabilities into low-paid jobs (Ruppel 2024a). The AbilityOne program—the largest employer of people with disabilities in the U.S.—requires participating nonprofits to hire at least three-fourths of their workforce from this population. However, it has been criticized for promoting segregation, discouraging competitive employment, and relying excessively on subminimum wages (Baruch 2021).

3.2 Minimum wages and disability

There is no consensus on the impact of minimum wage increases on employment. Some studies find little to no employment effect (Card and Krueger 1994; Dube, Lester, and Reich 2010; Allegretto, Dube, and Reich 2011; Allegretto et al. 2017; Cengiz et al. 2019; Derenoncourt and Montialoux 2021), while others show negative employment effects (Neumark and

Wascher 1992; Aaronson and French 2007; Clemens and Wither 2019; Laporsek et al. 2019; Jardim et al. 2022). Neumark and Shirley (2022) review the literature on minimum wage and job loss and conclude that most estimated employment elasticities are negative, with the effects being more pronounced among teens, young adults, and less-educated workers. In contrast, Dube and Lindner (2024) concludes that "While the evidence is not unanimous, a reasonable conclusion from the existing literature is that minimum wage policies have had limited direct employment effects while significantly increasing the earnings of low-wage workers—at least at certain levels and in particular economic contexts."

Empirical studies specifically examining the effects of minimum wage increases on workers with disabilities are limited. Kim, Levere, and Magenheim (2025) find that nonprofit firms participating in the federal AbilityOne program are unaffected by minimum wage increases. Chiswick et al. (2025) find that minimum wages are linked to lower employment and labor force participation for young adults with cognitive disabilities, but not for those with mobility or vision/hearing disabilities. Clemens, Gentry, and Meer (2026) impute disability severity based on disability ratings for veterans and find that large minimum wage increases reduce employment, labor force participation, and wages for individuals with severe disabilities, though they have little effect on those with less severe disabilities.

3.3 Subminimum wage research

Originally intended to facilitate workforce integration for individuals with disabilities, subminimum wages have been criticized as discriminatory and linked to ableism and racism (Friedman 2019). Research indicates that paying wages below the federal minimum is linked to family poverty (Maroto and Pettinicchio 2023; Bates-Harris 2012) and that wage disparities exist across disability type, severity, occupation, rehabilitation agencies, and geographic location (Yu et al. 2023; Grossi, Nord, and Andresen 2020).

Transitioning from subminimum wage employment to competitive integrated employment has been associated with improved financial, psychological, and physical health outcomes

(Cimera et al. 2012; J. Taylor et al. 2022). The increase in subminimum wage for tipped workers during pregnancy has been linked to reduced stress among unmarried women of color with less than a college degree (Andrea et al. 2020). Efforts for greater regulation of subminimum wages in Israel have improved employer perceptions of individuals with intellectual disabilities as capable workers (Duvdevany, Or-Chen, and Fine 2016).

Currently, there is a rise in empirical studies that examine the effects of repealing Section 14(c). Kakara, Bair, and Venkataramani (2024) use synthetic difference-in-differences and ACS data from 2010–2019 to study the elimination of 14(c) certificates in New Hampshire and Maryland. They find a 4.7 percentage point increase in labor force participation but no significant employment effects. Conversely, Sun (2024) finds that eliminating subminimum wages in Maryland, relative to its border states, reduced employment by 4.9 percentage points and workforce participation in the past 12 months by 5.7 percentage points, while increasing wages for workers with severe cognitive disabilities by 33.9%. A national study by Yin, Seo, and Vu (2026), employing staggered difference-in-differences and event study methods, finds that eliminating subminimum wages significantly reduced the share of workers with disabilities earning subminimum wages without adversely affecting employment or labor force participation. Instead, it led to an increase in weeks worked, overall income, and a shift away from low-wage service sector jobs.

The Workforce Innovation and Opportunity Act of 2014 put limits on the use of subminimum wages, such as by preventing young people from transitioning directly to subminimum wage settings from school. Kuo, Kosciulek, and Levine (2020) examine the act's impact on workers in a Midwestern community rehabilitation program, where wages increased to the federal minimum. They find that the policy improved quality of life by enhancing material well-being and raising income levels.

This paper builds in particular on the results of Chiswick et al. (2025) and Clemens, Gentry, and Meer (2026) on disability and minimum wage effects and Yin, Seo, and Vu (2026) on the effects of subminimum wage terminations.

4 Data and method

We use American Community Survey (ACS) data from the Census Bureau over the 2010 to 2023 period to construct a sample of people 18–64 years old with 26.5 million observations, which was used to create separate stacked DID samples for the minimum and subminimum wage analyses. The main variables of interest are employment status, labor force participation, disability status, and demographic characteristics including age, gender, race, education, and whether someone lives alone. For disability status and type, we use the six-question set in the Census, and for disability severity, we construct a rating based on the Veterans Administration's disability measure provided by the ACS. We have information on state minimum wages by year from the U.S. Department of Labor, updated on January 1, 2026,[4] and subminimum wage terminations collected by Jacoby (2022), APSE (2022), National Conference of State Legislatures (2023), Yin, Seo, and Vu (2026), and updated with web searches.

4.1 Methodology

4.1.1 Stacked difference-in-differences

Our main minimum wage analysis is based on a stacked difference-in-difference (DID) approach with 5-year windows (we also do robustness tests with 7- and 9-year windows). The stacked DID approach is a staggered adoption design that overcomes problems of comparing early and late treatment adopters, helping to identify a causal effect (Wing et al. 2024). We construct 10 cohorts, starting with 2012 and ending with 2021, such that each cohort has two pre-treatment and three post-treatment years (including the adoption year). In each cohort, no state had an increase in minimum wages in the first two years of the window. The "treatment" states increased the minimum wage by at least 25 cents per hour in the third year of the window, and may have also had increases over the next two years. The control

4. State Minimum Wage Laws | U.S. Department of Labor, accessed 4/21/25

states are not-yet-adopters, which did not have an increase of at least 25 cents per hour in the 5-year window but will have one later. The qualifying treatments are shown by year in Table A2, which lists 62 instances of state minimum wage increases of 25 cents or more over the 2012-2021 period and 75 similar instances that occurred in the 2022-2024 period, where a 5-year window cannot be constructed but the states can be used as controls. While we define the cohorts based on the binary measure of whether states increased minimum wages by at least 25 cents per hour, we also analyze a continuous measure of minimum wages, defined as each state's natural logarithm of minimum wage in a given year minus the value in the second year of the window (the year before the adoption event). This allows us to estimate the effects of large versus small minimum wage increases, and account for smaller increases that may have occurred among the control states in each cohort.

In the subminimum wage analysis, windows are constructed such that the treated states enacted a law terminating the subminimum wage in the third year of the window, and the control states did not do so during the 5-year window but did so later. Treatment is a state law or executive action that starts the process of terminating subminimum wages in the state. We focus on the year the policy is enacted since it sends a clear signal that subminimum wages will be phased out, but the process will sometimes take several years before they are fully phased out. In addition to analyzing enactment of the policy, we also ran our analysis using the year the policy is fully effective as the treatment. The enactment years of the subminimum wage terminations are listed at the bottom of Table A2, including the states that enacted terminations too recently for analysis but which qualify as not-yet-adopters for analyzing the other states.

Our main equation is:

$$Y_{istc} = \beta_0 + \beta_1 Treated_{st} + \beta_2 Treated_{st} \times Disab_{istc} + \beta_3 X_{istc} + \beta_4 X_{istc} \times Disab_{istc} + \alpha_{ctd} + \gamma_{csd} + \rho_{istc} \quad (1)$$

where Y_{istc} is the outcome of interest: employment status, labor force participation, or

unemployment status of individual i in state s, year t, and cohort c. $Treated_{st}$ is a dummy variable indicating a minimum wage change of ≥ 25 cents, or the year that the subminimum wage termination was enacted. $Disab_{istc}$ is a dummy variable indicating disability status or disability type (based on 6 Census questions). X_{istc} are demographic characteristics (gender, age, education, race/ethnicity, and whether someone lives alone). α_{ctd} are cohort-year-disability fixed effects and γ_{csd} are cohort-state-disability fixed effects. β_1 captures selection effects in states adopting minimum or subminimum wage changes, since the laws may be enacted when states have healthy labor markets. This selection does not threaten our identification of β_2, where we focus on the differential effects of such law changes for people with disabilities.

To examine possible shifts in both labor demand and labor supply, we focus on employment, labor force participation, and unemployment as our dependent variables. We also present appendix tables which analyze five further outcome variables: employee status, being self-employed, weeks worked in past year, total hours worked in past year, and total wage and salary earnings in past year. To estimate event study effects and continuous wage effects, we replace the "Treated" variable first with event time dummy variables, and then with ln(minimum wage) in year t minus ln(minimum wage) in year 2 of the window (the year before the adoption event). Following the recommendation in Wing, Freedman, and Hollingsworth (2024), we equalize population-based weights between control and treatment groups within each cohort to create a "trimmed aggregate ATT" that does not lead to bias through differential weights for treatment and control trends. We first run the above analyses on the whole sample, then run them on samples limited to a) those with a particular disability compared to all non-disabled, b) those with specific demographic characteristics (gender, education, race/ethnicity, and age categories), and c) pre- and post-pandemic time periods. We also examine the relationship to one's number of disabilities (measured by number of positive responses to the six Census disability questions) and disability severity.

To measure disability severity we adapt the method of Clemens, Gentry, and Meer (2026),

who impute disability rating based on the Veterans Administration's disability measure. This rating, calculated on a 100-point scale, is available for veterans in the ACS using five categories: 0, 10-20, 30-40, 50-60, and 70 or more. While veterans with disabilities differ from the general population, we use relative severity rankings rather than absolute levels, which mitigates concerns about unobservable differences between veterans and non-veterans. The analysis therefore leverages variation in relative severity, which is the parameter of substantive interest. We ran an interval regression based on the lower and upper values for each category using the 387,467 veterans in our ACS sample, predicting with dummies for gender, age (9 categories), education (5 categories), race/ethnicity (4 categories), living alone, state (50 dummies including DC), year (12 dummies), and the full permutations of the six Census disability questions (64 categories) as predictors. The results, presented in Table A3, were used to impute disability severity for the non-veteran sample, and the predictions were divided into five groups by population percentile (using cut points at the 50th, 75th, 90th, and 95th percentiles)(an additional tested cut point at the 25th percentile made little difference). To compare our results with Clemens, Gentry, and Meer (2026), we also replicated their method of imputing using a logit (instead of an interval regression) to predict the probability of having a VA disability score of greater than 60, where "severe disability" was measured as a 65% or greater probability of having a predicted VA rating greater than 60, and "non-severe disability" was measured as having a less than 65% probability of a VA score greater than 60 in addition to a "yes" answer to one or more of the six Census disability questions. The stronger predictive performance of the interval-regression approach helps mitigate concerns that results are driven by measurement artifacts in the severity imputation. Given some differences between our results and those of Clemens, Gentry, and Meer (2026), we do further probing that is presented in the appendix and discussed in text.

4.1.2 Callaway and Sant'Anna (2021)

Sun and Abraham (2021) point out that two-way fixed effects may produce biased results when there is staggered treatment timing and heterogeneous treatment effects. While the stacked DID helps control for timing effects, we also supplement the subminimum wage analysis by employing the Callaway and Sant'Anna (CS) method. Using this method and a not-yet-treated control group, coefficient estimates for each post-treatment year are calculated by comparing them with those from the last pre-treatment year. A coefficient for each pre-treatment year is also calculated by comparing outcomes in that year with those of the previous year to test for pre-trends. The average treatment effect is the overall weighted average across treated units and years. We also use the event study specification of the CS estimator because our treatment begins in the first year of the subminimum wage phase-out, so we expect the treatment effect magnitude to increase with the length of exposure.

4.1.3 Synthetic difference-in-differences

We further supplement our subminimum wage analysis by using the synthetic difference-in-differences method (Arkhangelsky et al. 2021), which combines elements of the Synthetic Control method and the general difference-in-differences method to address concerns about whether the data have parallel pre-trends. This method requires aggregation to the state-year level, and uses the never-treated control group.

Because the analysis examines numerous subgroup and heterogeneity estimates, isolated statistically significant coefficients should be interpreted cautiously. We place greater weight on whether patterns are consistent across specifications, outcomes, and estimation approaches than on individual coefficients viewed in isolation.

5 Results

5.1 Minimum wage

Table 1 shows descriptive statistics for the minimum wage stacked DID dataset, which has 25.8 million observations. People with disabilities make up a slightly lower proportion of the working-age population in treated states (.097) compared to the not-yet-treated states (.107). Populations in treated and not-yet-treated states have similar demographic characteristics and employment outcomes on average (columns 2 and 3). Consistent with substantial prior evidence, people with disabilities are generally older, less educated, more likely to live alone, and less likely to be employed than people without disabilities in both treated and not-yet-treated states (Columns 4 to 7).

Table 2 shows the coefficient estimates from equation (1) with outcomes indicating employment, labor force participation (LFP), or unemployment. Panel A shows the results using the treatment dummy variable, Panel B shows the event study results interacting treatment with cohort year, and Panel C shows the results using the continuous measure of change in ln(minimum wage). Columns 1, 3, and 5 show results for the full sample with disability interactions, and columns 2, 4, and 6 show results just for the disability sample. Throughout, we emphasize effect sizes and confidence intervals, which are informative about economically meaningful adverse effects even when point estimates are statistically imprecise.

The results in all three panels show that being in a treated state has favorable but mostly insignificant effects on the disability differential in all three outcomes. In Panel A columns 1 to 4, the coefficients indicate relative increases in employment and labor force participation for people with disabilities by 0.3 to 0.5 percentage points, but the effect reaches marginal significance only in column 4. The 95% confidence intervals across all four columns rule out decreases larger than 0.5 percentage points. In Panel B columns 1 to 4, the coefficients indicate relative increases two periods post-treatment in employment and labor force participation for people with disabilities by 0.5 to 0.8 percentage points, with

at least marginal significance in columns 2 to 4. The 95% confidence intervals across all four columns rule out decreases larger than 0.3 percentage points. The coefficients on the continuous minimum wage measure in Panel C are positive but not statistically significant. The 95% confidence intervals rule out declines in employment and labor force participation from a 10% minimum wage increase that are larger than 0.2 and 0.1 percentage points, respectively.

Results using additional outcomes in Table A4 show at least weakly significant positive effects of adoptions of minimum wage increases on being an employee, weeks worked, yearly hours worked, and yearly wages/salary when using the disability sample (column 2, 6, 8, and 10), but no relationship to being self-employed (where the minimum wage does not apply)(column 4).

5.1.1 Disability type and severity

Minimum wages may have differential effects by type or severity of disability, as found by Chiswick et al. (2025) and Clemens, Gentry, and Meer (2026). Table 3 provides results using the continuous minimum wage measure broken down by type of disability, both for the full sample and for those with no more than a high school degree. As in Table 2, we find little evidence that minimum wages have differential effects for people with disabilities. When using all people with disabilities in the first panel of Table 3, the coefficients on minimum wage do not differ for those with no more than a high school degree. When broken down by disability type, we find that larger minimum wage increases are linked to higher labor force participation for people with mobility impairments (columns 3 and 4), which mostly reflects a positive effect on employment (columns 1 and 2) but may also reflect an increase in unemployment (columns 5 and 6). We are hesitant to put much weight on these estimates since we would expect a few randomly significant coefficients among so many estimates. Evidence on additional outcomes in Table A5 do not show noteworthy differences in minimum wage effects by disability type. The results are consistent with Chiswick et

al. (2025) in finding that minimum wage increases are not linked to lower employment among those with mobility or vision/hearing impairments, but contrast with their finding of a negative employment effect for young people with cognitive impairments.[5]

Table 4 examines disability severity by adapting the method that Clemens, Gentry, and Meer (2026) use to impute disability ratings from the veterans sample. As noted in the data section, concerns about unobservable differences between veterans and non-veterans are mitigated by our focus on relative severity rankings rather than absolute levels. The first set of estimates in Panel A uses the imputation based on interval regressions predicting disability rating, and breaks the full sample (with and without disabilities) into five groups based on their imputed rating, with cut points at the 50th, 75th, 90th, and 95th percentiles. Those below the 50th percentile serve as the non-disabled base group. The second set of estimates in Panel B replicates the method of Clemens, Gentry, and Meer (2026) by designating those with a 65% or greater likelihood of having a VA rating greater than 60 as having a severe disability, and those with less than a 65% likelihood who responded yes to one or more of the six Census disability questions as having a non-severe disability.

Table 4's results suggest that for those who have a disability rating above the 95th percentile, minimum wage increases have a positive effect on labor force participation, and positive but insignificant effect on employment. The coefficients indicate that a 10% increase in the minimum wage is linked to a 0.44 percentage point increase in employment, 0.71 percentage point increase in labor force participation, and 0.28 percentage point increase in unemployed status relative to the effects for those with disability ratings below the 50th percentile (the base group), although only the labor force participation result is significantly different from zero. The employment coefficients in Columns 1 and 2 rule out negative effects larger than 1.1 percentage points at the 95% level. Panel B's estimates using the measures based on Clemens, Gentry, and Meer (2026) indicate that a minimum wage increase is linked

5. When we follow Chiswick et al. (2025) in restricting our sample to those age 21 to 49, we continue to find a positive but insignificant coefficient on the interaction of cognitive disability and minimum wage increase in predicting employment, both in the full sample (B=.016, s.e.=.032) and when confined to those with no more than a high school degree (B=.014, s.e.=.040).

to positive but non–significant increases in employment and labor force participation among those with non-severe disabilities, while the effects for those with severe disabilities are closer to zero. Estimates of additional outcomes in Table A6 show few significant effects, with one being that minimum wage increases are strongly associated with a rise in weeks worked for those above the 95th percentile in disability rating (columns 5 and 6).

5.1.2 Additional tests

We also explore heterogeneity by demographic characteristics, number of disabilities, and time period relative to the pandemic. Appendix Table A7 shows that, as found in the overall sample in Table 2, the effects of minimum wage changes on employment, labor force participation, and unemployment are almost all positive but statistically insignificant for people with disabilities across the education, gender, race/ethnicity, and age groups. Table A8 has similar findings for the five additional employment outcomes. Tables A9 and A10 show that minimum wage increases may have a positive effect on employment, labor force participation, weeks worked, and yearly hours worked for those answering yes to just one disability question, and a negative effect on employment, labor force participation, and being an employee for those answering yes to five of the six disability questions, though these may reflect randomly significant coefficients among so many estimates.

Minimum wage effects may be different in the pre- and post-pandemic periods. Tables A11 and A12 show positive effects of minimum wage increases on employment, labor force participation, weeks worked and wage/salary income for people with disabilities before the pandemic but negative and statistically insignificant effects after the pandemic. People with disabilities have had strong employment growth in general since the pandemic due to strong labor demand and increased availability of remote work (Ameri et al. 2023; Bloom, Dahl, and Rooth 2026), which may overwhelm any effects of minimum wage increases.

One important puzzle is why we do not find the negative effects of large minimum wage increases on employment of people with severe disabilities found by Clemens, Gentry, and

Meer (2026)). Using ACS data, they conduct pre/post comparisons of employment probabilities in the 2011-2013 ("pre") and 2019 ("post") periods, testing the effects of state minimum wage increases enacted in 2014-2018. One of their main regressions is replicated in Column 1 of Table A13, with a 3-way interaction showing a negative effect of large minimum wage increases on the employment of people with severe disabilities in 2019. We address this divergence of results in several ways. Given that we are both using ACS data, the divergence could be broadly due to a) difference in control variables, b) difference in statistical technique used to impute disability severity, and/or c) difference in technique and time period (stacked versus non-stacked DID). We address the first possibility by using our expanded set of disability severity predictors in Column 2 of Table A13, where it can be seen that the coefficient on the 3-way interaction becomes slightly more negative, indicating that the divergence in results is not driven by the chosen control variables. We address the second possibility in Columns 3 and 4 by using our technique to impute disability severity (an interval regression using the full 0-100 range of the veterans disability rating) applied to their pre/post comparison between 2011-2013 and 2019, with a simple severe/non-severe breakdown in column 3 and a breakdown by severity percentile in Column 4. In those columns it can be seen that the negative 3-way interaction of (large minimum wage change $\times$ severe disability $\times$ post period) is now close to zero and not significant (Column 3), while the interaction with having disability severity above the 95th percentile is positive and weakly significant at $p<.10$ (Column 4). This latter result is consistent with Table 4's positive but not significant coefficients on minimum wage changes when we use stacked DID to predict employment changes among those with disability severity above the 95th percentile. Therefore, the difference between our results and those of Clemens et al. appears to be mainly driven by statistical technique in predicting disability severity (i.e., logit prediction of a binary measure versus interval prediction of a continuous measure). We address the relative validity of the methods by calculating how well they do in predicting the actual VA rating among those who received a rating. As shown in Table A14, 23.6% of the predictions using the Clemens et al.

method matched the actual VA rating, while 24.2% were matched when using the expanded set of predictors (specification 2), 25.7% were matched when using an interval regression to create a binary severe/non-severe measure (specification 3), and 38.7% were matched when using an interval regression to create a percentile distribution (specification 4). Each of these increases is statistically significant.

While these results point to the interval regression method outperforming the logit-based method of predicting disability severity, our main conclusion is that the estimated effects of minimum wages on disability employment appear to be sensitive to the disability measure and time period. Using our preferred stacked DID method in Table 4, both ways of imputing indicate that disability severity is unlikely to be related to the employment effects of minimum wage changes. As a further check on the role of the time period, we examined whether the size of the time window makes a difference by running the regressions using 7- and 9-year windows rather than 5-year windows in the stacked DID, with similar results (available on request).

5.2 Subminimum wage

We now turn to our analysis of subminimum wage terminations by states. Table 5 shows descriptive statistics for our stacked DID dataset. The terminating states have a slightly lower disability prevalence (.096) than the not-yet-terminating states (.106). As in the minimum wage stacked dataset, people with disabilities are older and tend to have lower education, employment, and labor force participation levels than people without disabilities.

Appendix Table A15 predicts whether a worker is paid less than $1 per hour below the federal minimum wage (minimizing the role of measurement error in putting an observation just below the minimum wage). We find that the highest likelihood of such work is among people with a cognitive impairment plus difficulty going outside alone, and who have no more than a high school degree (column 3). This is consistent with evidence that subminimum wage workers are typically people with intellectual and developmental disabilities (Govern-

ment Accountability Office 2025). In the following analysis we focus on this group as being the most likely to experience any effects of subminimum wage termination.

The DID results in Table 6 show positive but statistically insignificant effects of subminimum wage terminations on the relative employment of people with disabilities. While not significant, the magnitudes in columns 1 and 2 of Panel A indicate higher employment of 0.3-0.6 percentage points. Results in Panel B show a significant increase in disability employment and labor force participation in the termination year, an effect which decreases in size and is statistically insignificant in the following years (columns 1 to 4). Appendix Table A16 shows that the termination year is linked to a higher likelihood of being an employee (columns 1 and 2) and a greater number of hours worked (column 7).

5.2.1 Disability type and severity

Table 7 shows our results broken down by disability type. The coefficient estimates indicate that disability may be linked to positive employment and labor force participation responses to subminimum wage terminations, although most of the coefficients are not statistically significant. The groups that appear to have the most positive responses are people with cognitive impairments ("difficulty concentrating, remembering, or making decisions"), people with difficulty going outside alone ("difficulty doing errands alone, such as visiting a doctor's office or shopping"), and people with no more than a high school degree (columns 2 and 4). As described above, these characteristics are strongly associated with earning a subminimum wage. For those who have both a cognitive impairment and difficulty going outside alone, terminating the subminimum wage increases employment by a strongly significant 1.9 percentage points (column 1), an effect that increases to 2.0 percentage points for those with no more than a high school degree (column 2). The employment effects are larger than the labor force participation effects (columns 3 and 4), indicating that unemployment has declined (columns 5 and 6). The last panel of Table A17 shows that the positive employment effect among this group occurs for employees and not self-employed people, and shows some

significant positive effects for weeks worked, hours worked, and wage/salary income.

Table 8 shows the results using disability ratings imputed from veterans data. People who have the most severe disabilities (those above the 95th percentile) are 2.1 and 2.0 percentage points more likely to be employed or in the labor force, respectively, relative to those whose disability rating is below the 50th percentile. These effects increase to 3.0 and 2.9 percentage points, respectively, for those with no more than a high school degree. Appendix Table A18 shows several positive effects of subminimum wage termination on additional employment outcomes for people with the most severe disabilities.

5.2.2 Additional tests

One plausible mechanism for positive effects is that subminimum wage repeal may interact with complementary "Employment First" policies, which prioritize employment in "competitive integrated employment" for people with disabilities through increased training opportunities and coordination of state resources.[6] We find that all of the states that terminated subminimum wage employment had earlier announced support for Employment First policies through laws, agency policies, or proclamations or executive orders by the governor. Therefore, we cannot evaluate subminimum wage termination in the absence of Employment First policies, but we can evaluate the effects of the policies alone. We control for the adoption of Employment First policies in our stacked DID estimates and find that such policies are linked to a significant employment increase of 1.2 percentage points for people with disabilities, and a 3.7 point increase for people with both a cognitive disability and difficulty going outside alone who have no more than a high school degree (the group most likely to be paid the subminimum wage as described above). The effects of subminimum wage termination do not change when controlling for Employment First announcements (results not reported but available on request). Based on this exploratory evidence, our interpretation is that: a) Employment First policies improve employment outcomes for people with disabilities, and b) the

6. See an overview of Employment First at https://www.dol.gov/agencies/odep/initiatives/employment-first, accessed 4-26-26.

later termination of subminimum wages may lead to further improvements as states mobilize their Employment First policies to increase opportunities for those previously employed at subminimum wages.

We again explore heterogeneity by demographic characteristics, number of disabilities, and time period relative to the pandemic. Appendix Table A19 show few noteworthy differences by demographic characteristics, except for possible positive effects on labor force participation for those with college or graduate degrees or of "other race" (primarily Asian), and positive employment effects for those with graduate degrees or of "other race" (column 1). Looking at additional outcomes, Appendix Table A20 shows positive effects on weeks worked and yearly hours worked for those with graduate degrees.

In Table A21, we estimate effects by number of disabilities and find positive employment effects of subminimum wage terminations on those with 2, 5, or 6 disabilities who have no more than a high school degree (column 2), and no statistically significant negative effects for any group. That pattern generally holds in Table A22 for the additional outcomes, with several of the disability groups having increases in weeks worked and yearly hours worked (columns 5 to 8). Tables A23 and A24 show mostly positive but insignificant coefficients that result from estimating effects before and after the pandemic.

5.2.3 Supplementary analysis

The results from the Callaway and Sant'Anna (2021) (CS) method are shown in Table 9 and Figures 1 to 4 using samples of people with no more than a high school degree. People without disabilities are not directly affected by subminimum wage termination, but their employment patterns provide a baseline for general changes in states after subminimum wages were terminated. The estimates show that employment for people without disabilities slightly declines when subminimum wage termination is enacted, relative to those in not-yet-treated states, by 0.7 percentage points when using the full time period, and by 0.2 and 0.4 points when comparing two or four years (respectively) before and after enactment. This

is shown in Figure 1, while Figures 2, 3, and 4 show the results of the CS method using a sample of people with any disability, people with cognitive impairments and difficulty going outside alone, and people with severe disabilities, respectively. The overall treatment effect is -2.4 percentage points ($p<.05$) for all people with disabilities, 0.0 percentage points (n.s.) for people with both cognitive and going-outside-alone disabilities, and -1.2 percentage points (n.s.) for people with severe disabilities. Across all specifications, 95% confidence intervals rule out negative effects larger than 0.9 percentage points in most periods, and 1.4 percentage points in all periods. When using effective year rather than enactment year as the treatment in columns 4 to 6, the coefficients are less negative for the disability groups than for the non-disability group, although the differences are not strong enough to be significant.

Table A25 shows the results using the synthetic difference-in-differences method, where the coefficient estimates of the effects of subminimum wage termination are statistically significant and positive for people with cognitive impairments, indicating increases of 2.0 percentage points in employment and labor force participation. The estimates for the other disability groups are all positive for employment and labor force participation and negative for unemployment, but mostly statistically insignificant. These results are consistent with our main results, where we do not find evidence that terminating the subminimum wage reduces employment or labor force participation for people with disabilities and may, in fact, improve outcomes for those with a cognitive impairment.

5.3 Interaction of minimum and subminimum wage effects

Minimum wage increases may have less effect on the employment of people with disabilities when subminimum wages are available to keep them employed at low wages. Table 10 uses the minimum wage stacked DID dataset to break down the effects of state minimum wage increases by whether the state had or had not terminated subminimum wages. The control group remains as states that were not-yet-adopters of minimum wage increases of at least 25 cents per hour. The results in Table 10 indicate almost no difference in employment effects of

the minimum wage (measured using the continuous ln(minimum wage) measure) for people with disabilities between states that had or had not terminated subminimum wages. The coefficient estimates indicate that the effect of a 10% minimum wage change on employment for those with a disability is 0.20 percentage points in states that allow subminimum wages, and 0.21 in states that do not, neither of which is statistically significant (column 1). When we restrict the sample by disability type, the coefficients are generally more positive in states that terminated subminimum wages than in states that still allowed them, though no coefficients are statistically significant (columns 2 to 7). These results do not suggest that the availability of subminimum wages affects the relationship between minimum wage increases and the employment of people with disabilities.

6 Conclusion

This paper evaluates a central claim in debates over wage floor policy: whether higher wage floors increase employment risk for workers with disabilities, particularly those often presumed most vulnerable. Across multiple specifications and estimation approaches, we find little evidence that either state minimum wage increases or subminimum wage repeal reduce employment opportunities for people with disabilities. The few significant differences tend to suggest a more positive employment response among people with disabilities, particularly before the pandemic and among those with more severe disabilities, possibly reflecting improved labor supply incentives as higher minimum wages may help to overcome existing barriers to employment for workers with disabilities. While many estimates are imprecise, they generally rule out economically meaningful adverse effects, which is itself an informative finding. For subminimum wage repeal, positive effects among some groups may reflect complementary Employment First policies that support competitive integrated employment; we find a positive link between such policies and employment outcomes, but the mechanisms are not identified directly here.

Overall, the results provide little support for the view that wage floor policies create disproportionate employment barriers for people with disabilities. Clearly this is a key area for further research given the ongoing low employment levels of people with disabilities and the widespread interest in enhancing their employment opportunities. More broadly, the findings suggest that concerns about employment losses among vulnerable workers may be overstated, while pointing to the importance of complementary supports in shaping labor market outcomes.

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Table 1: Descriptive statistics for minimum wage study sample

	Overall	Not-yet Adopters	Adopters	Not-yet Adopters		Adopters	
				No Disability	Disability	No Disability	Disability
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Any disability	0.101	0.107	0.097	0.000	1.000	0.000	1.000
Hearing impairment	0.019	0.021	0.018	0.000	0.194	0.000	0.185
Vision impairment	0.018	0.019	0.018	0.000	0.177	0.000	0.182
Cognitive impairment	0.045	0.048	0.044	0.000	0.445	0.000	0.450
Mobility impairment	0.047	0.051	0.044	0.000	0.474	0.000	0.456
Difficulty dressing/bathing	0.018	0.019	0.017	0.000	0.174	0.000	0.178
Difficulty outside alone	0.037	0.038	0.036	0.000	0.358	0.000	0.366
Female	0.501	0.502	0.501	0.504	0.490	0.502	0.489
Age 18-34	0.372	0.368	0.375	0.385	0.228	0.389	0.242
Age 35-49	0.311	0.310	0.313	0.316	0.259	0.319	0.255
Age 50-64	0.316	0.322	0.313	0.300	0.513	0.292	0.503
Education							
No HS degree	0.110	0.098	0.117	0.087	0.191	0.107	0.202
HS degree	0.258	0.274	0.248	0.264	0.361	0.240	0.322
Some college/AA	0.319	0.328	0.313	0.330	0.314	0.313	0.318
Bachelor's	0.201	0.194	0.206	0.207	0.092	0.216	0.106
Graduate degree	0.112	0.105	0.116	0.112	0.043	0.123	0.051
Race/ethnicity							
White non-Hispanic	0.590	0.685	0.535	0.684	0.691	0.531	0.568
Black non-Hispanic	0.109	0.123	0.101	0.119	0.156	0.097	0.136
Hispanic	0.194	0.117	0.239	0.121	0.092	0.243	0.204
Other race/multiracial	0.106	0.074	0.125	0.076	0.061	0.128	0.092
Live alone	0.080	0.099	0.069	0.092	0.154	0.065	0.111
Employed	0.715	0.722	0.711	0.765	0.360	0.749	0.358
Labor force participant	0.765	0.770	0.761	0.812	0.417	0.799	0.417
Unemployed	0.049	0.048	0.050	0.047	0.057	0.049	0.059
Ln(minimum wage) minus ln(minimum wage) in year before adoption	0.061	0.009	0.091	0.009	0.010	0.091	0.091
(s.d.)	(0.089)	(0.019)	(0.099)	(0.019)	(0.020)	(0.099)	(0.100)
Observations	25826893	11488890	14338003	10176411	1312479	12829181	1508822

Note: All data restricted to age 18-64. "Adopter" refers to state that adopted minimum wage increase of 25 cents/hour or more.

Table 2: Minimum wage effects by disability status

Dep. Var.:	Employed		LFP		Unemployed	
Sample:	Full	Disability	Full	Disability	Full	Disability
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A: pre/post DID						
Post × Adopting state	0.002**	0.005	0.001*	0.005*	-0.002*	-0.001
	(0.001)	(0.003)	(0.000)	(0.003)	(0.00)	(0.00)
Post × Adopting state × disability	0.003		0.005		0.001	
	(0.004)		(0.003)		-0.003	
Observations	25,826,893	2,821,301	25,826,893	2,821,301	19246945	1099401
R-squared	0.126	0.075	0.125	0.081	0.033	0.037
PANEL B: differences by year						
Adopting state (excl. Adoption year t-1)						
Adoption year t-2	-0.002**	-0.001	-0.002*	-0.001	-0.001	0
	(0.001)	(0.002)	(0.001)	(0.002)	-0.001	-0.003
Adoption year	0.001*	0.003	-0.000	0.000	0.002**	0.007**
	(0.001)	(0.003)	(0.001)	(0.003)	-0.001	-0.003
Adoption year t+1	0.002	0.006	0.000	0.008*	0.002	-0.001
	(0.001)	(0.004)	(0.001)	(0.004)	-0.001	-0.003
Adoption year t+2	0.000	0.006*	-0.000	0.007**	0.001	-0.002
	(0.001)	(0.003)	(0.001)	(0.003)	-0.001	-0.003
Adopting state × disability (excl. Adoption year t-1)						
Adoption year t-2	0.002		0.001		0.003	
	(0.002)		(0.002)		-0.004	
Adoption year	0.002		0.000		0.003	
	(0.003)		(0.003)		-0.004	
Adoption year t+1	0.005		0.008		0.008**	
	(0.005)		(0.005)		-0.003	
Adoption year t+2	0.005		0.008**		0	
	(0.004)		(0.004)		-0.003	
Observations	25,826,893	2,821,301	25,826,893	2,821,301	19246945	1099401
R-squared	0.126	0.075	0.125	0.081	0.033	0.037
PANEL C: change in minimum wage						
Ln(min wage) difference	0.001	0.022	0.002	0.032	0.002	0.015
from pre-adoption year	(0.007)	(0.022)	(0.003)	(0.023)	-0.008	-0.016
× disability	0.022		0.032		0.014	
	(0.024)		(0.021)		-0.016	
Observations	25,826,893	2,821,301	25,826,893	2,821,301	19246945	1099401
R-squared	0.123	0.075	0.121	0.081	0.032	0.037

Note: All full sample regressions include dummies for (adoption cohort)*(year within cohort)*disability and (adoption cohort)*state*disability, and all disability sample regressions include dummies for (adoption cohort)*(year within cohort) and (adoption cohort)*state. All regressions include dummies for gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. Based on stacked DID with 5-year window, where only adopter and not-yet-adopter states are included. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Minimum wage effects by type of disability

Dep. Var.:	Employed		LFP		Unemployed	
Sample:	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
ANY DISABILITY						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× any disability	0.021	0.020	0.030	0.027	0.013	0.015
	(0.026)	(0.029)	(0.022)	(0.024)	(0.016)	(0.023)
R-squared	0.126	0.134	0.125	0.142	0.033	0.039
Observations	25,826,893	9,237,627	25,826,893	9,237,627	19,246,945	6,027,240
HEARING IMPAIRMENT						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× hearing impairment	0.051	0.021	0.016	-0.015	-0.065***	-0.077**
	(0.034)	(0.037)	(0.027)	(0.034)	(0.022)	(0.030)
R-squared	0.065	0.063	0.058	0.061	0.027	0.033
Observations	23,540,555	7,966,988	23,540,555	7,966,988	18,436,527	5,674,318
VISUAL IMPAIRMENT						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× visual impairment	0.046	-0.019	0.059*	-0.011	0.018	0.029
	(0.030)	(0.054)	(0.032)	(0.053)	(0.023)	(0.030)
R-squared	0.069	0.069	0.063	0.068	0.027	0.033
Observations	23,498,032	7,974,584	23,498,032	7,974,584	18,372,469	5,655,801

Continued on next page

Table 3: Minimum wage effects by type of disability (continued)

Dep. Var.:	Employed		LFP		Unemployed	
Sample:	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
COGNITIVE IMPAIRMENT						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× cognitive impairment	0.009	0.006	0.017	0.009	0.009	0.006
	(0.021)	(0.026)	(0.018)	(0.022)	(0.029)	(0.044)
R-squared	0.111	0.120	0.107	0.125	0.034	0.040
Observations	24,273,110	8,476,214	24,273,110	8,476,214	18,528,868	5,742,738
MOBILITY IMPAIRMENT						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× mobility impairment	0.026	0.040*	0.041**	0.052***	0.037	0.039
	(0.019)	(0.021)	(0.018)	(0.018)	(0.022)	(0.035)
R-squared	0.115	0.122	0.117	0.133	0.029	0.035
Observations	24,333,448	8,449,859	24,333,448	8,449,859	18,508,258	5,717,735
DIFFICULTY DRESSING OR BATHING						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× self-care difficulty	-0.008	0.012	0.005	0.019	0.075	0.050
	(0.032)	(0.042)	(0.035)	(0.042)	(0.044)	(0.066)
R-squared	0.091	0.096	0.091	0.104	0.027	0.033

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Table 3: Minimum wage effects by type of disability (continued)

Dep. Var.:	Employed		LFP		Unemployed	
Sample:	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
Observations	23,532,133	8,033,567	23,532,133	8,033,567	18,234,981	5,603,209
DIFFICULTY GOING OUTSIDE HOME ALONE						
Ln(min wage) difference	0.000	0.000	0.002	0.004	0.002	0.005
from pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× outside difficulty	-0.034	-0.020	-0.031	-0.019	0.042	0.040
	(0.026)	(0.036)	(0.022)	(0.029)	(0.041)	(0.059)
R-squared	0.118	0.126	0.121	0.139	0.030	0.036
Observations	24,058,806	8,364,124	24,058,806	8,364,124	18,358,467	5,671,936

Note: All full sample regressions include dummies for (adoption cohort)*(year within cohort)*disability and (adoption cohort)*state*disability, and all disability sample regressions include dummies for (adoption cohort)*(year within cohort) and (adoption cohort)*state. All regressions include dummies for gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. The regressions by disability type include only people without disabilities and people with the particular disability type. Based on stacked DID with 5-year window, where only adopter and not-yet-adopter states are included. Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Minimum wage effects by disability severity

Dep. Var.:	Employed		LFP		Unemployed	
Sample:	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A						
Ln(min wage) difference from	-0.016	-0.032	-0.025	-0.035*	-0.008	-0.002
pre-adoption year	(0.020)	(0.026)	(0.018)	(0.021)	(0.010)	(0.015)
× disab rating 50th-75th pctile	0.034	0.077	0.053	0.097*	0.014	0.007
	(0.038)	(0.061)	(0.035)	(0.050)	(0.016)	(0.031)
× disab rating 75th-90th pctile	-0.025	-0.103**	-0.022	-0.086*	-0.004	0.037**
	(0.040)	(0.045)	(0.041)	(0.043)	(0.013)	(0.017)
× disab rating 90th-95th pctile	-0.095	0.081	-0.042	0.111	0.106**	0.068
	(0.156)	(0.118)	(0.141)	(0.111)	(0.041)	(0.046)
× disab rating >95th pctile	0.044	0.059	0.071**	0.078***	0.028	0.019
	(0.026)	(0.035)	(0.026)	(0.026)	(0.026)	(0.044)
R-squared	0.136	0.144	0.137	0.154	0.035	0.042
Observations	25,826,893	9,237,627	25,826,893	9,237,627	19,246,945	6,027,240
PANEL B						
Ln(min wage) difference from	0.000	0.000	0.002	0.004	0.002	0.005
pre-adoption year	(0.007)	(0.014)	(0.003)	(0.009)	(0.008)	(0.012)
× non-severe disability	0.050	0.051	0.056	0.055	-0.001	-0.004
	(0.040)	(0.042)	(0.034)	(0.036)	(0.020)	(0.028)
× severe disability	-0.011	0.030	-0.002	0.038	0.001	0.000
	(0.020)	(0.037)	(0.019)	(0.031)	(0.035)	(0.063)
R-squared	0.129	0.137	0.129	0.146	0.033	0.04
Observations	25,826,892	9,237,626	25,826,892	9,237,626	19,246,945	6,027,240

Notes: 1. Disability rating is imputed from veterans sample–see Appendix Table A3 2. "Non-severe disability" = responded yes to one or more of six disability questions, but imputed probability of severe disability is less than .65. "Severe disability" = imputed probability of severe disability of .65 or more. 3. "Adoption" refers to increase of at least 25 cents per hour in state minimum wage. 4. All regressions include dummies for (adoption cohort)*(year within cohort)*disability and (adoption cohort)*state*(disability measures), plus dummies and disability interactions for gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. Based on stacked DID, where only adopting and not-yet-adopting states are included.
*** p<0.01, ** p<0.05, * p<0.1 (se's in parentheses)

Table 5: Descriptive statistics for subminimum wage study sample

	Overall	Not-yet-Terminators	Terminators	Not-yet-Terminators		Terminators	
				No Disability	Disability	No Disability	Disability
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Any disability	0.104	0.106	0.096	0.000	1.000	0.000	1.000
Hearing impairment	0.019	0.019	0.019	0.000	0.181	0.000	0.194
Vision impairment	0.021	0.021	0.019	0.000	0.197	0.000	0.198
Cognitive impairment	0.047	0.047	0.044	0.000	0.447	0.000	0.456
Mobility impairment	0.046	0.047	0.040	0.000	0.449	0.000	0.416
Difficulty dressing/bathing	0.017	0.018	0.016	0.000	0.167	0.000	0.167
Difficulty outside alone	0.038	0.038	0.034	0.000	0.362	0.000	0.356
Female	0.503	0.505	0.496	0.505	0.502	0.497	0.485
Age 18-34	0.375	0.374	0.385	0.388	0.251	0.397	0.272
Age 35-49	0.317	0.317	0.321	0.324	0.257	0.327	0.259
Age 50-64	0.307	0.310	0.295	0.288	0.492	0.276	0.469
Education							
No HS degree	0.107	0.103	0.124	0.094	0.183	0.117	0.193
HS degree	0.259	0.263	0.241	0.253	0.345	0.234	0.306
Some college/AA	0.305	0.305	0.307	0.304	0.310	0.304	0.330
Bachelor's	0.210	0.209	0.213	0.221	0.106	0.223	0.116
Graduate degree	0.120	0.120	0.116	0.128	0.055	0.123	0.054
Race/ethnicity							
White non-Hispanic	0.542	0.562	0.448	0.561	0.566	0.444	0.486
Black non-Hispanic	0.184	0.204	0.087	0.197	0.261	0.084	0.116
Hispanic	0.174	0.144	0.316	0.149	0.103	0.319	0.285
Other race/multiracial	0.100	0.090	0.148	0.092	0.070	0.152	0.113
Live alone	0.045	0.046	0.040	0.044	0.068	0.038	0.062
Employed	0.721	0.721	0.721	0.761	0.380	0.755	0.402
Labor force participant	0.763	0.763	0.764	0.802	0.432	0.797	0.458
Unemployed	0.056	0.056	0.057	0.052	0.121	0.053	0.123
Observations	16,422,857	13,674,069	2,748,788	12,198,069	1,476,000	2,461,590	287,198

Note: All data restricted to age 18-64. "Terminator" refers to state that terminated subminimum wages.

Table 6: Sub-minimum wage termination effects by disability status

Dep. Var.:	Employed		LFP		Unemployed	
Sample	Full	Disability	Full	Disability	Full	Disability
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A: pre/post DID						
Post × terminating state	-0.003	0.003	0.000	0.005	0.003*	0.003
	(0.002)	(0.005)	(0.001)	(0.005)	(0.002)	(0.004)
Post × terminating state × disability	0.006		0.005		0.000	
	(0.004)		(0.004)		(0.003)	
R-squared	0.123	0.089	0.123	0.099	0.028	0.032
Observations	16422857	1763198	16422857	1763198	12137316	696373
PANEL B: differences by year						
Terminating state (excl. t-1)						
termination year t-2	0.004	0.008	0.002	0.003	-0.003	-0.013
	(0.002)	(0.007)	(0.003)	(0.005)	(0.002)	(0.010)
termination year t-1 (excluded)						
termination year	-0.001	0.010**	0.002	0.012***	0.004	0.000
	(0.003)	(0.004)	(0.002)	(0.004)	(0.002)	(0.005)
termination year t+1	-0.001	0.003	0.000	0.002	0.001	-0.004
	(0.002)	(0.005)	(0.002)	(0.005)	(0.001)	(0.009)
termination year t+2	-0.001	0.008	0.001	0.007	0.002	-0.005
	(0.003)	(0.007)	(0.002)	(0.008)	(0.002)	(0.005)
Terminating state × disability (excl. t-1)						
termination year t-2	0.004		0.001		-0.01	
	(0.006)		(0.005)		(0.008)	
termination year	0.011*		0.009*		-0.003	
	(0.005)		(0.005)		(0.004)	
termination year t+1	0.004		0.002		-0.004	
	(0.005)		(0.005)		(0.009)	
termination year t+2	0.009		0.007		-0.007	
	(0.008)		(0.008)		(0.005)	
R-squared	0.123	0.089	0.123	0.099	0.028	0.032
Observations	16422857	1763198	16422857	1763198	12137316	696373

Note: All full sample regressions include dummies for (termination cohort)*(year within cohort)*disability and (termination cohort)*state*disability, and all disability sample regressions include dummies for (termination cohort)*(year within cohort) and (termination cohort)*state. All regressions include dummies for gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. Based on stacked DID, where only terminating and not-yet-terminating states are included. Robust standard error in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 7: Sub-minimum wage termination effects by disability type

Dep. Var.:	Employed		LFP		Unemployed	
Sample	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
ANY DISABILITY						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.006	0.003	0.005	0.002	0.000	0.002
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.004)
R-squared	0.123	0.128	0.123	0.133	0.028	0.034
Observations	16422857	5868898	16422857	5868898	12137316	3775265
HEARING IMPAIRMENT						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.011	0.011	0.015**	0.014	0.005	0.006
	(0.007)	(0.011)	(0.006)	(0.011)	(0.005)	(0.008)
R-squared	0.064	0.059	0.059	0.056	0.022	0.028
Observations	14998322	5094653	14998322	5094653	11624186	3562835
VISUAL IMPAIRMENT						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.009	0.011*	0.011	0.014*	0.003	0.004
	(0.008)	(0.006)	(0.007)	(0.007)	(0.008)	(0.007)
R-sqaured	0.069	0.066	0.064	0.064	0.022	0.028
Observations	14993643	5115114	14993643	5115114	11595364	3559015

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Table 7: Sub-minimum wage termination effects by disability type (continued)

Dep. Var.:	Employed		LFP		Unemployed	
Sample	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
COGNITIVE IMPAIRMENT						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.010	0.011***	0.009	0.008**	-0.004	-0.010
	(0.006)	(0.003)	(0.006)	(0.004)	(0.006)	(0.010)
R-squared	0.108	0.116	0.106	0.118	0.028	0.036
Observations	15439619	5395203	15439619	5395203	11677568	3597961
MOBILITY IMPAIRMENT						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.002	0.001	0.002	0	0.004	0.005
	(0.008)	(0.008)	(0.008)	(0.009)	(0.006)	(0.008)
R-squared	0.114	0.118	0.117	0.126	0.024	0.03
Observations	15474113	5384302	15474113	5384302	11663043	3587331
DIFFICULTY DRESSING OR BATHING						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.003	0.001	-0.001	-0.002	-0.005	-0.005
	(0.006)	(0.007)	(0.006)	(0.007)	(0.016)	(0.021)
R-squared	0.092	0.094	0.092	0.099	0.023	0.029

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Table 7: Sub-minimum wage termination effects by disability type (continued)

Dep. Var.:	Employed		LFP		Unemployed	
Sample	Full	No more than HS Degree	Full	No more than HS Degree	Full	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
Observations	14980767	5132094	14980767	5132094	11492507	3517826
DIFFICULTY GOING OUTSIDE HOME ALONE						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.015*	0.014**	0.013*	0.01	-0.009	-0.018
	(0.008)	(0.006)	(0.007)	(0.006)	(0.010)	(0.018)
R-squared	0.12	0.127	0.122	0.136	0.026	0.033
Observations	15306241	5332594	15306241	5332594	11568708	3557004
COGNITIVE IMPAIRMENT + DIFFICULTY GOING OUTSIDE HOME ALONE						
Post × Terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
Post × Terminating state × disability	0.019***	0.020***	0.014**	0.012**	-0.028*	-0.048*
	(0.006)	(0.005)	(0.006)	(0.005)	(0.015)	(0.024)
R-squared	0.099	0.106	0.098	0.110	0.025	0.032
Observations	15046454	5193423	15046454	5193423	11509010	3532313

Note: All regressions include dummies for (termination cohort)*(year within cohort)*disability, (termination cohort)*state*disability, gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. The regressions by disability type include only people without disabilities and people with the particular disability type. Based on stacked DID, where only terminating and not-yet-terminating states are included. Robust standard error in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table 8: Sub-minimum wage termination effects by disability severity

Dep. Var.:	Employed		LFP		Unemployed	
	Full sample	No more than HS Degree	Full sample	No more than HS Degree	Full sample	No more than HS Degree
	(1)	(2)	(3)	(4)	(5)	(6)
Post × terminating state	-0.010	-0.014	-0.007	-0.011	0.006**	0.007*
	(0.010)	(0.012)	(0.009)	(0.011)	(0.003)	(0.003)
× disab rating 50th-75th pctile	-0.006	0.000	-0.004	0.002	0.002	0.002
	(0.004)	(0.005)	(0.004)	(0.005)	(0.002)	(0.003)
× disab rating 75th-90th pctile	0.018	0.018	0.018	0.020	-0.005	0.000
	(0.015)	(0.024)	(0.015)	(0.023)	(0.003)	(0.008)
× disab rating 90th-95th pctile	0.029	0.026	0.028	0.029	-0.008	0.000
	(0.047)	(0.025)	(0.043)	(0.024)	(0.018)	(0.014)
× disab rating >95th pctile	0.021***	0.030***	0.020***	0.029***	-0.006	-0.009
	(0.006)	(0.008)	(0.006)	(0.007)	(0.005)	(0.009)
R-squared	0.134	0.140	0.134	0.146	0.030	0.037
Observations	16422857	5868898	16422857	5868898	12137316	3775265
Post × terminating state	-0.003	0.000	0.000	0.003	0.003*	0.005**
	(0.002)	(0.004)	(0.001)	(0.003)	(0.002)	(0.002)
× Non-severe disability	0.009***	0.002	0.008***	0.001	-0.001	0.002
	(0.002)	(0.004)	(0.002)	(0.003)	(0.003)	(0.003)
× Severe disability	0.011	0.015	0.012	0.014	0.002	-0.006
	(0.011)	(0.011)	(0.010)	(0.013)	(0.013)	(0.017)
R-squared	0.128	0.133	0.128	0.139	0.029	0.035
Observations	16422857	5868898	16422857	5868898	12137316	3775265

Notes: 1. Disability rating is imputed from veterans sample–see appendix Table A3. 2. "Non-severe disability" = responded yes to one or more of six disability questions, but imputed probability of severe disability is less than .65. "Severe disability" = imputed probability of severe disability of .65 or more. 3. All regressions include dummies for (termination cohort)*(year within cohort)*disability and (termination cohort)*state*(disability measures). All regressions include dummies and disability interactions for gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. Based on stacked DID, where only terminating and not-yet-terminating states are included. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 9: Effects of Subminimum Wage Terminations Using Callaway-Sant'Anna Method

	Estimates relative to enactment year			Estimates relative to effective year		
	ATT	(s.e.)	(Z-stat.)	ATT	(s.e.)	(Z-stat.)
	(1)	(2)	(3)	(4)	(5)	(6)
No disability						
Overall	-0.007	(0.003)	(2.33)	-0.006	(0.006)	(1.09)
-2 to +2 years	-0.002	(0.002)	(1.31)	0.000	(0.003)	(0.05)
-4 to +4 years	-0.004	(0.002)	(1.87)	-0.002	(0.002)	(0.99)
n	1,120,791			1,120,791		
Any disability						
Overall	-0.024	(0.011)	(2.24)	-0.005	(0.009)	(0.58)
-2 to +2 years	-0.010	(0.006)	(1.52)	-0.001	(0.004)	(0.33)
-4 to +4 years	-0.010	(0.004)	(2.43)	-0.007	(0.005)	(1.57)
n	265,224			265,224		
Cognitive + Outside disability						
Overall	0.000	(0.010)	(0.02)	-0.003	(0.012)	(0.23)
-2 to +2 years	0.001	(0.005)	(0.25)	0.007	(0.007)	(0.93)
-4 to +4 years	0.004	(0.005)	(0.75)	0.001	(0.004)	(0.13)
n	80,142			80,142		
Severe disability						
Overall	-0.012	(0.014)	(0.84)	-0.002	(0.009)	(0.18)
-2 to +2 years	-0.005	(0.008)	(0.60)	-0.001	(0.005)	(0.25)
-4 to +4 years	-0.006	(0.007)	(0.84)	-0.006	(0.005)	(1.21)
n	161,983			161,983		

Notes: Figures represent Average Treatment on the Treated (ATT) on employment likelihood, confined to those with no more than a high school degree.

Table 10: Minimum wage effects interacted with subminimum wage provisions

Disability sample:	Any disability (1)	Hearing impairment (2)	Vision impairment (3)	Cognitive impairment (4)	Mobility impairment (5)	Difficulty dressing /bathing (6)	Difficulty outside alone (7)
Ln(min wage) difference from t-1							
× allows subminimum wages	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
× terminated subminimum wages	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
× disability × allows subminimum wages	0.020	0.009	-0.022	0.001	0.040*	0.008	-0.023
	(0.029)	(0.040)	(0.057)	(0.026)	(0.021)	(0.041)	(0.037)
× disability × terminated subminimum wages	0.021	0.106**	0.005	0.039	0.036	0.045	0.002
	(0.030)	(0.041)	(0.057)	(0.037)	(0.023)	(0.065)	(0.042)
Observations	9,237,627	7,966,988	7,974,584	8,476,214	8,449,859	8,033,567	8,364,124
R-squared	0.134	0.063	0.069	0.120	0.122	0.096	0.126

Note: All regressions include the non-disability sample plus the indicated disability sample. All regressions include dummies for (adoption cohort)*year*disability, (adoption cohort)*state*disability, and dummies plus disability interactions for gender, age (3 categories), education (5 categories), race/ethnicity (4 categories), and living alone. Based on stacked DID with 5-year window, where only adopter and not-yet-adopter states are included. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

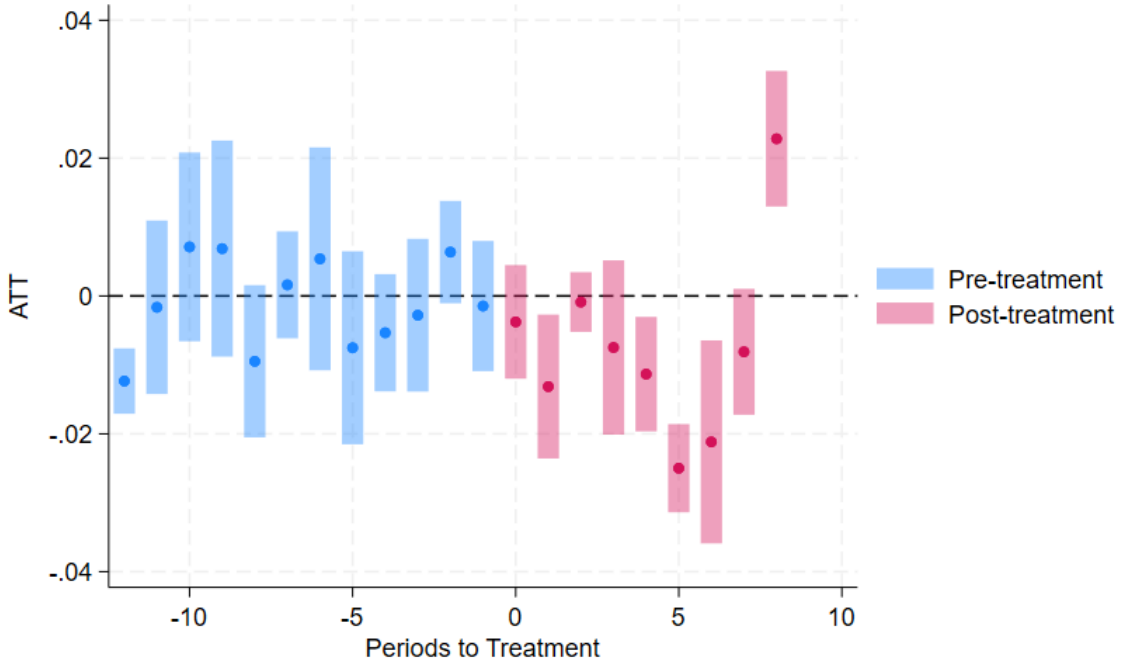

Figure 1: Employment trend for those with no disability, and no more than HS degree, before and after enactment of subminimum wage termination

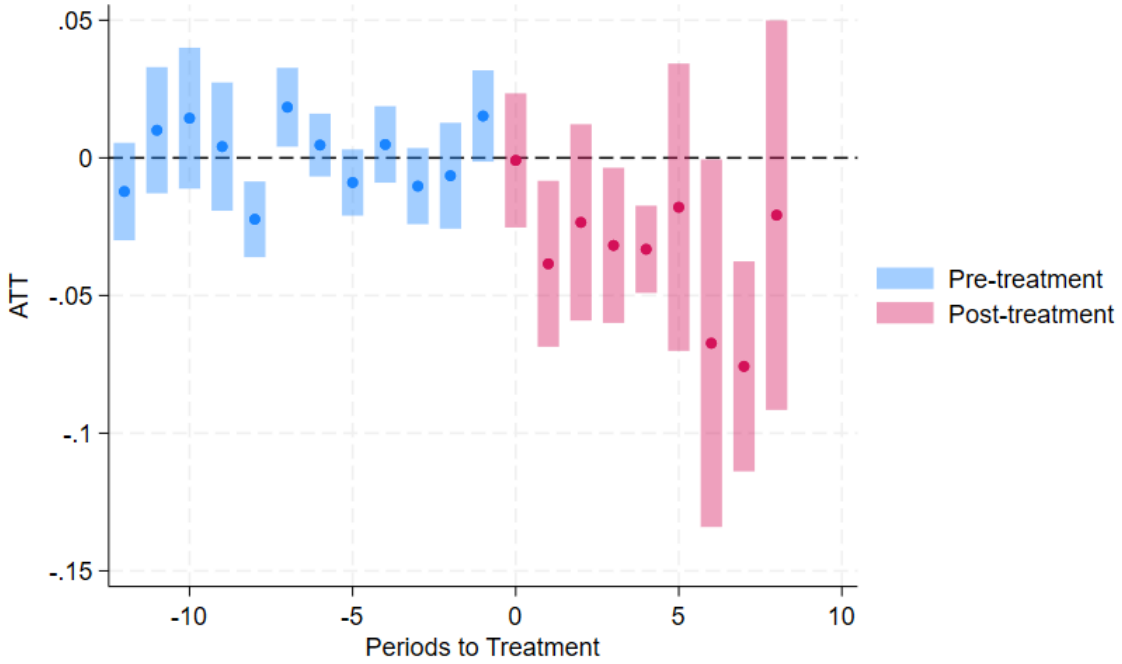

Figure 2: Employment trend for those with any disability, and no more than HS degree, before and after enactment of subminimum wage termination

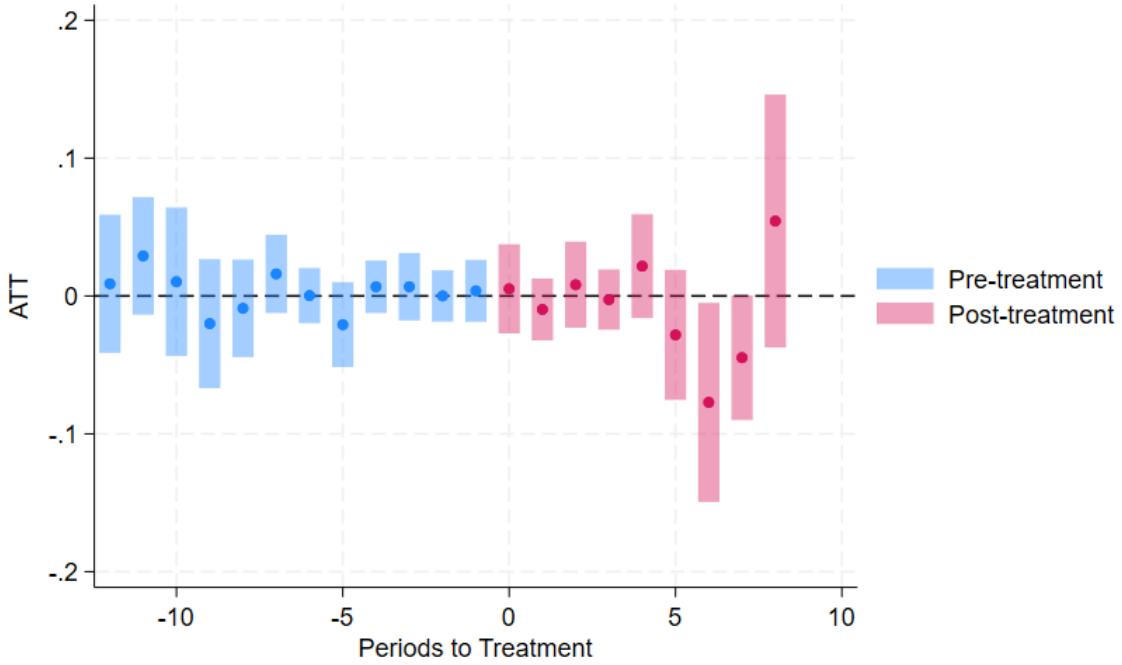

Figure 3: Employment trend for those with cognitive and outside disability, and no more than HS degree, around enactment of subminimum wage termination

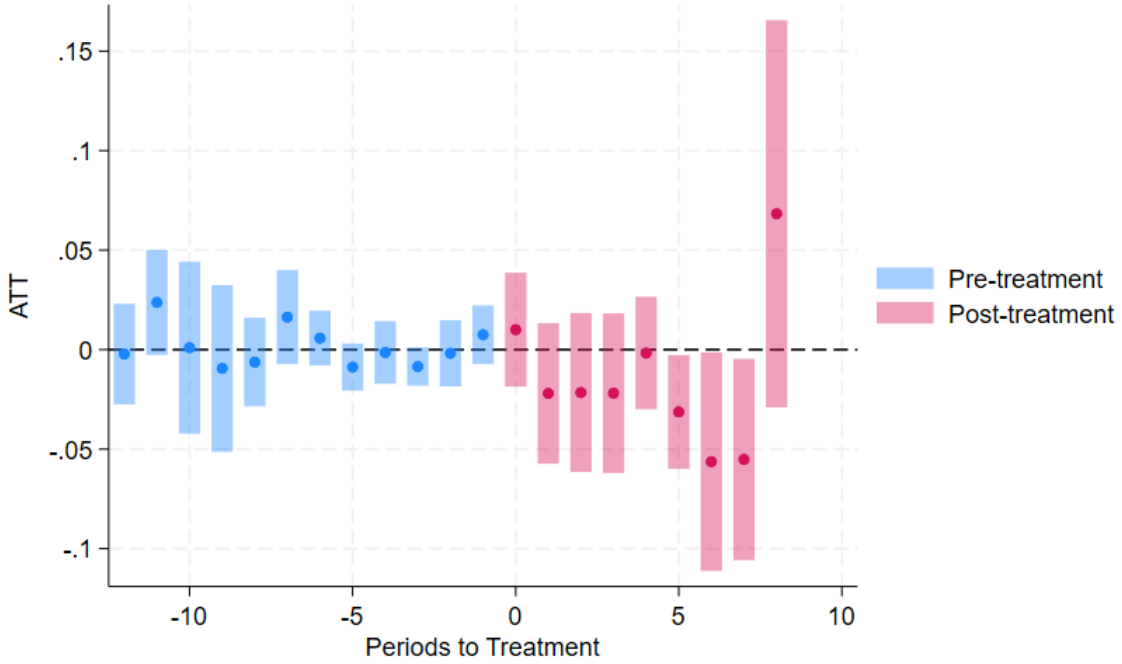

Figure 4: Employment trend for those with severe disability, and no more than HS degree, around enactment of subminimum wage termination