Recovering from Displacement: Gender, Family, and Labor Supply within Households

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Abstract

Gender differences in recovery following job displacement remain understudied in the United States, particularly within a household context. This paper examines how married men and women adjust their labor supply after job loss during mass layoff events. Using restricted U.S. administrative data in the 2000s and 2010s, we estimate event study and matched difference-in-difference models of employment and earnings around displacement. We find that women experience larger short-run employment declines, but smaller long-run earnings losses than men. This pattern reflects substantial heterogeneity across households. Mothers with school-age children experience earnings gains relative to comparable non-displaced women. Additionally, women's relative improvements are concentrated among secondary earners and those with shorter unemployment spells. We find limited roles for self-employment, education, labor market conditions, and unemployment insurance in explaining these patterns. Instead, the results highlight the importance of household structure, particularly the presence and age of children, and household roles in shaping gender differences in recovery from job displacement.

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Statements and Declarations

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1 Introduction

Do husbands and wives respond differently to their own job losses? While a large literature in household economics, following *A Treatise on the Family* (Becker, 1991), has emphasized how partnerships insure against income shocks through spousal labor supply responses, the so-called *added worker effect* (Lundberg, 1985; Halla et al., 2020; Connolly and Jolly, 2025), far less is known about how men and women adjust when they themselves are displaced. In particular, it remains unclear whether observed gender differences reflect gender itself or differences in roles within the household. This question is increasingly important given the prevalence of dual-earner families, just shy of 50% as of 2025 (U.S. Bureau of Labor Statistics, 2025b), and the continued volatility of the labor market (Bauer et al., 2025). Understanding husbands' and wives' differential adjustment to job loss provides new insight into how American families absorb economic shocks.

This paper examines labor supply adjustment of married men and women following job displacement during mass layoff events. Using restricted U.S. administrative data from the 2000s and 2010s, we estimate event study and matched difference-in-differences models to trace employment and earnings trajectories around displacement. We show that although women experience larger short-run employment declines following displacement, they incur smaller long-run earnings losses than men. Importantly, this pattern reflects substantial heterogeneity within households rather than uniform gender differences: women's relative improvements are concentrated among secondary earners, particularly those with school-age children, while outcomes for primary-earning women closely resemble those of men.

Our work builds upon two strands of literature that have largely evolved separately. A broad body of research documents large and persistent earnings losses following displacement (Jacobson et al., 1993; Couch and Placzek, 2010; Davis and von Wachter, 2011; Lachowska et al., 2020; Schmieder et al., 2023; Bertheau et al., 2023). A separate set of papers examine gender differences in earnings, emphasizing the role of hours, occupational choice, time to job acceptance, selection on employment amenities, among others (Bertrand et al., 2010; Goldin, 2014; Card et al., 2016; Blau and Kahn, 2017; Cortés and Pan, 2023). Critically, this research documents the large share

of the earnings gap that can be explained by motherhood, described as the *motherhood penalty* (Angelov et al., 2016; Adda et al., 2017; Kuziemko et al., 2018; Kleven et al., 2019b,a; Goldin et al., 2024; Kleven et al., 2025). However, there is limited evidence on how these forces interact to shape heterogeneity in recovery from displacement within households.

Our work most closely relates to recent studies that use administrative data to examine gender differences in responses to job loss in other institutional contexts.[3] Illing et al. (2024) find that displaced wives in Germany experience earnings losses about 35% higher than their husband's losses, with the gap persisting five years after displacement. Ivandić and Lassen (2023) find that earnings losses for women in Denmark are larger after initial displacement (in terms of share of total income lost), but that this difference dissipates over time. In contrast, we find that although displaced wives in the United States experience larger short-run declines in employment than displaced husbands, they recover more strongly in terms of earnings. Moreover, whereas Illing et al. (2024) and Ivandić and Lassen (2023) find that parenthood amplifies gender gaps in losses, we find that in the U.S. context, women with children experience relative earnings gains following displacement.

To better understand these patterns, we examine a range of potential explanations for gender differences in post-displacement recovery. We consider the roles of self-employment, level of education and income. Across these dimensions, we find limited explanatory power. We further show that these differences are not driven by variation in local labor market conditions or policy environments. Exploiting cross-state variation in unemployment insurance generosity, we find no evidence that more generous benefits lead to worse outcomes for displaced women. Similarly, we find no systematic differences in recovery across labor markets with varying levels of job opportunities or across areas with different levels of female labor force participation.

Instead, the patterns we document are most consistent with differences in household roles within the family. In particular, recovery outcomes for women differ sharply by whether the dis-

[3]Our work also follows the early work of Maxwell and D'Amico (1986) and Crossley et al. (1994) who rely on smaller surveys in the US (National Longitudinal Survey) and Canada (Displaced Worker Survey by Ontario Ministry of Labour) as well as recent work by Jahromi and Callaway (2022), who use the Displaced Workers Survey (DWS) in the US. Each finds that women experience worse employment outcomes post-displacement than men, but given the small samples these results are less generalizable to the full population of displaced workers and provide limited ability to explore mechanisms driving these differential responses.

placed worker is the primary or secondary earner and by the presence and age of children. Women who are secondary earners, particularly those with school-age children, experience the strongest post-displacement earnings gains, while primary-earning women exhibit recovery paths similar to those of men.

Our work makes three contributions to the existing literature. First, we provide new evidence on gender differences in post-displacement recovery in the United States using large-scale administrative data. Second, we document substantial within-household heterogeneity, showing that women's recovery patterns differ sharply by earner status and by the presence and age of children. Third, we evaluate a broad set of potential explanations—including self-employment, labor market conditions, state-level unemployment insurance generosity, and social norms—and show that these factors play a limited role relative to household structure in explaining gender differences in recovery. We find that the earnings gains we document are driven primarily by mothers who are secondary earners and those who experience little or no unemployment following displacement.

This paper proceeds as follows. Section 2 presents some additional background and theory to frame our research and approach. Section 3 describes data and sample construction. Section 4 lays out the empirical approach. Section 5 presents empirical results. Section 6 explores some possible mechanisms for these results. Finally, section 7 summarizes all the findings and discusses policy implications of our work.

2 Why might husbands and wives respond differently to job displacement?

Starting with Becker's (1991) theory of household specialization, a central reason to expect gender differences in response to job losses is the distinct roles that partners play in household production. In this framework, individuals specialize according to comparative advantage, with men historically concentrating in market work and women in home production and childcare. Although these patterns have evolved substantially over time and vary across households (Goldin,

2006; Lundberg and Pollak, 2007; Blau and Kahn, 2017), a gendered division of labor remains a defining feature of many families (Bianchi et al., 2012; Bertrand et al., 2015; Kleven et al., 2025).

This framework suggests that husbands and wives may respond differently to job loss. Differences in labor market attachment, caregiving responsibilities, and earnings roles may lead to systematic differences in both the speed and quality of re-employment. However, a key implication of this perspective is that observed gender differences may not reflect gender per se, but rather differences in roles within the household. In particular, responses to displacement may depend critically on an individual's potential earnings capacity in the labor market and on the extent of caregiving responsibilities within the household.

Motivated by this perspective, we consider several channels through which husbands and wives may respond differently to job loss: (i) household roles and care responsibilities, (ii) financial need, (iii) human capital, (iv) labor market opportunities, and (v) social norms. Each channel yields distinct predictions for how recovery patterns should vary across individuals and households.

2.1 Household Roles and Care Responsibilities

Differences in caregiving responsibilities are a central feature of within-household specialization and play a key role in shaping responses to job loss. A large literature documents the unequal effects of children on the labor market trajectories of men and women (Goldin, 2014; Goldin et al., 2024; Kleven et al., 2025). These differences may influence both job search behavior and re-employment outcomes following displacement.

Individuals with greater caregiving responsibilities may face higher costs of job search and more limited flexibility in accepting new employment. In particular, mothers of very young children may experience larger employment disruptions following job loss due to intensive childcare demands. However, as children age and caregiving constraints ease, these limitations may diminish, potentially allowing for stronger labor market recovery.

Consistent with the importance of caregiving constraints, Illing et al. (2024) find that in the German context, the presence of children amplifies gender differences in post-displacement out-

comes, with mothers experiencing larger and more persistent earnings losses. This evidence aligns with a framework in which adjustment costs following job loss increase with intensity of childcare responsibilities, particularly for individuals with primary childcare roles.

Considerations in this subsection imply that recovery should vary systematically with both the presence and age of children. We expect larger and more persistent employment and earnings losses among individuals with very young children, but as children age and caregiving constraints relax, these gaps should narrow. Moreover, these effects are likely to interact with within-household roles: individuals with lower relative earning potential may face weaker incentives to quickly replace lost income but greater flexibility to adjust labor supply over time. As a result, we would expect that post-displacement recovery differs not only by gender, but by the combination of caregiving responsibilities and relative earnings capacity.

2.2 Financial Need

Job loss is not only an individual shock but also a household income shock. As a result, an individual's response to displacement depends on the household's financial need and its ability to smooth consumption. Households with limited savings or access to insurance may require immediate income replacement, leading displaced workers to accept available jobs more quickly. In contrast, households with greater resources may be able to sustain longer job searches. A large literature on consumption smoothing emphasizes the role of household resources and family structure in shaping responses to income shocks (Blundell et al., 2018).

Within the household, financial pressure may vary systematically with an individual's role in generating income. Because men are more likely to be primary earners (Bertrand et al., 2015), the urgency to replace lost income may be greater following a husband's job loss, potentially leading to faster re-employment. However, evidence from Fallick et al. (2025) suggests that individuals who find work quickly may experience smaller earnings losses, implying that financial urgency may, in some cases, improve labor market outcomes.

If financial need is the dominant mechanism, differences in recovery should be driven primarily

by variation in household resources and the individual's contribution to household income. In this case, we would expect recovery patterns to differ mainly by relative earning position within the household and overall financial constraints, rather than by gender alone.

2.3 Human Capital

Within the human capital framework (Becker, 1964; Mincer, 1974), differences in skills and experience may shape post-displacement outcomes. Workers with greater general human capital are likely to experience smaller and less persistent earnings losses, while those with more firm- or industry-specific skills may face larger losses when displaced (Neal, 1995; Kambourov and Manovskii, 2009). As a result, variation in skill portability plays an important role in determining both the speed and quality of re-employment.

In the U.S. context, women now have higher average levels of educational attainment than men (Goldin, 2006), yet continue to earn lower wages on average (Blau and Kahn, 2017). These differences may translate into distinct recovery patterns following displacement. For example, if women are more likely to be employed in occupations with more transferable skills or greater flexibility, they may experience smaller earnings losses relative to men. Conversely, women with lower levels of human capital may face larger and more persistent losses. If level and types of skills are playing a key role in mediating recovery, the post-displacement outcomes would vary significantly with education and pre-displacement earnings.

2.4 Labor Market Opportunities

Local labor market conditions may play an important role in shaping post-displacement recovery. There is evidence that workers displaced in stronger labor markets experience smaller and less persistent earnings losses than those displaced in weaker markets (Moretti and Yi, 2024; Horn et al., 2026). These differences reflect variation in the availability of job opportunities, hiring rates, and wage offers across regions.

However, labor market opportunities are also gendered. Men and women are concentrated in

different industries and occupations (Blau and Kahn, 2017), and may therefore face different re-employment prospects even within the same geographic area. In addition, household constraints may limit the ability to respond to these opportunities. For example, caregiving responsibilities (particularly for young children) may restrict geographic mobility or the set of jobs individuals are able to consider (Le Barbanchon et al., 2021; D'Angelis and Horn, 2026).

The importance of labor market opportunities should then show up as systematic variation in earnings recovery across regions and industries, with gender differences at least partly reflecting differences in exposure to local demand conditions.

2.5 Social Norms

Social norms may also shape how individuals respond to job loss. Gender norms influence expectations about labor supply and the allocation of responsibilities within the household, and may therefore affect both job search behavior and re-employment outcomes (Alesina et al., 2013). These norms can operate through both external constraints—such as employer expectations—and internalized beliefs about appropriate roles.

In the context of job displacement, social norms may influence the extent to which individuals adjust labor supply following job loss. For example, in settings where male bread-winning remains the dominant norm, men may face stronger pressure to re-enter employment quickly, while women may face weaker expectations to replace lost earnings. Conversely, in areas with higher female labor force participation, women may face fewer barriers to re-employment and may be more responsive to labor market opportunities.

Evidence suggests that perceptions of social norms can have meaningful effects on labor supply decisions. Bursztyn et al. (2020) show that correcting women's beliefs about their husbands' support for labor force participation leads to persistent increases in job search and employment outcomes. These findings highlight how norms can influence behavior even in the absence of formal constraints. We would then expect variation in post-displacement outcomes across areas with differing levels of female labor force participation, with more pronounced losses for women

relative to men in areas with more traditional norms.

3 Data and Sample Construction

3.1 Data Sources

The main data in this study come from restricted U.S. administrative databases accessed through the Federal Statistical Research Data Centers (FSRDC). The core analysis is drawn from the Longitudinal Employer-Household Dynamics (LEHD) dataset. The LEHD data link employer information to their employees and cover over 95% of wage and salary employment in the US (Graham et al., 2022). The LEHD employee-level data provide quarterly employment and nominal earnings records derived from federal tax filings, along with demographic characteristics constructed on Social Security administrative records. This study draws on LEHD data from 16 states, spanning all four census regions and nine divisions to ensure geographic diversity and regional representativeness.[4] Additionally, we can distinguish whether a worker has any earnings record in one of the non-participating states (Vilhuber, 2018) which allows us to accurately identify long term unemployed individuals without concerns that the individual is employed in a different state.

To provide a more complete picture of household earnings we incorporate the Integrated Longitudinal Business Database (ILBD), which includes Schedule C tax filings for sole proprietors and independent contractors that constitute the majority of self-employed workers in the U.S. (Goetz and Kroff, 2021; U.S. Bureau of Labor Statistics, 2016).[5] To construct household relationships, we link LEHD individuals to the 2000 and 2010 Decennial Censuses, allowing us to identify baseline spousal and parental relationships. Individuals are matched across datasets using the Census Bureau's Protected Identification Key (PIK). The combination of the restricted administrative and census records offers a rich longitudinal panel on labor market outcomes and household structure, allowing for detailed analyses of labor supply adjustments in response to job displacement.

[4] Appendix Figure A1 maps the 16 states in our sample: AL, AZ, CO, CT, IA, IN, KS, ME, NJ, OK, OR, PA, TN, VA, WA, WI.

[5] Examples include freelancers and gig workers.

This linkage allows us to observe both labor market outcomes and household relationships over time, which is central to our ability to study heterogeneity in post-displacement recovery within households.

Additionally, we merge in several public-use datasets to control for local labor market conditions and household costs, including state-level unemployment rates (U.S. Bureau of Labor Statistics, 2025a), childcare expenses (U.S. Department of Labor, Women's Bureau, 2025), and unemployment insurance generosity (U.S. Department of Labor, Employment & Training Administration, 2025).

3.2 Defining Mass Layoffs and Displaced Workers

We define involuntary job loss using mass layoff events at the state-firm level, which serves as the source of quasi-exogenous variation for identification.[6] This definition of mass layoffs isolates large, firm-level employment contractions that are unlikely to be driven by individual worker performance, and are therefore widely used as a proxy for involuntary job loss. Following Jacobson et al. (1993) and Lachowska et al. (2020), a mass layoff occurs when a firm in a particular state experiences a 30% or greater reduction in employment over a four-quarter period. We label these quarters as "tm3" through "tm0," with the quarter immediately preceding this period marked as "tm4," during which a firm must have 50 or more employees to qualify as a mass layoff firm. The restriction to the state-firm level ensures that large, multi-state employers are correctly captured by state-specific shocks rather than firm-wide reductions. Requiring a 50-worker employment level at the baseline naturally excludes smaller establishments, but it reduces noise from idiosyncratic exits and directs attention to systemic layoffs. A firm can undergo multiple mass layoff events, but we focus on those that occurred between the first quarter of 2007 and the last quarter of 2017. This time frame ensures a consistent ten-year observation window around displacement for both affected workers and their matched control workers (detailed below).

[6] Many European studies, such as Illing et al. (2024) and Halla et al. (2020), use establishment-level mass layoff events. This study uses state-firm level layoffs because establishment is imputed for workers in the LEHD data.

Displaced workers are between 25 and 49 years old, with at least 12 quarters of tenure when they separate from the mass layoff firm. This three-year tenure requirement follows Davis and von Wachter (2011), allowing us to include a broad set of workers, while still capturing workers with reasonable attachment to the labor force.[7] We further categorize workers into eight super-sectors based on the sector of their pre-layoff firm.[8]

We identify a worker separation from their current job when the worker's firm identifier differs from the firm identifier in the subsequent quarter, and a worker is considered mass laid-off if this separation occurs during the "tm3" through "tm0" period. We exclude seasonal workers, who are rehired by the same firm within four quarters after a mass layoff, from the displaced worker sample.[9] If a worker experiences multiple mass layoffs, we select the first event during the study period as the focus of the analysis, since subsequent layoffs may be correlated with the first one (Halla et al., 2020). We also exclude a subset of workers who move to non-participating states after displacement and subsequently become re-employed in those states, as we cannot measure post-period earnings accurately for these workers. The final estimation sample includes displaced workers and controls with complete post-event earnings histories.[10]

3.3 Matching the Control Group

The control group consists of workers who do not experience a mass layoff during the study period.[11] We exclude non-displaced co-workers of the laid-off workers to avoid contamination

[7] Another tenure requirement common in the displacement literature is six years (Jacobson et al., 1993; Lachowska et al., 2020), which we believe would be too stringent a cutoff and leave us with a sample that is too small and selected.

[8] These eight super-sectors are: Agriculture, Mining/Utilities/Construction, Manufacturing, Trade/Transportation, Information/Finance/Professional/Management, Education/Healthcare, Entertainment/Accommodation, other services.

[9] We exclude households with seasonal workers as they expect the recurring employment-unemployment cycle. This study instead focuses on unforeseen income shocks due to involuntary job loss.

[10] Workers who move to non-participating states but are not re-employed in those states remain in the sample, with zero LEHD earnings imputed for those quarters.

[11] This definition of control group workers differs from that in Jacobson et al. (1993) and Lachowska et al. (2020) in two aspects. First, in Jacobson et al. (1993), control group workers are the non-displaced coworkers of the treated individuals, while in this study, control individuals work in firms that are not undergoing a mass layoff at that time. Second, in both Jacobson et al. (1993) and Lachowska et al. (2020), control group workers are required to remain employed in the same firm throughout the study period. In this study, however, control group workers can become unemployed after the "tm0" quarter. Allowing control group workers to become unemployed improves the represen-

from firm-level shocks and to improve external validity. This design reflects realistic labor market dynamics and improves representativeness, while maintaining comparability through matching. For each worker, we identify all quarters in which they meet the same age and tenure criteria as displaced workers in their quarter of separation. From these qualifying quarters, we randomly assign one quarter as an artificial "separation" quarter for each control worker. This procedure aligns event time between treated and control workers and ensures that each control worker is used at most once in the matching procedure.

To further improve comparability between treated and control workers, we construct the control group using the two-stage matching process proposed in Schmieder et al. (2023), selecting control workers and their spouses to closely match those of the treatment group based on observable characteristics. In the first stage, we group the displaced and control group workers by sex, calendar quarter of the mass layoff event, and Core-Based Statistical Areas (CBSA). In the second stage, we implement 1:1 nearest-neighbor matching without replacement within these subgroups, using propensity scores estimated from pre-layoff earnings, NAICS one-digit super-sectors, and the pre-layoff employment and earnings of spouses, ensuring comparability in both individual and household-level characteristics. This approach produces a matched control group that shares the same observable characteristics and local labor market environment as displaced workers, while ensuring that control workers themselves were not subject to a mass layoff. This matching strategy constructs a counterfactual trajectory for displaced workers by comparing them to observationally similar workers in the same local labor markets who were not exposed to a mass layoff shock.

3.4 Constructing Outcome Variables

For each individual in the sample, we track quarterly earnings and employment status from 20 quarters before to 20 quarters after the displacement event. The primary outcome variables are employment status and real quarterly earnings, adjusted to 2010 dollars. Employment status

tativeness of the sample, but also inevitably attenuates differences in labor market outcomes between the treated and the control group.

is defined as having a firm number with positive employee earnings or self-employment revenue. The real earnings measure in this study incorporates LEHD real quarterly earnings and quarterly self-employment revenue. LEHD earnings include both in-state and out-of-state earnings: in-state earnings represent total earnings across all jobs within the given state at the time of the mass layoff event, while out-of-state earnings capture total earnings across all jobs from other states where data access is available.[12] As mentioned previously, we exclude workers who are known to be employed in another state but lacking corresponding quarterly earnings records, as their post-layoff outcomes cannot be measured consistently. Self-employment revenue is reported annually and allocated evenly across four quarters.[13] The combined measure of LEHD earnings and ILBD revenue reflects overall labor earnings from both wage employment and self-employment. This broader definition of employment and earnings provides a more comprehensive measure of labor income and avoids mis-measurement of labor supply adjustments, particularly when individuals transition into self-employment.

In addition to employment status and earnings levels, we construct two more variables: one of which measures relative earnings change, and the other captures labor supply adjustment through multi-job holding. We construct the relative earnings measure by first taking average quarterly earnings in the year $y-2$ as the baseline earnings, and then dividing each quarterly estimate by this baseline. This measure is consistent with the relative earnings measure in Illing et al. (2024). The additional intensive margin variable, "number of jobs", captures the number of concurrent jobs held in a given quarter. This measure supplements the employment status indicator and provides more granular information on employment adjustment.

[12] Due to data limitations, many prior U.S. studies only observe workers' within-state earnings (Jacobson et al., 1993; Lachowska et al., 2020; Moore and Scott-Clayton, 2025).

[13] This approach may attenuate short-term earnings changes around the layoff period, but it is necessary due to data limitations.

3.5 Finding Spouses and Children

In this study, we restrict our attention to married or cohabiting couples. This restriction allows us to examine the role of household structure in shaping responses to job loss, which is central to our analysis of within-household heterogeneity in post-displacement recovery. However, the LEHD data do not contain household information, so we identify spouses and children of the treated and control workers by linking the LEHD data to the 2000 and 2010 Decennial Census, using the Census 'relationship to reference person' variable. Household relationships are measured at the time of the Census and treated as fixed over the observation period.[14] The linkage enables us to identify both married spouses and unmarried partners who reside at the same address as the worker. Using the displaced workers' quarter of separation and linked person identifiers, we obtain (1) spouses' demographic and labor market characteristics, including age, work tenure, annual earnings and industry; and (2) children's characteristics, specifically the number of children and age of the youngest child. We restrict spousal age to between 25 and 49 years old at the time of their partner's displacement. This age restriction focuses the sample on individuals with strong labor market attachment. We further limit our sample to opposite-sex couples.

3.6 Sample Characteristics and Balance

Table 1 presents demographic and labor market characteristics of displaced and matched control workers by gender. The table serves both to describe the sample and to assess balance between treated and control workers. The descriptive statistics are obtained 4 quarters before displacement. Columns (1) and (2) present descriptive statistics for male workers and columns (3) and (4) for female workers.

Consistent with the matching procedure, displaced workers and their matched controls are well balanced across observable characteristics, including age, tenure, and pre-displacement earnings. Our sample of workers is, on average, in their early 40s, which is similar to the sample age in Illing

[14]This approach will not capture changes in household composition over time, but allows for consistent identification of family relationships.

et al. (2024). Average real household earnings ($2010) are representative of U.S. households, and around 60% of the couples have children, providing substantial variation to examine heterogeneity by parental status.

Comparing male and female workers, we see that male workers are more concentrated in the production and resources sector, which includes industries such as construction, manufacturing, and mining. Female workers are more likely to be employed in the professional and human capital sector, which includes education and healthcare. Male workers also have higher baseline earnings, even though their average work tenure is similar to that of female workers. Men also earn higher revenues in self-employment, consistent with their slightly higher likelihood of engaging in self-employment. These systematic differences across gender in sectoral composition and earnings are consistent with gendered patterns of labor market outcomes that motivate our analysis of within-household heterogeneity in response to displacement.

4 Empirical Methods

We estimate the effects of job displacement by comparing outcomes of displaced workers to those of matched controls before and after the mass layoff event. We first estimate event study models to trace dynamic effects of displacement, and then use a matched difference-in-differences approach to estimate average treatment effects and explore heterogeneity. To isolate gender differences from variation in job characteristics, we implement a reweighting procedure following Illing et al. (2024), so that the distribution of job characteristics for women matches that of men.

4.1 Event Study

The event study approach closely follows Illing et al. (2024), as well as other previous studies on mass layoffs (Jacobson et al., 1993; Couch and Placzek, 2010; Schmieder et al., 2023). Our model is specified as follows:

$$Y_{it} = \sum_{\substack{k=-20 \\ k\neq -8}}^{20} \delta_k \times I\{t - t_i^0 = k\} \cdot Disp_i + \sum_{\substack{k=-20 \\ k\neq -8}}^{20} \gamma_k \times I\{t - t_i^0 = k\} + \lambda_t + \alpha_i + \epsilon_{it} \quad (1)$$

where Y_{it} denotes the outcome for worker i in calendar quarter t, and $k = t - t_i^0$ represents event time relative to the displacement (or assigned separation) quarter t_i^0. The indicator $I\{t - t_i^0 = k\}$ equals one if worker i is k quarters away from the event. The variable $Disp_i$ indicates whether worker i is displaced. The coefficients δ_k trace the dynamic effects of displacement relative to the omitted baseline quarter, $k = -8$. We omit this quarter as it corresponds to the beginning of the baseline year used to normalize earnings. The terms γ_k capture event-time patterns common to displaced and control workers. The specification includes calendar-quarter fixed effects λ_t, as well as worker fixed effects α_i. The error term ϵ_{it} captures idiosyncratic variation. Standard errors are clustered at the matched pair level.

4.2 Matched Difference-in-Difference

The two-stage matching procedure used to construct the control group allows us to estimate individual-level displacement effects using a matched difference-in-differences framework. This approach complements the event study analysis by providing intuitive individual-level estimates that can be used to examine heterogeneity across workers and households. Following Schmieder et al. (2023) and Illing et al. (2024), we compare changes in outcomes for displaced workers to those of their matched controls:

$$\Delta_{dd} Y_i = \left(\overline{Y}_i^{post} - \overline{Y}_i^{pre}\right) - \left(\overline{Y}_i^{post,c} - \overline{Y}_i^{pre,c}\right) \quad (2)$$

where $\overline{Y}_i^{pre}$ and $\overline{Y}_i^{post}$ denote the average outcomes for displaced worker i in the pre- and post-displacement periods, respectively, and $\overline{Y}_i^{pre,c}$ and $\overline{Y}_i^{post,c}$ denote the corresponding averages for the matched control worker. The difference $\Delta_{dd} Y_i$ therefore captures the individual-level effect

of displacement by comparing changes in outcomes for treated workers relative to their matched controls. The pre-period is defined as quarters $k \in [-20, -1]$ and the post-period as $k \in [0, 20]$ relative to the displacement (or assigned separation) quarter.

To explore heterogeneous effects, the estimated individual-level mass layoff effect can be regressed on various indicator or categorical variables. For example, differences by presence of children can be estimated by the following regression:

$$\Delta_{dd} Y_i = \beta_0 + \beta_1 \textit{Kid}_i + X_i'\theta + \epsilon_i \tag{3}$$

where $\textit{Kid}_i$ is an indicator for the presence of children, and X_i includes individual as well as state-level characteristics. The coefficient β_1 captures differences in the displacement effect by parental status. This specification allows us to assess how displacement effects vary with household characteristics, including the presence and age of children, consistent with the conceptual framework.

4.3 Reweighting

One concern when comparing post-displacement losses between men and women is that these gaps may reflect both behavioral responses and differences in pre-displacement characteristics. Men and women tend to sort into distinct jobs and industries, leading to varying tenure-wage profiles. Therefore, the observed gender gap could be a compositional outcome that includes both the gender effect and variation in individual characteristics. The goal of reweighting is to isolate gender gaps in recovery from differences in the distribution of observable characteristics. Specifically, we would like to know what women's earnings losses would look like if women had the same distribution of individual and job characteristics as men. The reweighting method detailed in this section follows Illing et al. (2024), in which a non-parametric approach developed by DiNardo et al. (1996) is adapted to reweight the distribution of displaced women to resemble that of displaced men. This method assigns larger weights to female workers who bear more labor market resemblance to male workers, while assigning smaller weights to the female workers with

characteristics that are rare among men.

To empirically implement this reweighting method, we estimate a probit regression where the dependent variable is a male indicator. Regressors include baseline measures of average quarterly earnings, age, work tenure, firm size, and estimated firm pay premium, which we denote X_i.[15] We thus calculate propensity score:

$$\hat{p} = P(Male_i = 1 \mid X_i) \tag{4}$$

And the weight for women is:

$$\phi(X_i) = \frac{\hat{p}}{1 - \hat{p}} \tag{5}$$

We apply these weights to the sample of female workers and re-estimate women's earnings losses post-displacement.

5 Results

5.1 Impact of Job Loss on Displaced Workers by Gender

Figure 1 presents the dynamic effects of displacement for men and women. Three key patterns emerge. First, women experience a larger short-run decline in employment: within the first year after displacement, employment falls by approximately 12 percentage points for women, compared to a slightly smaller decline for men (Panel a). Second, men experience larger earnings losses: in the first year, real quarterly earnings decline by roughly $3,500 for men versus $2,300 for women (Panel b). Third, when measured relative to baseline earnings, these differences are substantially attenuated, with men and women experiencing similar proportional losses (Panel c). Over time, employment recovers for both groups, and by five years post-displacement, employment returns to near pre-displacement levels.[16]

[15] Unlike Illing et al. (2024), we do not include full-time working status as a regressor, since LEHD data have no information on such status. We are less concerned about not including full-time status as the full-time/part-time distinction is less important among U.S. working women, as opposed to their German counterparts.

[16] Appendix Figure A2 shows the labor market losses of job displacement for the full sample. Results are in line with those in the literature.

Table 2 reports corresponding matched difference-in-differences estimates, which confirm these patterns. The estimates indicate that men experience larger absolute earnings losses—approximately $500 more per quarter—while differences in relative earnings losses are small and statistically insignificant. Changes in the number of jobs are small for both groups, suggesting limited adjustment along this margin.

Results in Figure 1 and Table 2 reveal a divergence between employment and earnings responses by gender: women experience larger short-run employment declines, while men experience larger earnings losses. In the next section, we implement a reweighting process that assigns weights to female workers so that their observable characteristics align with those of male workers.

5.2 Reweighting Female Labor Force

Figure 2 extends Figure 1 by presenting event-study estimates for reweighted female workers. Reweighting aligns the distribution of observable characteristics for women with that of men, allowing us to assess how differences in job and worker characteristics contribute to gender differences in post-displacement outcomes.

We see that reweighting has little effect on employment trajectories, suggesting that differences in observable characteristics do not explain gender differences in employment responses. Additionally, reweighting further reduces women's earnings losses compared to those of men, indicating that compositional differences in characteristics cannot account for the smaller relative earnings losses observed for women.

This exercise parallels Figure 2 in Illing et al. (2024), who find that reweighting female workers to resemble male workers in Germany widens the gender gap in earnings losses, in other words women's earnings losses are even larger once these weights are implemented. In contrast, we find that reweighting in the U.S. context further attenuates women's post-displacement losses relative to men.

These results suggest that differences in observable labor market characteristics are not the primary drivers of gender differences in recovery, motivating a closer examination of within-

household factors that may shape post-displacement outcomes.

5.3 Heterogeneity by Children and Caregiving Constraints

Figure 3 shows that post-displacement recovery differs systematically by parental status. We see that parents experience a more complete recovery in employment. By five years after displacement, employment returns to near counterfactual levels for parents, while a persistent gap remains for non-parents. We also see that parents experience substantially smaller long-run earnings losses. Although initial earnings declines are similar (approximately $3,000 per quarter in the first year), losses converge to about $500 per quarter for parents, compared to roughly $1,500 for non-parents.

Table 3 reports matched difference-in-differences estimates corresponding to equation 3. The specification is reweighted so that the distribution of observable characteristics for female workers matches that of male workers. The main variables of interest are indicators for female, children, and their interaction.

This table reveals that among workers without children, women experience larger post-displacement losses than men: they are 3 percentage points less likely to be employed, lose approximately $651 more in quarterly earnings, and experience a 13 percentage point larger decline in earnings relative to baseline. It is only once presence of children is accounted for that relative gains for women emerge. While the presence of children is associated with improved outcomes for both men and women, the interaction term indicates that this effect is stronger for women. In particular, displaced mothers experience smaller employment losses and a relative gain in earnings ratios compared to displaced women without children. These findings contrast with those in Illing et al. (2024), who document that the presence of children exacerbates post-displacement losses for women in Germany. In our U.S. setting, children instead attenuate these losses, reversing the direction of the gender gap.

One possible explanation for this difference lies in cross-country variation in labor market attachment. Although women in both countries have similar overall labor force participation rates, German women are substantially more likely to work part-time, whereas most U.S. women work

full-time (Blau and Kahn, 2013). Differences in labor market attachment may contribute to divergent post-displacement responses: lower attachment may be associated with a greater shift toward childcare following job loss, while stronger attachment, especially among U.S. mothers, may facilitate faster re-entry and stronger earnings recovery.

These results suggest that parental status plays an important role in shaping post-displacement recovery. We next examine whether these effects vary with the age of the youngest child, which proxies for the intensity of caregiving demands. Illing et al. (2024) find that pre-teenage children exacerbate displaced mothers' losses, while older children have little effect. Figure 4 presents analogous evidence using U.S. data, where the horizontal axis shows the age of the youngest child and the vertical axis denotes post-displacement changes in employment and earnings for male and female workers. Estimates at the far right correspond to individuals without children.

Across all outcomes, a clear pattern emerges. For male workers, the presence of children is associated with uniformly smaller losses, consistent with the results in Table 3, and child age has only modest effects on outcomes. In contrast, the response for women is highly heterogeneous. Mothers with very young children—particularly those aged 0 to 2—experience the largest employment and earnings declines. This pattern is consistent with higher childcare demands early in life, when constraints on labor supply are most binding.

However, this pattern reverses sharply as children age. For mothers with school-age children, employment and job holding recover more quickly, and earnings losses are substantially attenuated relative to non-mothers. This is particularly pronounced in the earnings ratio measure, where mothers with older children exhibit near-complete recovery and, in some cases, relative gains compared to their pre-displacement baseline.

The relative earnings gain among mothers with school-age children differs from the German evidence in Illing et al. (2024), where younger children amplify women's losses and older children do little to mitigate them. In the U.S. context, the relationship between children and recovery appears non-monotonic: presence of children is associated with larger losses when caregiving demands are highest, but with improved outcomes as those constraints ease.

Results in this subsection suggest that caregiving constraints play an important role in shaping post-displacement recovery. We next examine how household roles and labor market adjustment, such as earner status and time to re-employment, further contribute to heterogeneity in these outcomes.

5.4 Household Roles and Labor Market Adjustment

The results above highlight the importance of caregiving constraints in shaping post-displacement recovery. We next examine how household roles and labor market adjustment further contribute to heterogeneity in outcomes, focusing on earner status within the household and the speed of re-employment.

Figure 5 shows that recovery patterns differ markedly by primary versus secondary earner status. We define primary earners as the higher-earning partner in the baseline period ($y-2$), and secondary earners as the lower-earning partner. Two dimensions of heterogeneity are particularly notable. First, displaced primary earners experience persistent earnings losses, regardless of gender or the age of the youngest child. Second, among secondary earners, outcomes are substantially more varied. In particular, mothers who are secondary earners (especially those with school-age children) experience large improvements in earnings relative to baseline, in some cases exceeding pre-displacement levels. These gains are not observed for male secondary earners.

Additionally, Figure 6 shows that these patterns are closely linked to the speed of re-employment. We distinguish between workers who are re-employed within the same quarter as separation and those who experience longer non-employment spells. Among workers who are quickly re-employed, men experience minimal earnings losses, while mothers with school-age children experience earnings gains relative to baseline. In contrast, among workers with longer non-employment spells, both men and women experience substantial and persistent earnings losses, with little difference across gender.

These results suggest that the relative earnings gains observed for some women are concentrated among those who enter displacement as secondary earners and are able to return to work

quickly. These patterns point to an important role for within-household labor supply adjustment in shaping post-displacement outcomes. In the next section, we examine potential mechanisms underlying these differences.

6 Mechanisms

Empirical results show that post-displacement recovery differs systematically by gender, parental status, and household roles. These patterns suggest that differences in recovery are unlikely to be driven by broad labor market conditions alone, and instead point to mechanisms operating within the household and along specific margins of adjustment.

In this section, we examine several potential mechanisms. We first assess the role of self-employment as a form of self-insurance. We then evaluate alternative explanations, including variation in labor market conditions, social norms, and social insurance, which we find do not account for the observed gender differences in recovery.

6.1 Self-Employment as Self-Insurance

Figure 7 presents event-study estimates of self-employment participation and earnings, by gender and parental status. We find limited evidence that self-employment serves as an important margin of adjustment. Only individuals with children show any increase in the likelihood of self-employment following displacement, and even among this group, only fathers generate measurable self-employment income. Additionally, the magnitude of this income (approximately $200 to $400 per quarter) is small relative to overall earnings losses. These findings suggest that self-employment plays at most a minor role in explaining post-displacement recovery patterns.

6.2 Assessing Alternative Explanations

We next examine whether variation in human capital, local labor market conditions, or institutional factors can account for the observed gender differences in recovery. Using triple-interaction

specifications within the matched difference-in-differences framework, we focus on earnings ratio as the dependent variable but find little evidence supporting these explanations (Table 4).

In particular, we find no meaningful heterogeneity in outcomes by college attainment, household income, local female labor force participation rates, or metropolitan-level job opportunities. These results suggest that differences in human capital, local labor market conditions, and social norms are unlikely to be the primary drivers of the observed patterns.

We also examine the role of social insurance by leveraging variation in the generosity of state-level safety nets. Contrary to standard predictions, we find no evidence that more generous programs discourage labor market recovery among women. If anything, mothers in states with more generous safety nets exhibit improved employment outcomes.

Taken together, these findings further suggest that the mechanisms underlying gender differences in recovery are unlikely to operate through labor market conditions or reduced work incentives, and instead point toward constraints and adjustments within the household.

7 Conclusion

This paper provides new evidence on how households adjust to job displacement, highlighting systematic differences in how husbands and wives recover from job loss. In contrast to Illing et al. (2024) and Ivandić and Lassen (2023), we find that displaced women experience smaller earnings losses than men, with this gap persisting up to five years after displacement. Moreover, reweighting the female sample to match the distribution of male job characteristics widens this gap, suggesting that differences in job composition do not explain the observed patterns.

We further show that these gender differences are shaped by household structure. In particular, mothers with school-age children experience the strongest recovery, including relative earnings gains following displacement. These improvements are concentrated among women who are secondary earners prior to displacement and who return to work quickly, pointing to an important role for within-household labor supply adjustment and re-employment dynamics.

These findings have several policy implications. First, the concentration of gains among individuals who return to work quickly suggests that policies facilitating rapid re-employment—such as job placement assistance or improved matching services—may yield substantial benefits. Second, the importance of childcare constraints in shaping recovery highlights the potential role of policies that expand access to after-school care or early childhood education. Such policies may help reduce barriers to labor force participation and strengthen household resilience to labor market shocks.

More broadly, our results underscore the importance of accounting for household structure when evaluating the impacts of job displacement. As labor market volatility persists, understanding how families adjust and how policy can support these adjustments remains an important area for future research.

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Table 1 Individual Characteristics (4 Quarters Pre-Displacement)

	Male Workers		**Female Workers**	
	Treated	Control	Treated	Control
	(1)	(2)	(3)	(4)
Demographic Traits				
Age (years)	42	43	42	41
	(4.70)	(7.45)	(4.92)	(7.49)
Has children (%)	63.69	60.14	55.29	57.82
	(48.09)	(48.96)	(49.72)	(49.39)
Real household earnings ($2010)	97,620	96,830	90,860	89,060
	(60,070)	(56,880)	(61,740)	(58,510)
Employment Traits				
Tenure (years)	6	6	6	6
	(3.17)	(3.30)	(3.13)	(3.26)
Production & resources sector (%)	42.18	44.20	15.83	14.76
	(49.38)	(49.66)	(36.50)	(35.47)
Commerce & infrastructure sector (%)	45.14	41.74	43.86	47.29
	(49.76)	(49.31)	(49.62)	(49.93)
Professional & human capital sector (%)	8.47	9.84	35.78	33.46
	(27.84)	(29.79)	(47.94)	(47.18)
Public administration sector (%)	4.21	4.21	4.53	4.49
	(20.09)	(20.09)	(20.79)	(20.72)
Real total annual earnings ($2010)	70,310	70,450	44,790	44,480
	(49,500)	(45,780)	(34,050)	(32,770)
Self-Employment Traits				
Share of self-employed (%)	23.71	20.59	19.04	16.29
	(42.53)	(40.44)	(39.26)	(36.93)
Self-employment revenue ($2010)	6,773	4,176	2,302	2,349
	(95,800)	(43,240)	(22,740)	(57,220)
Number of matched individuals	42,500	42,500	36,500	36,500

Notes: This table summarizes the characteristics of displaced and matched control workers, by gender, measured four quarters prior to displacement. Columns (1) and (3) report treated workers, and columns (2) and (4) report control workers. The production and resources sector includes NAICS sectors 11–33; commerce and infrastructure includes NAICS sectors 42–56; professional and human capital includes NAICS sectors 61–72; and public administration includes NAICS sectors 81 and 92. Standard deviations are reported in parentheses. FSRDC Project Number 1875 (CBDRB-FY26-P1875-R12934).

Table 2 Displacement Effect on Labor Market Outcomes by Gender, Regression Results

	Employment (1)	Real Earnings (2)	Earnings Ratio (3)	No. of Jobs (4)
Female	-0.05***	-1298***	-0.11***	-0.07***
	(0.002)	(37.160)	(0.005)	(0.003)
Male	-0.04***	-1830***	-0.11***	-0.08***
	(0.001)	(48.050)	(0.005)	(0.002)
Number of matched pairs	79,000	79,000	79,000	79,000

$^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

Notes: Cells report changes in employment and real quarterly earnings following displacement, by gender. Estimates are based on matched difference-in-differences models with clustered standard errors at the matched pair level. Constants are normalized to zero to show displacement effects specific to each category. Standard errors are reported in parentheses. FSRDC Project Number 1875 (CBDRB-FY26-P1875-R12934).

Table 3 Displacement Effect by Parental Status and Gender

	Employment (1)	Real Earnings (2)	Earnings Ratio (3)	No. of Jobs (4)
Female	-0.03^{***}	-650.80^{***}	-0.13^{***}	-0.02^{**}
	(0.004)	(104.700)	(0.023)	(0.007)
Has children	0.01^{***}	716.50^{***}	0.06^{***}	0.03^{***}
	(0.003)	(102.300)	(0.016)	(0.005)
Has children $\times$ female	0.02^{***}	-112.90	0.11^{***}	0.02^{***}
	(0.005)	(120.800)	(0.022)	(0.008)
Number of matched pairs	158,000	158,000	158,000	158,000

$^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

Notes: Cells report changes in employment, real quarterly earnings, earnings ratios, and number of jobs following displacement. Estimates are based on matched difference-in-differences models controlling for state, year, displaced worker industry and race fixed effects, displaced worker age, pre-event tenure and earnings, the business cycle, state-level unemployment rate, childcare cost, and unemployment insurance generosity. Standard errors are clustered at the matched-pair level and are reported in parentheses. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12743).

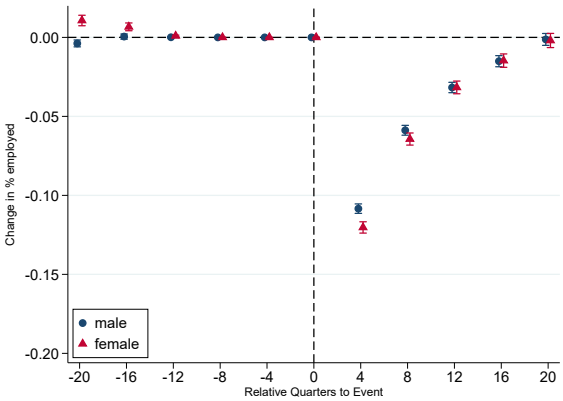
Table 4 Signs and Significance of Triple Interaction Terms

	College (1)	Low-income (2)	High FLFPR (3)	High AWB (4)	High JOI (5)
Female	$-^{***}$	$-^{***}$	$-^{***}$	$-^{***}$	$-^{***}$
Has kids	$+^{**}$	$+^{***}$	$+^{***}$	$+^{**}$	$+^{***}$
Female $\times$ has kids	$+^{***}$	$+^{**}$	$+^{***}$	$+^{**}$	$+^{***}$
Variable of interest	$+^{***}$	$+$	$-^{*}$	$+$	$+^{***}$
Female $\times$ variable	$+$	$+$	$-$	$-$	$-$
Has kids $\times$ variable	$+^{*}$	$-^{**}$	$+$	$-$	$+$
Female $\times$ has kids $\times$ variable	$-$	$+$	$+$	$+^{*}$	$+$

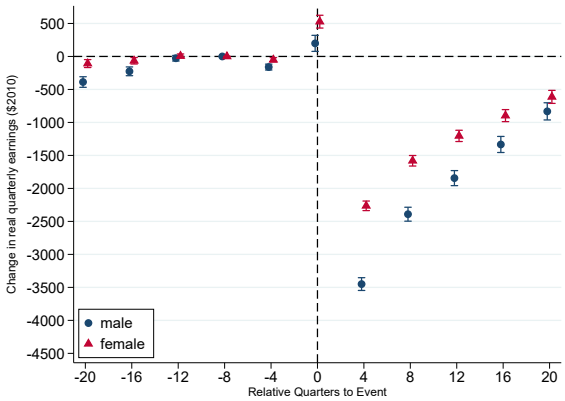
$^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

Notes: This table reports the sign and statistical significance of selected coefficients from triple-interaction regressions estimated within the matched difference-in-differences framework, with the dependent variable equal to earnings ratio in all columns. Variables of interest are shown in the top row. The symbols $+$ and $-$ indicate the direction of the estimated coefficient. FSRDC Project Number 1875 (CBDRB-FY26-P1875-R12946).

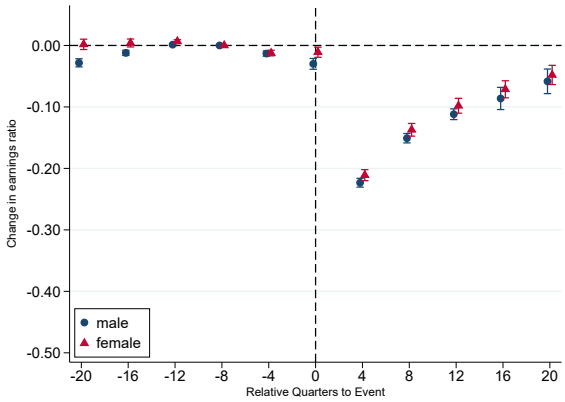
Fig. 1 Displacement Effect by Gender



(a) Event Studies: Employment



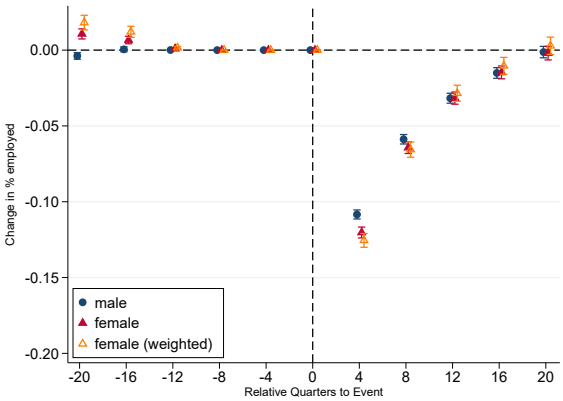
(b) Event Studies: Real Quarterly Earnings



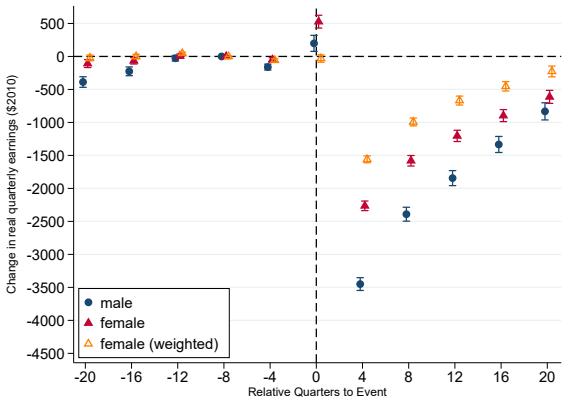
(c) Event Studies: Earnings Ratio

Notes: The figures present event-study estimates of employment and earnings relative to the displacement quarter, by gender, for workers aged 25 to 49 at the time of separation. Points denote estimated coefficients, and vertical bars represent 95% confidence intervals. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12743).

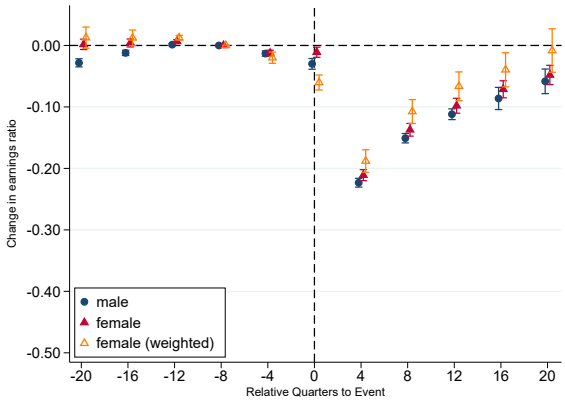
Fig. 2 Displacement Effect by Gender, Reweighting Female Labor Force



(a) Event Studies: Employment



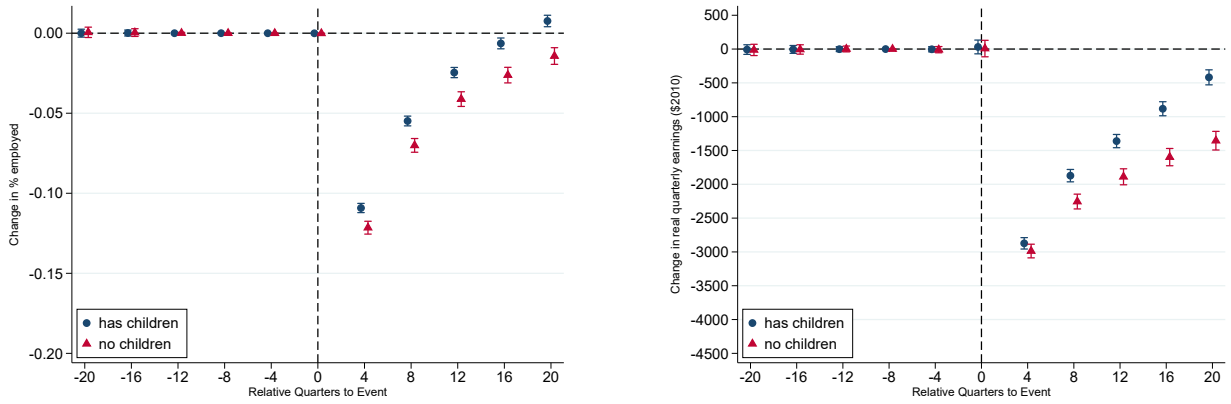
(b) Event Studies: Real Quarterly Earnings



(c) Event Studies: Earnings Ratio

Notes: The figures present event-study estimates of employment and earnings relative to the displacement quarter, by gender, for workers aged 25 to 49 at the time of separation. Points denote estimated coefficients, and vertical bars represent 95% confidence intervals. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12743).

Fig. 3 Displacement Effect by Presence of Children

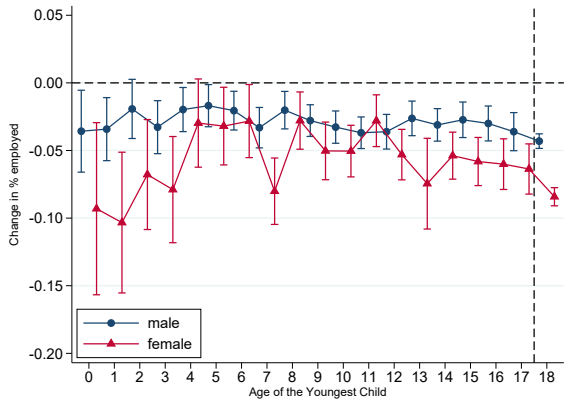


(a) Event Studies: Employment

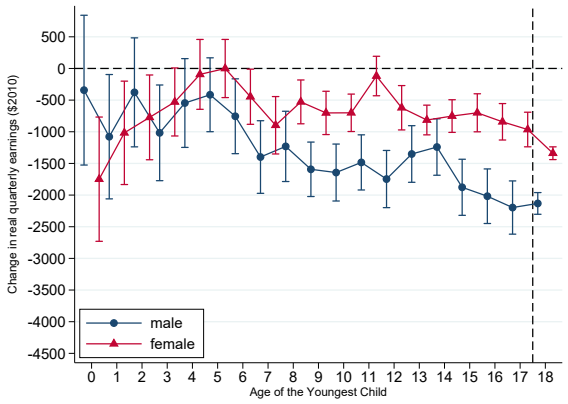
(b) Event Studies: Real Quarterly Earnings

Notes: The figures present event-study estimates of employment and earnings relative to the displacement quarter, by parental status, for workers aged 25 to 49 at the time of separation. Points denote estimated coefficients, and vertical bars represent 95% confidence intervals. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12743).

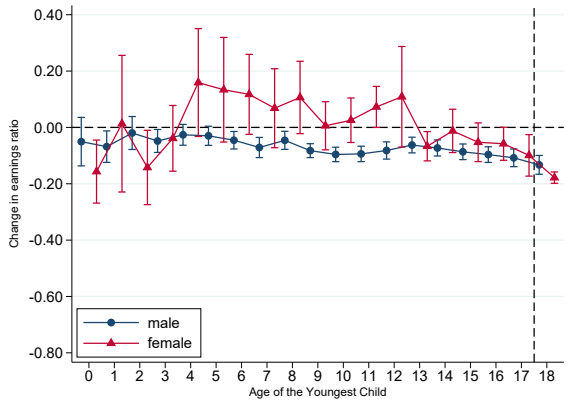
Fig. 4 Estimated Loss by Age of the Youngest Child



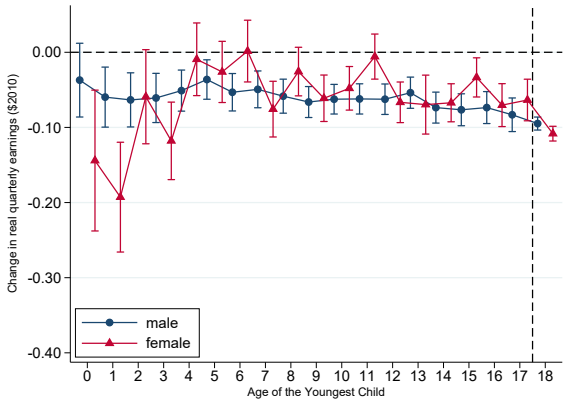
(a) Employment



(b) Real Quarterly Earnings



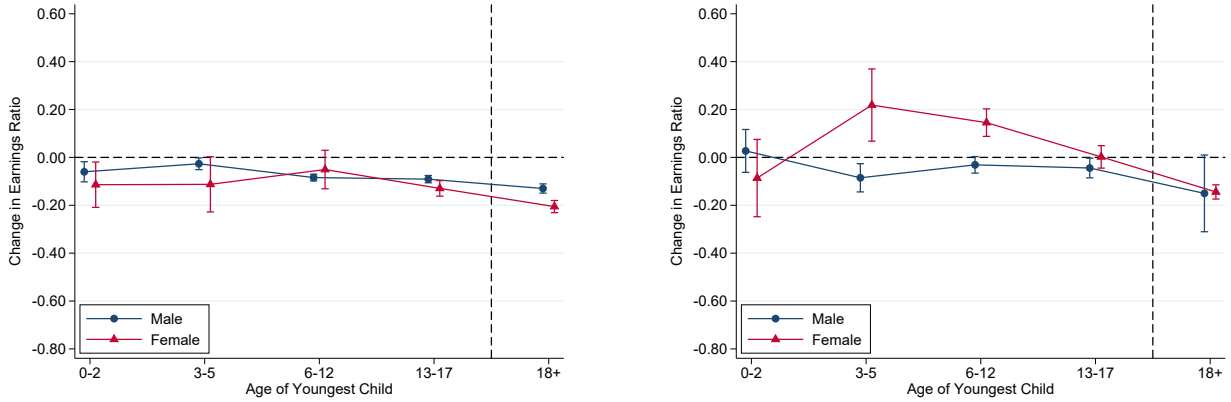
(c) Earnings Ratio



(d) Number of Jobs

Notes: The figures present predictive margins of DiD regressions by age of the youngest child. Points denote estimated coefficients from difference-in-differences regressions with an indicator variable for each age. Estimates at age 18 correspond to individuals without children or with adult children. Vertical bars represent 95% confidence intervals. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12743).

Fig. 5 Post-Displacement Recovery by Primary/Secondary Earner Status and Age of the Youngest Child

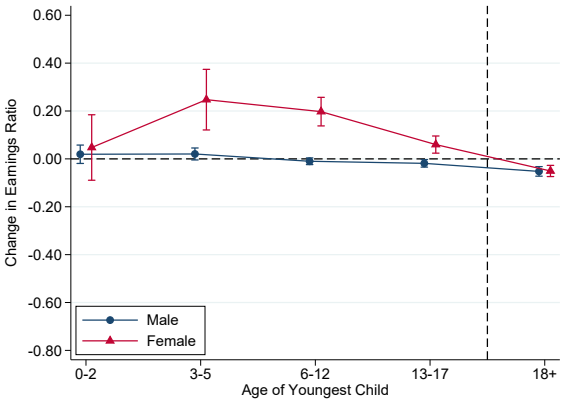


(a) Primary Earners (Earnings Ratio)

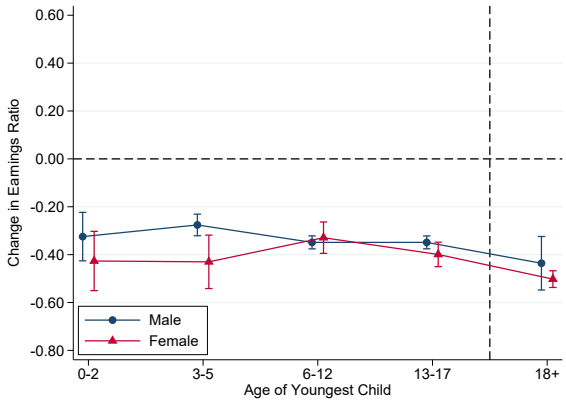
(b) Secondary Earners (Earnings Ratio)

Notes: The figures present estimated displacement effects on earnings ratios by earner status and age of the youngest child. Points denote estimated coefficients from difference-in-differences regressions, and vertical bars represent 95% confidence intervals. Estimates at age 18 correspond to individuals without children or with adult children. FSRDC Project Number 1875 (CBDRB-FY26-P1875-R12934).

Fig. 6 Post-Displacement Recovery by Unemployment Duration and Age of the Youngest Child



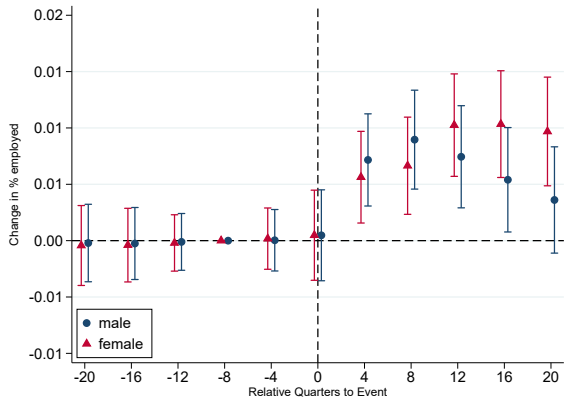
(a) Re-employed within Separation Quarter (Earnings Ratio)



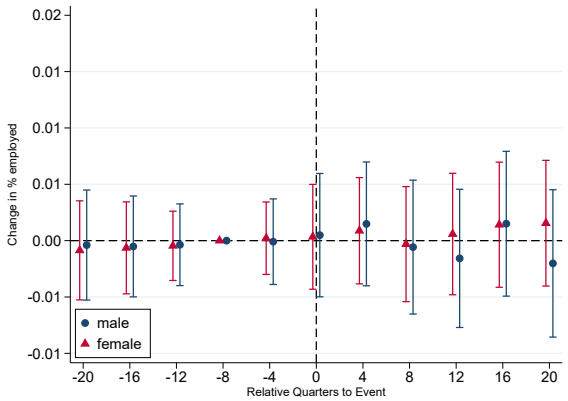
(b) Longer Non-Employment Spell (Earnings Ratio)

Notes: The figures present estimated displacement effects on earnings ratios by re-employment timing and age of the youngest child. Points denote estimated coefficients from difference-in-differences regressions, and vertical bars represent 95% confidence intervals. Estimates at age 18 correspond to individuals without children or with adult children. FSRDC Project Number 1875 (CBDRB-FY26-P1875-R12934).

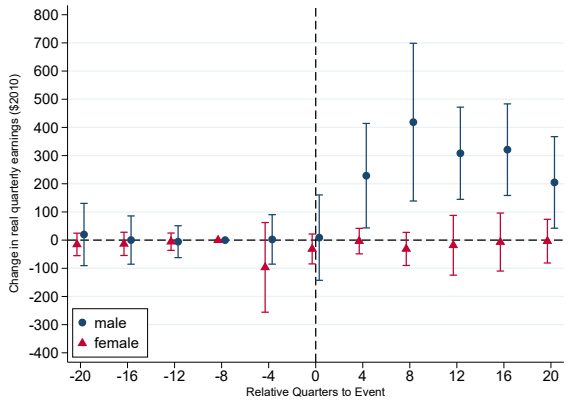
Fig. 7 Self-Employment by Gender and Parental Status



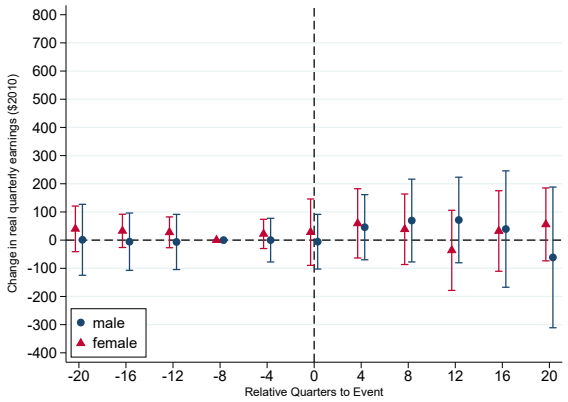
(a) Employment (With Children)



(b) Employment (Without Children)



(c) Real Quarterly Earnings (With Children)



(d) Real Quarterly Earnings (Without Children)

Notes: The figures present event-study estimates of self-employment outcomes by gender and parental status. Panels (a) and (b) show employment outcomes, and panels (c) and (d) show real quarterly earnings. Points denote estimated coefficients, and vertical bars represent 95% confidence intervals. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12743).

A Appendix

Fig. A1 States with LEHD Data Access

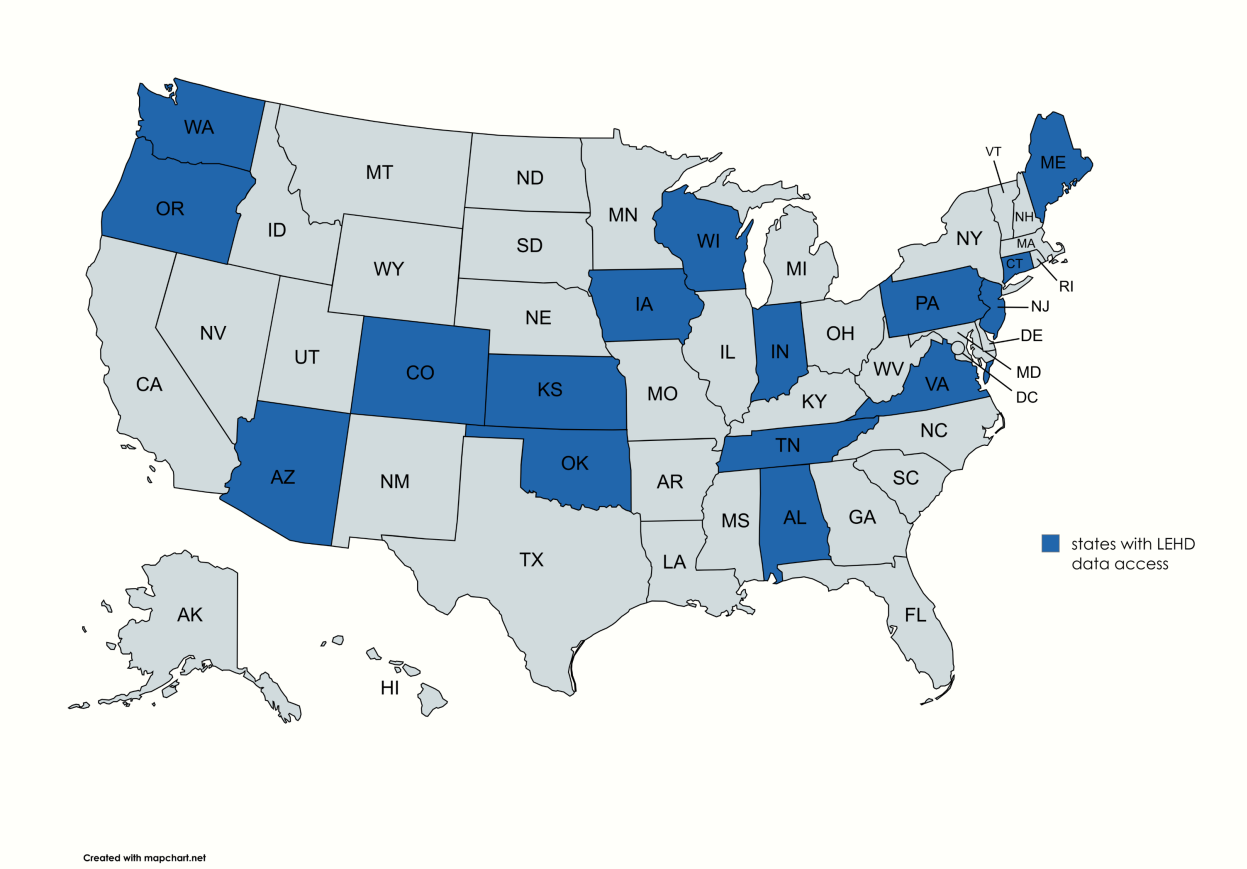
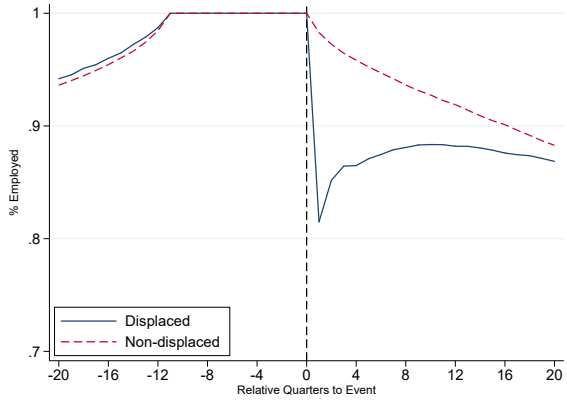
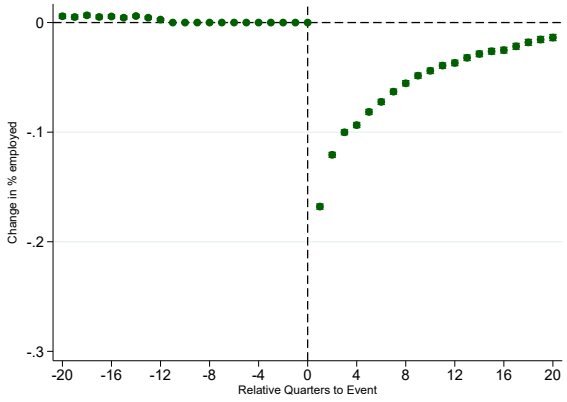


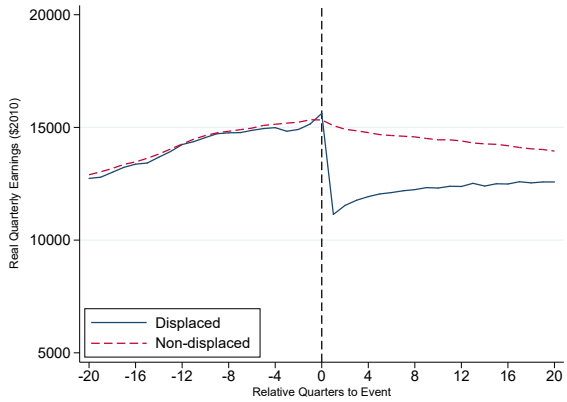
Fig. A2 Employment and Earnings Losses after Job Displacement (All Displaced Workers)



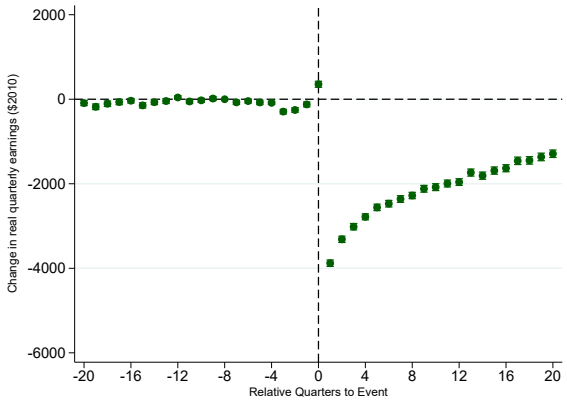
(a) Raw Means: Employment



(b) Event Studies: Employment



(c) Raw Means: Real Quarterly Earnings



(d) Event Studies: Real Quarterly Earnings

Notes: The figures compare displaced workers to matched control workers over event time, where quarter 0 denotes the separation quarter. Panels (a) and (c) show raw means for employment and real quarterly earnings (in 2010 dollars), and panels (b) and (d) present corresponding event-study estimates. Points denote estimated coefficients, and vertical bars represent 95% confidence intervals. Pre-displacement trends are similar for treated and control workers, consistent with the identifying assumption of parallel trends. At the time of separation, displaced workers experience a sharp decline in both employment and earnings, followed by gradual but incomplete recovery over the subsequent five years. These patterns are broadly consistent with prior evidence in the displacement literature. FSRDC Project Number 1875 (CBDRB-FY25-P1875-R12505).