Hiring Under Separation Risk: Unemployment Insurance Taxes and the Geography of Job Postings

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Abstract

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Keywords: Unemployment insurance experience rating, workforce risk management, internal resource allocation, job postings, firm value

JEL Classifications: G32, J23, J65, D22, R12

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Internal organization gives managers discretion to allocate hiring across units and locations. We study whether managers use the geography of new hiring as an internal allocation margin to manage prospective workforce-adjustment risk associated with future separation costs. Because unemployment insurance (UI) tax schedules are experience rated and rise with firms' layoff histories, multi-state firms face differing expected separation costs across states. Using Lightcast job postings matched to state UI tax rules from 2010–2024, we find that a one-standard-deviation increase in UI tax exposure is associated with about five fewer postings at the median firm–state–year, with little evidence of lower firm-wide posting activity. Firms also adjust the type of employment relationship they seek to establish, shifting away from full-time, non-internship postings in states with greater UI tax exposure. Reallocation effects are stronger when separation costs are more salient and firms have greater geographic flexibility. Evidence from Title XII borrowing during the COVID-19 period further supports the interpretation that firms reallocate hiring across states when expected separation costs rise. A greater tilt in job postings toward lower-separation-cost states is associated with higher market valuation but lower short-run profitability and operating efficiency, highlighting how managerial discretion over internal hiring allocation can shape firms' exposure to workforce-related risk and firm outcomes.

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1. Introduction

Firms with operations across multiple units or locations face variation in expected returns, costs, and risks across alternative internal uses of resources. A fundamental idea in theories of the firm is that, within firm boundaries, managers can use internal allocation mechanisms to coordinate activities and redirect resources across units (e.g., Alchian and Demsetz, 1972; Williamson, 1975; Stein, 1997). A large literature examines how firms make these allocation decisions. Early studies focus primarily on capital investment within diversified firms and document limited sensitivity of segment investment to cross-unit opportunities, raising questions about the efficiency of internal capital markets (Shin and Stulz, 1998). More recent research documents active resource reallocation within firm boundaries. For example, Giroud and Mueller (2015) show that firms respond to shocks to investment opportunities at one plant by reallocating both capital and labor across plants, while studies of business groups document similar reallocations across affiliated firms (Almeida et al., 2015). This literature shows that internal organization shapes how firms allocate resources across competing uses. Less is known about whether managers use the geographic placement of new vacancies as an *ex ante* internal allocation margin to manage prospective workforce-adjustment exposure before employment relationships are formed.

Separation costs are an important determinant of firms' investment and financing policies (Serfling, 2016; Bai et al., 2020). For multi-unit firms, differences in exposure to these costs across locations may create an additional margin for internal resource allocation. Hiring is a distinctive allocation margin because each vacancy represents an intended employment commitment and a prospective worker–firm relationship. The value of that relationship depends not only on current staffing needs, but also on the cost of adjusting employment if the position is later terminated. Job postings allow us to observe this decision before the employment relationship is formed, when managers retain discretion over where to direct new hiring commitments and what type of position to create. For a multi-location firm, the state in which a vacancy is posted determines where the firm seeks to add workers and where it may incur future separation-related costs. When those costs differ across jurisdictions, managers can direct hiring toward locations with more favorable expected separation costs.

Unemployment insurance (UI) provides a useful setting for examining this allocation margin. In the United States, UI protects workers against job-loss risk and is financed through employer payroll taxes that are partly experience rated and largely set at the state level under the State Unemployment Tax Act framework. Experience rating links an employer's payroll tax rate to its layoff history, so hiring a worker today may generate future tax obligations if that worker is later separated from the firm. This feature links current hiring decisions to expected separation costs, consistent with models in which firing costs affect hiring through forward-looking considerations (Bentolila and Bertola, 1990; Lazear, 1990). Empirical evidence further shows that UI tax increases can reduce hiring and employment (Johnston, 2021). Because UI tax schedules, employer-specific experience-rating formulas, and taxable wage bases vary across states, multi-state firms face differences in the expected separation costs associated with filling similar vacancies across locations.[1] These differences make the geographic placement of new hiring commitments a managerial allocation choice. Managers decide not only how much total labor to seek, but also where within the firm to initiate employment relationships with different expected future separation costs.

To examine how firms respond to these differences in expected separation costs, we use Lightcast job postings from 2010 to 2024 to measure firms' geographic recruiting footprints and match these postings to state-level UI policy rules. Our empirical design compares a firm's postings across states within the same year. By including firm-by-year fixed effects, the specification absorbs common firm-level hiring demand and other time-varying firm characteristics. The estimates are therefore identified from differences in UI tax exposure across the states in which the same firm recruits. This within-firm comparison tests whether managers use the geographic placement of new vacancies as an *ex ante* internal allocation margin before employment relationships are formed, directing hiring commitments within the firm's recruiting footprint away from states with greater expected separation-cost exposure and toward lower-exposure locations.

We measure state-level UI tax exposure using statutory policy parameters. Our primary measure, *MaxUIT*, equals the statutory maximum UI tax rate multiplied by the taxable wage base and captures the upper bound of annual statutory UI tax exposure under a state's experience-rated system. We use *MinUIT*, defined analogously using the statutory minimum tax rate, to capture the lower bound of statutory UI tax exposure that applies independently of adverse layoff experience. We interpret these measures as policy-based proxies for upper- and lower-bound UI tax exposure, not as precise measures of a firm's realized marginal separation costs.[2]

[1] Differences in unemployment insurance tax schedules, experience-rating provisions, and taxable wage bases vary substantially across states and affect firms' expected UI tax exposure. See U.S. Department of Labor, Employment and Training Administration, *Comparison of State Unemployment Insurance Laws*, and Anderson and Meyer (2000).

[2] Statutory UI measures may not fully capture firms' effective separation costs because realized exposure depends on firms' positions on the experience-rating schedule, the extent to which a state's UI financing rules attribute layoff-related benefit costs to individual employers, and other features of state UI financing rules. We therefore interpret *MaxUIT* and *MinUIT* as policy-based proxies for upper- and lower-bound statutory UI tax exposure, rather than precise measures of firms' realized marginal separation costs (Anderson and

Our baseline results show that UI tax exposure shapes the within-firm allocation of hiring across states. Higher *MaxUIT* is associated with fewer job postings, whereas *MinUIT* has little independent relation with postings. The estimated magnitudes are economically meaningful. A one-standard-deviation increase in *MaxUIT* is associated with approximately 37% fewer postings at the firm–state–year level, or about five fewer postings at the median firm–state–year. Results based on relative exposure further support a reallocation interpretation. Firms shift postings toward states with lower UI tax exposure relative to the firm's average across its hiring locations. At the firm level, we find little evidence that greater UI tax exposure reduces total posting activity, consistent with geographic reallocation rather than an overall contraction in recruiting. Firms also adjust the type of employment relationship they seek to establish, shifting away from full-time, non-internship postings in states with greater UI tax exposure. Overall, the evidence indicates that firms respond primarily by reallocating new hiring commitments across states and changing the types of employment relationships they seek to establish, illustrating how managerial discretion over internal hiring allocation can shape firms' exposure to expected separation costs.

To strengthen the identification analysis, we exploit state borrowing under Title XII of the Social Security Act. When state UI trust funds are depleted, states may borrow from the federal government to finance benefit payments. These borrowing episodes signal fiscal stress in state UI systems and may lead firms to anticipate higher future employer UI taxes through subsequent changes in tax schedules, taxable wage bases, or related financing adjustments. Although Title XII advances do not mechanically alter statutory employer tax rates or taxable wage bases, they provide a setting in which expected UI tax exposure may rise. We use this setting to examine whether firms reduce postings in states where future separation-related costs are expected to increase. A key concern is that firms' geographic recruiting footprints may be endogenous. Firms may enter, exit, or expand in particular states for reasons correlated with UI financing pressure. We therefore hold firms' pre-COVID recruiting footprints fixed by restricting the analysis to incumbent firm–state pairs with pre-shock postings and comparing changes in posting intensity within these existing recruiting relationships before and after the COVID shock. This approach examines whether firms reallocate hiring away from states already in their recruiting networks when expected UI tax exposure rises, separate from the decision to enter or exit a state.

The Title XII tests provide additional support for the baseline interpretation. Following the COVID shock, firms reduce postings more in states that borrowed under Title XII, consistent with a response to anticipated increases in employer UI tax exposure. The effect

Meyer, 2000; Ratner, 2013).

is stronger among firms with greater pre-COVID geographic flexibility, which are better positioned to shift vacancies across states. The result is robust to specifications that include state-by-year fixed effects, helping to absorb contemporaneous state-level shocks. Comparable placebo tests outside the COVID period do not produce similar effects. These findings strengthen the interpretation that anticipated increases in UI-related separation costs contributed to the reallocation of postings away from borrowing states. Together, the evidence from pre-existing recruiting relationships, state-by-year fixed effects, and placebo tests makes it less likely that the results reflect broader pandemic-era disruptions or changes in the states in which firms recruit.

We then investigate whether the hiring-allocation response varies with the economic environment. If UI tax exposure operates through expected separation costs, the relation between UI tax exposure and job postings should be stronger when expected separation costs associated with new employment commitments are more salient. The evidence is consistent with this prediction. The negative association is more pronounced in states with higher layoff rates, where new hiring is more likely to expose firms to subsequent workforce reductions. It is weaker for firms with stronger sales growth, where greater demand raises the value of expanding employment and lowers the expected need for future adjustment. The relation is also stronger in more concentrated labor markets. In these markets, workers have fewer outside options, potentially lengthening unemployment spells following a separation and increasing the benefit charges employers may bear under experience-rated UI systems. Together, these results show that firms' internal hiring-allocation response is strongest when the expected separation costs are more consequential.

We also examine how geographic flexibility conditions firms' responses to UI tax exposure. The negative relation between UI tax exposure and job postings is stronger among firms with broader geographic recruiting networks, more dispersed hiring activity across states, and greater reliance on postings outside the headquarters state. These results suggest that expected separation costs matter more when firms have feasible alternatives for placing marginal vacancies. Firms with established multi-state recruiting networks can redirect hiring away from higher-exposure states without necessarily reducing overall hiring demand or entering unfamiliar labor markets. By contrast, firms with more concentrated hiring footprints may face operational, organizational, or labor-market constraints that limit their ability to substitute across locations. This evidence is consistent with managers using established recruiting networks to alter the geographic placement of new hiring commitments in response to expected separation costs, showing how internal hiring allocation can shape firms' exposure to prospective workforce-adjustment costs.

Finally, we examine the financial implications of managers' cross-state allocation of new hiring commitments in response to UI tax exposure. For multi-state firms, directing vacancies toward states with lower expected separation costs may reduce future workforce-adjustment costs, but it may also move hiring away from locations where additional workers are operationally more valuable. We therefore assess whether firms that tilt postings toward lower-separation-cost states exhibit different subsequent valuation and operating outcomes. We find that a greater tilt toward lower-separation-cost states is associated with higher market valuation, as measured by *Tobin's Q*, but lower realized profitability and operating efficiency. These outcome differences suggest that the expected benefits of reducing future separation-cost exposure can entail frictions in reallocating hiring across states.

This paper contributes to several strands of research in corporate finance, labor, and public policy. First, we advance the corporate finance literature on internal resource allocation. Prior work shows that multi-unit firms reallocate capital and labor across establishments in response to local shocks and differences in investment opportunities (Giroud and Mueller, 2015, 2019; Serrato and Zidar, 2018). We extend this literature by identifying the geography of job postings as an *ex ante* internal allocation margin through which managers allocate new hiring commitments in light of expected separation costs. Because vacancies represent prospective employment relationships, the location of a posting determines the jurisdiction in which the firm assumes potential exposure to future separation costs. Our evidence links jurisdictional differences in expected separation costs to the internal placement of new hiring commitments and, in turn, to firm outcomes, underscoring a governance-relevant role for managerial discretion in allocating resources across units within the firm.

Second, we connect labor adjustment costs to firms' organizational scope and geographic flexibility. A large labor economics literature shows that firing costs and employment protection affect hiring, labor-market dynamics, and workforce composition by increasing the cost of adjusting employment *ex post* (Bentolila and Bertola, 1990; Lazear, 1990; Hopenhayn and Rogerson, 1993; Autor, 2003; Autor et al., 2006, 2007). A related corporate finance literature shows that labor adjustment costs also shape firms' financial and investment decisions. For example, Serfling (2016) finds that higher firing costs reduce financial leverage, consistent with greater operating leverage and expected financial-distress costs, while Bai et al. (2020) find that stronger employment protection reduces investment and slows sales growth by making projects more irreversible. We extend this literature by showing that expected separation costs affect not only the level of new employment commitments, but also their allocation across locations within the firm. The stronger effects when future separation risk is more salient and among firms with broader geographic reach indicate that organizational scope expands managers' ability to redirect hiring among states in response to differences in UI regimes.

Third, we bring a firm-level allocation perspective to experience-rated UI taxation. Prior research has largely focused on worker responses to UI benefits and their effects on job-search behavior and unemployment durations (Card et al., 2007). More recent work shows that UI taxes affect firms' hiring and exit decisions by increasing the cost of workforce adjustment (Guo, 2023, 2024). We show that cross-state differences in UI rules are associated with systematic shifts in the location of vacancies within multi-state firms, indicating that experience-rated UI taxation affects not only whether firms hire, but also where managers direct new hiring within the organization. This reallocation has firm-level implications, as a greater tilt toward lower-separation-cost states coincides with higher market valuation but lower realized profitability and operating efficiency. These findings are consistent with lower expected separation-cost exposure being accompanied by frictions in redirecting new hiring across states.

2. Institutional Setting

State UI systems expose multi-state firms to differences in expected separation costs. Under the State Unemployment Tax Act framework, unemployment insurance is financed primarily through employer payroll taxes that are partially experience rated and largely set at the state level. Because these systems differ across jurisdictions, hiring otherwise similar workers can entail different expected separation costs depending on where they are hired. For firms operating in more than one state, this variation makes the geographic placement of new hiring commitments economically consequential. Managers exercise discretion over this choice by determining which states receive new vacancies and, in turn, where workforce-adjustment costs associated with separations may arise.

Unemployment insurance in the U.S. provides temporary income support to workers who lose their jobs through no fault of their own and is financed primarily through employer payroll taxes. The system is jointly administered by the federal government and the states. The federal payroll tax component, governed by the Federal Unemployment Tax Act (FUTA), is comparatively limited and largely uniform across states.[3] In contrast, state UI systems determine the main features of employer tax liability and generate the cross-state varia-

[3]The federal unemployment tax applies under FUTA and is largely uniform across states after credits for state UI taxes. Our analysis focuses on state UI systems, which generate the main cross-state variation in employer-facing UI tax exposure.

tion that underlies our analysis. States set their own tax schedules, taxable wage bases, experience-rating formulas, and financing rules. These statutory parameters reflect long-standing policy choices about how to finance unemployment protection and how to allocate its costs across employers and over time (Anderson and Meyer, 2000). States differ in how broadly they tax payroll, how steeply tax burdens rise across the statutory rate schedule, and how strongly employer tax rates are linked to prior layoff experience (Anderson and Meyer, 2000).[4] Thus, a higher taxable wage base expands the portion of payroll subject to UI taxation, while a higher maximum tax rate or wider tax-rate range increases the potential tax burden faced by employers with adverse experience ratings. These institutional features of state UI financing systems can persist through statutory structures and historical policy choices, without mechanically reflecting contemporaneous labor-market conditions (Parsons, 2017; Vroman et al., 2017). At the same time, UI parameters may evolve with trust-fund conditions, prior benefit outflows, and financing pressure, raising the possibility that UI tax exposure is correlated with broader state labor-market environments. This concern motivates our empirical design. We compare postings across states within the same firm and year, control for state economic conditions, and use Title XII borrowing during the COVID period to provide additional evidence based on anticipated increases in employer UI tax exposure.

A defining feature of state UI systems is experience rating, which links employer tax rates to prior separations. State UI tax schedules assign employers to rates within a statutory range, with a minimum rate for employers with favorable experience ratings and a maximum rate for employers with adverse layoff histories. Firms with fewer benefit charges generally face rates closer to the statutory minimum, while firms with greater layoff experience face rates closer to the statutory maximum. These rates are based on multi-year histories of benefit charges relative to payroll, and states differ in the lookback periods and formulas used to translate prior layoffs into current tax rates, including reserve-ratio and benefit-ratio systems.[5] Because layoffs can raise future payroll tax obligations, the expected cost

[4]See U.S. Department of Labor, Employment and Training Administration, *Conformity Requirements for State UC Laws: Experience Rating*, for a description of state experience-rating systems and how employer tax rates are linked to benefit charges.

[5]Under a reserve-ratio system, an employer's UI tax rate depends on the balance in its experience-rating account, which is credited for UI tax contributions and charged for benefits paid to former employees. The reserve balance is then scaled by the employer's payroll. Under a benefit-ratio system, the tax rate depends more directly on benefits charged to the employer relative to payroll over a recent multi-year period. Most states use reserve-ratio systems, while a smaller group uses benefit-ratio systems. In some states, firms can also make voluntary contributions to reduce their experience-rated tax burdens. These provisions allow limited adjustments within a state's tax schedule, but they do not remove the sizable cross-state differences in employer exposure that arise from the underlying policy rules. See U.S. Department of Labor, Employment and Training Administration, "Significant Provisions of State Unemployment Insurance Laws," available at `https://oui.doleta.gov/unemploy/pdf/uilawcompar/2023/financing.pdf`.

of forming an employment relationship today depends in part on the possibility that the relationship will later end. Although tax rates are bounded and apply only to earnings below a state-specific taxable wage base, employers partially internalize the benefit costs generated by separations (Anderson and Meyer, 2000). From the firm's perspective, a new hire can therefore give rise to future separation-cost exposure if the worker is later laid off and the resulting UI benefits are charged to the employer's account, potentially moving the firm toward a higher future UI tax rate within the state's experience-rating schedule.

The combination of experience rating and capped taxable wage bases also shapes the way firms are likely to respond to UI tax differences. An important implication, emphasized in prior work, is that UI taxes often operate more like a per-worker cost than a proportional tax on wages because taxable wage bases are relatively low (Guo, 2024). In most states, payroll taxes apply only to earnings up to a capped wage base, and that cap is often small relative to annual earnings. For workers whose earnings exceed the threshold, the employer's UI tax liability does not rise with additional wages, so the tax resembles a fixed cost per employee rather than a constant share of compensation. This feature implies that cross-state differences in UI policy enter hiring decisions primarily through expected headcount-related separation costs rather than through proportional wage costs. Moreover, because experience-rated UI taxes depend on firms' own layoff histories, these costs vary across employers and over time. Unlike broad-based payroll taxes that apply more uniformly across firms, experience-rated UI taxes may therefore be harder to pass through into wages.[6] Combined, these features make workforce adjustment a more plausible response than wage adjustment when firms face differences in expected separation costs (Johnston, 2021; Guo, 2024). They also suggest that multi-state firms can respond through the geographic placement of new vacancies. By choosing where to post vacancies, firms determine where prospective employment relationships are formed and where exposure to future experience-rated separation costs arises. This institutional setting therefore links state-level UI rules to managerial discretion over the geographic placement of new hiring commitments within multi-state firms.

[6]For example, if a state taxes only the first $10,000 of wages, an employer's UI tax liability for a worker earning $50,000 is determined by the tax rate applied to the first $10,000, not by the worker's full salary. The resulting cost increase is therefore tied to employing an additional worker rather than to paying a higher wage. Because wages are often shaped by competitive labor markets, internal pay scales, and cross-location pay norms, employers may find it difficult to pass these state-specific costs through to workers.

3. Data, Variable Construction, and Sample Selection

3.1 Data Sources

Our study combines data on firm-level job postings, state-level unemployment insurance (UI) tax rules, state economic and demographic conditions, and firm financial characteristics. Our primary source of hiring data is the Lightcast database, formerly Burning Glass Technologies. Lightcast data are widely used to study firms' hiring behavior using online vacancy postings (Deming and Kahn, 2018; Hershbein and Kahn, 2018; Azar et al., 2020). The database provides detailed information on individual job postings, including employer names, job titles, hiring locations, required skills, education and experience requirements, contract types, and job descriptions. Lightcast aggregates postings from more than 220,000 online sources worldwide, including firm career pages, national and local job boards, and job-posting aggregators. We use Lightcast postings to measure firms' hiring demand across U.S. states. These data are well suited to our setting because postings capture firms' intended hiring before worker–firm matches are realized and before any future separation costs are incurred. Although postings may still reflect local labor-supply conditions, they allow us to observe firms' ex ante allocation of vacancies rather than realized employment outcomes that combine labor demand, worker supply, offer acceptance, and subsequent separations. The geographic detail in the Lightcast data allows us to compare how the same firm allocates vacancies across states within a year, which is central to our within-firm test.

We combine the posting-level data with state-level UI tax policy variables from the U.S. Department of Labor, including statutory minimum and maximum UI tax rates and taxable wage bases at the state-year level. These data provide the policy inputs used to measure statutory UI tax exposure across states and over time. We supplement the UI tax data with state-level controls that capture economic conditions, labor-market environments, demographic composition, and political representation, using data from federal statistical agencies, the American Community Survey, and the U.S. House of Representatives. These variables help account for state environments that may be correlated with both UI policy design and firms' hiring decisions. We also obtain firm financial characteristics from Standard & Poor's Compustat and match firms to CRSP identifiers, allowing us to control for firm scale, financial condition, investment activity, profitability, and market valuation.

3.2 Sample Construction

The Lightcast job postings data are available beginning in January 2010, so our sample covers 2010–2024. Because the same vacancy can appear on multiple job boards or be reposted while it remains unfilled, we rely on Lightcast's standardized deduplication procedure to identify unique vacancies. This procedure uses parsed posting attributes, including employer name, job title, location, and other vacancy characteristics, to remove duplicate listings and consolidate postings associated with the same opening (Azar et al., 2020). We link Lightcast employers to firms in the Compustat–CRSP universe using a combination of algorithmic name matching and manual verification, following prior studies that connect online vacancy data to public firms (Hershbein and Kahn, 2018; Nguyen and Sila, 2025). This procedure yields matched Lightcast employer records for approximately 74.4% of Compustat–CRSP firms.

We restrict the sample to job postings located in the 50 U.S. states.[7] We then aggregate postings to the firm–state–fiscal-year level based on the posting date recorded in Lightcast. The baseline unit of observation is therefore a firm–state–year. A firm enters the sample in a given fiscal year if it posts at least one job opening in at least one U.S. state. When a firm posts job openings in multiple states during that fiscal year, each firm–state pair enters the sample as a separate observation. After excluding observations with missing firm financial data, the final analysis sample consists of 673,692 firm–state–year observations. These observations represent 6,428 distinct firms, 45,543 firm–year observations, and 89,767,458 job postings. This structure permits comparisons of a firm's postings across states within a fiscal year. The resulting within-firm-year variation is the main source of identification in the baseline analysis. It absorbs aggregate firm-year hiring demand and other time-varying firm characteristics, while exploiting differences in UI tax exposure across the states in which the same firm posts jobs.

3.3 Variable Construction

Job Postings

Our main dependent variable is the number of job postings by firm f in state s during year t. We construct this measure from individual vacancy postings in Lightcast. Each posting contains a standardized employer identifier, a posting date, and a reported job location.

[7] We exclude Washington, D.C., because our empirical design exploits state-level UI tax rules and state-year variation. Focusing on the 50 states keeps the cross-sectional units comparable in terms of state-level policy authority and labor-market institutions.

We first restrict postings to U.S. jobs with identifiable state locations and matched employer identifiers. We then assign each posting to the state in which the job is located and aggregate postings to the firm–state–year level. The resulting count, $JobPostings_{f,s,t}$, captures a firm's recruitment demand in a given state and year, at a stage when managers can still determine where to seek new workers before hires are made.

Unemployment Insurance Tax Exposure

For each state–year, we construct statutory measures of UI tax exposure using the maximum and minimum tax rates in the state UI schedule and the state's taxable wage base. We define *MaxUIT* as the statutory maximum UI tax rate multiplied by the taxable wage base, and *MinUIT* as the statutory minimum UI tax rate multiplied by the taxable wage base. We adjust both measures for inflation using the Consumer Price Index and express them in constant 1983 dollars, so that comparisons across states and over time reflect differences in real employer tax exposure rather than changes in the price level.

MaxUIT captures the upper bound of statutory UI tax exposure per worker, whereas *MinUIT* captures the baseline statutory UI tax floor per worker (Anderson and Meyer, 2000). The maximum-based measure is more closely tied to the experience-rated portion of the UI system because employers with adverse layoff histories can move toward higher rates on the schedule. We therefore use *MaxUIT* as our primary measure of potential separation-cost exposure. *MinUIT* captures the lower-bound payroll-tax obligation embedded in the same statutory system and serves as a control for the baseline UI tax component before experience-rated adjustments are applied. Both measures are policy-based proxies rather than actual firm-level marginal tax costs. Actual UI tax liabilities depend on firms' positions on state experience-rating schedules, which are shaped by firms' layoff histories and benefit charges. The advantage of *MaxUIT* and *MinUIT* is that they provide comparable statutory measures across states that are not based on firms' realized tax positions or firm-specific financial conditions. Our tests therefore examine whether firms respond to cross-state differences in policy-based exposure to expected separation-related labor costs.

Firm and State-Level Controls

We include firm- and state-level controls that may be correlated with both UI tax exposure and firms' job-posting decisions. In specifications without firm-by-year fixed effects, we include firm-level controls measured at the firm–year level; in specifications with firm-by-year fixed effects, these firm-year characteristics are absorbed by the fixed effects. Specifically, where applicable, we control for firm size using *Log(Assets)*, defined as the natural logarithm of total assets, and *Log(Employees)*, defined as the natural logarithm of the number of employees. We control for financial condition using *Leverage Ratio*, measured as total debt scaled by total assets. We control for profitability using *ROA*, measured as operating income scaled by total assets, and for investment activity using *CAPEX/Assets*, measured as capital expenditures scaled by total assets. We also include *Tobin's Q* to account for market valuation and growth opportunities.

State-level controls are measured at the state–year level. We include *State Unemployment Rate* to capture local labor-market conditions, *Log(GDP per Capita)* to capture the level of state economic activity, and *GDP Growth* to capture changes in state economic activity. To account for demographic composition, we include *Log(Average Population Age)*, *Male Population Share*, and *White Population Share*; for 2020, when these demographic measures are unavailable, we use their 2019 values. We also include *Democratic House Representation*, measured as the share of a state's congressional delegation in the U.S. House of Representatives affiliated with the Democratic Party, as a proxy for the state's political environment. In robustness tests, we further control for additional state-level policy and labor-market characteristics, including personal income tax rates, corporate tax rates, unionization, and education levels. Unless otherwise noted, we winsorize continuous variables at the 1st and 99th percentiles, with the exception of state-level controls and count variables. Appendix A provides detailed definitions, data sources, and construction details for all variables used in the analysis.

3.4 Summary Statistics

Table **1** reports summary statistics on the geographic distribution of firms' job posting activity and the cross-state variation in UI tax exposure. Panel A shows that firms frequently post jobs across multiple jurisdictions. The average firm posts jobs in 14.79 states per year, with a median of eight states. The multi-state posting indicator shows that 81 percent of firm–year observations involve posting activity in more than one state. Nearly half of firm–years, 46 percent, involve posting activity in ten or more states. These statistics indicate that multi-state job posting activity is common in our sample. This geographic breadth is important for our empirical design because it gives firms scope to adjust the allocation of job postings across states in response to differences in UI-related labor costs.

Panel B quantifies the magnitude of cross-state variation in statutory UI tax exposure faced by multi-state firms. Among firm–years with postings in more than one state, the average within-firm range in *MaxUIT*, defined as the difference between the highest and lowest *MaxUIT* across posting states within the same firm–year, is about $794 per worker, with a median of $886 per worker. The corresponding within-firm standard deviation is

\$260. These values indicate that, within the same firm–year, the upper-bound statutory UI tax exposure associated with employing a worker can differ substantially across the states in which the firm posts jobs. Because *MaxUIT* is based on statutory maximum tax rates, this dispersion captures differences in potential exposure to experience-rated UI tax costs rather than realized tax payments. The within-firm variation in *MaxUIT* reflects differences in both statutory tax rates and taxable wage bases across states. In our sample, the average within-firm range in maximum UI tax rates is 6.52 percentage points, while the average range in taxable wage bases exceeds \$11,045. These two components jointly generate large differences in potential UI tax exposure across locations. In contrast, dispersion in *MinUIT* is substantially smaller, with an average range of \$120 and a standard deviation of \$34. This contrast indicates that most of the cross-state variation relevant for our setting arises from differences in potential exposure to the experience-rated component of UI taxation rather than from the baseline statutory UI tax component.

Table **2** reports summary statistics for the variables used in the baseline regression. Panel A summarizes the unemployment insurance policy variables and state-level controls. The average *MaxUIT*, defined as the payroll tax exposure implied by the statutory maximum UI tax rate applied to the taxable wage base, is \$474 per worker, while the average *MinUIT* is approximately \$32 per worker. The large difference between these values underscores that potential exposure to experience-rated UI tax costs can far exceed the baseline statutory UI tax floor (Anderson and Meyer, 2000). The panel also reports $\log(1 + MaxUIT)$ and $\log(1 + MinUIT)$, which are the transformed UI exposure measures used in the baseline regressions. The panel further summarizes the state-level controls. State unemployment rates average 5.75 percent, GDP growth averages 4.43 percent, and GDP per capita averages \$23,220. On average, 46 percent of a state's congressional delegation is affiliated with the Democratic Party. These variables capture differences in labor-market conditions, economic activity, demographics, and political composition that may be correlated with state UI policies and firms' job-posting decisions.

Panel B reports job postings at the firm–state–year level. Firms post an average of 133 job openings per firm–state–year, with a median of 14, indicating a highly skewed distribution of job-posting activity. Because job postings are nonnegative counts and highly skewed, we use Poisson pseudo-maximum likelihood (PPML) specifications when the number of job postings is the dependent variable. Panel C reports firm characteristics at the firm–year level. The average firm holds \$6.56 billion in assets, employs about 14,330 workers, has a leverage ratio of 0.24, a return on assets of 4 percent, a Tobin's Q of 2.10, and capital expenditures equal to 3 percent of assets. These statistics indicate substantial heterogeneity in firm scale, financial condition, profitability, investment intensity, and market valuation. We control for these characteristics in specifications without firm–year fixed effects because they may affect firms' overall hiring demand and the allocation of postings across states; in specifications with firm–year fixed effects, they are absorbed by the fixed effects.

4. Within-Firm Allocation under State-Level Expected Separation Costs

This section examines whether firms allocate job postings across states in response to state-level variation in expected separation costs arising from experience-rated unemployment insurance systems. We first exploit within-firm-year variation, comparing a firm's postings across states in the same year to absorb firm-wide labor demand and other time-varying firm characteristics. We then turn to deviation-based measures that compare each state's UI tax exposure to the firm's average exposure across its posting locations in the same year. These measures sharpen the reallocation test by isolating whether firms tilt postings away from states with relatively higher expected separation-cost exposure and toward states with relatively lower exposure within the firm-year. Finally, we examine aggregate firm-level posting activity to distinguish between two margins of adjustment: whether higher expected separation costs reduce aggregate firm-level posting activity or instead primarily reshape the geographic allocation of vacancies across states.

4.1 Firms' Responses to State-Level Expected Separation Costs

We begin by estimating whether lagged state-level UI tax exposure predicts how firms allocate job postings across states. The baseline specification relates firm–state–year job postings to cross-state differences in unemployment insurance tax exposure:

$$\begin{aligned} JobPostings_{f,s,t} &= \alpha + \beta_1 \log(1 + MaxUIT_{s,t-1}) + \beta_2 \log(1 + MinUIT_{s,t-1}) \\ &\quad + \Gamma' X_{f,s,t-1} + FE + \varepsilon_{f,s,t}. \end{aligned} \tag{1}$$

where f indexes firms, s indexes states, and t indexes years. The dependent variable, $JobPostings_{f,s,t}$, is the number of job postings by firm f in state s during year t. Our primary explanatory variable is $\log(1 + MaxUIT_{s,t-1})$, which captures prior-year statutory exposure to the experience-rated component of UI tax costs under the state's UI system.

We also include $\log(1 + MinUIT_{s,t-1})$ to account for the prior-year lower-bound statutory UI tax exposure that applies independently of adverse layoff experience. The vector $X_{f,s,t-1}$ contains the lagged firm- and state-level controls described in Section 3.

The fixed effects, denoted by FE, take one of two forms depending on the specification: firm and year fixed effects, or firm × year fixed effects. Specifications with firm and year fixed effects use variation in job postings across firms, states, and years while absorbing time-invariant firm heterogeneity and common year shocks. Specifications with firm × year fixed effects provide our sharper within-firm comparison. They compare the same firm's postings across states in year t, thereby absorbing firm-wide labor demand and other time-varying firm characteristics in that year. In these specifications, β_1 captures whether the same firm posts fewer jobs in states with higher prior-year statutory exposure to experience-rated UI costs, conditional on the prior-year baseline UI payroll-tax component captured by $\log(1 + MinUIT_{s,t-1})$ and any state-level controls included in $X_{f,s,t-1}$.

Estimates of equation (1) are reported in Table **3**. Panel A presents the main PPML estimates using job-posting counts in levels as the dependent variable. Columns (1)–(2) include $\log(1+MaxUIT)$, columns (3)–(4) include $\log(1+MinUIT)$, and columns (5)–(6) include both measures. Across the specifications that include $\log(1+MaxUIT)$, the coefficient is negative and statistically significant, indicating that firms post fewer jobs in states with higher prior-year statutory exposure to experience-rated UI costs. The magnitudes are economically meaningful. Because PPML uses a log link, the coefficients imply multiplicative changes in expected posting counts. Using the standard deviation of $\log(1+MaxUIT)$, which is 0.58 in Table **2**, the Panel A coefficients on $\log(1 + MaxUIT)$ imply that a one-standard-deviation increase in prior-year UI tax exposure is associated with a decline of approximately 36.6% to 37.3% in expected job postings. For scale, this exposure change corresponds to about a \$299 increase in potential statutory UI tax exposure per worker, evaluated at the sample median of $MaxUIT$.[8] Evaluated at the median of 14 postings per firm–state–year, the estimated effect corresponds to roughly five fewer postings.

To distinguish potential exposure to experience-rated UI costs from the baseline payroll-tax floor, we compare the estimates for $\log(1 + MaxUIT)$ and $\log(1 + MinUIT)$. If firms respond to expected separation costs, the negative posting response should be concentrated

[8]The implied percentage effect of a one-standard-deviation increase is computed as $\exp(\hat{\beta} \times 0.58) - 1$, where 0.58 is the standard deviation of $\log(1+MaxUIT)$ reported in Table **2**. Using the Panel A coefficients on $\log(1 + MaxUIT)$, which range from -0.786 to -0.806, this calculation yields approximately -36.6% to -37.3%. To translate the logged exposure change into dollars, a 0.58 increase in $\log(1+MaxUIT)$ corresponds to multiplying $(1+MaxUIT)$ by $\exp(0.58)$, or approximately 1.79. Evaluated at the sample median $MaxUIT$ of \$379.07, this is roughly equivalent to increasing $MaxUIT$ to about \$678, or by about \$299 per worker.

in $\log(1 + MaxUIT)$, which captures upper-bound exposure under the experience-rated UI schedule, rather than in $\log(1 + MinUIT)$, which captures the statutory floor. Columns (3)–(4) show that $\log(1 + MinUIT)$ is negative and statistically significant when entered on its own, suggesting that the statutory floor is also negatively associated with postings in the absence of the maximum-based exposure measure. However, columns (5)–(6) show that this relation does not persist once $\log(1 + MaxUIT)$ is included. The coefficient on $\log(1 + MaxUIT)$ remains negative and sizable, while the coefficient on $\log(1 + MinUIT)$ becomes small and positive. Because the correlation between the two measures is only about 0.29, the contrast is unlikely to reflect the two variables simply moving together. Instead, the estimates indicate that the negative posting response is concentrated in the maximum-based measure of UI tax exposure rather than in the statutory floor. Panel B provides corroborating OLS evidence using log-transformed job postings as the dependent variable. The coefficient on $\log(1+MaxUIT)$ remains negative and statistically significant across specifications, while the role of $\log(1 + MinUIT)$ remains limited once both measures are included. Thus, the negative relation between $MaxUIT$ and job postings is not specific to the PPML functional form.

Panel C provides a further test of whether the posting response reflects the experience-rated component of UI tax exposure. Rather than entering $\log(1 + MaxUIT)$ and $\log(1 + MinUIT)$ separately, the panel uses the spread between the maximum and minimum statutory UI tax exposure, $\log(MaxUIT - MinUIT)$, as the explanatory variable. This spread captures the steepness of the state's UI tax schedule. A larger spread implies greater potential movement from the statutory floor toward the higher end of the experience-rating schedule following adverse separation experience. The coefficient on $\log(MaxUIT - MinUIT)$ is negative and statistically significant in both PPML specifications, reinforcing the interpretation that firms respond to the expected separation-cost exposure embedded in the statutory UI schedule rather than merely to the overall level of UI taxation. Together, Panels A–C show that job-posting activity is lower in states with greater exposure to the experience-rated component of UI taxation. By contrast, the statutory floor captured by $MinUIT$ plays a more limited role once the experience-rated component is accounted for.

We perform additional checks to assess the robustness and interpretation of the baseline relation. First, we examine whether the result is sensitive to how job postings capture the geography of hiring demand. The rise of remote work after COVID may have changed how firms report job locations, and the baseline sample conditions on positive firm–state–year posting activity. To address these concerns, Appendix Table A.1 interacts $\log(1 + MaxUIT)$ with an indicator for years after 2019, while Appendix Table A.2 expands the sample to include firm–state–year observations with zero postings under two alternative zero-imputation rules. Across these alternative specifications, the coefficient on $\log(1 + MaxUIT)$ remains negative and statistically significant. These results indicate that the baseline relation is not driven by post-COVID changes in job-location reporting or by conditioning on positive posting activity.

Second, we examine whether the posting response is reflected in firms' realized employment footprints. Job postings capture intended labor demand before employment relationships are formed, but advertised vacancies may not always become actual hires. Firms may post jobs to maintain candidate pipelines, signal growth, or test labor-market conditions, which could cause postings to overstate true hiring demand. Such behavior is unlikely to explain the within-firm-year estimates unless it varies systematically across a firm's posting states with lagged UI tax exposure. Nevertheless, realized employment provides a useful benchmark for actual labor allocation because it captures where firms ultimately maintain employment commitments. We use employment data from the National Establishment Time-Series (NETS) database,[9] a longitudinal establishment-level database derived from Dun & Bradstreet records that tracks establishments' locations, parent-firm affiliations, industries, and employment. We aggregate establishment-level employment to the firm–state–year level and use it as an alternative measure of firms' labor allocation across states. Appendix Table A.3 shows that $\log(1 + MaxUIT)$ remains negative and statistically significant when firm–state employment is the dependent variable. This evidence suggests that UI tax exposure is associated not only with where firms advertise vacancies, but also with where they maintain employment, supporting the interpretation that the posting response reflects meaningful labor allocation rather than only variation in job-advertising behavior.

4.2 Relative UI Tax Exposure and Job Postings

The baseline evidence shows that firms post fewer jobs in states with higher unemployment insurance tax exposure. We next ask whether this response depends on a state's UI tax exposure relative to the firm's own recruiting footprint. This distinction aligns the test more closely with the firm's internal allocation problem. For a firm recruiting across multiple states, the relevant comparison is not only whether a state has high UI tax exposure in absolute terms, but whether its exposure is high relative to the firm's other active recruiting states. Managers face this comparison when choosing where to direct marginal vacancies across states within the firm. A relative-exposure measure therefore helps identify whether

[9] Our NETS data are available through 2022.

firms tilt job postings away from states with relatively higher expected separation-cost exposure and toward states with relatively lower exposure within their own geographic recruiting network.

For each firm–state–year, we define the signed deviation in $MaxUIT$ as

$$DevMaxUIT_{f,s,t-1} \quad = \quad \log(1 + MaxUIT_{s,t-1}) - \overline{\log(1 + MaxUIT)}_{f,t-1}, \tag{2}$$

where $\overline{\log(1 + MaxUIT)}_{f,t-1}$ is the average value of $\log(1+MaxUIT)$ across the states in which firm f posts jobs in year $t-1$. Positive values of $DevMaxUIT_{f,s,t-1}$ indicate that a state has above-average $MaxUIT$ exposure relative to the firm's other posting states in the prior year, while negative values indicate below-average exposure. We define $DevMinUIT_{f,s,t-1}$ analogously using $\log(1 + MinUIT_{s,t-1})$. We also define $\mathbf{1}\{DevMaxUIT_{f,s,t-1} > 0\}$ as an indicator equal to one when a state's $MaxUIT$ exposure is above the firm's prior-year average across posting states, and zero otherwise. The corresponding indicator for $DevMinUIT_{f,s,t-1}$ is defined analogously. Thus, $DevMaxUIT$ captures whether a state is characterized by relatively high or low UI tax exposure within the firm's own prior-year posting footprint, rather than whether the firm as a whole is exposed to a high- or low-$MaxUIT$ environment.

We therefore estimate the following specification:

$$\begin{aligned} JobPostings_{f,s,t} = {} & \alpha + \beta_1 DevMaxUIT_{f,s,t-1} \\ & + \beta_2 \left(DevMaxUIT_{f,s,t-1} \times \mathbf{1}\{DevMaxUIT_{f,s,t-1} > 0\}\right) \\ & + \beta_3 DevMinUIT_{f,s,t-1} \\ & + \beta_4 \left(DevMinUIT_{f,s,t-1} \times \mathbf{1}\{DevMinUIT_{f,s,t-1} > 0\}\right) \\ & + \Gamma' X_{f,s,t-1} + \mu_{f,t} + \varepsilon_{f,s,t}. \end{aligned} \tag{3}$$

Equation 3 is estimated using PPML, with the same firm–state–year job-posting outcome as in the baseline analysis. The fixed effect $\mu_{f,t}$ denotes firm $\times$ year fixed effects, so the estimates are identified from cross-state differences in lagged relative UI tax exposure within the same firm-year. The vector $X_{f,s,t-1}$ includes the same lagged state-level controls as in the baseline analysis to the extent that they vary across states within a firm-year and are not absorbed by firm $\times$ year fixed effects. The specification also includes $DevMinUIT_{f,s,t-1}$ and its interaction with an indicator for positive $DevMinUIT_{f,s,t-1}$, which controls for asymmetric responses to relative exposure to the lower-bound statutory UI tax component. This specification allows the relation between relative $MaxUIT$ exposure and job postings to differ depending on whether a state's $MaxUIT$ is below or above the firm's prior-year average. The coefficient β_1 captures the slope for states with below-average relative $MaxUIT$, while $\beta_1 + \beta_2$ captures the slope for states with above-average relative *MaxUIT*. The interaction coefficient β_2 tests whether these slopes differ.

Table 4 reports the results. In column (1), the coefficient on *DevMaxUIT* is negative and statistically significant, suggesting that postings decline as a state's lagged *MaxUIT* rises relative to the firm's prior-year average exposure. The positive interaction term implies that this negative relation is weaker when a state's *MaxUIT* is above the firm's average. Based on the estimates in column (1), the implied slope for above-average *MaxUIT* states is $-0.503 = -1.023 + 0.520$, compared with a below-average slope of -1.023. Because this above-average slope is statistically significant, the negative relation continues to hold even above the firm's internal benchmark. Column (2) adds *DevMinUIT* and its corresponding interaction. The coefficient on *DevMaxUIT* remains negative and statistically significant, and the implied slope for above-average *MaxUIT* states remains negative and statistically significant at $-0.445 = -1.042 + 0.597$. Thus, the deviation-based results indicate that firms tilt job postings toward states with relatively lower *MaxUIT* exposure and away from states with relatively higher *MaxUIT* exposure within the same firm-year. The larger magnitude of the below-average slope suggests that the allocation response is more pronounced among states with lower relative UI tax exposure within the firm's recruiting footprint. This result is consistent with managers responding to relative cost exposure within the firm's own recruiting network. This within-firm sensitivity points to internal allocation, rather than a firm-wide change in labor demand.

4.3 Expected Separation Costs and Aggregate Job Postings

The preceding results indicate that firms post fewer vacancies in states with higher prior-year UI tax exposure, both in absolute terms and relative to their own recruiting footprints. We next examine whether this geographic reallocation is accompanied by a decline in aggregate firm-level posting activity. This distinction is important because the internal-allocation view predicts that firms can reallocate vacancies across states without necessarily reducing the total number they create. If higher expected separation costs reduce aggregate firm-level posting activity, average UI tax exposure across a firm's posting states should be associated with fewer firm-level postings. If firms instead use vacancy location as an internal adjustment margin, total postings may remain largely unchanged even as vacancies are redirected away from higher-exposure states. The firm-level test therefore examines whether average UI tax exposure across a firm's posting states predicts total firm-level postings.

To examine this issue, we estimate firm-level regressions of the following form:

$$JobPostings_{f,t} = \alpha + \beta_1 \overline{\log(1 + MaxUIT)}_{f,t-1} + \beta_2 \overline{\log(1 + MinUIT)}_{f,t-1} + \Gamma' X_{f,t-1} + \mu_f + \delta_t + \varepsilon_{f,t}, \tag{4}$$

where $JobPostings_{f,t}$ denotes total job postings by firm f in year t, measured in levels and estimated using PPML. The main variable of interest, $\overline{\log(1 + MaxUIT)}_{f,t-1}$, captures the firm's average prior-year statutory exposure to the experience-rated component of UI tax costs across its posting states. We also include $\overline{\log(1 + MinUIT)}_{f,t-1}$, constructed analogously, to account for the firm's average prior-year exposure to the lower-bound statutory UI tax component. The vector $X_{f,t-1}$ includes lagged firm-level controls and, where included, state-level controls averaged across the states in which the firm posts jobs. The terms μ_f and δ_t denote firm and year fixed effects, respectively.

Table 5 reports the results. The estimates provide little evidence that lagged average UI tax exposure reduces aggregate firm-level job postings. The coefficients on $\overline{\log(1 + MaxUIT)}$ are small and statistically insignificant across all specifications. This result is unchanged when state-level controls are added in columns (2) and (4), and when the baseline payroll-tax component is included in columns (3) and (4). The coefficients on $\overline{\log(1 + MinUIT)}$ are also small and statistically insignificant. The results therefore indicate that UI tax exposure changes the allocation of vacancies across a firm's states without materially reducing the overall scale of recruiting.

4.4 Longer-Term Employment Commitments

The preceding results show that firms post fewer vacancies in states with greater prior-year statutory UI tax exposure while aggregate firm-level posting activity changes little. We next examine whether firms also adjust the type of employment relationships they seek to initiate. If experience-rated UI exposure operates through expected employment adjustment costs, firms may respond not only by reallocating vacancies across states, but also by changing the composition of positions they post within a state. When future separations are expected to be more costly, firms may be less willing to create positions that involve stronger worker–firm attachment. They may instead preserve flexibility by relying relatively less on full-time, non-internship postings.

Table 6 examines this adjustment using the share of full-time non-internship postings at the firm–state–year level, measured as the fraction of postings identified as full-time positions and not internships.[10] The coefficient on $\log(1 + MaxUIT)$ is negative and statistically significant across all specifications, indicating that firms facing higher prior-year statutory exposure to experience-rated UI costs post a smaller share of full-time non-internship positions. $\log(1 + MinUIT)$, however, has little relation to this share, suggesting that the composition response is tied more closely to the experience-rated component of UI costs than to the baseline payroll-tax component. This evidence indicates that firms respond to higher expected separation costs along both geographic and contractual margins. They post fewer vacancies in higher-cost states, redirect openings toward lower-exposure states, and rely less on positions that embody stronger ongoing employment-relationship attachment. This composition result is not readily explained by a broad decline in labor demand, which would predict fewer postings overall but not necessarily a lower share of full-time, non-internship positions. Thus, UI tax exposure appears to affect both vacancy location and the degree of employment commitment embodied in the positions firms seek to fill.

5. Heterogeneity in Job-Posting Responses and Other Margins of Adjustment

This section studies whether the relation between UI tax exposure and job postings varies with economic and organizational conditions that affect the expected cost of future employment adjustment. We first examine whether the posting response is stronger when separation costs are more salient, using proxies for local layoff risk, firm demand strength, and labor-market concentration. We then investigate firms' geographic flexibility to assess whether UI tax exposure is associated with broader adjustments in the geographic allocation of new hiring commitments.

5.1 Economic Conditions and Separation-Cost Salience

When statutory UI tax exposure is shaped by experience rating, the expected cost of new hiring depends not only on current labor demand but also on the likelihood and cost of future employment adjustment. Firms therefore have greater incentives to account for these

[10] The contract-type classification is based on Lightcast's parsed contract-type fields. Lightcast assigns postings to full-time, part-time, full-time/part-time, or internship categories. We define a posting as full-time non-internship if it is identified as full-time and is not classified as an internship. We treat full-time/part-time postings as non-full-time because they do not unambiguously represent full-time employment commitments. In robustness checks, the results are similar when these postings are treated as full-time.

liabilities when making forward-looking job-posting decisions, particularly when the surrounding economic environment affects the likelihood or cost of future separations (Bentolila and Bertola, 1990). To test whether the job-posting response to UI tax exposure varies with these conditions, we augment equation (1) with proxies for separation-cost salience:

$$\begin{aligned} JobPostings_{f,s,t} &= \alpha + \beta_1 \log(1 + MaxUIT_{s,t-1}) + \beta_2 Z_{f,s,t-1} \\ &\quad + \beta_3 \left[\log(1 + MaxUIT_{s,t-1}) \times Z_{f,s,t-1}\right] + \Gamma' X_{f,s,t-1} + FE + \varepsilon_{f,s,t}. \end{aligned} \tag{5}$$

where $Z_{f,s,t-1}$ denotes the conditioning variable in each heterogeneity test. The coefficient β_3 captures whether the relation between prior-year UI tax exposure and current-year job postings varies with the relevant economic condition. All other controls, fixed effects, and estimation choices follow the baseline framework in equation (1).

We consider three economic conditions that shape the expected costs and benefits of hiring. The first is local layoff conditions. When layoffs and discharges are high in a state-year, new hiring commitments are more likely to result in future separations, making experience-rated UI taxes more salient for hiring decisions. We measure this condition using an indicator equal to one for states in the top quartile of layoffs and discharges in a given year, based on data from the Bureau of Labor Statistics. The second condition is demand strength. When firm-level sales growth is high, the expected return to expanding employment is greater, which may weaken firms' sensitivity to future separation costs (Bloom et al., 2007; Bloom, 2009). We measure demand strength using an indicator equal to one for firms in the top quartile of annual sales growth, defined as $\log(\text{Sales}_t/\text{Sales}_{t-1})$, in a given year. The third condition is labor-market concentration. In more concentrated state–industry labor markets, workers have fewer outside options, which can increase the expected duration of unemployment following a separation and raise expected UI benefit payments. Because benefit payments are partly charged to employers' UI accounts, longer unemployment spells can worsen employers' experience-rating positions and increase the likelihood of higher future UI tax rates, especially for employers that have not already reached the statutory maximum rate. UI-related labor cost exposure should therefore be more salient for hiring decisions in more concentrated labor markets (Azar et al., 2020). We measure labor-market concentration using an indicator equal to one for state–industry labor markets in the top quartile of employment-based Herfindahl–Hirschman Index values.

Table **7** reports evidence that economic conditions shape firms' sensitivity to UI tax exposure. In Panel A, the interaction between $\log(1+MaxUIT)$ and *High State Layoff* is negative and statistically significant across all specifications. This result indicates that the negative relation between prior-year UI tax exposure and current-year job postings is stronger when the local layoff environment makes future separations more likely. The evidence supports the interpretation that firms respond not only to statutory UI tax exposure, but also to the associated expected separation costs when employment relationships are more likely to end. In Appendix Table A.4, we obtain similar results using industry-level layoffs, suggesting that the state-layoff result is not driven solely by broad state labor-market conditions.

Panel B examines demand conditions. The interaction between $\log(1 + \mathit{MaxUIT})$ and *High Sales Growth* is positive across specifications, suggesting that stronger firm-level demand partly offsets firms' sensitivity to future separation costs. However, the interaction is statistically significant only in the firm $\times$ year fixed-effects specifications. We therefore interpret the sales-growth evidence as suggestive rather than conclusive. Panel C examines labor-market structure. The interaction between $\log(1 + \mathit{MaxUIT})$ and *High Labor Market Concentration* is negative and statistically significant across all specifications, indicating that the negative relation between prior-year UI tax exposure and current-year postings is stronger in more concentrated labor markets.

Taken as a whole, the results in Table **7** point to the experience-rating channel, not a generic payroll-tax cost channel. The negative relation between *MaxUIT* and job postings is stronger when future separations are more likely, as reflected in high-layoff states, and when separations are likely to generate larger expected benefit charges, as reflected in more concentrated labor markets. At the same time, the relation is weaker when firms have stronger demand, consistent with high expected hiring benefits offsetting concerns about future adjustment costs. This cross-sectional evidence is difficult to reconcile with a simple interpretation in which *MaxUIT* captures only general state labor costs. Instead, it is consistent with firms responding to the expected separation-cost exposure embedded in experience-rated UI tax schedules.

5.2 Spatial Frictions

Spatial frictions can limit firms' ability to respond to cross-state differences in expected separation costs. Although experience-rated UI schedules create this variation, firms differ in their capacity to redirect hiring. Those with broad, dispersed, and less headquarters-centered posting footprints already have recruiting capacity in multiple labor markets, making it less costly to redirect new hiring commitments away from higher-exposure states. By contrast, geographically concentrated firms may face organizational, operational, or labor-market constraints that limit this allocation margin. If UI tax exposure changes the allocation of recruiting across states without materially reducing its overall level, the response should be strongest when firms have feasible locations for vacancies within their existing recruiting networks.

Table 8 tests this prediction using the interaction framework in equation (5), with $Z_{f,s,t-1}$ defined using three measures of geographic flexibility: geographic scope, geographic dispersion, and multi-state intensity. Geographic scope measures the breadth of a firm's hiring footprint and is proxied by *HighScope*, an indicator equal to one for firms in the top quartile of the number of states in which they post vacancies. Geographic dispersion describes how evenly postings are distributed across states. We measure it using *HighDispersion*, an indicator equal to one for firms in the bottom quartile of the Herfindahl–Hirschman Index of postings across states. The index is calculated as the sum of squared state-level posting shares within the firm, so lower values indicate less geographic concentration and greater dispersion in posting activity. Multi-state intensity gauges the extent to which hiring activity is centered outside the headquarters state. This proxy, denoted *HighMSI*, is an indicator equal to one for firms in the top quartile of the share of postings outside the headquarters state. Together, these measures distinguish among firms with broad posting footprints, firms whose postings are more evenly distributed across states, and firms whose hiring activity is less tied to headquarters. The interaction coefficient β_3 in equation (5) indicates whether the negative relation between prior-year UI tax exposure and current-year job postings is stronger among firms with greater capacity to adjust hiring locations.

The table provides evidence that geographic flexibility strengthens firms' responses to UI tax exposure. Panel A shows a negative and statistically significant interaction between $\log(1 + MaxUIT)$ and *HighScope* across all PPML specifications. The estimates range from -0.054 to -0.057, indicating that the negative relation between prior-year *MaxUIT* exposure and current-year job postings is stronger among firms with broader hiring footprints. This evidence is consistent with a reallocation interpretation. When a firm already posts vacancies in many states, a state with higher expected separation-cost exposure competes with a larger set of internal hiring alternatives. The firm can therefore redirect marginal vacancies toward states with lower expected separation-cost exposure without necessarily reducing its overall demand for labor or entering entirely new labor markets.

Panels B and C provide similar evidence using alternative measures of geographic flexibility. The interaction coefficients for *HighDispersion* and *HighMSI* are also negative and statistically significant, indicating that the response to UI tax exposure is stronger when firms' postings are more evenly distributed across states and when hiring activity is less centered on the headquarters state. These findings suggest that geographic flexibility is not captured only by the number of states in which a firm posts vacancies. What matters is also whether alternative states are meaningful hiring markets within the firm and whether the firm has recruiting channels, managerial capacity, and operational experience outside its headquarters state. Taken together, the three measures show that established geographic reach gives managers greater discretion to allocate vacancies among locations in response to differences in expected separation costs.

6. Identification Tests

The preceding analyses show that firms post fewer vacancies in states with greater expected separation-cost exposure. The response is stronger when separation costs are more salient, when reallocation is more feasible, and when firms seek to establish more durable employment relationships. We next address two identification concerns. First, *MaxUIT* is a state-level policy variable that may be correlated with broader economic and policy conditions that also shape hiring decisions, including labor-market conditions, wage levels, wealth, UI benefit generosity, industrial composition, or other state policies.[11] Because state-by-year fixed effects would absorb the variation in UI tax exposure, time-varying state conditions remain a concern despite firm-by-year fixed effects and lagged state controls. Second, firms choose where to operate and post vacancies, so their geographic footprints may reflect persistent differences in demand, labor supply, production networks, or business conditions. The tests below focus on changes within pre-existing firm–state posting relationships, separating internal vacancy allocation from broader changes in firms' operating or recruiting footprints.

We exploit cross-state variation in Title XII borrowing during the COVID shock to sharpen identification. When state UI trust funds are depleted, states may borrow from the federal government under Title XII of the Social Security Act to finance unemployment benefit payments. These borrowing episodes do not mechanically increase employer-facing UI tax parameters in the borrowing year. Instead, they signal fiscal pressure in the state UI system and may lead firms to expect future increases in UI-related labor costs through changes in tax schedules, taxable wage bases, surcharges, or other financing adjustments. Because only some states borrowed during this period,[12] the episode provides cross-state variation in anticipated UI financing pressure that is distinct from mechanical changes in

[11] Appendix Table A.5 reports pairwise correlation coefficients between UI tax exposure and observable state-level variables. The correlations provide little evidence that higher-*MaxUIT* states systematically have weaker labor markets or poorer economic conditions.

[12] The borrowing states are California, Colorado, Connecticut, Delaware, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Minnesota, Nevada, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Texas, Virginia, and West Virginia. We define borrowing states as states that received Title XII advances during the COVID shock, based on U.S. Treasury Fiscal Data, *SSA Title XII Advance Activities*.

contemporaneous statutory employer tax rates or taxable wage bases. We use this variation to test whether firms reduce postings in states where UI trust-fund stress raises expected future UI-related separation costs.

We implement the Title XII tests using a short-window design that compares job postings in 2019 and 2021. We define 2019 as the pre-period, omit 2020 as the transition year, and use 2021 as the post-period. To address concerns about endogenous geographic footprints, we restrict the sample to incumbent firm–state pairs in which firm f posted jobs in state s in 2019. This restriction holds fixed firms' pre-COVID recruiting footprints and ensures that the analysis compares changes in postings across states that were already part of the firm's pre-treatment hiring network. We also require firm f to have at least 10 job postings in 2019, so that the within-firm comparison is based on firms with meaningful pre-period hiring activity. We impose no restriction based on job postings in 2021, so the sample is not conditioned on post-treatment posting outcomes. Within this fixed-footprint sample, we test whether firms reduce postings more in states where expected separation costs associated with UI exposure are likely to rise relative to the firm's other pre-COVID posting states. The COVID shock placed substantial strain on state UI trust funds, while Title XII borrowing identifies states facing more acute UI financing pressure and, therefore, greater expected future UI-related employer costs.

We first estimate a borrowing-based specification:

$$JobPostings_{f,s,t} = \alpha + \beta\,(Borrow_s \times Post_t) + \Gamma' X_{s,t-1} + \mu_{f,t} + \lambda_s + \varepsilon_{f,s,t}. \qquad (6)$$

where $Borrow_s$ equals one for states that borrowed under Title XII during the COVID shock, $Post_t$ equals one for 2021 and zero for 2019, $\mu_{f,t}$ denotes firm $\times$ year fixed effects, λ_s denotes state fixed effects, and $X_{s,t-1}$ includes lagged state-level controls. The specification is estimated using PPML with the same firm–state–year job-posting outcome as in the baseline analysis. Because firm $\times$ year fixed effects absorb firm-wide changes in recruiting, β is identified from changes in postings across borrowing and non-borrowing states within the same firm-year. The interaction $Borrow_s \times Post_t$ captures whether postings decline more in borrowing states after the COVID shock relative to non-borrowing states.

Columns (1)–(2) of Table 9 report the borrowing-based results. The coefficient on $Borrow \times Post$ is negative and statistically significant in both specifications, indicating that job postings decline more in borrowing states than in non-borrowing states from 2019 to 2021. Column (2) adds region $\times$ year fixed effects, with regions defined using Census regions. These fixed effects absorb broad regional shocks, including regional differences in

COVID exposure and policy responses, while preserving cross-state variation in Title XII borrowing within regions. In these borrowing-based specifications, we do not include state×year fixed effects because they would absorb the state-level borrowing treatment. Because Title XII borrowing captures UI financing pressure rather than a mechanical contemporaneous change in employer-facing tax parameters, we interpret these results as evidence consistent with firms reducing postings in states where the COVID shock increased expected future UI-related labor costs.

Although the borrowing-based specification provides evidence on state UI financing pressure, it does not directly measure changes in employer-facing statutory exposure within each firm's recruiting footprint. We therefore move closer to the employer-cost exposure channel by using changes in *MaxUIT* from 2020 to 2021. Because hiring allocation is a relative decision within the firm, the relevant cost change is not only whether a state became more costly, but whether it became more costly relative to the firm's other feasible recruiting locations. Firms may not be able to move vacancies freely to the lowest-cost states because hiring decisions are constrained by existing operations, production needs, and local labor requirements. A given increase in *MaxUIT* should therefore create a stronger incentive to redirect vacancies when the firm has other incumbent posting states with lower expected separation costs. By contrast, similar increases across the firm's posting footprint should generate less scope for within-firm reallocation.

We therefore measure each state's change in *MaxUIT* relative to the firm's own posting-weighted average change across its pre-COVID posting states. For each incumbent firm–state pair,

$$\Delta MaxUIT^{rel}_{f,s} = \Delta MaxUIT_s - \sum_{k \in \mathcal{S}^{pre}_f} w^{pre}_{f,k} \Delta MaxUIT_k, \tag{7}$$

where $\Delta MaxUIT_s = MaxUIT_{s,2021} - MaxUIT_{s,2020}$, $\mathcal{S}^{pre}_f$ is the set of states in which firm f posted jobs in 2019, and $w^{pre}_{f,k}$ is the share of firm f's 2019 postings in state k. We define $HighRelExp_{f,s}$ as an indicator equal to one if $\Delta MaxUIT^{rel}_{f,s} > 0$. Thus, $HighRelExp_{f,s}$ identifies incumbent firm–state pairs for which *MaxUIT* increased more than the firm's own 2019-posting-weighted average increase across incumbent states.

Columns (3)–(4) of Table **9** replace the borrowing-state treatment in equation (6) with $HighRelExp_{f,s} \times Post_t$, allowing us to test whether firms reduce postings more in states that became relatively more costly within their own pre-COVID posting footprint. The coefficients on $HighRelExp \times Post$ are negative and marginally significant in both columns. Column (3) includes region × year fixed effects, while column (4) includes state × year fixed effects. The estimate remains negative in column (3) and becomes larger in magnitude in column (4). Because state $\times$ year fixed effects absorb all shocks common to firms in the same state and year, the column (4) estimate is identified from differences across firms within the same state-year in whether that state became more costly relative to each firm's own pre-COVID posting footprint. These results provide suggestive evidence that firms reduce postings in incumbent states where expected UI-related separation-cost exposure rose relative to their own feasible recruiting alternatives.

We next exploit differences in firms' pre-COVID ability to shift hiring across states. Firms with broader and more dispersed pre-COVID posting footprints had more feasible alternative states for recruiting. If firms respond to higher expected UI-related separation costs by reallocating vacancies across states, the decline in postings in relatively exposed incumbent states should be stronger among these geographically flexible firms. We therefore estimate a triple-difference specification that interacts relative UI tax exposure with firms' pre-COVID geographic flexibility and includes both firm $\times$ year and state $\times$ year fixed effects. The estimates are identified from differences across firms operating in the same state and year but with different pre-COVID flexibility to reallocate postings across states.

This specification is especially useful for addressing the concern that the results are driven by state-year shocks. If the decline in postings were driven only by adverse state-year conditions, it should affect firms in the same state-year similarly, regardless of their ability to shift hiring to other locations. By contrast, if the decline reflects reallocation away from states where expected separation costs rose, the response should be concentrated among firms with more feasible alternative recruiting locations. We estimate the following specification:

$$JobPostings_{f,s,t} = \alpha + \beta \left(HighRelExp_{f,s} \times Post_t \times Ability_f^{pre} \right) + \mu_{f,t} + \lambda_{s,t} + \varepsilon_{f,s,t}. \quad (8)$$

The variable $Ability_f^{pre}$ captures the firm's pre-COVID ability to reallocate postings across states using the geographic flexibility measures introduced in Section 5.2. For the Title XII tests, these measures are constructed over 2017–2019 so that they are predetermined relative to the COVID shock. The coefficient on $HighRelExp_{f,s} \times Post_t \times Ability_f^{pre}$ tests whether the response to relative increases in *MaxUIT* is stronger among firms with greater pre-COVID capacity to reallocate postings across states. Columns (5)–(7) of Table **9** report the results. The coefficients on all three triple-interaction terms are negative and statistically significant. The evidence is strongest for *HighDispersion* and remains directionally consistent for *HighScope* and *HighMSI*. These estimates indicate that posting declines in incumbent states with relatively greater UI tax exposure are concentrated among firms with greater pre-COVID geographic flexibility. Because the specifications include both firm $\times$ year and state $\times$ year fixed effects, the estimates absorb firm-wide changes in labor demand as well as contemporaneous state-level shocks during the COVID period. Thus, the estimates are identified from differences in firms' responses within the same state-year according to their pre-COVID ability to reallocate postings across states. The results therefore support the reallocation interpretation while reducing the concern that the estimates reflect endogenous geographic footprints, broad pandemic-era state conditions, or firm-level hiring contractions.

We complement the Title XII analysis with placebo tests that apply the same short-window estimation approach to non-COVID event windows. To avoid contamination from the COVID period and subsequent UI financing adjustments, we conduct these placebo analyses outside the five-year window surrounding the COVID shock. These tests address whether the Title XII results reflect persistent differences between eventual borrowing and non-borrowing states, or recurring differences in hiring trends across firms' incumbent posting locations, rather than the COVID-era shock to UI financing pressure. Appendix Table A.6 illustrates the test using 2014 as the placebo event year, with 2013 as the placebo pre-period, 2015 as the placebo post-period, and 2014 omitted as the placebo event year. The sample is constructed as in the Title XII tests: we restrict to incumbent firm–state pairs with positive postings in the placebo pre-period and to firms with at least 10 total postings in that pre-period, while imposing no restriction based on postings in the placebo post-period. The placebo estimates do not reproduce the borrowing-based, firm-relative exposure, or triple-difference results from the COVID window. This evidence suggests that the Title XII findings are unlikely to be driven by persistent differences between eventual borrowing and non-borrowing states or by recurring differences in hiring trends across firms' incumbent posting locations.

Collectively, these tests provide additional support for the causal interpretation that UI tax exposure shapes the within-firm allocation of job postings across states. They also reduce concerns that the baseline relation is driven by omitted state conditions, endogenous geographic footprints, or broad pandemic-era shocks unrelated to UI financing pressure.

7. Posting Reallocation and Future Firm Outcomes

We have thus far shown that statutory UI tax exposure shapes both where firms post vacancies and the types of employment relationships they seek to establish, with stronger responses among firms that have greater ability to reallocate hiring across states. We next examine whether these hiring-allocation choices are associated with subsequent firm valuation and operating performance. The financial implications of reallocation are not unambiguously beneficial. On the one hand, redirecting postings toward states with lower expected separation costs may reduce expected separation-cost exposure and preserve firm value, particularly for firms with geographically flexible hiring demand. On the other hand, if such reallocation were costless, all firms would have incentives to shift hiring toward lower-*MaxUIT* states. In practice, lower-*MaxUIT* states may not always be the most productive or strategically valuable hiring locations. Firms may face thinner labor markets, weaker worker-firm match quality, operational disruption, changes in workforce composition, or other adjustment costs when moving hiring demand across states. Thus, low-cost posting reallocation may involve both expected benefits and operational frictions, with potential valuation benefits from lower expected separation costs but possible declines in accounting profitability or operating efficiency. We therefore assess whether firms that tilt postings toward lower-UI-cost states exhibit different subsequent outcomes, focusing on market valuation, profitability, and operating efficiency, measured using *Tobin's Q*, *ROA*, and *Asset Turnover*, respectively.

To implement this analysis, we build on the firm-year UI exposure measures introduced in Section 4.3. The evidence in that section suggests that UI tax exposure affects where firms post jobs more than the total number of vacancies they create. We therefore construct $LowCostTilt_{f,t-1}$, a measure of whether firms tilt postings away from states with greater expected separation-cost exposure and toward lower-exposure states. It measures the extent to which a firm's actual posting allocation favors states with lower *MaxUIT* exposure relative to an equal allocation across its existing recruiting states. Specifically, we define:

$$LowCostTilt_{f,t-1} = \overline{\log(1 + MaxUIT)}^{Equal}_{f,t-1} - \overline{\log(1 + MaxUIT)}^{Post}_{f,t-1}. \tag{9}$$

The first term is the equal-weighted average of $\log(1 + MaxUIT)$ across the states in which firm f posts jobs in year $t-1$, while the second term is the posting-weighted average across the same states. Thus, *LowCostTilt* compares the UI-cost exposure that would arise under an equal allocation of postings across the firm's recruiting states with the exposure implied by the firm's actual posting allocation. A higher value indicates that the firm places relatively more postings in lower-*MaxUIT* states within its own recruiting footprint. This measure therefore captures within-firm reallocation toward states with lower expected separation costs. In the regressions below, we use the within-year standardized value, $Z(LowCostTilt)$, so the coefficient can be interpreted as the association between firm outcomes and a one-standard-deviation increase in low-cost posting tilt. We then estimate whether firms with greater low-cost posting tilt exhibit different subsequent valuation and operating outcomes.

We employ the following firm-level specification to assess the relation between posting tilt toward lower-separation-cost states and subsequent firm outcomes:

$$\begin{aligned} Y_{f,t} = \alpha &+ \beta_1 Z(\mathit{LowCostTilt})_{f,t-1} + \beta_2 \overline{\log(1 + \mathit{MinUIT})}_{f,t-1} \\ &+ \Gamma' X_{f,t-1} + \Lambda' W^{Post}_{f,t-1} + \alpha_f + \delta_t + \varepsilon_{f,t}. \end{aligned} \tag{10}$$

We estimate the specification for two outcome horizons, with the dependent variable evaluated in year t and year $t+1$, while the reallocation measure and controls remain measured in year $t-1$. Relative to the reallocation year, this timing allows us to examine whether low-cost posting tilt predicts one- and two-year-ahead firm outcomes. The dependent variables are *Tobin's Q*, *ROA*, and *Asset Turnover*. The vector $X_{f,t-1}$ includes lagged firm-level controls, and $W^{Post}_{f,t-1}$ includes posting-weighted state-level controls aggregated to the firm-year level using the firm's posting shares across states in year $t-1$. All specifications include firm and year fixed effects. The coefficient of interest is β_1, which captures the association between low-cost posting tilt and subsequent firm outcomes.

Table **10** reports the relation between low-cost posting reallocation and firm outcomes measured in year t and year $t+1$. The reallocation measure and controls are measured in year $t-1$, allowing us to assess whether these relations emerge in the near term and persist into the following year. The results reveal a contrast between market valuation and realized operating performance. For *Tobin's Q*, the coefficient on $Z(\mathit{LowCostTilt})$ is positive and statistically significant in year t, and remains positive, though marginally significant, in year $t+1$. Firms with a greater tilt in postings toward states with lower *MaxUIT* exposure are associated with higher market valuation. This finding is consistent with investors valuing the expected benefits of lower future separation-cost exposure. In contrast, the accounting outcomes suggest that tilting postings toward lower-separation-cost states can entail operational frictions. For *ROA*, the coefficient on $Z(\mathit{LowCostTilt})$ is negative and statistically significant in both years. Thus, low-cost posting reallocation is associated with weaker realized profitability even as it is linked to higher market valuation. The *Asset Turnover* results further suggest that part of this operating-efficiency effect is concentrated in the short run. The coefficient on $Z(\mathit{LowCostTilt})$ is negative and statistically significant in year t, but becomes small and statistically insignificant in year $t+1$. This contrast is consistent with a valuation–operating-performance tradeoff. Although a greater tilt toward lower-separation-cost states is associated with higher market valuation, it is also associated with weaker realized operating performance, potentially reflecting the operational frictions managers face when redirecting hiring across states.

8. Conclusion

This paper examines how managers of multi-unit firms use the geographic allocation of new hiring commitments as an internal allocation mechanism to manage prospective workforce-adjustment exposure. Using variation in UI systems across U.S. states, we show that managers allocate job openings across locations in response to differences in expected separation costs. Firms respond chiefly by reallocating vacancies toward states with lower expected separation-cost exposure, while total firm-level recruiting changes little. Higher exposure to experience-rated UI costs is also associated with a lower share of full-time, non-internship postings, indicating that managers adjust both the geographic placement of vacancies and the durability of the employment commitments they seek to create. These responses are stronger when expected separation costs are more salient and when firms have greater geographic flexibility. Greater tilt toward lower-separation-cost states is associated with higher market valuation but lower realized profitability and short-run operating efficiency.

The findings extend the corporate finance literature on internal resource allocation. Prior work shows that multi-unit firms reallocate capital and labor across establishments in response to differences in local conditions and investment opportunities. We identify the geographic placement of new vacancies as an *ex ante* allocation margin through which managers direct new hiring commitments in light of expected separation costs before employment relationships are formed. The Title XII evidence further supports the interpretation that firms redirect hiring across states when they anticipate higher future UI-related separation costs.

More broadly, the results show that internal organization gives managers scope to respond to jurisdictional differences in employment-related regulation without materially reducing firm-wide recruiting. Job postings make this decision observable at the point when firms retain discretion over where to initiate prospective employment relationships. The contrasting valuation and operating outcomes suggest that directing hiring toward states with lower expected separation costs can reduce anticipated separation-cost exposure while also creating frictions in reallocating hiring across the firm's states.

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Table 1
Geographic Breadth of Job Posting Activity and Cross-State Variation in UI Tax Exposure

This table reports firm–year-level statistics for firms in the Compustat–CRSP–Lightcast database from 2010 to 2024. The sample includes firm–year observations in which the firm posts at least one job opening. Panel A reports the geographic breadth of firms' job posting activity. A firm is considered present in a state in a given firm–year if it posts at least one job opening in that state during that year. *Multi-State Posting Indicator* equals one if the firm posts job openings in more than one state. *Number of Posting States* is the number of U.S. states in which the firm posts at least one job opening. *Posting in 10+ States Indicator* equals one if the firm posts job openings in at least 10 states. Panel B reports within-firm-year cross-state variation in statutory UI tax exposure for 36,783 firm–year observations with postings in more than one state. *RangeMaxUIT* and *SDMaxUIT* are computed across states in which the firm posts job openings within a firm–year, using *MaxUIT*. *RangeMinUIT* and *SDMinUIT* are defined analogously using *MinUIT*. *MaxUIT* is computed as the product of a state's statutory maximum UI tax rate and taxable wage base, adjusted for inflation using the CPI, and captures the upper bound of statutory UI tax exposure per worker. *MinUIT* is computed analogously using the statutory minimum UI tax rate and captures the baseline statutory UI tax component per worker. *RangeMaxTaxRate* and *RangeMinTaxRate* are the within-firm-year ranges in maximum and minimum UI tax rates, respectively. *RangeTaxableWage* is the within-firm-year range in taxable wage bases.

	Mean	SD	25th	Median	75th
Panel A: Geographic Breadth of Job Posting Activity (Firm–Year Level)					
Multi-State Posting Indicator	0.81	0.39	1.00	1.00	1.00
Number of Posting States	14.79	15.56	2.00	8.00	24.00
Posting in 10+ States Indicator	0.46	0.50	0.00	0.00	1.00
Panel B: Cross-State Variation in UI Tax Exposure (Multi-State Firm–Years)					
Dollar Variation in UI Tax Exposure					
RangeMaxUIT ($ / worker)	794.42	356.70	546.95	886.43	1,042.03
SDMaxUIT ($ / worker)	259.71	102.52	208.62	277.23	309.68
RangeMinUIT ($ / worker)	119.52	83.73	50.21	107.11	161.51
SDMinUIT ($ / worker)	34.38	19.58	21.26	31.91	43.59
Institutional Sources of Variation					
RangeMaxTaxRate (%)	6.52	3.68	4.36	6.30	8.10
RangeMinTaxRate (%)	1.71	0.74	1.40	1.50	2.39
RangeTaxableWage ($)	11,045.13	5,534.98	7,027.92	12,600.54	15,249.12

Table 2
Summary Statistics for Baseline Regression Variables

This table reports summary statistics for the baseline regression variables from the Compustat–CRSP–Lightcast database over 2010–2024. Panels A and B are based on 673,692 firm–state–year observations. Panel A reports unemployment insurance (UI) policy variables and state-level characteristics. Panel B reports job-posting characteristics. Panel C reports firm characteristics based on 45,543 firm–year observations. *MaxUIT* and *MinUIT* denote the maximum and minimum statutory UI tax exposure implied by a state's UI tax schedule. These measures are computed as the product of the statutory maximum or minimum UI tax rate and the taxable wage base in a given state–year, adjusted for inflation using the Consumer Price Index. *MaxUIT* captures the upper bound of statutory UI tax exposure per worker, whereas *MinUIT* captures the baseline statutory UI tax component per worker. *Log(1+MaxUIT)* and *Log(1+MinUIT)* are the natural logarithms of one plus the corresponding statutory UI tax exposure measures. *JobPostings* is the number of job postings by firm f in state s during year t. All continuous variables, except state-level controls, UI policy variables, and count variables, are winsorized at the 1% and 99% levels. *Average Population Age*, *Male Population Share*, and *White Population Share* are not available for 2020; we use their 2019 values for that year. Detailed variable definitions and data sources are provided in Appendix A.

	Mean	SD	25th	Median	75th
Panel A: UI Policy and State Characteristics (Firm–State–Year Level)					
MaxUIT ($)	474.01	286.47	253.69	379.07	632.15
MinUIT ($)	31.57	43.15	2.64	18.89	42.67
Log(1+MaxUIT)	6.00	0.58	5.54	5.94	6.45
Log(1+MinUIT)	2.55	1.57	1.29	2.99	3.78
State Unemployment Rate (%)	5.75	2.34	3.90	5.20	7.30
GDP per Capita ($ thousand)	23.22	4.25	20.09	22.82	25.66
GDP Growth (%)	4.43	4.05	2.40	4.00	6.20
Average Population Age	38.62	1.64	37.73	38.67	39.65
Male Population Share	0.50	0.01	0.49	0.50	0.51
White Population Share	0.74	0.12	0.66	0.75	0.83
Democratic House Representation	0.46	0.31	0.23	0.38	0.70
Panel B: Job Posting Characteristics (Firm–State–Year Level)					
JobPostings	133.25	728.42	3.00	14.00	68.00
Panel C: Firm Characteristics (Firm–Year Level)					
Employees (thousands)	14.33	39.72	0.41	2.05	9.20
Assets ($ billion)	6.56	30.03	0.12	0.56	2.34
CAPEX/Assets	0.03	0.04	0.01	0.02	0.05
ROA	0.04	0.21	0.02	0.09	0.15
Leverage Ratio	0.24	0.23	0.04	0.18	0.37
Tobin's Q	2.10	1.70	1.06	1.47	2.39

Table 3
Effects of UI Tax Exposure on Job Postings

This table reports estimates of the relation between state unemployment insurance tax exposure and firm job postings over 2010–2024. Panels A and C report PPML estimates using firm–state–year job postings as the dependent variable. Panel B reports OLS estimates using log(1 + *JobPostings*) as the dependent variable. In Panels A and B, columns (1)–(2) use log(1 + *MaxUIT*), columns (3)–(4) use log(1 + *MinUIT*), and columns (5)–(6) include both measures. Panel C uses log(*MaxUIT* − *MinUIT*) in place of the separate *MaxUIT* and *MinUIT* measures and reports two PPML specifications. Columns with firm and year fixed effects include separate firm and year fixed effects; columns with firm × year fixed effects absorb firm-year shocks. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Number of Job Postings (PPML)

	(1)	(2)	(3)	(4)	(5)	(6)
Log(1+MaxUIT)	-0.786***	-0.790***			-0.802***	-0.806***
	(0.000)	(0.000)			(0.000)	(0.000)
Log(1+MinUIT)			-0.047***	-0.047***	0.026***	0.027***
			(0.000)	(0.000)	(0.000)	(0.000)
Log(Assets)	0.246***		0.245***		0.246***	
	(0.000)		(0.000)		(0.000)	
Leverage Ratio	0.168*		0.173*		0.167*	
	(0.090)		(0.080)		(0.091)	
ROA	-0.026		-0.037		-0.027	
	(0.893)		(0.846)		(0.890)	
Tobin's Q	0.045***		0.045***		0.045***	
	(0.004)		(0.004)		(0.004)	
CAPEX/Assets	1.245		1.263		1.238	
	(0.146)		(0.138)		(0.148)	
Log(Employees)	0.263***		0.251***		0.263***	
	(0.000)		(0.000)		(0.000)	
State Unemployment Rate	0.170***	0.183***	0.207***	0.222***	0.164***	0.176***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Log(Average Population Age)	-3.721***	-3.632***	-2.628***	-2.527***	-3.759***	-3.665***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Log(GDP per Capita)	1.675***	1.706***	1.349***	1.377***	1.641***	1.670***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
GDP Growth	4.917***	5.621***	5.825***	6.651***	4.982***	5.748***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male Population Share	0.573	0.409	6.851***	7.046***	0.609	0.451
	(0.327)	(0.477)	(0.000)	(0.000)	(0.298)	(0.433)
White Population Share	-0.065	-0.068*	-1.258***	-1.271***	-0.074*	-0.083**
	(0.122)	(0.089)	(0.000)	(0.000)	(0.079)	(0.034)
Democratic House Representation	0.271***	0.251***	0.096***	0.073***	0.235***	0.215***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
F-test p-value: *Log(1+MaxUIT) = Log(1+MinUIT)*					<0.001	<0.001
Firm FE	Yes	No	Yes	No	Yes	No
Year FE	Yes	No	Yes	No	Yes	No
Firm × Year FE	No	Yes	No	Yes	No	Yes
Observations	673,238	664,932	673,238	664,932	673,238	664,932
Pseudo R^2	0.620	0.677	0.579	0.636	0.620	0.678

Table 3 (continued)
Effects of UI Tax Exposure on Job Postings

Panel B: Log(1+ JobPostings) (OLS)

	(1)	(2)	(3)	(4)	(5)	(6)
Log(1+MaxUIT)	-0.518***	-0.537***			-0.521***	-0.538***
	(0.000)	(0.000)			(0.000)	(0.000)
Log(1+MinUIT)			-0.037***	-0.042***	0.006***	0.003**
			(0.000)	(0.000)	(0.000)	(0.019)
F-test: *Log(1+MaxUIT) = Log(1+MinUIT)*					<0.001	<0.001
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
State-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No	Yes	No
Year FE	Yes	No	Yes	No	Yes	No
Firm × Year FE	No	Yes	No	Yes	No	Yes
Observations	673,692	673,692	673,692	673,692	673,692	673,692
Adjusted R^2	0.438	0.495	0.418	0.473	0.438	0.495

Panel C: Number of Job Postings (PPML), Spread Specification

	(1)	(2)
Log(MaxUIT- MinUIT)	-0.751***	-0.754***
	(0.000)	(0.000)
Firm-level controls	Yes	No
State-level controls	Yes	Yes
Firm FE	Yes	No
Year FE	Yes	No
Firm × Year FE	No	Yes
Observations	673,238	664,932
Adjusted R^2	0.620	0.678

Table 4
Within-Firm Reallocation of Job Postings and Relative UI Tax Exposure

This table reports PPML estimates of within-firm geographic reallocation of job postings using signed deviation-based measures of lagged UI tax exposure. *DevMaxUIT* is the difference between a state's prior-year log(1 + *MaxUIT*) and the firm's average prior-year log(1 + *MaxUIT*) across posting states. *DevMinUIT* is defined analogously using prior-year log(1 + *MinUIT*) and is included in the expanded specification. *Max Positive* is an indicator equal to one when *DevMaxUIT* is positive, and zero otherwise; thus, *DevMaxUIT* × *Max Positive* corresponds to the interaction between *DevMaxUIT* and $\mathbf{1}\{DevMaxUIT > 0\}$ in Equation 3. *Min Positive* is defined analogously for *DevMinUIT*. *DevMaxUIT* captures relative exposure to the experience-rated component of UI tax costs, whereas *DevMinUIT* captures relative exposure to the baseline UI payroll-tax component. The dependent variable is the number of job postings at the firm–state–year level. The sample includes firm–years in which the firm posts jobs in at least two states. All specifications include firm × year fixed effects. The row defining θ reports the slope of *DevMaxUIT* when *DevMaxUIT* > 0, computed as the sum of the coefficients on *DevMaxUIT* and *DevMaxUIT* × *Max Positive*. The accompanying p-value tests whether θ equals zero. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm × year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)
DevMaxUIT	-1.023***	-1.042***
	(0.000)	(0.000)
DevMaxUIT × *Max Positive*	0.520***	0.597***
	(0.000)	(0.000)
DevMinUIT		0.128***
		(0.000)
DevMinUIT × *Min Positive*		-0.238***
		(0.000)
$\theta \equiv \beta_{DevMaxUIT} + \beta_{DevMaxUIT \times Max\ Positive}$	-0.503***	-0.445***
p-value: $\theta = 0$	< 0.001	< 0.001
Controls	Yes	Yes
Firm × Year FE	Yes	Yes
Observations	664,932	664,932
Pseudo R^2	0.679	0.681

Table 5
Firm-Level Total Job Postings and UI Tax Exposure

This table reports firm-level PPML regressions of total job postings on firm-level unemployment insurance tax exposure. The dependent variable is total firm job postings at the firm–year level. $\overline{\log(1 + MaxUIT)}_{f,t-1}$ is the firm-year average of $\log(1 + MaxUIT_{s,t-1})$ across states in which firm f posts job openings, measured using prior-year state UI exposure. $\overline{\log(1 + MinUIT)}_{f,t-1}$ is defined analogously. Conceptually, $\overline{\log(1 + MaxUIT)}_{f,t-1}$ captures average exposure to the experience-rated component of UI tax costs, whereas $\overline{\log(1 + MinUIT)}_{f,t-1}$ captures the average baseline UI payroll-tax component. All specifications include firm-level controls, firm fixed effects, and year fixed effects. Columns with state-level controls use firm-year averages across the firm's posting states. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
$\overline{\log(1 + MaxUIT)}$	-0.066	-0.030	0.004	0.074
	(0.937)	(0.971)	(0.997)	(0.936)
$\overline{\log(1 + MinUIT)}$			-0.038	-0.057
			(0.744)	(0.587)
Firm-level controls	Yes	Yes	Yes	Yes
State-level controls	No	Yes	No	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	52,872	52,872	52,872	52,872
Pseudo R^2	0.943	0.944	0.943	0.944

Table 6
Longer-Term Employment Commitments under UI Tax Exposure

This table reports OLS regressions of the share of full-time non-internship postings on unemployment insurance tax exposure. The dependent variable is the share of full-time non-internship postings at the firm–state–year level, which proxies for the extent to which posted vacancies involve longer-term employment commitments. Lightcast classifies postings as full-time, part-time, full-time/part-time, or internship positions. We classify full-time/part-time postings as non-full-time; in robustness checks, the results are similar when these postings are classified as full-time. *Log(1+MaxUIT)* is the natural logarithm of one plus the maximum statutory unemployment insurance tax exposure implied by a state's experience-rating schedule, computed as the product of the statutory maximum unemployment insurance tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum unemployment insurance tax rate. Conceptually, *Log(1+MaxUIT)* captures exposure to the experience-rated component of UI tax costs, whereas *Log(1+MinUIT)* captures the baseline UI payroll-tax component. The UI tax exposure variables and controls are measured in the prior year. All specifications include state-level controls. Columns (1)–(2) include firm-level controls, firm fixed effects, and year fixed effects; columns (3)–(4) include firm × year fixed effects, which absorb firm-level controls and firm-year shocks. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Log(1+MaxUIT)	-0.004***	-0.004***	-0.003***	-0.003***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MinUIT)		-0.000		-0.000
		(0.253)		(0.342)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	673,692	673,692	673,692	673,692
Adjusted R^2	0.360	0.360	0.556	0.556

Table 7
Economic Conditions and the Effects of UI Tax Exposure on Job Postings

This table reports cross-sectional variation in the relation between unemployment insurance tax exposure and job postings across economic environments. The dependent variable is the number of job postings at the firm–state–year level, and all specifications are estimated using Poisson pseudo–maximum likelihood (PPML). *Log(1+MaxUIT)* is the natural logarithm of one plus the maximum statutory unemployment insurance tax exposure implied by a state's experience-rating schedule, computed as the product of the statutory maximum unemployment insurance tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum unemployment insurance tax rate. The UI tax exposure variables and controls are measured in the prior year. Panel A uses an indicator for states in the top quartile of layoffs and discharges within a year. Panel B uses an indicator for firms in the top quartile of sales growth. Panel C uses *High Concentration*, an indicator for state–industry labor market concentration, measured as a top-quartile Herfindahl–Hirschman Index. All specifications include the same set of firm-level and state-level controls as in Table **3**. Columns (1)–(2) include firm and year fixed effects, and columns (3)–(4) include firm × year fixed effects. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Separation Risk and State Layoffs

	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × High State Layoff	-0.391***	-0.395***	-0.393***	-0.398***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MaxUIT)	-0.397***	-0.387***	-0.403***	-0.390***
	(0.000)	(0.000)	(0.000)	(0.000)
High State Layoff	3.039***	3.067***	3.053***	3.090***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MinUIT)		-0.014***		-0.015***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	673,238	673,238	664,932	664,932
Pseudo R^2	0.645	0.645	0.702	0.702

Table 7 (continued)
Economic Conditions and the Effects of UI Tax Exposure on Job Postings

Panel B: Demand Conditions and Sales Growth				
	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × High Sales Growth	0.056	0.057	0.075*	0.077*
	(0.132)	(0.125)	(0.056)	(0.051)
Log(1+MaxUIT)	-0.796***	-0.812***	-0.804***	-0.820***
	(0.000)	(0.000)	(0.000)	(0.000)
High Sales Growth	-0.369*	-0.375*		
	(0.086)	(0.081)		
Log(1+MinUIT)		0.026***		0.027***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	669,310	669,310	661,949	661,949
Pseudo R^2	0.620	0.620	0.677	0.677

Panel C: Labor Market Concentration				
	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × High Concentration	-0.187***	-0.189***	-0.196***	-0.198***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MaxUIT)	-0.770***	-0.787***	-0.770***	-0.787***
	(0.000)	(0.000)	(0.000)	(0.000)
High Concentration	1.127***	1.135***	1.155***	1.166***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MinUIT)		0.030***		0.032***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	403,450	403,450	399,898	399,898
Pseudo R^2	0.632	0.633	0.687	0.687

Table 8
Spatial Frictions in the Effects of UI Tax Exposure on Job Postings

This table reports cross-sectional variation in the relation between unemployment insurance tax exposure and job postings across firms with different geographic posting structures. The dependent variable is the number of job postings at the firm–state–year level, and all specifications are estimated using Poisson pseudo–maximum likelihood (PPML). *Log(1+MaxUIT)* is the natural logarithm of one plus the maximum statutory unemployment insurance tax exposure implied by a state's experience-rating schedule, computed as the product of the statutory maximum unemployment insurance tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum unemployment insurance tax rate. The UI tax exposure variables and controls are measured in the prior year. Panel A examines geographic scope using *HighScope*, an indicator equal to one for firms in the top quartile of the number of posting states over the last three years. Panel B examines geographic dispersion using *HighDispersion*, an indicator equal to one for firms in the bottom quartile of the HHI of postings across states over the last three years. Panel C examines multi-state intensity using *HighMSI*, an indicator equal to one for firms in the top quartile of the share of postings outside the headquarters state over the last three years. All specifications include the same firm-level and state-level controls as in Table **3**. Columns (1)–(2) include firm and year fixed effects, and columns (3)–(4) include firm × year fixed effects. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Number of Posting States (*HighScope*)

	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × HighScope	-0.054**	-0.056**	-0.054**	-0.057**
	(0.028)	(0.022)	(0.037)	(0.030)
Log(1+MaxUIT)	-0.771***	-0.786***	-0.773***	-0.788***
	(0.000)	(0.000)	(0.000)	(0.000)
HighScope	0.528***	0.540***		
	(0.001)	(0.001)		
Log(1+MinUIT)		0.027***		0.028***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	559,733	559,733	554,030	554,030
Pseudo R^2	0.633	0.633	0.682	0.682

Table 8 (continued)
Spatial Frictions in the Effects of UI Tax Exposure on Job Postings

Panel B: Dispersion in Posting States (*HighDispersion*)				
	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × *HighDispersion*	-0.116***	-0.119***	-0.116***	-0.119***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MaxUIT)	-0.727***	-0.741***	-0.730***	-0.743***
	(0.000)	(0.000)	(0.000)	(0.000)
HighDispersion	0.670***	0.687***		
	(0.000)	(0.000)		
Log(1+MinUIT)		0.028***		0.028***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	559,733	559,733	554,030	554,030
Pseudo R^2	0.632	0.632	0.682	0.682

Panel C: Multi-State Intensity (*HighMSI*)				
	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × *HighMSI*	-0.151***	-0.152***	-0.148***	-0.148***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MaxUIT)	-0.736***	-0.751***	-0.740***	-0.755***
	(0.000)	(0.000)	(0.000)	(0.000)
HighMSI	1.156***	1.158***		
	(0.000)	(0.000)		
Log(1+MinUIT)		0.027***		0.027***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	510,459	510,459	505,385	505,385
Pseudo R^2	0.640	0.640	0.688	0.688

Table 9
Title XII Borrowing during COVID, Relative UI Tax Exposure, and Job Postings

This table reports short-window PPML estimates using Title XII borrowing during the COVID shock as a source of variation in state UI financing pressure. The dependent variable is the number of job postings at the firm–state–year level. The sample includes 2019 and 2021, with 2019 serving as the pre-period and 2021 serving as the post-period; 2020 is omitted as the transition year. The sample is restricted to incumbent firm–state pairs with positive job postings in 2019 and to firms with at least 10 total job postings in 2019. No restriction is imposed based on job postings in 2021. *Borrow* is an indicator equal to one for states that borrowed under Title XII during the COVID shock. *HighRelExp* is an indicator equal to one if the change in *MaxUIT* from 2020 to 2021 exceeds the firm's 2019-posting-weighted average change in *MaxUIT* across its incumbent states. *HighScope* equals one for firms in the top quartile of the number of posting states over 2017–2019. *HighDispersion* equals one for firms in the bottom quartile of the HHI of postings across states over 2017–2019. *HighMSI* equals one for firms in the top quartile of the share of postings outside the headquarters state over 2017–2019. *Post* equals one for 2021 and zero for 2019. Columns (1)–(3) include firm × year fixed effects, state fixed effects, and, where indicated, region × year fixed effects and state-level controls as in Table **3**. Columns (4)–(7) include firm × year and state × year fixed effects. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the state level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Borrow × *Post*	-0.070**	-0.094***					
	(0.044)	(0.009)					
HighRelExp × *Post*			-0.144*	-0.313*			
			(0.086)	(0.057)			
HighRelExp × *HighScope* × *Post*					-0.242*		
					(0.076)		
HighRelExp × *HighDispersion* × *Post*						-0.230**	
						(0.031)	
HighRelExp × *HighMSI* × *Post*							-0.194*
							(0.060)
State-level controls	Yes	Yes	Yes	No	No	No	No
Firm × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	No	No	No	No
Region × Year FE	No	Yes	Yes	No	No	No	No
State × Year FE	No	No	No	Yes	Yes	Yes	Yes
Observations	94,181	94,181	94,181	94,181	94,181	94,181	85,531
Pseudo R^2	0.767	0.767	0.767	0.768	0.768	0.768	0.772

Table 10
Firm Outcomes and Low-Cost Job-Posting Reallocation

This table reports regressions of firm outcomes in years t and $t+1$ on lagged job-posting reallocation toward lower-UI-cost states. The dependent variables are *Tobin's Q*, *ROA*, and *Asset Turnover*. The sample includes firms with at least two posting states and more than 10 total postings in the firm-year. The main explanatory variable, $Z(LowCostTilt)$, is standardized within year and is defined as the difference between the equal-weighted average and the posting-weighted average of $\log(1+MaxUIT)$ across the firm's posting states in year $t-1$. Higher values indicate that postings are tilted toward lower-$MaxUIT$ states within the firm's own recruiting footprint. $\overline{\log(1+MinUIT)}$ is the firm-year average of $\log(1+MinUIT)$ across the firm's posting states in year $t-1$, and captures the baseline payroll-tax component of UI taxation. All regressions include firm and year fixed effects, firm-level controls, and posting-weighted state-level controls. Firm-level controls are as in Table 3. Posting-weighted state-level controls include state unemployment rate, log GDP per capita, GDP growth, log average population age, male population share, white population share, and Democratic House representation, aggregated to the firm-year level using the firm's posting shares across states in year $t-1$. The lagged values of *Tobin's Q* and *ROA* are excluded from the control set in all specifications. Detailed variable definitions and data sources are provided in Appendix A. P-values clustered at the firm level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Tobin's Q		*ROA*		*Asset Turnover*	
	t	$t+1$	t	$t+1$	t	$t+1$
	(1)	(2)	(3)	(4)	(5)	(6)
$Z(LowCostTilt)$	0.056**	0.049*	-0.006***	-0.007***	-0.014**	-0.001
	(0.018)	(0.059)	(0.005)	(0.004)	(0.015)	(0.813)
$\overline{\log(1+MinUIT)}$	-0.075	0.019	0.001	-0.006	0.019	0.014
	(0.271)	(0.785)	(0.891)	(0.422)	(0.167)	(0.374)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
State-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	34,607	30,256	33,738	29,464	34,651	30,312
Adjusted R^2	0.732	0.741	0.800	0.795	0.920	0.917

Appendix A
Variable Definitions and Sources

Variable Name	**Definition**	**Sources**
Job Posting Variables		
$JobPostings_{f,s,t}$	Number of job postings by firm f in state s in year t.	Lightcast
Full-Time Non-Internship Share	Share of firm f's job postings in state s in year t that are classified as full-time and not internship positions. This variable proxies for the extent to which posted vacancies involve longer-term employment commitments.	Lightcast
Unemployment Insurance Tax Exposure Measures		
MaxUIT	Maximum statutory unemployment insurance tax exposure per worker implied by a state's UI tax schedule in a given state–year. It is computed as the statutory maximum UI tax rate multiplied by the taxable wage base and adjusted for inflation using the CPI.	U.S. Department of Labor; CPI (FRED)
MinUIT	Minimum statutory unemployment insurance tax exposure per worker implied by a state's UI tax schedule in a given state–year. It is computed as the statutory minimum UI tax rate multiplied by the taxable wage base and adjusted for inflation using the CPI.	U.S. Department of Labor; CPI (FRED)
Log(1+MaxUIT)	Natural logarithm of one plus *MaxUIT*. This variable captures policy-based exposure to the experience-rated component of UI tax costs.	U.S. Department of Labor; CPI (FRED)
Log(1+MinUIT)	Natural logarithm of one plus *MinUIT*. This variable captures the baseline statutory UI payroll-tax component.	U.S. Department of Labor; CPI (FRED)

Log(MaxUIT-MinUIT)	Natural logarithm of the difference between *MaxUIT* and *MinUIT* in a given state–year.	U.S. Department of Labor; CPI (FRED)
$\overline{\log(1+MaxUIT)}_{f,t}$	Firm-year average of $\log(1+MaxUIT_{s,t})$ across the states in which firm f posts job openings at least once during the sample period.	U.S. Department of Labor; CPI (FRED); Lightcast
$\overline{\log(1+MinUIT)}_{f,t}$	Firm-year average of $\log(1+MinUIT_{s,t})$ across the states in which firm f posts job openings at least once during the sample period.	U.S. Department of Labor; CPI (FRED); Lightcast
DevMaxUIT	Difference between a state's $\log(1+MaxUIT)$ and the firm's average $\log(1+MaxUIT)$ across the states in which the firm posts jobs in the same year. Positive values indicate that a state has above-average exposure to the experience-rated UI tax component relative to the firm's other posting states.	U.S. Department of Labor; CPI (FRED); Lightcast
DevMinUIT	Difference between a state's $\log(1+MinUIT)$ and the firm's average $\log(1+MinUIT)$ across the states in which the firm posts jobs in the same year. Positive values indicate that a state has above-average exposure to the baseline UI payroll-tax component relative to the firm's other posting states.	U.S. Department of Labor; CPI (FRED); Lightcast
Max Positive	Indicator equal to one if $DevMaxUIT > 0$, and zero otherwise.	U.S. Department of Labor; CPI (FRED); Lightcast
Min Positive	Indicator equal to one if $DevMinUIT > 0$, and zero otherwise.	U.S. Department of Labor; CPI (FRED); Lightcast
RangeMaxUIT	Within-firm-year difference between the largest and smallest values of *MaxUIT* across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; CPI (FRED); Lightcast

RangeMinUIT	Within-firm-year difference between the largest and smallest values of *MinUIT* across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; CPI (FRED); Lightcast
SDMaxUIT	Within-firm-year standard deviation of *MaxUIT* across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; CPI (FRED); Lightcast
SDMinUIT	Within-firm-year standard deviation of *MinUIT* across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; CPI (FRED); Lightcast
RangeMaxTaxRate	Within-firm-year difference between the largest and smallest statutory maximum UI tax rates across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; Lightcast
RangeMinTaxRate	Within-firm-year difference between the largest and smallest statutory minimum UI tax rates across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; Lightcast
RangeTaxableWage	Within-firm-year difference between the largest and smallest taxable wage bases across U.S. states in which the firm posts at least one job opening.	U.S. Department of Labor; CPI (FRED); Lightcast
Title XII and Identification-Test Variables		
Borrow	Indicator equal to one for states that borrowed under Title XII during the COVID shock, and zero otherwise.	U.S. Treasury Fiscal Data; U.S. Department of Labor
Post	Indicator equal to one for 2021 and zero for 2019 in the Title XII short-window tests.	Constructed by authors
HighRelExp	Indicator equal to one if $\Delta MaxUIT^{rel}_{f,s} > 0$, and zero otherwise.	U.S. Department of Labor; CPI (FRED); Lightcast
Geographic Job Posting Variables		

Number of Posting States	Number of distinct U.S. states in which a firm posts at least one job opening in a given firm–year.	Lightcast
Multi-State Posting Indicator	Indicator equal to one if a firm posts job openings in two or more U.S. states in a given firm–year, and zero otherwise.	Lightcast
Posting in 10+ States Indicator	Indicator equal to one if a firm posts job openings in at least ten U.S. states in a given firm–year.	Lightcast
HighScope	Indicator equal to one for firms in the top quartile of the number of posting states over the prior three years. For the Title XII tests, this measure is constructed over 2017–2019 so that it is predetermined relative to the COVID shock.	Lightcast
HHI of Postings Across States	Herfindahl–Hirschman Index of a firm's postings across states, calculated as the sum of squared state-level posting shares within the firm-year. Higher values indicate more concentrated posting activity across states.	Lightcast
HighDispersion	Indicator equal to one for firms in the bottom quartile of the HHI of postings across states over the prior three years. Lower HHI values indicate less concentrated, more geographically dispersed posting activity. For the Title XII tests, this measure is constructed over 2017–2019 so that it is predetermined relative to the COVID shock.	Lightcast
HighMSI	Indicator equal to one for firms in the top quartile of the share of postings outside the headquarters state over the prior three years. For the Title XII tests, this measure is constructed over 2017–2019 so that it is predetermined relative to the COVID shock.	CRSP; Compact Disclosure; SEC Filings; Lightcast

Economic Condition Variables

High State Layoff	Indicator equal to one for states in the top quartile of layoffs and discharges within a year.	Bureau of Labor Statistics
High Sales Growth	Indicator equal to one for firms in the top quartile of annual sales growth, defined as $\log(\text{Sales}_t/\text{Sales}_{t-1})$.	Compustat
High Concentration	Indicator equal to one for state–industry labor markets in the top quartile of the Herfindahl–Hirschman Index of labor market concentration.	Lightcast

Job-Posting Reallocation Variable

Z(LowCostTilt)	Standardized value, within year, of the difference between the equal-weighted average and the posting-weighted average of $\log(1 + MaxUIT)$ across the firm's posting states in year $t-1$. Higher values indicate that the firm allocates relatively more postings to lower-*MaxUIT* states within its own recruiting footprint.	U.S. Department of Labor; CPI (FRED); Lightcast

Firm-Level Variables

Log(Assets)	Natural logarithm of book value of total assets at fiscal year-end, adjusted for inflation using the CPI.	Compustat
Log(Employees)	Natural logarithm of the number of employees reported by the firm in a given fiscal year.	Compustat
Leverage Ratio	Total debt divided by total assets.	Compustat
CAPEX/Assets	Capital expenditures divided by total assets.	Compustat
ROA	Operating income divided by total assets.	Compustat
Tobin's Q	Market value of assets divided by book value of assets.	Compustat
Asset Turnover	Sales divided by total assets, measured at the firm-year level.	Compustat

State-Level Control Variables

State Unemployment Rate	Annual average unemployment rate at the state level.	Bureau of Labor Statistics
GDP per Capita	State-level gross domestic product divided by population.	Bureau of Economic Analysis
GDP Growth	Annual percentage growth rate of state-level gross domestic product.	Bureau of Economic Analysis
Average Population Age	Average age of the state population.	U.S. Census Bureau
Male Population Share	Ratio of the male population to total state population.	U.S. Census Bureau
White Population Share	Ratio of the population identifying as White to total state population.	U.S. Census Bureau
Democratic House Representation	Share of a state's congressional delegation in the U.S. House of Representatives affiliated with the Democratic Party.	U.S. House of Representatives

Appendix Table A.1
Post-COVID Remote-Work Period and the Effect of UI Tax Exposure on Job Postings

This table reports whether the relation between unemployment insurance tax exposure and job postings differs after the COVID period, when remote-work postings became more prevalent. The dependent variable is the number of job postings at the firm–state–year level, and all specifications are estimated using Poisson pseudo–maximum likelihood (PPML). *Log(1+MaxUIT)* denotes the natural logarithm of one plus the maximum statutory UI tax exposure implied by a state's UI tax schedule, computed as the product of the statutory maximum UI tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum UI tax rate. Conceptually, *Log(1+MaxUIT)* captures exposure to the experience-rated component of UI tax costs, whereas *Log(1+MinUIT)* captures the baseline UI payroll-tax component. *Post COVID* is an indicator equal to one for years after 2019, and zero otherwise. All specifications include the state-level controls used in Table 3. Columns (1)–(2) include firm-level controls, firm fixed effects, and year fixed effects. Columns (3)–(4) include firm × year fixed effects, which absorb firm-level controls and the *Post COVID* main effect. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × Post COVID	0.031	0.040*	0.026	0.036
	(0.209)	(0.097)	(0.287)	(0.136)
Log(1+MaxUIT)	-0.800***	-0.820***	-0.802***	-0.822***
	(0.000)	(0.000)	(0.000)	(0.000)
Post COVID	0.725***	0.648***		
	(0.000)	(0.000)		
Log(1+MinUIT)		0.027***		0.027***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	673,238	673,238	664,932	664,932
Pseudo R^2	0.620	0.620	0.677	0.678

Appendix Table A.2
UI Tax Exposure and Job Postings Including Zero-Posting Firm–State–Years

This table reports Poisson pseudo–maximum likelihood (PPML) estimates using the number of job postings at the firm–state–year level as the dependent variable. The table addresses the possibility that the baseline estimates are affected by the exclusion of firm–state–year observations with zero postings. In Panel A, the sample expands the Compustat–CRSP–Lightcast firm–state–year panel from 2010 to 2024 by setting postings to zero in years when a firm has no postings in a state but posts in that state at least once during the sample period. In Panel B, the sample uses a more conservative zero-imputation rule, setting postings to zero only when a firm has no postings in a state-year but has posted in that state in a prior year. *Log(1+MaxUIT)* denotes the natural logarithm of one plus the maximum statutory UI tax exposure implied by a state's UI tax schedule, computed as the product of the statutory maximum UI tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum UI tax rate. Conceptually, *Log(1+MaxUIT)* captures exposure to the experience-rated component of UI tax costs, whereas *Log(1+MinUIT)* captures the baseline UI payroll-tax component. Columns (1)–(2) present estimates using *Log(1+MaxUIT)*. Columns (3)–(4) replace *Log(1+MaxUIT)* with *Log(1+MinUIT)*. Columns (5)–(6) jointly include both measures. All specifications include the state-level controls used in Table **3**. Columns (1), (3), and (5) include firm-level controls, firm fixed effects, and year fixed effects. Columns (2), (4), and (6) include firm × year fixed effects, which absorb firm-level controls. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Zero-Imputed Postings for Ever-Posting Firm–State Pairs						
Log(1+MaxUIT)	-0.865***	-0.861***			-0.881***	-0.876***
	(0.000)	(0.000)			(0.000)	(0.000)
Log(1+MinUIT)			-0.062***	-0.062***	0.024***	0.024***
			(0.000)	(0.000)	(0.000)	(0.000)
Firm-level controls	Yes	No	Yes	No	Yes	No
State-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No	Yes	No
Year FE	Yes	No	Yes	No	Yes	No
Firm × Year FE	No	Yes	No	Yes	No	Yes
Observations	1,211,899	1,166,742	1,211,899	1,166,742	1,211,899	1,166,742
Pseudo R^2	0.658	0.705	0.619	0.665	0.658	0.705
Panel B: Zero-Imputed Postings for Previously Active Firm–State Pairs						
Log(1+MaxUIT)	-0.809***	-0.810***			-0.825***	-0.826***
	(0.000)	(0.000)			(0.000)	(0.000)
Log(1+MinUIT)			-0.051***	-0.051***	0.026***	0.026***
			(0.000)	(0.000)	(0.000)	(0.000)
Firm-level controls	Yes	No	Yes	No	Yes	No
State-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No	Yes	No
Year FE	Yes	No	Yes	No	Yes	No
Firm × Year FE	No	Yes	No	Yes	No	Yes
Observations	768,474	758,217	768,474	758,217	768,474	758,217
Pseudo R^2	0.626	0.682	0.584	0.640	0.626	0.682

Appendix Table A.3
UI Tax Exposure and Firm-State Employment

This table reports Poisson pseudo–maximum likelihood (PPML) estimates using the number of employees at the firm–state–year level as the dependent variable. The employment measure is constructed from the NETS database. *Log(1+MaxUIT)* denotes the natural logarithm of one plus the maximum statutory UI tax exposure implied by a state's UI tax schedule, computed as the product of the statutory maximum UI tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum UI tax rate. Conceptually, *Log(1+MaxUIT)* captures exposure to the experience-rated component of UI tax costs, whereas *Log(1+MinUIT)* captures the baseline UI payroll-tax component. Columns (1)–(2) present estimates using *Log(1+MaxUIT)*. Columns (3)–(4) replace *Log(1+MaxUIT)* with *Log(1+MinUIT)*. Columns (5)–(6) jointly include both measures. All specifications include the state-level controls used in Table **3**. Columns (1), (3), and (5) include firm-level controls, firm fixed effects, and year fixed effects. Columns (2), (4), and (6) include firm × year fixed effects, which absorb firm-level controls. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Log(1+MaxUIT)	-0.728***	-0.734***			-0.744***	-0.748***
	(0.000)	(0.000)			(0.000)	(0.000)
Log(1+MinUIT)			-0.035***	-0.038***	0.027***	0.024***
			(0.000)	(0.000)	(0.000)	(0.000)
F-test: *Log(1+MaxUIT)=* *Log(1+MinUIT)*					<0.001***	<0.001***
Year FE	Yes	No	Yes	No	Yes	No
Firm FE	Yes	No	Yes	No	Yes	No
Firm × Year FE	No	Yes	No	Yes	No	Yes
Observations	357,853	348,919	357,853	348,919	357,853	348,919
Pseudo R^2	0.574	0.585	0.536	0.548	0.574	0.585

Appendix Table A.4
Industry Layoffs and the Effect of UI Tax Exposure on Job Postings

This table reports cross-sectional variation in the relation between unemployment insurance tax exposure and job postings across industry layoff conditions. The dependent variable is the number of job postings at the firm–state–year level, and all specifications are estimated using Poisson pseudo–maximum likelihood (PPML). *Log(1+MaxUIT)* is the natural logarithm of one plus the maximum statutory unemployment insurance tax exposure implied by a state's experience-rating schedule, computed as the product of the statutory maximum unemployment insurance tax rate and the taxable wage base and adjusted for inflation using the Consumer Price Index. *Log(1+MinUIT)* is defined analogously using the statutory minimum unemployment insurance tax rate. *High Industry Layoff* is an indicator equal to one for state–industry observations in the top quartile of layoffs and discharges within a given year. All specifications include the same set of state-level controls as in Table **3**. Columns (1)–(2) include firm-level controls, firm fixed effects, and year fixed effects. Columns (3)–(4) include firm × year fixed effects, which absorb firm-level controls. P-values clustered at the firm–year level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Log(1+MaxUIT) × High Industry Layoff	-0.097***	-0.098***	-0.092***	-0.092***
	(0.000)	(0.000)	(0.000)	(0.000)
Log(1+MaxUIT)	-0.744***	-0.760***	-0.751***	-0.766***
	(0.000)	(0.000)	(0.000)	(0.000)
High Industry Layoff	0.616***	0.623***		
	(0.000)	(0.000)		
Log(1+MinUIT)		0.026***		0.027***
		(0.000)		(0.000)
Firm-level controls	Yes	Yes	No	No
State-level controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	No	No
Year FE	Yes	Yes	No	No
Firm × Year FE	No	No	Yes	Yes
Observations	660,526	660,526	652,469	652,469
Pseudo R^2	0.624	0.624	0.681	0.681

Appendix Table A.5
Correlations among State-Level Variables

This table reports Pearson pairwise correlation coefficients among state-level variables. The diagonal is omitted for readability. The sample consists of 750 state–year observations from 2010 to 2024. *Wage Growth*, which excludes 2020 and 2021, and *Share of Part-Time Workers*, *Log(Average Population Age)*, *Male Population Share*, and *White Population Share* which excludes 2020, are omitted in the affected years because of data limitations in the American Community Survey Public Use Microdata Sample (PUMS) during the COVID-19 period. All variables are measured contemporaneously.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) log(1 + *MaxUIT*)												
(2) log(1 + *MinUIT*)	0.290											
(3) *Job Growth*	-0.010	0.003										
(4) *Wage Growth*	0.033	-0.012	-0.131									
(5) *Share of Part-Time Workers*	0.354	0.235	-0.184	-0.022								
(6) *State Unemployment Rate*	-0.081	0.240	-0.492	-0.057	0.202							
(7) *Male Population Share*	-0.050	-0.116	0.192	0.057	-0.206	-0.446						
(8) *White Population Share*	0.184	0.008	-0.243	0.003	0.540	-0.023	-0.118					
(9) log(*Average Population Age*)	-0.163	-0.014	0.234	-0.012	-0.004	-0.332	0.162	0.028				
(10) log(*GDP per Capita*)	0.256	0.086	0.139	0.069	-0.076	-0.269	0.159	-0.199	-0.039			
(11) *GDP Growth*	-0.014	-0.099	0.750	-0.176	-0.164	-0.434	0.161	-0.183	0.262	0.155		
(12) *Democratic House Representation*	0.069	0.298	-0.069	0.014	0.245	0.117	-0.032	-0.252	0.339	0.296	-0.041	

Appendix Table A.6
Placebo Title XII Tests Using a Non-COVID Event Window

This table reports placebo short-window PPML estimates that apply the Title XII design to a non-COVID event window. The dependent variable is the number of job postings at the firm–state–year level. The reported placebo event year is 2014. The year 2013 serves as the placebo pre-period, 2015 serves as the placebo post-period, and 2014 is omitted as the placebo event year. The sample is restricted to incumbent firm–state pairs with positive job postings in the placebo pre-period and to firms with at least 10 total job postings in that pre-period. No restriction is imposed based on job postings in the placebo post-period. *Borrow* is an indicator equal to one for states that borrowed under Title XII during the COVID shock. Superscript P denotes placebo variables measured around the non-COVID placebo event window. $Post^P$ equals one for the placebo post-period and zero for the placebo pre-period. $HighRelExp^P$ equals one if the change in *MaxUIT* from the placebo event year to the placebo post-period exceeds the firm's placebo-pre-period-posting-weighted average change in *MaxUIT* across incumbent states. *HighScope* equals one for firms in the top quartile of the number of posting states measured over the placebo pre-period window. *HighDispersion* equals one for firms in the bottom quartile of the HHI of postings across states measured over the placebo pre-period window. *HighMSI* equals one for firms in the top quartile of the share of postings outside the headquarters state measured over the placebo pre-period window. Columns (1)–(4) include firm × year fixed effects, state fixed effects, and, where indicated, region × year fixed effects and state-level controls. Columns (5)–(7) include firm × year and state × year fixed effects. P-values clustered at the state level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$Borrow \times Post^P$	0.003	-0.015					
	(0.912)	(0.590)					
$HighRelExp^P \times Post^P$			0.089	0.141			
			(0.304)	(0.336)			
$HighRelExp^P \times HighScope \times Post^P$					0.129		
					(0.338)		
$HighRelExp^P \times HighDispersion \times Post^P$						-0.008	
						(0.947)	
$HighRelExp^P \times HighMSI \times Post^P$							-0.034
							(0.725)
State-level controls	Yes	Yes	Yes	No	No	No	No
Firm × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	No	No	No	No
Region × Year FE	No	Yes	Yes	No	No	No	No
State × Year FE	No	No	No	Yes	Yes	Yes	Yes
Observations	79,421	79,421	79,421	79,421	79,421	79,421	72,810
Pseudo R^2	0.727	0.727	0.727	0.727	0.727	0.727	0.730

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