# **Breadwinner Backlash: The Gendered Effects of Industrial Decline**

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Industries with skewed gender makeups are vulnerable to globalization, decarbonization, and other drivers of economic disruption. We study how decline in disproportionately male industries, such as coal and steel, affects electoral outcomes. We theorize that an uneven loss of male jobs, and a shift in income from husbands to wives, can give rise to "nostalgic" coalitions of men and women that seek a return to patriarchal divisions of labor within households. Such attitudes fuel right-wing movements that pledge to protect traditional gender roles. This theory is supported with data on local labor markets and electoral outcomes in the United States over the last two decades, as well as a longitudinal study tracking individual Americans over four decades. This paper offers a new genderbased account of the globalization backlash.

*Keywords:* deindustrialization; gender; labor; industrial decline *Word count (ex. bibliography):* 9,845

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Coal mining dominated Boone County, West Virginia, at the turn of the twenty-first century. One in two workers were employed in coal, with mine workforces exceeding those of the next largest industry by a factor of three. By 2020, coal in Boone County had cratered. Just a few hundred workers remained, down from the more than three thousand on payrolls twenty years earlier. Such precipitous drops in employment have occurred across the Appalachian coal belt in recent years. Similar patterns are evident in steel and metal manufacturing across the Midwestern United States. Steelmakers in Youngstown, Ohio, employed nearly 50,000 workers in the 1970s, accounting for over one-third of the city's population.<sup>2</sup> Fewer than 900 remained employed in the industry in 2023. While these declines are notable for their magnitude, they are also significant because of the ascriptive character of those losing jobs: virtually all coal miners and steelworkers in the United States, both then and now, are men.<sup>3</sup>

This paper examines the political ramifications of decline in gender-imbalanced industries. In doing so, it speaks to a growing literature on the politics of labor market segmentation. Scholars have notably explored the tendency of ethnoracial groups to sort into different industries (Hechter 1978; Baccini and Weymouth 2021). This ethnoracial division of labor can cause industrial shocks to reverberate within some groups more than others, prompting group-specific shifts in political attitudes and mobilization (Gaikwad and Suryanarayan 2022; Zucker 2022). We expect the gender segmentation of labor markets an enduring feature of working-class occupations (Cotter, Hermsen, and Vanneman 2005; Blau, Brummund, and Liu 2012) — to have distinct political implications. By virtue of men and women often being directly reliant upon each other within households, decline in male-majority industries alters the political preferences of both men and women.

Deindustrializing communities have experienced shifts in labor market activity from

<sup>&</sup>lt;sup>2</sup>CNBC, 2014, [perma.cc/VJT8-WHD5].

<sup>&</sup>lt;sup>3</sup>Ninety-nine percent of coal mine employees in Boone County and 92% of steelworkers near Youngstown were men in early 2020 (Quarterly Workforce Indicators, U.S. Census Bureau).

men to women in recent years (Winant 2021). The decline of overwhelmingly male mines, for example, has ignited a surge in female labor force participation in U.S. coal towns.<sup>4</sup> Such labor market transformations rebalance economic power across communities and within households, altering the status, decision-making authority, and political engagement of men and women (Iversen and Rosenbluth 2006, 2010). Greater female economic autonomy sometimes induces more gender-equitable political outcomes (Ross 2008; Folke and Rickne 2020; Brulé and Gaikwad 2021; Gaikwad, Lin, and Zucker 2023). But in the context of industrial decline, we argue that labor market shifts towards women instead fuel right-wing political movements looking to restore traditional, patriarchal divisions of labor within families.

We theorize that this move to the right occurs due to dissatisfaction with the new division of labor among both men and women.<sup>5</sup> This dissatisfaction emerges from flux in within-household gender roles, as well as community-level cultural and economic up-heaval. Men who lose work — both in the declining industry and in dependent local industries — experience an erosion of subjective social status within the family and community.<sup>6</sup> This may occur due to loss of income or deprivation of the status benefits conferred by employment in a once-dominant and distinctively "masculine" industry.<sup>7</sup> Working-class men often derive significant psychosocial value from employment in patriarchal settings (Lamont 2000; Edin et al. 2019; Hussam et al. 2022), making job loss especially damaging to their subjective social status; this is grimly exemplified by the prevalence of "deaths of despair" among men in much of the U.S. (Autor, Dorn, and Hanson 2019; Case and

<sup>&</sup>lt;sup>4</sup>New York Times, 2019, [nyti.ms/3ec0cfG].

<sup>&</sup>lt;sup>5</sup>We use binary gender language and focus on heterosexual couples following much of the literature on the political economy of gender.

<sup>&</sup>lt;sup>6</sup>Male-dominated industries often bolster the standing of men across local economies (Bennett, Ravetti, and Wong 2021; Cascio and Narayan 2022; Sances and You 2022), advantages that dissipate amid decline. Gidron and Hall 2017 define subjective social status as "the level of social respect or esteem people believe is accorded them within the social order" (S61).

<sup>&</sup>lt;sup>7</sup>Heavily male, manual labor-intensive industries are often central to community and personal identities (Bell and York 2010; Kojola 2019; Gaikwad, Genovese, and Tingley 2022).

Deaton 2020).<sup>8</sup> Men who remain employed, but who observe losses of income for other men nearby, may likewise react against perceived threats to status quo gender hierarchies (Kim and Kweon 2022).

Women may move right as well. Scholars have linked growth in women's share of household resources to more equitable political outcomes (Folke and Rickne 2020; Brulé and Gaikwad 2021; Gaikwad, Lin, and Zucker 2023). We argue that this link is unlikely to hold amid the economic malaise that follows decline in major local industries. While women's relative earnings increase in these cases, absolute levels of family and community well-being are in decline (Blonz, Roth Tran, and Troland 2023); women provide a larger slice of a shrinking pie. This scarcity, we argue, counteracts the equitable political effects of women becoming more active outside the home. Women who enter healthcare, education, and other service industries as their husbands lose work typically earn less than what men in mining or manufacturing once did (Latimer and Oberhauser 2004; Dill and Hodges 2019). Such work is often taken on in addition to preexisting domestic responsibilities, compounding the time demands that disproportionately fall on women and limit their earning potential and political activity (Bernhard, Shames, and Teele 2021; Goldin 2021). Women may thus see resurrecting male-dominated industries and traditional divisions of labor as a safer, if suboptimal, route to economic security than mobilization in support of the new, less prosperous industrial structure.

We test this theory with longitudinal data on household divisions of labor, gender attitudes, and political behavior spanning the last several decades of U.S. history. In this empirical work, we first examine the diffuse, community-wide effects of concentrated male layoffs. Examining county-level electoral outcomes, we find that shifts in workforce composition towards women and layoffs of men, not women, have bolstered Republican

<sup>&</sup>lt;sup>8</sup>Labor market outcomes for working-class women have also declined in recent years, but less rapidly than for men (Binder and Bound 2019). The gender wage gap has closed more rapidly in the working class than in higher income strata (Blau and Kahn 2017).

candidates. These changes are especially pronounced in distressed local economies. We uncover evidence of this using observational workforce data, as well as when employing a shift-share instrument to account for the non-random distribution of layoffs. Analyses of individual vote choice indicate that this rightward shift has occurred due to both men *and* women voting Republican. For women, this shift is most apparent when household income is in decline; men move right regardless of whether household income is rising or falling.

We then consider how such economic shocks rebalance divisions of labor within households, and in turn modify gender attitudes and political preferences. To do this, we draw on a multidecade panel survey of Americans born between 1957–64, a cohort that witnessed mounting pressure on the U.S. working class during their prime working years and has turned out for recent elections at high rates (Binder and Bound 2019).<sup>9</sup> We document that decline in prototypically masculine mining and manufacturing industries corresponded to a shift in within-household economic activity towards women in this cohort, which activated more patriarchal attitudes among both married men and women. Such attitudes are strongly correlated with support for the Republican Party, which has advocated for traditional gender roles over the last several decades (Wolbrecht 2000; Strolovitch, Wong, and Proctor 2017; Gillion, Ladd, and Meredith 2020). These dynamics are most prominent among non-college educated men, a group whose labor market standing has dramatically deteriorated in recent decades (Binder and Bound 2019).

This study revises and extends recent work on gendered aspects of economic change. Abou-Chadi and Kurer (2021) show that household political preferences in Western Europe are sensitive to unemployment risk, with both husbands and wives moving towards the radical right when either is in danger of losing their job. We by contrast analyze actual layoffs and find that while women are more likely to shift right when men lose work, men do not

<sup>&</sup>lt;sup>9</sup>On turnout, see U.S. Census Bureau, 2021, [perma.cc/7YHX-NU4T].

similarly move right following women's job loss.<sup>10</sup> In the context of decarbonization, Bush and Clayton (2023) show that men often oppose fossil fuel phaseouts more strongly than women, in part due to their connection to carbon-intensive industries. We show that men *and* women jointly move right when such industries decline.

We further illustrate the centrality of cultural upheaval to the backlash against globalization (Margalit 2019; Mansfield, Milner, and Rudra 2021; Ballard-Rosa, Jensen, and Scheve 2022) and potential for gender divides to aggravate reactions to industrial transitions, including decarbonization. We highlight gender — including perceived threats to masculinity (Murray and Bjarnegård 2024) — as an important determinant of how economic shocks are experienced, complementing work on ethnoracial dimensions of industrial decline (Jardina 2019; Baccini and Weymouth 2021; Zucker 2022, 2024). In doing so, we clarify when relative gains in women's economic station fail to yield progressive political change. This contributes to a growing literature that illustrates how governance reforms, altered cultural mores, and female political mobilization can trigger backlash to female empowerment (Brulé 2020; Kim and Kweon 2022; Off 2023; Anduiza and Rico 2024). Our work illustrates how macroeconomic change, often owing to broad shifts in the global economy, can similarly empower traditionalist political movements.

#### GENDER DIVIDES AMID INDUSTRIAL DECLINE

Scholars are increasingly interested in how identity cleavages shape the politics of economic decline. A nascent literature probes how ethnic and racial divides mold experiences of industry decay, finding that status concerns, particularly in native-born white communities, amplify support for right-wing populist candidates (Jardina 2019; Baccini and Weymouth 2021; Ballard-Rosa, Jensen, and Scheve 2022). This research reflects the persistent segmentation of labor markets along ethnoracial lines (Hechter 1978).

<sup>&</sup>lt;sup>10</sup>Abou-Chadi and Kurer do not find similar results when analyzing actual unemployment or layoffs.

Industries are also polarized by gender, sometimes to a greater extent than by ethnicity or race (Appendix A). Industries in advanced economies such as coal mining and metal manufacturing are staffed almost exclusively by men, while others, like textiles, skew heavily towards women. These divisions reflect an enduring polarization of working-class occupations by gender (Evans 2021). This paper examines how this polarization shapes experiences of and political responses to industrial decline.

We argue that decline in industries with disproportionately male workforces pushes men and women towards the political right. Male-dominated industries such as coal historically crowded out more gender-equitable industries, suppressing female labor force participation and generating substantial wage premia for low-skilled men in surrounding communities (Ross 2008; Bennett, Ravetti, and Wong 2021; Cascio and Narayan 2022). When such industries decline, accordingly, both men in their direct employ and those nearby experience losses of income. This in turn transforms domestic divisions of labor, fans fears of cultural upheaval, and increases the appeal among both men and women of a return to the social and economic status quo ante.

#### New Divisions of Labor in the Home and Community

Shocks that initially afflict either men or women in heterosexual marriages tend to swiftly spread to the opposite sex due to within-household dependencies (Abou-Chadi and Kurer 2021). Negative shocks to large, male-dominated industries connote widespread income loss for men (Cascio and Narayan 2022). Associated income losses are passed on within the household, diminishing the resources available to spouses and children. The consequences of these spillovers are most severe in households marked by traditional divisions of labor, where men are primary income earners and women do the bulk of unpaid labor within the home. Such household structures are common in communities historically anchored by male-dominated industries (Ross 2008; Bennett, Ravetti, and Wong 2021).

Women may look to recoup lost household income in the face of such shocks. Scholars have notably explored the large-scale entry of women into the labor force during wartime, when men are disproportionately conscripted or killed (Acemoglu, Autor, and Lyle 2004; Tripp 2015). In peacetime, we expect women to similarly become more economically active as husbands lose work. Though men may be able to compensate for their income loss themselves, industry-specific skills and a hesitancy to seek work in subjectively less masculine or lower status industries may limit their tendency to actually do so. Conversely, women often take jobs in the care-oriented service industries, such as healthcare, that have rapidly grown amid decay in male-dominated industries (England 2010; Winant 2021).

The entry of women into the labor force has powerful political effects. Studies find that women's economic empowerment narrows the traditional gender gap in rates of political participation, as women acquire the resources needed for political mobilization and dislodge patriarchal norms (Iversen and Rosenbluth 2008; though see Bernhard, Shames, and Teele 2021 on time constraints). Much of this work identifies these gains as products or correlates of economic stability and development (Inglehart and Norris 2003; Duflo 2012). Goldin (2006), for example, attributes growth in women's economic autonomy to broader access to "nicer, cleaner, shorter-hour, and thus more 'respectable' jobs," as well as technological advances and greater educational attainment (5). Scholars have argued that it is specifically women's entry into professional, managerial occupations — those that require more education and skills useful for political engagement — that augments female political representation (Kenworthy and Malami 1999; Thomsen and King 2020). Women taking low-paying jobs to smooth over economic shocks may not produce similarly egalitarian outcomes, particularly where conservative cultural mores remain entrenched (Shorrocks 2018).

Other studies focus on severe shocks — civil war or genocide — that displace men and uproot cultural institutions, creating space for more equitable norms to take hold (Tripp

2015; Gaikwad, Lin, and Zucker 2023). Absent such societal ruptures, in settings where external cultural conditions are relatively stable (Giuliano and Nunn 2021), traditional beliefs about the proper division of labor between men and women may persist.<sup>11</sup> Indeed, women's gains during wartime, facilitated by a loss of men from local communities, often dissipate when male populations rebound (Summerfield 1989; Berry 2017).<sup>12</sup> Even if male job loss shifts actual divisions of labor, stable institutions and norms may keep preferred gender roles moored in convention.

Disproportionate and sustained male exit is unlikely following industrial decline in advanced economies, which feature low labor mobility (Ganong and Shoag 2017; Kaplan and Schulhofer-Wohl 2017). Accordingly, shifts in breadwinning induced by industrial decline are likely to occur while men remain present in both the household and local community.<sup>13</sup> Likewise, industrial decline is often abrupt, brought about by rapid technological change or ascendant foreign competition (e.g., Autor, Dorn, and Hanson 2013). Observation of women quickly replacing men in the workforce may add to already widespread fears of cultural disruption (Margalit 2019), disconcerting both the many men and women who favor male-breadwinner, female-homemaker family models (Glick et al. 2000).

To the extent that income corresponds to subjective social status, the loss of a job — particularly one integral to personal and communal identities (Lamont 2000; Bell and York 2010; Kojola 2019) — may fuel men's interest in reviving traditional social hierarchies and divisions of labor. Resultant changes in the marriage market, namely increased divorce rates and dimished marriage prospects for less educated men (Iversen and Rosenbluth 2010; Shenhav 2021), should only compound this discontent (Dal Bó et al. 2023).

Men may seek new work to mitigate for the loss of income and status or look to welfare

<sup>&</sup>lt;sup>11</sup>Conservative religious congregations, for instance, may "freeze" patriarchal understandings of gender rights (Htun and Weldon 2015, 457).

<sup>&</sup>lt;sup>12</sup>Brulé 2023 finds that environmental shocks can empower women provided that they "initiate male outmigration" (5).

 $<sup>^{13}</sup>$ We test this assumption below (fn. 22).

services to compensate. But there are plausible limits to this. Skills appropriate for their prior industry may not be easily transferable to growing local industries, such as health-care, and access to job transition support is often limited (Kim and Pelc 2021). Men may moreover hesitate to acquire the skills necessary to work in industries where jobs are available. For status-concerned men, growing industries lack appeal to the extent they are seen as feminine, emblematic of men's persistent "devaluation of traditionally female [jobs]" (England 2010, 150). The presence of women in a profession diminishes its prestige in the eyes of some men (Goldin 2014). While shifts in economic activity from men to women may increase divorce rates, limiting men's ability to lean on wives for economic support (Iversen and Rosenbluth 2010), we expect that men's distaste for employment in subjectively "feminine" industries — and dissatisfaction with the transformed labor market — will persist.

Welfare stigmas likewise limit the capacity of government assistance to compensate for decline in male-dominated industries (Gilens 1999; Shayo 2009). Men in working-class communities often derive psychosocial value from hard, manual work and are drawn to the notion of self-sufficiency (Terkel 1974; Lamont 2000; Goldstein, Ballard-Rosa, and Rudra 2021; Hussam et al. 2022). While public assistance softens families' loss of income, it is unlikely to remedy men's perceived status loss and may even exacerbate it to the extent that men are averse to taking welfare.

We argue that these shifting gender roles affect men's political preferences and voting behavior. As economic means of reclaiming subjective social status are often unavailable or unappealing, men may seek to restore the status quo ante via political mobilization. In the wake of losing breadwinning responsibilities, men may be drawn to "nostalgic" political candidates — historically situated on the right (van Kersbergen 1995; Wolbrecht 2000) — who pledge to protect traditional domestic structures, where men support their families via work outside the home, and revive male-dominated industries. Defense of

this "male-breadwinner family model" against liberalizing forces characterized right-wing politics in Europe and North America throughout much of the twentieth century (Giuliani 2022, 678) and remains central to right-wing populist discourse today (Inglehart and Norris 2016; Anduiza and Rico 2024).

This rightward shift is not limited to men laid off from male-dominated industries. Rather, it is likely to be apparent for men across the local economy. Scholars recognize that the observation of economic distress affects attitudes even if one's own situation remains unchanged in the short term (Baccini and Weymouth 2021). Such distress, paired with a pronounced rebalancing of economic power from men to women, is plausibly the sort of salient, transformative event that can activate a broad "sense of threat, loss, or change to the status quo" (Bishin et al. 2016, 627).<sup>14</sup> Observation of many men in a community losing work may aggravate other men's perceptions of labor market risk, which scholars have shown can increase expressions of sexism and support for socially conservative parties (Kim and Kweon 2022; Off 2023). Moreover, the costs of decline in male-dominated industries are not limited to the men on their payrolls. In times of growth, these industries support the employment and wages of men across surrounding communities (Bennett, Ravetti, and Wong 2021; Cascio and Narayan 2022; Sances and You 2022). Decline in such industries accordingly connotes a general shock to the economic standing of local men.

This argument implies, importantly, that men will move to the right principally amid decline in male-dominated industries, not gender-balanced or predominantly female industries. While men can still lose work following shocks to the latter, those industries lack the masculine connotations that fuel fears of upturned gender hierarchies, as well as the distortionary effects on men's standing in local economies. Moreover, decline in those industries

<sup>&</sup>lt;sup>14</sup>Salience may be greatest in areas with dense social network connections across industries (i.e., many people know workers in the declining industry), or where there is significant media attention to male job loss (see, for instance, *The Daily Beast*, 2021, [bit.ly/3G8KCvU]). This is often the case for large, male-dominated industries such as coal and steel (Broz, Frieden, and Weymouth 2021; Zucker 2022).

drives more women into unemployment, thus attenuating the broad shift in economic activity from men to women that occurs amid decline in male-dominated industries and may compound men's status anxieties.<sup>15</sup>

This argument reflects the power of subjective status loss to fuel restorationist political movements (Du Bois 1935; Mansbridge and Shames 2008; Suryanarayan and White 2021). It moreover captures sensitivity of men to and male distaste for improvements in the relative labor market standing of their wives and other women (Folke and Rickne 2020); men often prefer to outearn their partners (Fisman et al. 2006; Bertrand, Kamenica, and Pan 2015). Ethnographic profiles of working-class men subject to "tenuous" employment highlight a desire and nostalgia for jobs that once offered a "family wage that allowed men to be the sole or primary breadwinners" and, in turn, granted them "considerable authority within the household" (Edin et al. 2019, 214). Lamont (2000), for example, interviews men who emphasize a "need to work to support [their] family" and to permit their wife to "be home to raise her child" (29). We expect these attitudes to manifest in votes for right-wing political parties that voice support for traditional gender roles and, part and parcel of this, pledge to protect declining male-majority industries.

# **Hypothesis 1.** Decline in male-majority industries should cause men to seek restoration of traditional gender roles and become more supportive of right-wing political parties.

Women should also move to the right following decline in male-dominated industries. Women should do so not because they see patriarchal household structures as optimal, though some women do express this view (Glick et al. 2000). Rather, we argue that women support right-wing, traditionalist parties out of discontent with the new situation of eco-

<sup>&</sup>lt;sup>15</sup>Recent work does not emphasize this distinction. Abou-Chadi and Kurer 2021, for example, argue that threats to women's employment also "[increase] the probability of [men] voting for the radical right" (501). Baccini and Weymouth 2021 focus on industries' racial makeup, not their gender characteristics. Autor et al. 2020 and Broz, Frieden, and Weymouth 2021 link deindustrialization to populist success independent of the gender composition of afflicted workforces.

nomic decay — a rotten deal where women work more and face compounded demands on their time while their families earn less — and a lack of attainable alternatives.

Scholars have found that women in developed democracies have broadly moved to the left in recent decades, tying this to growth in female labor force participation (Manza and Brooks 1998; Iversen and Rosenbluth 2010). In some cases, women are able to translate economic autonomy into lasting improvements in household bargaining power and political representation (Gaikwad, Lin, and Zucker 2023). Yet these gains are be difficult to come by amid deindustrialization, which erodes community wealth and welfare (Broz, Frieden, and Weymouth 2021; Blonz, Roth Tran, and Troland 2023). While women may enter the workforce to substitute for newly unemployed or underemployed husbands, these women will often struggle to fully replace their husbands' prior earnings.<sup>16</sup> Men in industries such as coal and steel were historically well compensated and low-skilled men nearby enjoyed significant wage premia. Women entering service work following decline in those industries often earn less (Latimer and Oberhauser 2004; Dill and Hodges 2019).

Women who increase their paid labor as men lose work will often encounter unique time constraints that hinder their ability to fully participate in the labor market (Goldin 2021) and local politics (Burns, Schlozman, and Verba 1997; Silbermann 2015; Teele, Kalla, and Rosenbluth 2018; Dahlgaard and Hansen 2021). Bernhard, Shames, and Teele (2021) illustrate that women's political ambition is depressed by breadwinning obligations assumed *in addition to* traditional household roles. Economically dependent husbands often fail to substitute for wives in the household (Evans 2016) — in some contexts, increasing their alcohol and drug consumption (Dean and Kimmel 2019; Case and Deaton 2020)<sup>17</sup> — aggravating demands on female breadwinners' time and impeding their conversion of economic

<sup>&</sup>lt;sup>16</sup>We expect that women would be less likely to move to the right if they more fully compensated for their husbands' lost earnings. Men would likely still shift rightward, as their status concerns would persist.

<sup>&</sup>lt;sup>17</sup>A resident of one Appalachian coal community recounts, "When the mines left, [men] all ended up on drugs. And their women went to work" (*New York Times*, 2019, nyti.ms/3ec0cfG).

autonomy into political gain.

For women able to only partially compensate for decline in male-majority industries while facing increased time constraints, restoration of the status quo ante may become a relatively attractive means of recovering economic welfare. This stems from a lack of appealing alternatives in economically distressed areas. Exit from afflicted communities is complicated by high costs of migration to healthier labor markets, particularly for less skilled workers (Ganong and Shoag 2017). Exit from marriage, while more available to women with better labor market prospects, may be unappealing insofar as the general environment of economic depression erodes confidence in individuals' ability to "[insure] against poverty" after divorce (Iversen and Rosenbluth 2010, 89). This reflects, as well, the common prioritization of husbands' careers over wives' in contexts where men's potential earnings exceed women's (Strøm 2014; Goldin 2021; Hutchinson, Khan, and Matfess 2022).

Women may alternatively mobilize in support of the new labor market structure, rallying for welfare reforms that would relieve unpaid caregiving burdens and enable them to increase their paid economic activity (Iversen and Rosenbluth 2006, 12–13), potentially narrowing the gap with men's prior earnings. However, Western welfare states often prioritize family-based caregiving and consequently "seriously [undercut] women's capacities to enter the paid labor force" (Orloff 1996, 64). Welfare states designed to "maximize women's economic independence" are uncommon, and movement in this direction would require "radically recast welfare state[s]" in many countries (Esping-Andersen 1999, 45– 46). Women may thus see achievement of these reforms as unlikely.

Rightward shifts in the local community and household may likewise feed skepticism of the new economic arrangement. Working class communities often voice limited support for redistribution (Shayo 2009). While economic shocks boost the appeal of welfare transfers (Margalit 2013), many men — fearing their new subordinate economic position — will resist broad reconceptualizations of the welfare state intended to cement women's newly prominent place in local labor markets. Such communal moves to the right may erode the perceived viability of the new economic structure and dissuade women from mobilizing in its favor. Women may also themselves adopt more traditionalist attitudes due to socialization by increasingly conservative husbands, whose own preferences are unlikely to be swayed by improvements in their wives' economic standing (Kan and Heath 2006, 70).<sup>18</sup>

Women with and without husbands in male-dominated industries should react similarly to their decline. This is largely because the wage implications of those industries' decline are not limited to their workforces, as noted above. Such industries distort local labor markets, generating wage premia for low-skilled men across industries (Cascio and Narayan 2022) and stunting the development of more gender-equitable industries (Ross 2008). Rebalancing of within-household economic activity is thus likely to occur across local economies amid industrial decline, prompting diffuse dissatisfaction among women. Moreover, relatively high rates of "benevolent sexism" among women (Glick et al. 2000; Cassese and Barnes 2019) — support for male-breadwinner, female-homemaker family models — suggest that the observation of upturned gender roles across one's community may stir cultural anxieties among women as well as men.

All such complications deter mobilization in support of the transformed local economy. For women, a return to the status quo ante advocated for by right-wing parties, where maledominated industries prospered, may be considered the most realistic means of recovering economic welfare and stability — even if a return to traditional divisions of labor is not seen as ideal. This move to the right should be most apparent among women who themselves experience economic distress, struggling to fully compensate for husbands' loss of income.

#### Hypothesis 2. Decline in male-majority industries should cause women to become more

<sup>&</sup>lt;sup>18</sup>Under mounting time constraints, women may receive more political information from their husbands and consequently develop more congruent preferences (Stoker and Jennings 2005; Dassonneville and McAllister 2018; Bellettini et al. 2023).

supportive of right-wing political parties, especially when household income falls.

#### **EMPIRICS**

We test this theory in the United States. We first demonstrate that decline in male-majority industries — specifically, concentrated layoffs of men — has pushed communities to the right, bolstering the electoral fortunes of the modern Republican Party. We then illustrate how labor market shifts away from men have rebalanced within-household divisions of labor, increasing expressions of conservative gender attitudes among both men and women.

Our primary political outcome is support for the Republican Party, which has advocated for "traditional family [values]" (Rozell 2011, 118) and "traditional women's roles" (Wolbrecht 2000, 3) in recent decades, and emphasized both a "[rejection of] feminist positions" (Strolovitch, Wong, and Proctor 2017, 359) and promises to revive male-dominated industries such as coal and steel.<sup>19</sup> Using individual-level survey data, we find that labor market shifts towards women have improved Republican electoral performance among men and women, particularly in contexts of economic decay.

In evaluating electoral outcomes and vote choice, we focus on the first two decades of the twenty-first century, a period during which economic dislocations mounted in industrial centers and a populist "backlash" emerged (Mansfield, Milner, and Rudra 2021). We primarily measure employment conditions at the county level, reflecting male-dominated industries' distortion of local labor markets and the localized nature of industrial disruption.<sup>20</sup> Aggregation to the county level permits use of a shift-share instrument for gendered workforce shifts, aiding identification of the effect of decline in male-dominated industries.

<sup>&</sup>lt;sup>19</sup>Donald Trump promised in 2016, for example, to "put our coal miners and steel workers back to work" (White House, 2017, perma.cc/SWT6-Q89V). In 2008, Republicans portrayed Barack Obama "as openly hostile to the [coal] industry and its workers" (Sutton 2009, 194). George W. Bush similarly pursued procoal policies as president (*NBC News*, 2004, nbcnews.to/40N4hLp). The Republican Party has moreover emphasized traditional morality, including traditional family values and anti-abortion policies, to a greater extent than the Democratic Party (Appendix B).

<sup>&</sup>lt;sup>20</sup>The results are robust to re-estimation at the commuting zone level.



**Figure 1:** Growth in female workforce share, 2006–17. Data from QWI. To ease interpretation of the bottom map, values below the 1st percentile (-18.5%) or above the 99th (15.7%) are censored.

We gather these employment data from the Quarterly Workforce Indicators (QWI) of the U.S. Census Bureau, which records high-frequency male and female employment data for each county and industry in the U.S.<sup>21</sup> These data, illustrated in Figure 1, reveal pronounced rebalances of workforce composition across much of the country. Women's share of local workforces grew in 49% of counties between 2006–17, with a notable cluster of gains in the coal mining belt of Appalachia (also see Appendix C; we consider 2006–17 for these descriptive purposes in order to maximize geographic coverage of the U.S.). In 320 counties, absolute levels of female employment increased during this period while male employment fell.<sup>22</sup>

#### Electoral Outcomes

We first evaluate whether community-level gendered workforce shifts bolster Republican performance in elections for the U.S. House of Representatives. The biennial nature of House elections allows for analyses of how labor market changes shape electoral outcomes in the short term. We estimate the following model by ordinary least squares:

Republican Vote Share<sub>ct</sub> = 
$$\beta \left[ \text{layoffs}_{c(t-1)} \right] + \gamma \mathbf{X}_{c(t-1)} + \alpha_c + \delta_t + \varepsilon_{ct}$$

where Republican Vote Share<sub>ct</sub> is the Republican Party's two-party vote share in county c and year t. We define, in separate models, *layoffs* as (a) the net change in the gender makeup of a county's workforce<sup>23</sup> and (b) the counts of men and women, in thousands, laid off in

<sup>&</sup>lt;sup>21</sup>In calculations involving employment levels, we use data from the fourth quarter of a given year. In calculating job loss and creation, we sum such incidents across all quarters of a given year.

<sup>&</sup>lt;sup>22</sup>We find no correlation between male layoffs and changes in the male share of the local working-age population, indicating that male job loss is not associated with disproportionate outmigration of men. County-year regression of male share of working age population on proportion of layoffs affecting men in the prior year, estimated by ordinary least squares with county and year fixed effects and standard errors clustered by county ( $\hat{\beta} = 0.0003$ , p = 0.84).

<sup>&</sup>lt;sup>23</sup>We calculate net change in gender makeup as the net change in women's employment (job creation minus loss), minus the net change in men's employment. Using net change and layoffs, rather than unem-

the year preceding an election. We include layoffs of women to ensure that male layoffs are not conflated with instances of decline that equally afflict men and women.  $\mathbf{X}_{c(t-1)}$  is a vector of county-year control variables measured the year prior to the election, including counts of men and women employed, unemployment rate, population, male proportion of working-age population, white population share, and an indicator of whether a Republican candidate outperformed the Democratic candidate in the preceding election.<sup>24</sup>  $\alpha_c$  and  $\delta_t$ are county and year fixed effects.  $\varepsilon_{ct}$  is an error term clustered by county.

	Republican Vote Share (%)				
	(1)	(2)	(3)	(4)	
Net shift towards women (st. dev.)	0.394***		0.324***		
	(0.086)		(0.078)		
Men laid off (ln)		12.023***		7.949***	
		(1.517)		(1.583)	
Women laid off (ln)		-10.516***		-2.612	
		(2.349)		(2.389)	
Ν	21,633	21,633	18,513	18,513	
Adjusted R <sup>2</sup>	0.695	0.695	0.718	0.718	
County controls			$\checkmark$	$\checkmark$	
County fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
p < .1, *p < .05, **p < .01, ***p	< .001				

**Table 1:** Regressions of county-level Republican two-party vote share in House elections (2006–18) on gendered workforce shifts (defined in thousands of workers). Standard errors clustered by county. Right-hand side variables lagged by one year. Full covariate results in Appendix J.

Table 1 displays the estimates of this model. A standard deviation shift towards women — narrowing the gender gap in workforce participation by 860 workers — prompts a 0.3-to-0.4-point swing towards Republicans. These estimates are substantially larger in more economically distressed counties (Appendix M). Male layoffs, not female layoffs,

ployment, ensures that the specification estimates the effect of the decline in male-majority industries rather than the endogenous decisions to stay unemployed.

<sup>&</sup>lt;sup>24</sup>We gather election outcome data from David Leip's Atlas of U.S. Congressional and Presidential Elections; workforce data from QWI; unemployment data from the Bureau of Labor Statistics; and population data from the National Cancer Institute.

are likewise associated with sizable increases in Republican vote share across specifications. Within counties, a 25% increase in the number of male layoffs is correlated with a three-point rightward swing, enough to flip 3.5% of county-level results between 2006–18 towards the Republican candidate.<sup>25</sup> By contrast, female layoffs correspond to no such rightward swing and are in fact associated with diminished Republican support, a finding we return to in the conclusion.

These results are robust to the inclusion of state-by-year fixed effects to account for states' distinct political trajectories over time (Appendix K); inclusion of county-specific linear time trends to account for unobserved heterogeneity across counties that varies over time (Appendix K); and to re-estimation at the commuting zone level (Appendix L). The results are also robust to calculating layoffs as proportions of baseline employment levels (Appendix L).

It is possible that these analyses conflate male layoffs with decline in male-majority industries that drive rightward shifts for reasons independent of gender. For example, coal decline might augment Republican support due to the industry's unique cultural value (Bell and York 2010), not its predominantly male workforce. Similarly, layoffs in male-dominated industries may receive more media attention than those in other industries, prompting stronger political responses.<sup>26</sup> To account for this, we re-estimate these models focusing on employment changes *within* male-dominated mining and manufacturing industries.<sup>27</sup> If gender does not play a role, we would expect both male and female layoffs in these industries to increase Republican vote share.

Table 2 suggests that within these industries, male layoffs have effects distinct from those of female layoffs. Men losing work is again associated with increases in Republican

<sup>&</sup>lt;sup>25</sup>We focus on this period due to the broad geographic coverage of workforce data for these years.

<sup>&</sup>lt;sup>26</sup>Greater media attention would be consonant with our theoretical claim that men's jobs are prioritized over women's.

<sup>&</sup>lt;sup>27</sup>As defined in footnote 35.

	Republican Vote Share (%)					
	(1)	(2)	(3)	(4)		
Net shift towards women	0.360**		$0.223^{+}$			
	(0.133)		(0.129)			
Men laid off (ln)		8.549*		$6.659^{+}$		
		(3.659)		(3.448)		
Women laid off (ln)		-8.709		-13.994		
		(11.311)		(11.206)		
Ν	10,131	10,131	8,663	8,663		
Adjusted R <sup>2</sup>	0.697	0.697	0.736	0.736		
County controls			$\checkmark$	$\checkmark$		
County fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
+p < .1, *p < .05, **p <	.01, *** <i>p</i> <	.001				

**Table 2:** Replication of Table 1, examining workforce shifts only in male-dominated mining and manufacturing. Sample limited to counties with non-zero employment in these sectors in prior year.

 Standard errors clustered by county. Full covariate results in Appendix N.

vote share, while women's job loss is not. This implies that independent of general industrial decline, even in culturally prominent industries such as mining and manufacturing, it is the specific loss of *men's* jobs that boosts right-wing parties.

To gain causal leverage, we compute a shift-share instrument to estimate how workforce shifts towards women have affected Republican vote share.<sup>28</sup> This identification strategy addresses the potential non-random distribution of economic shocks (see Baccini and Weymouth 2021). We define this county-level instrument  $Z_c$  as:

$$Z_{c} = \sum_{j} \left( \frac{\text{Employment}_{jc}^{w}}{L_{c}^{w}} - \frac{\text{Employment}_{jc}^{m}}{L_{c}^{m}} \right) \times \frac{\text{Net change}_{j-c}}{L_{j-c}}$$

where Employment<sup>*w*,*m*</sup><sub>*jc*</sub> is the number of employees in industry *j* and county *c* at the end of 2003, recorded separately for women *w* and men *m*, and  $L_c^{w,m}$  is the total number of women

<sup>&</sup>lt;sup>28</sup>We operationalize the endogenous variable — net shifts towards women — as the difference in net employment changes for women and men (defined for each as job gains minus job losses), divided by starting workforce size.

and men employed in each county at that time.<sup>29</sup> The first term of this equation accordingly captures how women and men were distributed across local industries and differentially exposed to industry-level shocks. Net change  $_{j-c}$  records the change in the nationwide workforce size for industry *j* between 2004 and 2015 (hires minus layoffs, excluding county *c*), divided by the initial workforce size  $L_{j-c}$ . This second term represents the "shift" in each industry. The instrumental variable thus estimates changes in the gender makeup of county workforces between 2004–15 as a function of counties' industrial structures in 2003.

Required for this identification strategy is the assumption that nationwide shifts in hires and layoffs are conditionally exogenous to economic and political conditions in individual counties (Borusyak, Hull, and Jaravel 2022). In Appendix O, we validate this instrument by analyzing the distribution of the shocks, performing balance tests that support the assumption of conditional exogeneity in shock assignment, and illustrate the strength of the first-stage relationship.

	$\Delta$ Republican Vote Share (2004–16, %)				
	Но	use	Presic	lency	
	(1)	(2)	(3)	(4)	
Net shift towards women (st. dev.)	8.525**	11.925*	5.564***	9.833**	
	(3.172)	(5.262)	(1.428)	(3.166)	
Ν	3,063	3,033	3,113	3,036	
First-stage coefficient	2.76***	1.88***	2.74***	1.87***	
	(0.505)	(0.560)	(0.500)	(0.559)	
F-statistic	51.1	21.8	51.8	21.7	
County controls		$\checkmark$		$\checkmark$	
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
$^+p < .1, *p < .05, **p < .01, ***p$	< .001				

**Table 3:** Two-stage least squares regressions of change in Republican vote share between 2004 and 2016 on shifts in workforce composition towards women between 2004 and 2015. Robust standard errors parenthesized. Full covariate results in Appendix P.

<sup>&</sup>lt;sup>29</sup>We define industries at the NAICS four-digit level.

Table 3 reports the results of two-stage least squares regressions for House and presidential elections, comparing county-level results in 2016 to those in 2004. Across both sets of elections, we find that growth in women's share of local workforces caused substantial Republican gains. A standard deviation shift towards women (equivalent to 14% of initial workforce size) between 2004–15 fueled a nine-to-eleven percentage point swing towards Republican candidates for the House. This shift likewise caused a six-to-ten point move towards Donald Trump in 2016 compared to George W. Bush in 2004.<sup>30</sup> These results are robust to controlling for counts of men and women employed, county-level population, unemployment, male proportion of the working age population, white proportion of the population, and an indicator of whether the Republican House candidate outperformed the Democratic candidate in 2004.

#### *Vote Choice by Gender*

We next examine whether, as theorized, both men and women become more supportive of Republican candidates following male job loss in their communities. To do so, we draw nationally representative survey data on individual vote choice in House elections between 2006–20 from the Cooperative Election Study (Ansolabehere and Schaffner 2017; Kuriwaki 2022). We first conduct these tests with observational data on layoffs by county, including state and year fixed effects to account for unobserved differences between states and election years.<sup>31</sup> We then utilize the shift-share instrument described above.

The results of these tests, reported in Table 4, support the prior county-level findings. Local male layoffs prompt sizable increases in the likelihood of voting Republican among both men *and* women, whereas layoffs of women are associated with no such rightward

<sup>&</sup>lt;sup>30</sup>These effect magnitudes are plausible given recent work on U.S. elections. For example, Autor et al. 2020 find that moving from the 25th to 75th percentile of trade exposure increased the likelihood of electing a Republican to Congress by twelve points in the 2000s (3169).

<sup>&</sup>lt;sup>31</sup>Results are robust to including county instead of state fixed effects (Appendix Q).

			Pr(Vote for Re	publican = 1)		
	All Resp	oondents	Me	en	Woi	men
	(1)	(2)	(3)	(4)	(5)	(6)
Men laid off (ln)	0.287***	0.089***	0.265***	$0.064^{+}$	0.305***	0.112***
	(0.052)	(0.024)	(0.055)	(0.033)	(0.055)	(0.028)
Women laid off (ln)	$-0.354^{***}$	$-0.119^{***}$	$-0.329^{***}$	$-0.096^{**}$	$-0.375^{***}$	$-0.140^{***}$
	(0.052)	(0.024)	(0.056)	(0.032)	(0.056)	(0.027)
Ν	227,324	195,250	112,138	97,238	115,186	98,012
Adjusted R <sup>2</sup>	0.058	0.410	0.056	0.370	0.063	0.447
County controls		$\checkmark$		$\checkmark$		$\checkmark$
Individual controls		$\checkmark$		$\checkmark$		$\checkmark$
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
$^+p < .1, *p < .05, **$	$p^* p < .01, p^{***} p$	< .001				

**Table 4:** Least squares regressions of reported votes for Republican House candidates, 2006–2020, on county-level layoffs in preceding year. Standard errors clustered by county. CCES observation weights included. Full covariate results in Appendix R.

shift. These patterns remain when controlling for a battery of county- and individual-level covariates, including party identification.<sup>32</sup> In the fully specified models, a 25% increase in the rate of male layoffs renders men and women 1.4-to-2.5 points more likely to vote Republican. Female layoffs conversely reduce individuals' likelihood of voting Republican; a commensurate increase in female layoffs erodes Republican support by 2.1-to-3.1 points. We do not find that male layoffs correlate with general election turnout among men or women (Appendix R). We find similar results when focusing specifically on layoffs in mining and metal manufacturing: male layoffs boost Republican support, while layoffs of women — even in the same industries — do not (Appendix S).

Supportive results are likewise found when examining vote choice in 2016 with the instrument described above. Table 5 shows that shifts in workforce makeup towards women

<sup>&</sup>lt;sup>32</sup>County controls (lagged by one year) include the number of men and women employed, unemployment rate, male proportion of the working-age population, population, and party of the incumbent House member. Individual controls include race (white or nonwhite), age, gender, marital status, possession of a four-year college education, party identification, and family income.

between 2004–2015 boosted Republican popularity among men and women, both in congressional races and for Trump. Across voters in a single state, a standard deviation swing towards women in a county workforce made voters ten points more likely to back the Republican House candidate and five points more likely to support Trump, independent of their party identification and other individual- and county-level factors. We do not find that workforce shifts towards women meaningfully affected male or female election turnout (Appendix T).<sup>33</sup> These results indicate that Republican electoral gains are driven by increased support among men and women, as theorized.

	Pr(Vote for GOP House Cand. = 1)			Pr(Vo	Pr(Vote for Trump = 1)		
	All	Men	Women	All	Men	Women	
	(1)	(2)	(3)	(4)	(5)	(6)	
Net shift towards women (st. dev.)	0.095***	0.109***	0.081**	0.053**	$0.052^{+}$	0.055*	
	(0.024)	(0.031)	(0.028)	(0.019)	(0.027)	(0.022)	
Ν	51,326	23,917	27,409	56,219	26,142	30,077	
First-stage coefficient	7.52***	7.99***	7.19***	7.63***	8.23***	7.20***	
	(1.10)	(1.34)	(1.18)	(1.13)	(1.43)	(1.14)	
F-statistic	1408.0	730.2	693.8	1559.8	809.9	766.2	
County controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Individual controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
p < .1, *p < .05, **p < .01, ***p	< .001						

**Table 5:** Two-stage least squares regressions of votes in the 2016 general election on shifts in workforce composition towards women between 2004 and 2015. Samples limited to validated voters in 2016 general election. Standard errors clustered by county. CCES observation weights included. Full covariate results in Appendix T.

We theorize that economic scarcity is a key driver of women's move to the right, while men are largely motivated by status concerns. To test this, we separately estimate the effect of workforce shifts for men and women in households with self-reported rising, falling,

<sup>&</sup>lt;sup>33</sup>County controls (lagged by one year) include the unemployment rate, male proportion of the workingage population, and population. Individual controls include race (white or nonwhite), age, gender, marital status, possession of a four-year college education, party identification, and family income. We measure turnout as having a validated record of having voted in either the general election or a primary election.

or constant total income over the prior year. We find that shifts in workforce makeup towards women increased the probability of Republican voting most clearly for women in households with declining income (Figure 2). Men, by contrast, consistently move to the right regardless of change in household income.



**Figure 2:** Two-stage least squares estimates of women's and men's House vote choice in 2016 (Republican vote = 1) on shifts in workforce composition towards women between 2004 and 2015. Figures depict estimated coefficients on the net shift toward women (st. dev.), distinguishing between women and men reporting that their household income during the past year increased, stayed the same, or decreased. Standard errors clustered by county.

#### Breadwinning and Gender Attitudes

These results indicate that county-level shocks to men's employment push communities to the right. We next examine the household-level implications of decline in male-dominated industries: whether it produces a shift in breadwinning from men to women, which in turn dissatisfies both men and women. We operationalize dissatisfaction as support for traditional gender roles, where men serve as breadwinners and women focus on unpaid household labor. To test this, we draw on the National Longitudinal Survey of Youth 1979 (NLSY79), a program of the U.S. Bureau of Labor Statistics. The NLSY79 is an telephone-

based longitudinal survey that has followed a representative sample of U.S. residents born between 1957–64, beginning in 1979 and continuing through the present day.<sup>34</sup> With a broad battery of questions and high recontact rates maintained over several decades, the NLSY79 has been widely used by scholars of labor economics and public health (Rothstein, Carr, and Cooksey 2019). The NLSY79 contains detailed information on individual work experiences, family dynamics, and gender attitudes, making it uniquely well-suited to address the questions under study.

NLSY79 data confirm rapid deterioration in the economic position of men who once worked in male-dominated mining or manufacturing industries.<sup>35</sup> Among married, non-college educated men with experience in such industries,<sup>36</sup> we identify declines in shares of household income and in the proportion of such men outearning their spouse. In 1985 (subjects aged 21–28), these men accounted on average for 78% of the income of themselves and their spouses; by 2018 (ages 54–61), this share had fallen to 63%. Likewise, 82% of these men outearned their spouses in 1985, in notable excess of the 62% who did so in 2018. Income shares for men who had not held such jobs, as well as for college-educated men (Appendix D), exhibit less precipitous declines. These trends suggest that decline in male-dominated industries tilts breadwinning responsibilities from men to their spouses; the trends illustrated in Figure 3 coincide with an acceleration of industrial decay in much of the U.S. (Broz, Frieden, and Weymouth 2021).<sup>37</sup>

<sup>&</sup>lt;sup>34</sup>The survey was conducted annually from 1979–1994; it has been fielded biennially since 1996. The initial sample included 12,686 individuals (6,403 men and 6,283 women). Details on sampling available at perma.cc/L45P-6XLT.

<sup>&</sup>lt;sup>35</sup>We identify all industries in mining and durable goods manufacturing that were at least 90% male in 1970 (see Appendix D). We focus on these sectors due to their cultural centrality, enduring political salience, and masculine connotations. While decline in these industries affects a broader set of men, coarse geographic data in the NLSY79 prevent identification of men living proximate to but not working in these industries.

<sup>&</sup>lt;sup>36</sup>Non-college educated men have been uniquely afflicted by declining real wages (Binder and Bound 2019). Note that marriages are exclusively heterosexual for the majority of the NLSY79. The sample post-2004, when same-sex marriage was first legalized in the U.S., may include same-sex marriages.

<sup>&</sup>lt;sup>37</sup>Corroborating this, we associate shifts in men's relative earnings with changes in sectoral employment and pay in supplementary regression analyses (Appendix E). Media reports point to this phenomenon as well (*New York Times*, 2019, nyti.ms/3ec0cfG); also see Autor, Dorn, and Hanson 2019; Shenhav 2021. We find



Worked in male-dominated mining or manufacturing — Yes ---- No

**Figure 3:** Changes over time in employment income (wages and salary) earned by married, noncollege educated men born between 1957–64. Left-hand plots depict income as a share of household income (individual plus spouse). Right-hand plots depict proportions of men outearning their spouses. Men who had worked in mining or manufacturing industries prior to a given survey wave distinguished from other men. Plots depict five-year rolling means calculated with sample weights.

We argue that this new division of labor within households is broadly unsatisfactory. Men seek a return of patriarchal domestic structures, where women principally engage in unpaid household labor. Women, while perhaps not seeing traditional roles as optimal,

no significant association between sectoral decline and divorce for men in these industries (Appendix F).

see a return to the status quo as a plausible means of economic recovery. To test this, we consider two questions in the 1982, 1987, and 2004 waves of the NLSY79. The first asked subjects for their level of agreement with the statement that "a women's place is in the home, not in the office or shop," which we take as a measure of men's views of traditional gender roles as optimal. The second asked subjects whether they agreed that "women are much happier if they stay at home and take care of their children," which we interpret as a measure of women's relative preference for traditional gender roles. Across the sample, 16% of men agreed with the former statement and 28% of women with the latter.

For married, non-college educated men in the NLSY79, we regress a binary indicator of agreement that "a women's place is in the home" on their wives' shares of household income and their own work experience in male-dominated mining and manufacturing.<sup>38</sup> For married women, we regress a binary indicator of agreement that "women are much happier if they stay at home" on their own income share and their husbands' experience in such industries.<sup>39</sup> We include individual and year fixed effects in these regression models, as well as subjects' level of household income, educational attainment, the number of children present in their household, and their region of residence. This approach, though observational, nonetheless sheds light on how within-household shifts in economic activity may affect gender attitudes over time.<sup>40</sup>

Table 6 shows that the probability of agreement these statements varies with women's breadwinning status, but in ways dependent on husbands' employment history. For men with no extensive history of work in male-dominated mining or manufacturing, growth in wives' relative income is associated with less patriarchal beliefs. Model 2 indicates, for

<sup>&</sup>lt;sup>38</sup>We adopt the same definition of male-dominated industries here as in footnote 35.

<sup>&</sup>lt;sup>39</sup>NLSY79 lacks data on spouses' industries of employment. In lieu of this, we estimate spouses' employment in these industries according to their reported occupations (see Appendix G).

<sup>&</sup>lt;sup>40</sup>Reverse causation is possible: gender attitudes may affect the distribution of earnings between husbands and wives. However, we expect increases in women's earnings to correspond to more traditional gender attitudes. It is unclear why such attitudes would cause women to earn *more* rather than less. Reverse causality thus implies the opposite of what we argue.

	NLSY79: Gender Attitudes (1982–2004)				
	Pr(Agree: Woma	n's Place Is in the Home $= 1$ )	Pr(Agree: Women Happier at Home = 1)		
	Sample: Ma	rried Men (No College)	Sample:	: Married Women	
	(1)	(2)	(3)	(4)	
Wife income share (%)	-0.002**	$-0.002^{*}$	$-0.002^{***}$	-0.001**	
	(0.0007)	(0.0007)	(0.0004)	(0.0005)	
Husband worked in mining/manuf.	$-0.193^{*}$	$-0.182^{*}$	-0.108	-0.109	
-	(0.091)	(0.085)	(0.077)	(0.078)	
Wife inc. share $\times$ husband in mining/manuf.	$0.005^{*}$	$0.005^{*}$	0.006**	0.006**	
-	(0.002)	(0.002)	(0.002)	(0.002)	
Ν	2,428	2,351	5,220	5,051	
Adjusted R <sup>2</sup>	0.206	0.244	0.224	0.235	
Individual controls		$\checkmark$		$\checkmark$	
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
p < .1, p < .05, p < .01, p < .001					



**Table 6:** Least squares regressions of gender attitudes on womens' household income share, interacted with husbands' work in male-dominated mining or manufacturing (at least two years work experience: 0/1). Graphical inserts display marginal effects with 95% confidence intervals. Models 1–2 evaluate agreement with the statement, "a woman's place is in the home, not in the office or shop." Models 3–4 evaluate agreement with the statement, "it is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family." Individual controls, lagged by one year, include family income, number of children present in household, region of residence, and educational attainment. Standard errors clustered by individual. Individual-level sample weights included. Full covariate results in Appendix G.

example, that men in this category whose wives increase their income share by 30 percentage points (one standard deviation) are six percentage points less likely to believe that women belong in the home, not the workplace.<sup>41</sup> Men with at least two years work experience in these industries, by contrast, are nine points *more* likely to see traditional gender roles as ideal when their wives become breadwinners. Notably, we principally obtain these results for non-Black and non-Hispanic men (Appendix H); this is consistent with findings that sexist attitudes are especially pronounced among white Americans (Cassese and Barnes 2019), for whom fears of upturned gender hierarchies may compound status anxieties around the racial implications of industrial decline (Baccini and Weymouth 2021). These results illuminate how shifts in economic activity from husbands to wives are distinctly unsettling for men in male-dominated, prototypically masculine industries.

Table 6 likewise points to dissatisfaction among women with the new household arrangement. Seventy-two percent of married women in the NLSY79 disagree that "women are much happier if they stay at home and take care of their children." This return to traditional divisions of labor is more attractive, however, for women with husbands who had worked in male-dominated mining or manufacturing (2,043 women in the sample are estimated to be married to such men). Model 4 suggests that these women become 15 percentage points *more* likely to agree that women would be happier staying at home when increasing their income share by 30 points. No such attitudinal change is apparent among women married to men without experience in these industries.<sup>42</sup> Recounts one partner of an out-of-work miner in West Virginia, "Take care of your husband, that's all you want to

 $<sup>^{41}</sup>$ As a placebo test, we measure men's experience in industries that are at least 70% *female*. We find no evidence that the association between spousal earnings and gender attitudes varies with work in these industries (Appendix G).

<sup>&</sup>lt;sup>42</sup>We find null results when assessing men's agreement with the statement we consider for women ("women are much happier if they stay at home and take care of their children") and when assessing women's agreement with the statement we consider for men ("a woman's place is in the home, not in the office or shop").

do. But when that doesn't work out, you've got to go to work."43

These conservative gender attitudes correlate with support for the Republican Party. To establish this, we rely on the 2008 wave of the NLSY79, which asks subjects for their party affiliation and strength of partisan identification. We regress binary indicators of affiliation with the Republican Party and of "strong" Republican affiliation in 2008<sup>44</sup> on each subject's gender attitudes in 2004. We find that preferences for traditional gender roles are associated with increased probabilities of Republican identification among both men and women (Appendix I). Among men, agreement that "women's place is in the home" is associated with a seven-point increase in the likelihood of strong Republican affiliation. Among women, agreement that women are happier at home is associated with an 11-point increase in the probability of strong Republican affiliation. This is consistent with findings that benevolent sexism among men and women — beliefs that "[idealize] women as wives [and] mothers" — drives support for the political right (de Geus, Ralph-Morrow, and Shorrocks 2022, 1564; Cassese and Barnes 2019).

#### CONCLUSION

This paper explores the gendered dimensions of industrial decline. We argue that contractions of male-dominated industries and concentrated layoffs of men drive households towards the political right. Men affected by such decline suffer status loss and embrace parties that promise to restore men's place of prominence within the household and community. To compensate for husbands' loss of income, women become increasingly active in local labor markets but struggle to fully replace their husbands' prior earnings. These women left underpaid and overburdened likewise move to the right, plausibly seeing a return of the status quo ante as the most accessible means of recovering economic welfare. In

<sup>&</sup>lt;sup>43</sup>New York Times, 2019, [nyti.ms/3ec0cfG].

<sup>&</sup>lt;sup>44</sup>The NLSY79 only asked questions of this sort in 2008. Data on vote choice or other political attitudes are unavailable.

support of these claims, we bring to bear evidence on household divisions of labor, gender attitudes, election outcomes, and individual vote choice. We find that shifts in economic power from men to women — measured as male layoffs, changes in the gender makeup of local workforces, and the balance of income within married couples — lead both men and women across communities to move right, improving Republican electoral fortunes. We likewise find that shifts in within-household gender roles were historically associated with increased expressions of patriarchal attitudes.

Our findings are notable amid an ongoing move by the U.S. right to reaffirm traditional domestic structures (Leach 2020). This paper helps make sense of the support right-wing parties find among women and men, speaking to scholarly debates over the anti-globalization backlash that has afflicted advanced economies in recent years. Rather than this backlash having a purely economic origin, we find that it is intimately interwoven with cultural factors. Perceived threats to gender hierarchies are an important source of discontent amid economic disruption.

This paper also clarifies when economic tumult bolsters the political right versus left. Our argument aligns with the literature showing that industrial decline buttresses rightist movements (Baccini and Weymouth 2021; Ballard-Rosa et al. 2021; Milner 2021). Yet other studies link decline to greater support for leftist policies and parties (Margalit 2013; Autor et al. 2020). In this paper, we find some evidence that while male layoffs aid the right, female layoffs reduce support for Republicans. Layoffs of women may be viewed less as a sign of cultural turmoil, as we suggest is the case for male layoffs, and more as a source of material scarcity. These experiences of material loss may render left-wing redistributive policies more attractive.

Our results, which show why women sometimes favor conservative politicians, are notable given the general leftward shift in women's voting in recent decades. Women have increased their support of Democratic candidates in part due to improved labor market prospects (Iversen and Rosenbluth 2010). Our findings delineate conditions under which growth in women's paid labor may not produce a move to the left, offering an economic account of why large numbers of women continue to support right-wing candidates such as Trump (Cassese and Barnes 2019). Were these conditions not to be present, women's general leftward shift may be more pronounced today.

Our theory should generalize to cases where disproportionate layoffs of men occur in the presence of a party pledging a return to traditional household and industrial orders. It may be particularly applicable to mono-economies, where single industries are dominant in the local community; elsewhere, more gender-equitable industries may soften the blow of decline in male-dominated industries. Political institutions may also moderate the effects we identify. We suspect that women move to the right most under "familist" welfare states, present in countries such as the U.S. and Britain, that perpetuate household structures with a "breadwinner husband and a wife who has time to attend to (unpaid) caregiving work" (Orloff 1996, 64). "De-familialized" welfare systems, prominent in Scandinavia, relieve these burdens on women and may allow them to mobilize in support of the new labor market structure (Orloff 1996; Esping-Andersen 1999). We encourage scholars to explore how the effects of decline in male-dominated industries vary with welfare states.

There may be temporal conditions to our theory. We focus largely on short-to-mediumterm responses to industrial decline. The disjunction between actual and preferred divisions of labor that we theorize may be most apparent in this time frame. Over generations, reformed divisions of labor — if sustained — may gradually displace traditional gender norms (Alesina, Giuliano, and Nunn 2013; Gaikwad, Lin, and Zucker 2023). Younger Americans in areas afflicted by the initial wave of deindustrialization in the 1970s, for example, may hold more equitable gender attitudes today than older generations did after the initial economic shock. Research on how the effects of decline change over time, and the conditions under which women maintain their new economic position for the long term, would be valuable.

This paper shows how the gender segmentation of industries molds people's understanding of their economic security. Such gender imbalances may accordingly shape specific policy debates. Decarbonization, for example, necessitates the phasing out of maledominated fossil fuel industries (Bush and Clayton 2023). Our results indicate that genderbased concerns about cultural upheaval may fuel broad backlash to macroeconomic change, including those spurred by climate change mitigation. The gender makeup of industries is a fundamental aspect of how communities experience, cope with, and respond to their decline.

#### REFERENCES

- Abou-Chadi, Tarik, and Thomas Kurer. 2021. "Economic Risk within the Household and Voting for the Radical Right." *World Politics* 73 (3): 482–511.
- Acemoglu, Daron, David Autor, and David Lyle. 2004. "Women, War, and Wages: The Effect of Female Labor Supply on the Wage Structure at Midcentury." *Journal of Political Economy* 112 (3): 497–551.
- Alesina, Alberto, Paola Giuliano, and Nathan Nunn. 2013. "On the Origins of Gender Roles: Women and the Plough." *Quarterly Journal of Economics* 128 (2): 469–530.
- Anduiza, Eva, and Guillem Rico. 2024. "Sexism and the Far-Right Vote: The Individual Dynamics of Gender Backlash." *American Journal of Political Science* 68 (2): 478–493.
- Ansolabehere, Stephen, and Brian Schaffner. 2017. "Cooperative Congressional Election Study, 2016: Common Content [dataset].".
- Autor, David, David Dorn, and Gordon Hanson. 2019. "When Work Disappears: Manufacturing Decline and the Falling Marriage Market Value of Young Men." American Economic Review: Insights 1 (2): 161–178.
- Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi. 2020. "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure." *American Economic Review* 110 (10): 3139–3183.
- Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103 (6): 2121–2168.
- Baccini, Leonardo, and Stephen Weymouth. 2021. "Gone for Good: Deindustrialization, White Voter Backlash, and U.S. Presidential Voting." *American Political Science Review* 115 (2): 550–567.
- Ballard-Rosa, Cameron, Amalie Jensen, and Kenneth Scheve. 2022. "Economic Decline, Social Identity, and Authoritarian Values in the United States." *International Studies Quarterly* 66 (1).
- Ballard-Rosa, Cameron, Mashail Malik, Stephanie Rickard, and Kenneth Scheve. 2021. "The Economic Origins of Authoritarian Values: Evidence from Local Trade Shocks in the United Kingdom." *Comparative Political Studies* 54 (13): 2321–2353.
- Bell, Shannon, and Richard York. 2010. "Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia." *Rural Sociology* 75 (1): 111–143.

- Bellettini, Giorgio, Carlotta Berti Ceroni, Enrico Cantoni, Chiara Monfardini, and Jerome Schafer. 2023. "Modern Family? The Gendered Effects of Marriage and Childbearing on Voter Turnout." *British Journal of Political Science* (forthcoming).
- Bennett, Patrick, Chiara Ravetti, and Po Yin Wong. 2021. "Losing in a Boom: Long-Term Consequences of a Local Economic Shock for Female Labour Market Outcomes." *Labour Economics* 73: 102080.
- Bernhard, Rachel, Shauna Shames, and Dawn Teele. 2021. "To Emerge? Breadwinning, Motherhood, and Women's Decisions to Run for Office." *American Political Science Review* 115 (2): 379–394.
- Berry, Marie E. 2017. "Barriers to Women's Progress After Atrocity: Evidence from Rwanda and Bosnia-Herzegovina." *Gender & Society* 31 (6): 830–853.
- Bertrand, Marianne, Emir Kamenica, and Jessica Pan. 2015. "Gender Identity and Relative Income within Households." *Quarterly Journal of Economics* 130 (2): 571–614.
- Binder, Ariel J., and John Bound. 2019. "The Declining Labor Market Prospects of Less-Educated Men." *Journal of Economic Perspectives* 33 (2): 163–190.
- Bishin, Benjamin, Thomas Hayes, Matthew Incantalupo, and Charles Anthony Smith. 2016. "Opinion Backlash and Public Attitudes: Are Political Advances in Gay Rights Counterproductive?" *American Journal of Political Science* 60 (3): 625–648.
- Blau, Francine D., and Lawrence M. Kahn. 2017. "The Gender Wage Gap: Extent, Trends, and Explanations." *Journal of Economic Literature* 55 (3): 789–865.
- Blau, Francine D., Peter Brummund, and Albert Yung-Hsu Liu. 2012. "Trends in Occupational Segregation by Gender 1970-2009: Adjusting for the Impact of Changes in the Occupational Coding System." *Demography* 50 (2): 471–492.
- Blonz, Josh, Brigitte Roth Tran, and Erin Troland. 2023. "The Canary in the Coal Decline: Appalachian Household Finance and the Transition from Fossil Fuels.".
- Borusyak, Kirill, Peter Hull, and Xavier Jaravel. 2022. "Quasi-Experimental Shift-Share Research Designs." *Review of Economic Studies* 89 (1): 181–213.
- Broz, J. Lawrence, Jeffry Frieden, and Stephen Weymouth. 2021. "Populism in Place: The Economic Geography of the Globalization Backlash." *International Organization* 75 (2): 464–494.
- Brulé, Rachel. 2020. Women, Power, and Property: The Paradox of Gender Equality Laws in India. Cambridge University Press.
- Brulé, Rachel. 2023. "Climate Shocks and Gendered Political Transformation: How Crises Alter Women's Political Representation." *Politics & Gender* (forthcoming).

- Brulé, Rachel, and Nikhar Gaikwad. 2021. "Culture, Capital, and the Political Economy Gender Gap: Evidence from Meghalaya's Matrilineal Tribes." *Journal of Politics* 83 (3): 834–850.
- Burns, Nancy, Kay Schlozman, and Sidney Verba. 1997. "The Public Consequences of Private Inequality: Family Life and Citizen Participation." *American Political Science Review* 91 (2): 373–389.
- Bush, Sarah, and Amanda Clayton. 2023. "Facing Change: Gender and Climate Change Attitudes Worldwide." *American Political Science Review* 117 (2): 591–608.
- Cascio, Elizabeth, and Ayushi Narayan. 2022. "Who Needs a Fracking Education? The Educational Response to Low-Skill-Biased Technological Change." *ILR Review* 75 (1): 56–89.
- Case, Anne, and Angus Deaton. 2020. *Deaths of Despair and the Future of Capitalism*. Princeton, N.J.: Princeton University Press.
- Cassese, Erin, and Tiffany Barnes. 2019. "Reconciling Sexism and Womens Support for Republican Candidates: A Look at Gender, Class, and Whiteness in the 2012 and 2016 Presidential Races." *Political Behavior* 41 (3): 677–700.
- Cotter, David A., Joan M. Hermsen, and Reeve Vanneman. 2005. "Gender Inequality at Work." In *The American People: Census 2000*, ed. Reynolds Farley, and John Haaga. New York, N.Y.: Russell Sage Foundation.
- Dahlgaard, Jens Olav, and Kasper M. Hansen. 2021. "Twice the Trouble: Twinning and the Cost of Voting." *Journal of Politics* 83 (3): 1173–1177.
- Dal Bó, Ernesto, Frederico Finan, Olle Folke, Torsten Persson, and Johanna Rickne. 2023. "Economic and Social Outsiders but Political Insiders: Sweden's Populist Radical Right." *Review of Economic Studies* 90 (2): 675–706.
- Dassonneville, Ruth, and Ian McAllister. 2018. "Gender, Political Knowledge, and Descriptive Representation: The Impact of Long-Term Socialization." *American Journal of Political Science* 62 (2): 249–265.
- de Geus, Roosmarijn, Elizabeth Ralph-Morrow, and Rosalind Shorrocks. 2022. "Understanding Ambivalent Sexism and its Relationship with Electoral Choice in Britain." *British Journal of Political Science* 52 (4): 1564–1583.
- Dean, Adam, and Simeon Kimmel. 2019. "Free Trade and Opioid Overdose Death in the United States." *SSM Population Health* 8: 100409.
- Dill, Janette, and Melissa J. Hodges. 2019. "Is Healthcare the New Manufacturing?: Industry, Gender, and Good Jobs for Low- And Middle-Skill Workers." *Social Science Research* 84: 102350.

Du Bois, W.E.B. 1935. Black Reconstruction in America. Harcourt.

- Duflo, Esther. 2012. "Women Empowerment and Economic Development." *Journal of Economic Literature* 50 (4): 1051–1079.
- Edin, Kathryn, Timothy Nelson, Andrew Cherlin, and Robert Francis. 2019. "The Tenuous Attachments of Working-Class Men." *Journal of Economic Perspectives* 33 (2): 211–228.
- England, Paula. 2010. "The Gender Revolution: Uneven and Stalled." *Gender & Society* 24 (2): 149–166.
- Esping-Andersen, Gøsta. 1999. Social Foundations of Postindustrial Economies. New York, N.Y.: Oxford University Press.
- Evans, Alice. 2016. "The Decline of the Male Breadwinner and Persistence of the Female Carer: Exposure, Interests, and Micro-Macro Interactions." Annals of the American Association of Geographers 106 (5): 1135–1151.
- Evans, Alice. 2021. "Why Is Blue-Collar Work Still Male-Dominated?".
- Fisman, Raymond, Sheena S. Iyengar, Emir Kamenica, and Itamar Simonson. 2006. "Gender Differences in Mate Selection: Evidence From a Speed Dating Experiment." *Quarterly Journal of Economics* 121 (2): 673–697.
- Folke, Olle, and Johanna Rickne. 2020. "All the Single Ladies: Job Promotions and the Durability of Marriage." *American Economic Journal: Applied Economics* 12 (1): 260– 287.
- Gaikwad, Nikhar, Erin Lin, and Noah Zucker. 2023. "Gender After Genocide: How Violence Shapes Long-Term Political Representation." *World Politics* 75 (3): 439–481.
- Gaikwad, Nikhar, Federica Genovese, and Dustin Tingley. 2022. "Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World's Two Largest Democracies." *American Political Science Review* 116 (4): 1165–1183.
- Gaikwad, Nikhar, and Pavithra Suryanarayan. 2022. "Attitudes Toward Globalization in Ranked Ethnic Societies." Manuscript, Columbia University and London School of Economics.
- Ganong, Peter, and Daniel Shoag. 2017. "Why Has Regional Income Convergence in the U.S. Declined?" *Journal of Urban Economics* 102: 76–90.
- Gidron, Noam, and Peter Hall. 2017. "The Politics of Social Status: Economic and Cultural Roots of the Populist Right." *British Journal of Sociology* 68 (S1): S57–S84.

- Gilens, Martin. 1999. Why Americans Hate Welfare: Race, Media, and the Politics of Antipoverty Policy. Chicago, Ill.: University of Chicago Press.
- Gillion, Daniel, Jonathan Ladd, and Marc Meredith. 2020. "Party Polarization, Ideological Sorting and the Emergence of the US Partisan Gender Gap." *British Journal of Political Science* 50 (4): 1217–1243.
- Giuliani, Giovanni Amerigo. 2022. "The Family Policy Positions of Conservative Parties: A Farewell to the Male-Breadwinner Family Model?" *European Journal of Political Research* 61 (3): 678–698.
- Giuliano, Paola, and Nathan Nunn. 2021. "Understanding Cultural Persistence and Change." *Review of Economic Studies* 88 (4): 1541–1581.
- Glick, Peter, Susan T. Fiske, Antonio Mladinic, José L. Saiz, Dominic Abrams, and et al. 2000. "Beyond Prejudice as Simple Antipathy: Hostile and Benevolent Sexism Across Cultures." *Journal of Personality and Social Psychology* (5): 763–775.
- Goldin, Claudia. 2006. "The Quiet Revolution That Transformed Women's Employment, Education, and Family." *American Economic Review* 96 (2): 1–21.
- Goldin, Claudia. 2014. "A Pollution Theory of Discrimination: Male and Female Differences in Occupations and Earnings." In *Human Capital in History: The American Record*, ed. Leah Boustan, Carola Frydman, and Robert Margo. Chicago, Ill.: University of Chicago Press.
- Goldin, Claudia. 2021. Career & Family: Women's Century-Long Journey Toward Equity. Princeton, N.J.: Princeton University Press.
- Goldstein, Judith, Cameron Ballard-Rosa, and Nita Rudra. 2021. "Trade as Villain: The Fading American Dream and Declining Support for Globalization.".
- Hechter, Michael. 1978. "Group Formation and the Cultural Division of Labor." American Journal of Sociology 84 (2): 293–318.
- Htun, Mala, and S. Laurel Weldon. 2015. "Religious Power, the State, Women's Rights, and Family Law." *Politics & Gender* 11: 451–477.
- Hussam, Reshmaan, Erin M. Kelley, Gregory Lane, and Fatima Zahra. 2022. "The Psychosocial Value of Employment: Evidence from a Refugee Camp." *American Economic Review* 112 (11): 3694–3724.
- Hutchinson, Annabelle, Sarah Khan, and Hilary Matfess. 2022. "Childcare, Work, and Household Labor During a Pandemic: Evidence on Parents Preferences in the United States." *Journal of Experimental Political Science* (forthcoming).

- Inglehart, Ronald, and Pippa Norris. 2003. *Rising Tide: Gender Equality and Cultural Change Around the World*. Cambridge, N.Y.: Cambridge University Press.
- Inglehart, Ronald, and Pippa Norris. 2016. "Trump, Brexit, and the Rise of Populism: Economic Have-Nots and Cultural Backlash.".
- Iversen, Torben, and Frances Rosenbluth. 2006. "The Political Economy of Gender: Explaining Cross-National Variation in the Gender Division of Labor and the Gender Voting Gap." *American Journal of Political Science* 50 (1): 1–19.
- Iversen, Torben, and Frances Rosenbluth. 2008. "Work and Power: The Connection Between Female Labor Force Participation and Female Political Representation." *Annual Review of Political Science* 11 (1): 479–495.
- Iversen, Torben, and Frances Rosenbluth. 2010. Women, Work, and Politics: The Political Economy of Gender Inequality. New Haven, Conn.: Yale University Press.
- Jardina, Ashley. 2019. White Identity Politics. Cambridge University Press.
- Kan, Man Yee, and Anthony Heath. 2006. "The Political Values and Choices of Husbands and Wives." *Journal of Marriage and Family* 68 (1): 70–86.
- Kaplan, Greg, and Sam Schulhofer-Wohl. 2017. "Understanding the Long-Run Decline in Interstate Migration." *International Economic Review* 58 (1): 57–94.
- Kenworthy, Lane, and Melissa Malami. 1999. "Gender Inequality in Political Representation: A Worldwide Comparative Analysis." *Social Forces* 78 (1): 235–268.
- Kim, Jeong Hyun, and Yesola Kweon. 2022. "Why Do Young Men Oppose Gender Quotas? Group Threat and Backlash to Legislative Gender Quotas." *Legislative Studies Quarterly* 47 (4): 991–1021.
- Kim, Sung Eun, and Krzysztof Pelc. 2021. "How Responsive Is Trade Adjustment Assistance?" *Political Science Research and Methods* 9 (4): 889–898.
- Kojola, Erik. 2019. "Bringing Back the Mines and a Way of Life: Populism and the Politics of Extraction." *Annals of the American Association of Geographers* 109 (2): 371–381.
- Kuriwaki, Shiro. 2022. "Cumulative CCES Common Content, v7 [dataset].".
- Lamont, Michèle. 2000. The Dignity of Working Men: Morality and the Boundaries of Race, Class, and Immigration. Cambridge, Mass.: Harvard University Press.
- Latimer, Melissa, and Ann M. Oberhauser. 2004. "Exploring Gender and Economic Development in Appalachia." *Journal of Appalachian Studies* 10 (3): 269–291.

- Leach, Brittany R. 2020. "Whose Backlash, against Whom? Feminism and the American Pro-Life Movement's Mother-Child Strategy." Signs: Journal of Women in Culture and Society 45 (2): 319–328.
- Mansbridge, Jane, and Shauna L. Shames. 2008. "Toward a Theory of Backlash: Dynamic Resistance and the Central Role of Power." *Politics & Gender* 4 (4): 623–634.
- Mansfield, Edward D., Helen V. Milner, and Nita Rudra. 2021. "The Globalization Backlash: Exploring New Perspectives." *Comparative Political Studies* 54 (13): 2267–2285.
- Manza, Jeff, and Clem Brooks. 1998. "The Gender Gap in U.S. Presidential Elections: When? Why? Implications?" American Journal of Sociology 103 (5): 1235–1266.
- Margalit, Yotam. 2013. "Explaining Social Policy Preferences: Evidence from the Great Recession." *American Political Science Review* 107 (1): 80–103.
- Margalit, Yotam. 2019. "Economic Insecurity and the Causes of Populism, Reconsidered." Journal of Economic Perspectives 33 (4): 152–170.
- Milner, Helen V. 2021. "Voting for Populism in Europe: Globalization, Technological Change, and the Extreme Right." *Comparative Political Studies* 54 (13): 2286–2320.
- Murray, Rainbow, and Elin Bjarnegård. 2024. "Bringing Men and Masculinities Into Political Science." *European Journal of Politics and Gender* 7 (3): 308–325.
- Off, Gefjon. 2023. "Gender Equality Salience, Backlash and Radical Right Voting in the Gender-Equal Context of Sweden." *West European Politics* 46 (3): 451–476.
- Orloff, Ann. 1996. "Gender in the Welfare State." *Annual Review of Sociology* 22 (1): 51–78.
- Ross, Michael. 2008. "Oil, Islam, and Women." *American Political Science Review* 102 (1): 107–123.
- Rothstein, Donna, Deborah Carr, and Elizabeth Cooksey. 2019. "Cohort Profile: The National Longitudinal Survey of Youth 1979 (NLSY79)." *International Journal of Epidemi*ology 48 (1): 22–22e.
- Rozell, Mark. 2011. "The Christian Right and Contemporary Politics: A Movement at the Crossroads." In Crisis of Conservatism? The Republican Party, the Conservative Movement, and American Politics After Bush, ed. Joel Aberbach, and Gillian Peele. New York, N.Y.: Oxford University Press.
- Ruggles, Steven, Sarah Flood, Matthew Sobek, Danika Brockman, Grace Cooper, Stephanie Richards, and Megan Schouweiler. 2023. "IPUMS USA: Version 13.0 [dataset].".

- Sances, Michael, and Hye Young You. 2022. "Voters and Donors: The Unequal Political Consequences of Fracking." *Journal of Politics* 84 (3): 1667–1682.
- Shayo, Moses. 2009. "A Model of Social Identity with an Application to Political Economy: Nation, Class, and Redistribution." *American Political Science Review* 103 (2): 147–174.
- Shenhav, Na'ama. 2021. "Lowering Standards to Wed? Spouse Quality, Marriage, and Labor Market Responses to the Gender Wage Gap." *Review of Economics and Statistics* 103 (2): 265–279.
- Shorrocks, Rosalind. 2018. "Cohort Change in Political Gender Gaps in Europe and Canada: The Role of Modernization." *Politics & Society* 46 (2): 135–175.
- Silbermann, Rachel. 2015. "Gender Roles, Work-Life Balance, and Running for Office." *Quarterly Journal of Political Science* 10 (2): 123–153.
- Stoker, Laura, and M. Kent Jennings. 2005. "Political Similarity and Influence between Husbands and Wives." In Social Logic Of Politics: Personal Networks As Contexts, ed. Alan Zuckerman. Philadelphia, Penn.: Temple University Press.
- Strolovitch, Dara, Janelle Wong, and Andrew Proctor. 2017. "A Possessive Investment in White Heteropatriarchy? The 2016 Election and the Politics of Race, Gender, and Sexuality." *Politics, Groups, and Identities* 5 (2): 353–363.
- Strøm, Marte. 2014. "How Husbands and Wives Vote." Electoral Studies 35: 215–229.
- Summerfield, Penny. 1989. Women Workers in the Second World War. London: Routledge.
- Suryanarayan, Pavithra, and Steven White. 2021. "Slavery, Reconstruction, and Bureaucratic Capacity in the American South." *American Political Science Review* 115 (2): 568–584.
- Sutton, David. 2009. "The 2008 Presidential Election in Appalachia: Reading from the Margins." *Appalachian Journal* 36 (3/4): 188–198.
- Teele, Dawn Langan, Joshua Kalla, and Frances Rosenbluth. 2018. "The Ties That Double Bind: Social Roles and Women's Underrepresentation in Politics." *American Political Science Review* 112 (3): 525–541.
- Terkel, Studs. 1974. Working: People Talk About What They Do All Day and How They Feel About What They Do. New York, N.Y.: Pantheon.
- Thomsen, Danielle, and Aaron King. 2020. "Women's Representation and the Gendered Pipeline to Power." *American Political Science Review* 114 (4): 989–1000.

- Tripp, Aili. 2015. *Women and Power in Post Conflict Africa*. New York, N.Y.: Cambridge University Press.
- van Kersbergen, Kees. 1995. Social Capitalism: A Study of Christian Democracy and the Welfare State. Routledge.
- Winant, Gabriel. 2021. The Next Shift: The Fall of Industry and the Rise of Health Care in Rust Belt America. Cambridge, Mass.: Harvard University Press.
- Wolbrecht, Christina. 2000. *The Politics of Women's Rights*. Princeton, N.J.: Princeton University Press.
- Zucker, Noah. 2022. "Group Ties amid Industrial Change: Historical Evidence from Fossil Fuel Industry." *World Politics* 74 (4): 610–650.
- Zucker, Noah. 2024. "Identity, Industry, and Perceptions of Climate Futures." *Journal of Politics* (forthcoming).

#### APPENDICES

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# A. Workforce Polarization by Gender vs. Ethnicity/Race



**Figure A1:** Differences in the gender vs. ethnoracial polarization of NAICS four-digit industries (2020Q4, data from QWI). Polarization calculated as the absolute difference between the proportion of an industry's workers who are male or white/non-Hispanic and the nationwide average for that group (52% male; 63% white/non-Hispanic). Values above zero indicate that the industry is more polarized by gender than ethnicity/race; industries indexed in ascending order.

#### **B.** Traditional Values in Party Manifestos



**Figure B1:** Differences in party manifestos in emphasis on traditional morality (from Comparative Manifesto Project), which includes maintenance and stability of the traditional family as a value (with the woman as the homemaker).

# C. Job Losses by Gender



**Figure C1:** Quantiles of the difference in male vs. female layoffs between 2004–2020 (darker shades: more men than women laid off as percentage of working age population).

#### **D.** Income Trends



**Figure D1:** Total number of men employed in industries listed in footnote 35, by year (stable employees in Q4 of each year). Data from U.S. Census Quarterly Workforce Indicators.

#### D.1. Alternative Definition of Workers in Male-Dominated Industries

In our primary NLSY79 analyses, we define industries as male-dominated if they were at least 90% male in 1970 (based on a 1% weighted sample of that year's U.S. census Ruggles et al. 2023), after excluding managers, professional staff, and workers outside the ages of 20–64. This yields the following industry set: coal mining (97% male); logging (96%); metal mining (96%); non-specific mining (94%); non-metallic mining excluding fuel (94%); blast furnaces, steel works, rolling and finishing mills (93%); other primary iron and steel (92%); cement, concrete, gypsum, and plaster (92%); rail locomotives (92%); shipbuilding (91%); sawmills (90%).

In this alternative analysis, we identify married men who held blue-collar positions across mining or manufacturing industries. We focus on these workers due to the persistent gender-segmentation of these occupations and their documented centrality to individual and communal identities (Lamont 2000; Cotter, Hermsen, and Vanneman 2005). We define "blue-collar" occupations as either (a) those held by someone with no more than a high school education, or (b) those involving large amounts of manual labor.

This definition follows, among others, the U.S. Department of Labor [perma.cc/DK7Q-QWPV]. We consider non-college educated workers due to our assumption that such individuals are likely to work manual labor-intensive jobs when employed in mining or manufacturing. We consider manual labor-intensive jobs to be occupations classified by IPUMS USA [perma.cc/W94Z-43AD] as craftsmen and kindred workers (e.g., foremen, electricians); mechanics or repairmen; operatives (e.g., blasters, furnacemen); precision machine operatives (e.g., sawyers, solderers); or non-farm laborers (e.g., freight handlers, teamsters). For post-2000 observations, we consider occupations classified under construction, extraction, and maintenance or production, transportation, and material moving to be blue collar [perma.cc/MA2T-RW32]. In the NLSY79, 90% of subjects reporting one of these occupations had not received any college education. Figure D2 reveals a marked decline in the relative earnings of married men who once held blue-collar jobs in mining or manufacturing. In 1985 (subjects aged 21–28), these men accounted on average for 75% of the income of themselves and their spouses; by 2018 (ages 54–61), this share had fallen to 64%. Likewise, 84% of these men outearned their spouses in 1985, in notable excess of the 67% who did so in 2018. Income shares for men who had not held such jobs, by contrast, were steadier between these years.

Cotter, David A., Joan M. Hermsen, and Reeve Vanneman. 2005. "Gender Inequality at Work." In *The American People: Census 2000*, ed. Reynolds Farley, and John Haaga. New York, N.Y.: Russell Sage Foundation.



Did blue-collar work in mining or manufacturing — Yes ---- No

**Figure D2:** Changes over time in share of household employment income (wages and salary) earned by married men born between 1957–64. Men who had worked blue-collar jobs in mining or manufacturing industries prior to a given survey wave distinguished from other men. Plots depict five-year rolling means calculated with sample weights.

Lamont, Michèle. 2000. The Dignity of Working Men: Morality and the Boundaries of Race, Class, and Immigration. Cambridge, Mass.: Harvard University Press.





**Figure D3:** Replication of Figure 3, limited to all married men regardless of educational attainment (left) and to married men with at least some college education (right).

#### E. Change in Men's Relative Earnings

Here we report results from regressing changes in men's relative earnings on changes in sectoral employment levels. We gather sector-region employment figures for the years 1990–2019 from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) and match these to mining and manufacturing workers in the NLSY79. Following NLSY79, we define regions as the northeastern, north-central, southern, and western U.S. (for state classifications, see perma.cc/R3J8-HPJE). We opt for the sector-region level of aggregation due to fine-grained NAICS industry classifications and geographic details being unavailable in the public NLSY79. We match individuals in the NLSY79 to QCEW data based on two-digit NAICS sector codes. We estimate the following model by least squares:

% Income Earned by Spouse<sub>*irst*</sub> = 
$$\beta \left[ \text{employment}_{rs(t-1)} \times \text{blue-collar work}_{i(t-1)} \right] + \gamma \mathbf{X}_{i(t-1)} + \alpha_i + \delta_t + \varepsilon_{irst}$$

where % Income Earned by Spouse<sub>*irst*</sub> is the share of income earned by the spouse of man *i* living in region *r* and working in sector *s* in year *t*. The term "employment" indicates the level of employment in sector *s* and region *r* the preceding year, calculated as: (*a*) the average number of workers employed in a quarter during year t - 1, (*b*) the share of employed workers in region *r* employed in that sector, and (*c*) the share of wages in region *r* that the sector is responsible for. "Blue-collar work" is a binary indicator of whether individual

*i* did at least two years blue-collar work in mining or manufacturing.  $\mathbf{X}_{i(t-1)}$  is a vector of individual-level controls from NLSY79, including annual family income (log transformed), number of children present in the household, region of residence, and educational attainment.  $\alpha_i$  and  $\delta_t$  are individual and year fixed effects terms;  $\varepsilon_{irst}$  is an error term clustered by individual. Individual-level sample weights included.

Estimates in Table E1 indicate that for men with longer histories of blue-collar work in mining or manufacturing, contractions in those sectors are associated with increases in the relative income of their spouses. Model 2 suggests, for example, that a 20-percentage point decline in mining or manufacturing's workforce share for a man with at least two years of blue-collar experience in that sector would be associated with an 11-point *increase* in the share of income earned by his spouse. These findings support our claim that declines in male-majority industries have meaningfully tilted breadwinning responsibilities towards women.

	% Income Earned by Spouse		
	(1)	(2)	(3)
Sector workforce size (10,000s)	0.006 (0.006)		
Sector workforce share (% region)		16.645 (21.276)	
Sector wage share (% region)		. ,	10.264 (18.833)
Mining/manuf. labor	2.722 (8.126)	5.596 (8.210)	4.733 (8.485)
Sector measure $\times$ min./manuf. labor	$-0.019^+$ (0.008)	-73.206 (33.002)	-54.229
Family income (ln)	1.367	1.419 (1.610)	1.402
Number children present	-2.337 (1.803)	-2.255 (1.844)	-2.273
Highest grade completed	0.388	0.401	0.404
Resides in north-central U.S.	-9.541 (4.868)	-9.509 (5.022)	-9.564 (5.400)
Resides in southern U.S.	-8.177 (4.284)	-7.307 (3.803)	-7.340 (3.877)
Resides in western U.S.	-7.909 (5.542)	-8.028	-8.336
N Adjusted R <sup>2</sup>	5,341 0.655	5,341 0.656	5,341 0.656
Individual controls	$\checkmark$	1	√
Individual fixed effects Year fixed effects	$\checkmark$	√ √	$\checkmark$



**Table E1:** Least squares regressions of men's relative earnings on employment history and sectorregion-level employment trends. Standard errors clustered by individual and region. Graphical insert shows marginal effects plots with 95% confidence intervals.

#### F. Divorce

		Pr(Divorced = 1	)
	(1)	(2)	(3)
Sector workforce size (10,000s)	0.000 (0.000)		
Sector workforce share (% region)		-0.259 (0.347)	
Sector wage share (% region)			-0.204 (0.295)
Mining/manuf. labor	-0.039 (0.035)	-0.062 (0.079)	-0.041 (0.087)
Sector measure $\times$ min./manuf. labor	0.000	0.282	0.109
Family income (ln)	$-0.018^+$	$-0.018^+$	$-0.018^+$
Number children present	$-0.063^{**}$	$-0.063^{**}$	$-0.063^{**}$
Highest grade completed	-0.003	-0.003	-0.003
Resides in north-central U.S.	0.016	0.018	0.023
Resides in southern U.S.	0.028	0.017	0.019
Resides in western U.S.	0.054	0.051	0.056
Ν	7.228	7.228	7.228
Adjusted R <sup>2</sup>	0.622	0.623	0.623
Individual controls	$\checkmark$	$\checkmark$	$\checkmark$
Individual fixed effects Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$

**Table F1:** Least squares regressions of probability of divorce on regional sector employment and individual experiences of blue-collar work in mining or manufacturing (at least two years: yes or no). Standard errors clustered by individual and region. Individual-level sample weights included.

#### G. Full Covariate Results: Table 6

NLSY79 does not list spouses' industries of employment. Given this, we estimate husbands' experience in male-dominated mining and manufacturing industries on the basis of their reported *occupation*. Across all NLSY79 waves, we compute the proportion of married men in each occupation doing blue-collar work in mining or manufacturing (as defined in Appendix D). We assume a woman's spouse to have worked in mining or manufacturing when in an occupation in which at least 50% of married men worked in such an industry.

	NLSY79: Gender Attitudes (1982–2004)					
	Pr(Agree: Woman	Pr(Agree: Woman's Place Is in the Home = 1)		Pr(Agree: Women Happier at Home = 1		
	Sample: Mar	rried Men (No College)	Sample: 1	Married Women		
	(1)	(2)	(3)	(4)		
Wife income share (%)	$-0.002^{**}$	$-0.002^{*}$	$-0.002^{***}$	$-0.001^{**}$		
	(0.0007)	(0.0007)	(0.0004)	(0.0005)		
Husband worked in mining/manuf.	$-0.193^{*}$	$-0.182^{*}$	-0.108	-0.109		
-	(0.091)	(0.085)	(0.077)	(0.078)		
Wife inc. share $\times$ husband in mining/manuf.	$0.005^{*}$	0.005*	0.006**	0.006**		
-	(0.002)	(0.002)	(0.002)	(0.002)		
Family income (ln)		-0.045		0.022		
		(0.033)		(0.015)		
Number children present		0.035*		0.023+		
*		(0.016)		(0.012)		
Highest grade completed		0.026		0.003		
		(0.043)		(0.005)		
Resides in north-central U.S.		-0.111		-0.067		
		(0.135)		(0.073)		
Resides in southern U.S.		0.136		-0.097		
		(0.116)		(0.072)		
Resides in western U.S.		-0.025		-0.131		
		(0.141)		(0.092)		
N	2,428	2,351	5,220	5,051		
Adjusted R <sup>2</sup>	0.206	0.244	0.224	0.235		
Individual controls		$\checkmark$		√		
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		

**Table G1:** Table 6 with all covariate results reported. Standard errors clustered by individual.

	NLSY79: Gender Attitudes (1982–2004) Pr(Agree: Woman's Place Is in the Home = Sample: Married Men (No College)		
	(1)	(2)	
Wife income share (%)	-0.001	-0.0007	
	(0.0008)	(0.0008)	
Husband worked in majfemale ind.	-0.045	-0.025	
	(0.093)	(0.095)	
Wife inc. share $\times$ husband in majfemale ind.	$2.62 \times 10^{-5}$	-0.0005	
•	(0.002)	(0.002)	
Family income (In)		-0.057	
		(0.035)	
Number children present		0.037*	
*		(0.016)	
Highest grade completed		0.018	
		(0.042)	
Resides in north-central U.S.		-0.074	
		(0.133)	
Resides in southern U.S.		0.158	
		(0.117)	
Resides in western U.S.		$9.04 \times 10^{-5}$	
		(0.143)	
N	2,428	2,351	
Adjusted R <sup>2</sup>	0.195	0.233	
Individual controls		√	
Individual fixed effects	$\checkmark$	$\checkmark$	
Year fixed effects	$\checkmark$	$\checkmark$	

**Table G2:** Placebo test. Replications of models 1–2 in Table 6, instead measuring men's experience in female-dominated industries (workforces at least 70% female; at least two years experience).

<b>H.</b> A	Iternative	Sample:	NL	SY79	) R	lesults	by	Race
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	Gender Attitudes (1982–2004)					
	Pr(Agree: Woman's Place	is in the Home $= 1$ )	Pr(Agree: Traditional Husban	d/Wife Roles Best = 1)		
	Sample: Non-College Edu	cated Married Men	Sample: Married	d Women		
	Non-Black / Non-Hispanic	Black or Hispanic	Non-Black / Non-Hispanic	Black or Hispanic		
	(1)	(2)	(3)	(4)		
Wife income share (%)	$-0.002^{*}$	-0.001	$-0.001^{**}$	-0.0010		
	(0.0009)	(0.001)	(0.0006)	(0.0006)		
Husband worked in mining/manuf.	$-0.029^{**}$	0.002	-0.117	-0.010		
	(0.009)	(0.012)	(0.084)	(0.127)		
Wife inc. share $\times$ husband in mining/manuf.	0.0007***	$1.07  imes 10^{-5}$	0.006**	0.007		
-	(0.0002)	(0.0003)	(0.002)	(0.004)		
Family income (ln)	-0.048	-0.008	0.028	0.013		
•	(0.040)	(0.050)	(0.021)	(0.016)		
Number children present	0.037*	0.050*	0.024+	0.011		
L.	(0.018)	(0.023)	(0.013)	(0.020)		
Highest grade completed	-0.020	0.115**	0.001	0.004		
	(0.052)	(0.042)	(0.009)	(0.004)		
Resides in north-central U.S.	-0.039	$-0.429^{*}$	-0.078	-0.053		
	(0.142)	(0.181)	(0.080)	(0.086)		
Resides in southern U.S.	0.163	0.077	-0.126	0.034		
	(0.127)	(0.060)	(0.082)	(0.086)		
Resides in western U.S.	-0.023	0.041	-0.122	-0.180		
	(0.164)	(0.145)	(0.101)	(0.151)		
Ν	1,477	874	3,387	1,664		
Adjusted R <sup>2</sup>	0.258	0.380	0.233	0.316		
Individual controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
p < .1, *p < .05, **p < .01, ***p < .001						

**Table H1:** Replication of Table 6, disaggregating sample by subjects' reported race. Standard errors clustered by individual.

	Pr(Republic	an Affiliation = 1) Sat	Pr(Strong Re mple: Men	publican Affiliation = 1)	Pr(Republic	an Affiliation = 1) San	Pr(Strong Rep nple: Women	publican Affiliation = 1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Agree: women's place in home	0.055	$0.063^{+}$	0.065*	0.068*				
	(0.034)	(0.034)	(0.030)	(0.029)				
Agree: women happier at home					0.098***	0.102***	0.107***	0.109***
					(0.023)	(0.022)	(0.020)	(0.019)
Non-Black, non-Hispanic		0.279***		0.150***		0.249***		0.135***
		(0.017)		(0.014)		(0.016)		(0.013)
Family income (ln)		0.018**		0.012*		0.025***		0.013**
		(0.006)		(0.005)		(0.006)		(0.004)
Resides in north-central U.S.		0.024		-0.012		-0.004		$0.042^{+}$
		(0.031)		(0.025)		(0.030)		(0.021)
Resides in southern U.S.		$0.057^{+}$		0.050*		0.102***		0.109***
		(0.030)		(0.024)		(0.028)		(0.021)
Resides in western U.S.		0.047		0.013		0.004		0.030
		(0.034)		(0.028)		(0.033)		(0.023)
Constant	0.334***	$-0.116^{+}$	0.167***	$-0.096^{+}$	0.267***	$-0.235^{***}$	0.120***	$-0.186^{***}$
	(0.011)	(0.062)	(0.009)	(0.051)	(0.011)	(0.062)	(0.008)	(0.045)
Observations	3,255	3,255	3,255	3,255	3,217	3,217	3,217	3,217
Adjusted R <sup>2</sup>	0.001	0.066	0.002	0.034	0.009	0.080	0.018	0.058
$^+p < .1, *p < .05, **p < .01, ***$	<i>p</i> < .001							

# I. Mechanism: Gender Attitudes and Republican Affiliation

**Table I1:** Least squares regressions of Republican affiliation (overall and "strong" identification) in 2008 on gender attitudes in 2004. Observation weights included. Robust standard errors parenthesized.

# J. Full Covariate Results: Table 1

		Republican	Vote Share (%)	
	(1)	(2)	(3)	(4)
Net shift towards women	0.394***		0.324***	
	(0.086)		(0.078)	
Men laid off (ln)		12.023***	· · · ·	7.949***
		(1.517)		(1.583)
Women laid off (ln)		-10.516***		-2.612
		(2.349)		(2.389)
GOP won last election			7.220***	7.209***
			(0.427)	(0.427)
Men employed			0.000***	0.000***
			(0.000)	(0.000)
Women employed			0.000***	0.000***
			(0.000)	(0.000)
Unemployment rate			$0.181^{*}$	0.158*
1 2			(0.074)	(0.075)
Male % working age population			77.980***	75.333***
			(18.743)	(18.743)
Population (ln)			-24.135***	-26.193***
			(3.582)	(3.520)
White % population			115.920***	112.764***
			(21.294)	(20.902)
Ν	21,633	21,633	18,513	18,513
Adjusted R <sup>2</sup>	0.695	0.695	0.718	0.718
County controls			$\checkmark$	$\checkmark$
County fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
p < .1, *p < .05, **p < .01, ***	* <i>p</i> < .001			

**Table J1:** Table 1 with all coefficient estimates reported.

# K. Respecification: State-by-Year Fixed Effects and County-Specific Time Trends

		Republican	Vote Share (%)	
	(1)	(2)	(3)	(4)
Net shift towards women	0.233***		0.169**	
	(0.060)		(0.059)	
Men laid off (ln)		6.643***		3.862**
		(1.387)		(1.457)
Women laid off (ln)		$-10.599^{***}$		-2.653
		(2.283)		(2.276)
GOP won last election			5.874***	5.878***
			(0.401)	(0.401)
Men employed			$0.000^{**}$	$0.000^{**}$
			(0.000)	(0.000)
Women employed			0.000***	0.000***
			(0.000)	(0.000)
Jnemployment rate			-0.058	-0.072
			(0.106)	(0.107)
Male % working age population			41.706**	40.797**
			(15.321)	(15.345)
Population (ln)			$-29.943^{***}$	-30.599***
			(3.279)	(3.341)
White % population			118.273***	116.131***
			(18.467)	(18.424)
N	21,633	21,633	18,513	18,513
Adjusted R <sup>2</sup>	0.778	0.778	0.793	0.793
County controls			~	~
State-by-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table K1:** Replication of Table 1, replacing year FEs with state-by-year FEs.

		Republican	Vote Share (%)	
	(1)	(2)	(3)	(4)
Men laid off (ln)	5.507***		4.349**	
	(1.485)		(1.686)	
Women laid off (ln)	-3.329		-0.498	
	(2.312)		(2.725)	
Net shift towards women (st. dev.)		0.198***		0.163**
		(0.057)		(0.063)
GOP won last election			$-1.748^{***}$	$-1.755^{***}$
			(0.443)	(0.443)
Men employed			0.0001*	0.0001*
			(0.00006)	(0.00006)
Women employed			-0.00009	-0.00009
			(0.00006)	(0.00007)
Unemployment rate			0.376***	0.382***
			(0.086)	(0.086)
Male % working age population			-16.158	-16.056
			(21.597)	(21.567)
Population (ln)			0.083	3.812
			(6.812)	(6.624)
White % population			-33.661	-29.187
			(44.929)	(45.036)
N	21,633	21,633	18,513	18,513
Adjusted R <sup>2</sup>	0.796	0.796	0.795	0.795
County controls			√	~
County-specific time trend	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

 $^+p < .1, *p < .05, **p < .01, ***p < .001$ 

**Table K2:** Replication of Table 1, including county-specific linear trends.

# L. Respecification: Commuting Zones and Layoffs Proportional to Baseline Employment

		Republican	Vote Share (%)	
	(1)	(2)	(3)	(4)
Net shift towards women	0.559***		0.521***	
Men laid off (ln)	(0.122)	11.522***	(0.136)	6.992**
Women laid off (ln)		(2.483) -14.402**		(2.360) -5.837
GOP won last election		(4.670)	8.790***	(4.779) 8.836***
Men employed			(0.673) 0.000*	(0.672) 0.000**
Women employed			(0.000) 0.000**	(0.000) 0.000****
Unemployment rate			(0.000) 36.245**	(0.000) 35.436**
Male % working age population			(13.150) 126.182**	(13.246) 114.262*
Population (ln)			(45.331) -23.942**	(44.833) -28.709***
White % population			(7.710) 62.113	(7.605) 71.126
N	4 820	4 820	(45.175)	(44.203)
Adjusted R <sup>2</sup>	0.743	0.744	0.784	0.783
Commuting zone controls			1	1
Commuting zone fixed effects	$\checkmark$	$\checkmark$	1	1
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table L1:** Replication of Table 1 at commuting zone level (SEs clustered by commuting zone).

	Republicar	Vote Share (%
	(1)	(2)
Men laid off (% 2004 male employment)	1.122*	1.096*
· • • ·	(0.522)	(0.501)
Women laid off (% 2004 female employment)	-0.220	-0.065
· • · ·	(0.177)	(0.211)
GOP won last election		7.269***
		(0.428)
Men employed		0.0003***
		(0.0001)
Women employed		$-0.0004^{***}$
		(0.0001)
Unemployment rate		0.181*
		(0.075)
Male % working age population		79.160***
		(19.479)
Population (ln)		$-24.941^{***}$
		(3.523)
White % population		120.134***
		(21.195)
N	21,486	18,393
Adjusted R <sup>2</sup>	0.690	0.714
County controls		$\checkmark$
County fixed effects	$\checkmark$	$\checkmark$
Year fixed effects	✓	$\checkmark$

**Table L2:** Replication of Table 1, calculating layoffs as proportions of 2004 county-level employment (year prior to data in panel).

#### M. Heterogeneity: Economic Distress

We identify economically distressed counties via the Distressed Communities Index (DCI) of the Economic Innovation Group. DCI calculates levels of distress according to (1) share of population without a high school diploma; (2) housing vacancy rate; (3) % prime-age adults not employed; (4) poverty rate; (5) median income ratio; (6) recent change in number of jobs; (7) recent change in number of business establishments. Communities are sorted into five quintiles. We define the top 2 quintiles as economically distressed in Table M1.

	Rep	ublican Vote Share (9	%)
	All Counties	Non-Distressed	Distressed
	(1)	(2)	(3)
Net shift towards women	0.289***	0.204***	1.419***
	(0.073)	(0.059)	(0.398)
Net shift towards women $\times$ distressed county	0.694*		
	(0.298)		
GOP won last election	7.223***	6.107***	8.852***
	(0.427)	(0.497)	(0.735)
Men employed	0.000***	0.000***	0.000
	(0.000)	(0.000)	(0.000)
Women employed	$-0.000^{***}$	$-0.000^{***}$	-0.001
	(0.000)	(0.000)	(0.000)
Unemployment rate	$0.178^{*}$	0.366***	-0.160
	(0.074)	(0.087)	(0.121)
Male % working age population	78.143***	60.492*	59.541*
	(18.748)	(25.160)	(28.568)
Population (ln)	-24.244***	-24.759***	1.761
	(3.585)	(4.057)	(8.135)
White % population	116.131***	139.096***	62.988
	(21.284)	(24.751)	(39.005)
Ν	18,513	11,126	7,387
Adjusted R <sup>2</sup>	0.766	0.786	0.748
County controls	$\checkmark$	$\checkmark$	$\checkmark$
Voor fixed offects	$\checkmark$	$\checkmark$	$\checkmark$
Tear fixed effects			

**Table M1:** Replication of Table 1. (1) interacts the net shift variable with indicator for "economically distressed" counties. (2) and (3) split sample by distress.

#### N. Full Covariate Results: Table 2

		Republica	an Vote Share (%)	
	(1)	(2)	(3)	(4)
Net shift towards women	0.360**		0.223+	
	(0.133)		(0.129)	
Men laid off (ln)		8.549*		$6.659^{+}$
		(3.659)		(3.448)
Women laid off (ln)		-8.709		-13.994
		(11.311)		(11.206)
GOP won last election			8.222***	8.229***
			(0.621)	(0.621)
Men employed			0.000	0.000
1 2			(0.001)	(0.001)
Women employed			0.011*	0.012*
			(0.005)	(0.005)
Unemployment rate			-0.053	-0.049
			(0.116)	(0.116)
Men % working age population			12.553	12.122
			(55.297)	(55.216)
Population (ln)			-31.917***	-31.933***
• • •			(5.283)	(5.283)
White % population			144.534***	144.477***
* *			(25.955)	(26.021)
N	10,131	10,131	8,663	8,663
4 II . 1 D?	0.607	0.697	0.736	0.736

**Table N1:** Table 2 with all coefficient estimates reported.

#### **O.** Validity of the Shift-Share Instrument

To examine how changes in the gendered makeup of a county's workforce affect voting outcomes, we adopt a shift-share instrumental variables design. This approach acknowledges that layoffs and changes in the gender makeup of a county's workforce may not occur randomly and may be systematically correlated with county-level election outcomes. Our instrument combines variation in the baseline concentration of men and women across local industries by county (the share component) with growth in the national workforce of each industry (the shift/shock component).

We assume that nationwide shifts in hires and layoffs are conditionally exogenous to economic and political conditions in individual counties. Borusyak, Hull, and Jaravel (2022) show that this assumption is equivalent to the exclusion restriction for the shift-share design. In other words, the baseline distribution of women and men across industries must only affect the outcome via its effect on the shift in local workforce from men to women (conditioning on controls capturing economic conditions potentially collinear to local shocks, other county-year variables as described in the main text, and state fixed effects). While the shift component of the instrument follows the literature, our novel share component ensures that the instrument captures county-level exposure to gendered shifts in workforce makeup as predicted by national shifts in workforce size and the distribution of women and men across industries.

The shift-share framework yields valid causal estimates when assuming exogeneity of baseline industry shares or "exposure weights" (Goldsmith-Pinkham, Sorkin, and Swift 2020), or when assuming that the shock components are exogenous conditional on shock-level residuals and exposure weights (Borusyak, Hull, and Jaravel 2022). In our case, we allow the baseline makeup of county workforces to be endogenous and rely on the conditional exogeneity of aggregated changes in industries' nationwide employment. Thus, our shift-share design hinges on the assumption that unobserved shocks affecting Republican vote share are uncorrelated with nationwide shifts in industry employment.

We follow Borusyak, Hull, and Jaravel (2022) in validating this instrument. We first analyze the distribution of shifts (or shocks) across industries and use balance tests to evaluate the plausibility of conditional quasi-random shift assignment. Table O1 reports summary statistics for the shift component, which indicate that shifts are relatively well dispersed across industries. Table O2 presents the results of regressing other industry-level variables that potentially determine Republican vote share on the shift component of the instrument. Specifically, we use the set of industry-level production controls in Acemoglu et al. (2016), reflecting the structure of employment and technology across industries. We find no statistically significant correlations.

Calculation	Value
Mean	0.091
SD	0.304
Interquartile range	0.145
Effective sample size	
Across industries	34.65
Largest weight	
Across industries	0.105
Observation count	
Number of industry-county shocks	318,879
Number of industries	99

**Table O1:** Summary of the distribution of the shift component in the shift-share instrument. We additionally report the effective sample size (the inverse renormalized Herfindahl index of the weights), the largest weight, and the observation counts.

	0.6	0E
Control	Coef.	SE
Production workers' share of employment, 1991	-0.037	0.030
Ratio of capital to value-added, 1991	-0.146	0.186
Log real wage (2007 USD), 1991	0.138	0.074
Computer investment as share of total, 1990	-0.806	0.827
High-tech equipment as share of total investment, 1990	0.234	0.571
p < .05, p < .01, p < .01, p < .001		

**Table O2:** This table reports coefficients from regressions of industry-level covariates on the shift component of the shift-share instrument, weighting by average industry exposure shares.

Acemoglu, Daron, David Autor, David Dorn, Gordon H. Hanson, and Brendan Price. 2016. "Import Competition and the Great US Employment Sag of the 2000s." *Journal of Labor Economics* 34 (S1): S141–S198.

Borusyak, Kirill, Peter Hull, and Xavier Jaravel. 2022. "Quasi-Experimental Shift-Share Research Designs." *Review of Economic Studies* 89 (1): 181–213.

Goldsmith-Pinkham, Paul, Isaac Sorkin, and Henry Swift. 2020. "Bartik Instruments: What, When, Why and How." American Economic Review 110 (8): 2586–2624.

# P. Full Covariate Results: Table 3

	$\Delta$ Republican Vote Share (2004–16, %)					
	I	House	Pres	idency		
	(1)	(2)	(3)	(4)		
Net shift towards women (st. dev.)	8.525**	11.925*	5.564***	9.833**		
	(3.172)	(5.262)	(1.428)	(3.166)		
GOP won last election		$-21.464^{***}$		-1.045		
		(1.170)		(0.656)		
Men employed		$0.000^{+}$		0.000		
1 5		(0.000)		(0.000)		
Women employed		$0.000^{+}$		0.000		
1 5		(0.000)		(0.000)		
Population (In)		$-2.547^{*}$		-3.565***		
I VIII		(1.002)		(0.657)		
Unemployment rate		0.462		0.604*		
		(0.430)		(0.261)		
Men % working age population		80.462**		41.929**		
		(26.902)		(16 202)		
White % population		30.079***		18 416***		
······································		(5.489)		(3 358)		
N	3,063	3,033	3,113	3,036		
First-stage coefficient	2.76***	1.88***	2.74***	1.87***		
	(0.505)	(0.560)	(0.500)	(0.559)		
F-statistic	51.1	21.8	51.8	21.7		
County controls		$\checkmark$		$\checkmark$		
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		

 Table P1: Table 3 with all coefficient estimates reported. Robust standard errors parenthesized.

# **Q.** Respecification: County Fixed Effects

	Pr(Vote for Republican = 1)					
	All Respondents	Men	Women			
	(1)	(2)	(3)			
Men laid off (ln)	0.105**	0.102*	$0.082^{+}$			
	(0.035)	(0.046)	(0.042)			
Women laid off (ln)	$-0.129^{**}$	$-0.084^{+}$	$-0.136^{**}$			
	(0.041)	(0.048)	(0.051)			
Ν	269,266	130,702	138,218			
Adjusted R <sup>2</sup>	0.123	0.135	0.147			
County fixed effects	$\checkmark$	$\checkmark$	$\checkmark$			
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$			
+p < .1, *p < .05, **	p < .01, *** p < .001					

Table Q1: Replication of main model in Table 4, replacing state fixed effects with county FEs.

# R. Full Covariate Results: Table 4

	Pr(Vote for Republican = 1)						Pr(Voted = 1)	
	All Resp	ondents	ndents Men		Wo	men	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Men laid off (ln)	0.287***	0.089***	0.265***	$0.064^{+}$	0.305***	0.112***	0.044	0.022
	(0.052)	(0.024)	(0.055)	(0.033)	(0.055)	(0.028)	(0.038)	(0.034)
Women laid off (ln)	$-0.354^{***}$	$-0.119^{***}$	$-0.329^{***}$	$-0.096^{**}$	$-0.375^{***}$	$-0.140^{***}$	-0.057	-0.008
	(0.052)	(0.024)	(0.056)	(0.032)	(0.056)	(0.027)	(0.039)	(0.033)
Men employed		0.00000		0.00000		0.00000	-0.00000	-0.00000
		(0.00000)		(0.00000)		(0.00000)	(0.00000)	(0.00000)
Women employed		-0.00000		-0.00000		0.000	0.00000	0.00000
1 2		(0.00000)		(0.00000)		(0.00000)	(0.00000)	(0.00000)
Unemployment rate		0.001		0.0004		0.002	$-0.007^{***}$	-0.007***
		(0.001)		(0.002)		(0.001)	(0.002)	(0.001)
Male % working age population		0.273		0.389		0.184	-0.283	-0.271
0011		(0.203)		(0.275)		(0.209)	(0.235)	(0.195)
Population (ln)		0.010		0.014		0.007	0.006	-0.007
- ·F ()		(0.007)		(0.009)		(0.007)	(0.010)	(0.008)
Republican incumbent		0.148***		0.145***		0.151***	0.003	0.005
		(0.005)		(0.006)		(0.006)	(0.006)	(0.004)
White		0.106***		0.109***		0.102***	0.084***	0.040***
		(0.005)		(0.007)		(0.006)	(0.006)	(0.006)
Age		0.001***		0.001***		0.001***	0.007***	0.008***
8		(0.0001)		(0.0002)		(0.0001)	(0.0002)	(0.0001)
Male		0.060***		(,		(,	(,	(
		(0.003)						
Married		0.060***		0.070***		0.046***	0.009	$-0.009^{*}$
		(0.003)		(0.005)		(0.004)	(0.005)	(0.004)
College educated		-0.013***		-0.012**		-0.013**	0.061***	0.076***
8		(0.003)		(0.004)		(0.004)	(0.005)	(0.004)
Republican		0.567***		0.528***		0.608***	0.044***	0.063***
		(0.004)		(0.005)		(0.005)	(0.005)	(0.004)
Family income		0.00003		0.001		-0.001	0.016***	0.018***
Taniny meone		(0.0005)		(0.001)		(0.001)	(0.001)	(0.001)
Ν	227.457	195.364	112,220	97.303	115.237	98.061	140.611	158.956
Adjusted R <sup>2</sup>	0.058	0.410	0.056	0.370	0.063	0.447	0.128	0.139
County controls		$\checkmark$		√		√	$\checkmark$	$\checkmark$
Individual controls		$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table R1:** Table 4 with all coefficient estimates reported. In addition, effects on validated general election turnout (models 7–8) are also reported.

# S. Respecification: Mining and Metal Manufacturing

Pr(Vote for Re			epublican = 1)		Pr(Voted = 1)		
All		М	en	Women		Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0.290***	0.080**	0.273***	0.068*	0.303***	0.092***	0.035	0.025
(0.058)	(0.024)	(0.062)	(0.033)	(0.061)	(0.028)	(0.035)	(0.031)
$-0.358^{***}$	$-0.112^{***}$	-0.338***	$-0.102^{**}$	-0.375***	$-0.121^{***}$	$-0.064^{+}$	-0.011
(0.058)	(0.024)	(0.062)	(0.032)	(0.062)	(0.028)	(0.036)	(0.032)
	0.000		0.000		0.000	0.000	0.000
	(0.000)		(0.000)		(0.000)	(0.000)	(0.000)
	0.000		0.000		0.000	0.000	0.000
	(0.000)		(0.000)		(0.000)	(0.000)	(0.000)
	0.002		0.001		0.002	$-0.008^{***}$	$-0.007^{***}$
	(0.001)		(0.002)		(0.002)	(0.002)	(0.002)
	0.562*		0.501		0.596*	-0.539+	$-0.502^{+}$
	(0.243)		(0.333)		(0.232)	(0.278)	(0.277)
	0.014		0.017		0.008	0.015	-0.014
	(0.008)		(0.011)		(0.009)	(0.014)	(0.011)
	0.145***		0.145***		0.145***	0.000	0.003
	(0.005)		(0.006)		(0.006)	(0.006)	(0.004)
	0.104***		0.106***		0.101***	0.087***	0.044***
	(0.005)		(0.007)		(0.006)	(0.006)	(0.006)
	0.001***		0.001***		0.001***	0.007***	0.008***
	(0.000)		(0.000)		(0.000)	(0.000)	(0.000)
	0.061***		· · · ·		× /	× /	
	(0.003)						
	0.060***		0.069***		0.047***	0.008	$-0.010^{*}$
	(0.003)		(0.005)		(0.004)	(0.006)	(0.005)
	$-0.014^{***}$		-0.013**		$-0.014^{***}$	0.060***	0.073***
	(0.003)		(0.004)		(0.004)	(0.005)	(0.004)
	0.574***		0.534***		0.617***	0.041***	0.060***
	(0.004)		(0.005)		(0.005)	(0.005)	(0.004)
	0.000		0.001		$-0.001^{+}$	0.016***	0.018***
	(0.001)		(0.001)		(0.001)	(0.001)	(0.001)
203.373	178.339	100.710	89.173	102.663	89.166	129.011	144.303
0.055	0.412	0.053	0.371	0.060	0.451	0.127	0.138
					√		5
1	· ·	1	· ·	<i>√</i>	· ·	, ,	, ,
· •		•		✓		√	
	(1) 0.290*** (0.058) -0.358*** (0.058) 203,373 0.055 ✓ ✓	All           (1)         (2) $0.290^{***}$ $0.080^{**}$ $(0.058)$ $(0.024)$ $-0.358^{***}$ $-0.112^{***}$ $(0.058)$ $(0.024)$ $0.000$ $(0.000)$ $(0.000)$ $0.000$ $(0.000)$ $0.000$ $(0.001)$ $0.562^*$ $(0.243)$ $0.014$ $(0.005)$ $0.104^{***}$ $(0.005)$ $0.104^{***}$ $(0.005)$ $0.001^{***}$ $(0.000)$ $0.061^{***}$ $(0.003)$ $0.066^{****}$ $(0.003)$ $0.056^{***}$ $(0.003)$ $0.574^{***}$ $(0.004)$ $0.000$ $(0.001)$ $203.373$ $178.339$ $0.055$ $0.412$ $\checkmark$	All M (1) (2) (3) (0.290*** 0.080** 0.273*** (0.058) (0.024) (0.062) -0.358*** -0.112*** -0.338*** (0.058) (0.024) (0.062) 0.000 (0.000) 0.000 (0.000) 0.000 (0.000) 0.002 (0.001) 0.562* (0.243) 0.014 (0.005) 0.104*** (0.005) 0.104*** (0.005) 0.001*** (0.005) 0.001*** (0.003) 0.574*** (0.003) 0.574*** (0.003) 0.574*** (0.003) 0.574*** (0.004) 0.000 (0.001) 203,373 178,339 100,710 0.055 0.412 0.053 (0.053) (0.053) (0.053) (0.054) (0.004) 0.000 (0.001) 0.055 0.412 0.053 (0.053) (0.053) (0.053) (0.054) (0.005) (0.004) 0.055 0.412 0.053 (0.055) (0.05	All         Men           (1)         (2)         (3)         (4)           0.290***         0.080**         0.273***         0.068*           (0.058)         (0.024)         (0.062)         (0.033)           -0.358***         -0.112***         -0.338***         -0.102**           (0.058)         (0.024)         (0.062)         (0.032)           0.000         0.000         (0.000)           0.000         0.000         (0.000)           0.000         0.000         (0.000)           0.000         0.000         (0.000)           0.000         0.000         (0.000)           0.001         (0.002)         0.562*           0.562*         0.501         (0.243)         (0.333)           0.014         0.017         (0.008)         (0.011)           0.145***         0.105         (0.006)         (0.145***           (0.005)         (0.007)         (0.006)         (0.007)           0.014***         0.106***         (0.003)         (0.005)           0.000         0.001***         (0.003)         (0.005)           0.001         0.003         (0.004)         (0.005)           0.003 <td>All         Men         Wo           <math>(1)</math> <math>(2)</math> <math>(3)</math> <math>(4)</math> <math>(5)</math> <math>0.290^{***}</math> <math>0.080^{**}</math> <math>0.273^{***}</math> <math>0.068^*</math> <math>0.303^{***}</math> <math>(0.058)</math> <math>(0.024)</math> <math>(0.062)</math> <math>(0.033)</math> <math>(0.061)</math> <math>-0.358^{***}</math> <math>-0.112^{***}</math> <math>-0.338^{***}</math> <math>-0.102^{**}</math> <math>-0.375^{***}</math> <math>(0.058)</math> <math>(0.024)</math> <math>(0.062)</math> <math>(0.032)</math> <math>(0.062)</math> <math>0.000</math> <math>0.000</math> <math>0.000</math> <math>0.000</math> <math>(0.000)</math> <math>(0.000)</math> <math>0.000</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>0.000</math> <math>0.000</math> <math>0.000</math> <math>(0.001)</math> <math>(0.002)</math> <math>0.562^*</math> <math>0.501</math> <math>(0.243)</math> <math>(0.333)</math> <math>(0.011)</math> <math>0.145^{****}</math> <math>0.145^{****}</math> <math>0.145^{****}</math> <math>(0.005)</math> <math>(0.007)</math> <math>0.001^{***}</math> <math>(0.005)</math> <math>(0.007)</math> <math>0.001^{***}</math> <math>(0.003)</math> <math>(0.004)</math> <math>(0.005)</math> <math>0.060^{***}</math> <math>0.069^{***}</math> <math>0.069^{***}</math></td> <td>All         Men         Women           (1)         (2)         (3)         (4)         (5)         (6)           0.290***         0.080**         0.273***         0.068*         0.303***         0.092***           (0.058)         (0.024)         (0.062)         (0.033)         (0.061)         (0.028)           -0.358***         -0.112***         -0.338***         -0.102**         -0.375***         -0.121***           (0.058)         (0.024)         (0.062)         (0.033)         (0.062)         (0.028)           0.000         0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.001         (0.002)         (0.021)         0.022           0.052*         0.501         0.596*           (0.233)         (0.232)         0.014         0.017           0.055         (0.005)         (0.006)         0.0066           0.0055         (0.005)         (0.006)         0.001***</td> <td>All         Men         Women         Men           (1)         (2)         (3)         (4)         (5)         (6)         (7)           <math>0.290^{***}</math> <math>0.080^{**}</math> <math>0.273^{***}</math> <math>0.068^{**}</math> <math>0.303^{***}</math> <math>0.092^{***}</math> <math>0.035</math> <math>(0.058)</math> <math>(0.024)</math> <math>(0.062)</math> <math>(0.033)</math> <math>(0.061)</math> <math>(0.028)</math> <math>(0.035)</math> <math>-0.358^{***}</math> <math>-0.112^{***}</math> <math>-0.337^{***}</math> <math>-0.121^{***}</math> <math>-0.335^{***}</math> <math>-0.121^{***}</math> <math>-0.364^{**}</math> <math>(0.058)</math> <math>(0.024)</math> <math>(0.062)</math> <math>(0.032)</math> <math>(0.062)</math> <math>(0.028)</math> <math>(0.036)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.000)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.001)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.001)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.002)</math> <math>(0.003)</math> <math>(0.004)</math> <math>(0.005)</math> <math>(0.006)</math> <math>(0.006)</math> <math>(0.00</math></td>	All         Men         Wo $(1)$ $(2)$ $(3)$ $(4)$ $(5)$ $0.290^{***}$ $0.080^{**}$ $0.273^{***}$ $0.068^*$ $0.303^{***}$ $(0.058)$ $(0.024)$ $(0.062)$ $(0.033)$ $(0.061)$ $-0.358^{***}$ $-0.112^{***}$ $-0.338^{***}$ $-0.102^{**}$ $-0.375^{***}$ $(0.058)$ $(0.024)$ $(0.062)$ $(0.032)$ $(0.062)$ $0.000$ $0.000$ $0.000$ $0.000$ $(0.000)$ $(0.000)$ $0.000$ $(0.000)$ $(0.000)$ $(0.000)$ $0.000$ $0.000$ $0.000$ $(0.001)$ $(0.002)$ $0.562^*$ $0.501$ $(0.243)$ $(0.333)$ $(0.011)$ $0.145^{****}$ $0.145^{****}$ $0.145^{****}$ $(0.005)$ $(0.007)$ $0.001^{***}$ $(0.005)$ $(0.007)$ $0.001^{***}$ $(0.003)$ $(0.004)$ $(0.005)$ $0.060^{***}$ $0.069^{***}$ $0.069^{***}$	All         Men         Women           (1)         (2)         (3)         (4)         (5)         (6)           0.290***         0.080**         0.273***         0.068*         0.303***         0.092***           (0.058)         (0.024)         (0.062)         (0.033)         (0.061)         (0.028)           -0.358***         -0.112***         -0.338***         -0.102**         -0.375***         -0.121***           (0.058)         (0.024)         (0.062)         (0.033)         (0.062)         (0.028)           0.000         0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.000         0.000         0.000         0.000           0.001         (0.002)         (0.021)         0.022           0.052*         0.501         0.596*           (0.233)         (0.232)         0.014         0.017           0.055         (0.005)         (0.006)         0.0066           0.0055         (0.005)         (0.006)         0.001***	All         Men         Women         Men           (1)         (2)         (3)         (4)         (5)         (6)         (7) $0.290^{***}$ $0.080^{**}$ $0.273^{***}$ $0.068^{**}$ $0.303^{***}$ $0.092^{***}$ $0.035$ $(0.058)$ $(0.024)$ $(0.062)$ $(0.033)$ $(0.061)$ $(0.028)$ $(0.035)$ $-0.358^{***}$ $-0.112^{***}$ $-0.337^{***}$ $-0.121^{***}$ $-0.335^{***}$ $-0.121^{***}$ $-0.364^{**}$ $(0.058)$ $(0.024)$ $(0.062)$ $(0.032)$ $(0.062)$ $(0.028)$ $(0.036)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.000)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.001)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.001)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.002)$ $(0.003)$ $(0.004)$ $(0.005)$ $(0.006)$ $(0.006)$ $(0.00$

**Table S1:** Replication of Table 4, focusing on layoffs only in male-dominated mining and manufacturing (as defined in footnote 35). Sample limited to counties with non-zero employment in these industries in prior year. Regressions of validated general election turnout (models 7–8) are also reported.

# T. Full Covariate Results: Table 5

	Pr(Vote for GOP House Cand. = 1)			Pr(Vote for Trump = 1)			Pr(Voted = 1)	
	All	Men	Women	All	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Net shift towards women (st. dev.)	0.095***	0.109***	0.081**	0.053**	$0.052^{+}$	0.055*	0.035	-0.020
	(0.024)	(0.031)	(0.028)	(0.019)	(0.027)	(0.022)	(0.034)	(0.026)
Unemployment rate	-0.005	-0.001	$-0.008^{*}$	0.003	0.003	0.004	$-0.012^{*}$	-0.006
	(0.004)	(0.005)	(0.004)	(0.003)	(0.004)	(0.003)	(0.005)	(0.004)
Male % working age population	1.723***	2.143***	1.420**	1.266***	$0.974^{+}$	1.521***	0.382	$-0.835^{+}$
	(0.473)	(0.649)	(0.550)	(0.382)	(0.539)	(0.445)	(0.656)	(0.459)
Population (ln)	$-0.038^{***}$	$-0.038^{***}$	$-0.037^{***}$	$-0.025^{***}$	$-0.024^{***}$	$-0.025^{***}$	$-0.014^{**}$	-0.004
• · · ·	(0.004)	(0.005)	(0.004)	(0.003)	(0.004)	(0.004)	(0.005)	(0.004)
White	0.140***	0.155***	0.124***	0.158***	0.173***	0.143***	0.073***	0.071***
	(0.010)	(0.014)	(0.012)	(0.010)	(0.013)	(0.011)	(0.013)	(0.009)
Age	0.001***	0.002***	0.001**	0.003***	0.003***	0.002***	0.008***	0.007***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.069***		~ /	0.064***			· · · ·	· · · ·
	(0.005)			(0.005)				
Married	0.067***	0.069***	0.060***	0.050***	0.044***	0.048***	$-0.025^{*}$	$-0.034^{***}$
	(0.006)	(0.009)	(0.007)	(0.006)	(0.009)	(0.007)	(0.012)	(0.008)
College educated	-0.065***	-0.066***	-0.065***	-0.098***	-0.105***	-0.090***	-0.039**	$-0.025^{*}$
8	(0.005)	(0.007)	(0.007)	(0.005)	(0.007)	(0.006)	(0.013)	(0.010)
Republican	0.594***	0.545***	0.643***	0.597***	0.544***	0.648***	0.034**	0.045***
	(0.007)	(0.008)	(0.008)	(0.007)	(0,009)	(0.008)	(0.011)	(0.008)
Family income	0.000	0.001	0.000	0.000	0.001	0.000	0.009***	0.013***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Ν	51,326	23,917	27,409	56,219	26,142	30,077	24,472	28,840
First-stage coefficient	7.52***	7.99***	7.19***	7.63***	8.23***	7.20***	8.97***	8.04***
	(1.10)	(1.34)	(1.18)	(1.13)	(1.43)	(1.14)	(1.61)	(1.18)
F-statistic	1408.0	730.2	693.8	1559.8	809.9	766.2	964.8	977.6
County controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Individual controls	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table T1:** Table 5 with all coefficient estimates reported. Regressions of validated general election turnout in the 2016 general election (models 7–8) are also reported.