# Breadwinner Backlash: The Gendered Effects of Industrial Decline

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Low-skilled men have long been vulnerable to globalization, decarbonization, and other forms of economic disruption. When shocks are realized, women often increase their paid labor to compensate for men's loss of income. We study how layoffs of low-skilled men and concurrent shifts in workforce composition towards women affect voting. We theorize that this labor market rebalancing produces "nostalgic" coalitions of men and women that seek a return to male-breadwinner family models. Such attitudes fuel right-wing movements that pledge to protect conservative gender roles. Evidence from local labor markets and voting in the United States over the last two decades, as well as a longitudinal study tracking individual Americans over several decades, support this theory. These findings contribute a new gender-based account of the globalization backlash.

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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>

These declines heralded a shift in labor market activity within the working class from men to women. Female labor force participation surged in Appalachian coalfields — "the mines ... shut down and the women [went] to work." Across Rust Belt cities, women once out of the labor force entered care-oriented occupations as formerly breadwinning men lost jobs (Winant 2021). The phenomenon of women increasing their paid labor to compensate for men's loss of income is apparent across industrial economies (e.g., Kohara 2010; Cohen 2014; Bredtmann, Otten, and Rulff 2018).

This paper examines the political ramifications of layoffs of low-skilled men and concurrent shifts in local workforce composition towards women.<sup>5</sup> In doing so, it speaks to a growing literature on the politics of labor market segmentation. Scholars have no-

<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).

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

<sup>&</sup>lt;sup>5</sup>We define low-skilled workers as those lacking a college degree. Following prior work (e.g., Gidron and Hall 2017), we see the working class as primarily comprised of low-skilled workers.

tably 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 communities (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 and communities, layoffs of men — and relative improvements in the labor market standing of women — alter the political preferences of both men and women.<sup>6</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 economic distress — male job loss — we argue that labor market shifts towards women instead fuel right-wing political movements looking to restore patriarchal divisions of labor within families. They do so by fomenting grievances relating to social status and material scarcity that render "male-breadwinner family models," and the right-wing politicians that support them (Giuliani 2022, 678), more attractive across affected communities.

We theorize that the force of these status- and scarcity-related drivers varies by gender and class. Status-related grievances principally spread along gender lines, motivating both low- and high-skilled men to move right, including those who personally avoid layoffs. Ample work indicates that men place significant value on the maintenance of

<sup>&</sup>lt;sup>6</sup>We use binary gender language and focus on heterosexual couples following much of the literature on the political economy of gender.

male-breadwinner family models, where husbands outearn wives and sit atop local status hierarchies (Fisman et al. 2006; Bertrand, Kamenica, and Pan 2015; Bush and Clayton 2023). Layoffs of men, and shifts in breadwinning towards women, threaten such hierarchies and men's subjective social status. These fears are plausibly accentuated by shocks to low-skilled men in particular. Industries historically associated with working-class male labor, such as coal and steel, are culturally central to local communities (Bell and York 2010; Kojola 2019; Gaikwad, Genovese, and Tingley 2022). The personal identities of working-class men are often closely tied to their occupations and ability to earn family wages (Lamont 2000; Edin et al. 2019; Hussam et al. 2022). Layoffs of these men and consequent inversion in status quo family models thus challenge low-skilled men's subjective social status. High-skilled men likewise see significant cultural value in low-skilled occupations, viewing the manual labor they involve as uniquely masculine and their survival as important to upholding broader gender hierarchies (Scott 2007, 496; Bush and Clayton 2023; Strangleman 2024). Politicians promoting conservative gender roles thus become more appealing among both low- and high-skilled men as low-skilled men lose work and the balance of economic power tilts towards women.

Scarcity-related drivers of this move to the right principally operate within the working class, affecting both low-skilled men and low-skilled women. For these men, the source of economic grievance is clear: they are directly exposed to job loss. Even those who retain jobs may see layoffs of other low-skilled men as a sign of heightened economic insecurity and erosion in the labor market standing of similarly skilled men (Bennett, Ravetti, and Wong 2021; Cascio and Narayan 2022). Political appeals that emphasize a return to an earlier socioeconomic order, where men earned wages adequate enough to support their wives and family, should thus gain traction with this group.

<sup>&</sup>lt;sup>7</sup>Gidron and Hall 2017, S61 define subjective social status as "the level of social respect or esteem people believe is accorded them within the social order."

For women, growth in paid labor has been linked to more equitable political outcomes (Iversen and Rosenbluth 2006; Brulé and Gaikwad 2021; Gaikwad, Lin, and Zucker 2023). We see this link as unlikely to hold amid the economic distress implied by male job loss. While working-class women's relative earnings grow as they increase their paid labor to make up for husbands' loss of income, absolute levels of household welfare are often in decline (Broz, Frieden, and Weymouth 2021): women provide a larger slice of a shrinking pie. 8 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 their husbands did previously (Latimer and Oberhauser 2004; Scott 2007; Dill and Hodges 2019). Such work is moreover taken on in addition to prior 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). We argue that low-skilled women consequently see a return to male-breadwinner family models as a safer, if suboptimal, route to economic security than mobilization in support of the new, less prosperous economic structure.

We test this theory with longitudinal data on labor markets, 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 community-level effects of low-skilled male job loss and concomitant shifts in workforce makeup towards low-skilled women. Analyses of survey data from the 2000s and 2010s indicate that layoffs of low-skilled men, when coinciding with growth in low-skilled women's workforce share, bolster Republican candidates. Importantly, we identify this relationship among both low-skilled men and low-skilled women, as well as high-skilled men; high-skilled women, who we see as less likely to harbor the aforementioned status- or scarcity-related grievances, do not move right.

<sup>&</sup>lt;sup>8</sup>Marriage typically occurs within class (Schwartz and Mare 2005; Greenwood et al. 2014).

We then consider how shifts in economic activity from husbands to wives affect attitudes within households. 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). We show, first, that working-class women often express more liberal gender attitudes upon increasing their paid labor, as prior work suggests. Critically, however, this effect is negated by decline in aggregate household income, supporting our intuition that economic distress erodes the emancipatory effects of labor force participation. Second, we document that men express greater support for male-breadwinner family models as their wives begin to earn larger shares of household income, pointing to cross-class concern among men about the maintenance of domestic hierarchies. Lastly, we show that support for conservative gender roles is strongly correlated with support for the Republican Party, which has advocated for male-breadwinner family models over the last several decades (Wolbrecht 2000; Strolovitch, Wong, and Proctor 2017; Gillion, Ladd, and Meredith 2020).

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, within the working class, women shift right when men lose work and when women's share of local workforces is simultaneously on the rise. <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 low skill- and carbon-intensive industries predominantly staffed by men. We show that men across classes *and* working-

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

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

class women jointly move right when low-skilled men lose work.

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, 2025). 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 illuminates how macroeconomic change, often owing to broad shifts in the global economy, can similarly empower traditionalist political movements.

## GENDER DIVIDES AMID ECONOMIC 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 industrial decay, finding that status concerns, particularly in native-born white communities, amplify support for right-wing populist politicians (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).

Industries are also polarized by gender, sometimes to a greater extent than by ethnicity or race (Appendix A). Notably, industries in advanced economies that have experienced significant decline in recent decades, such as coal mining and metal manufacturing, are

staffed almost exclusively by men. Growth industries such as healthcare that have taken these declining industries' place in local economies are, by contrast, predominantly female (Winant 2021). These divisions reflect the enduring segmentation of working-class occupations by gender (Evans 2021). We investigate how this gendered polarization of labor markets, and men and women's uneven exposure to layoffs, shapes political responses to economic decline.

Industries reliant on low-skilled male labor historically suppressed female labor force participation and generated substantial wage premia for working-class men, bolstering male-breadwinner family models (Ross 2008; Bennett, Ravetti, and Wong 2021; Cascio and Narayan 2022). We argue that layoffs of working-class men — often stemming from decline in such industries — pushes men of *all* classes, as well as working-class women, to the political right. Layoffs should have this effect particularly when they coincide with growth in low-skilled women's share of local workforces. These concurrent labor market transformations upend domestic divisions of labor, threaten men's subjective social status, and diminish community-level economic stability. This increases the appeal among both men and some women of a return to the social and economic status quo ante.

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

Our central claim is that the combination of low-skilled male job loss and workforce shifts towards women generate status-related and material economic pressures that push communities to the political right. Table 1 summarizes these mechanisms. In short, concerns relating to economic scarcity divide along class lines, while status-related concerns divide by gender. Low-skilled men are cross-pressured, facing both material hardship and status loss. Low-skilled women experience economic strain through household and community-level spillovers. High-skilled men confront cultural threats stemming from the erosion of male-breadwinner family models. High-skilled women, by contrast, are more insulated

from these forms of cultural and economic disruption. Below we elaborate on these mechanisms, and discuss how they vary in causal importance by gender and class.

	Men	Women
Low skilled (non-college educated)	High status concern High scarcity concern	Low status concern High scarcity concern
High skilled (college educated)	High status concern Low scarcity concern	Low status concern Low scarcity concern

**Table 1:** Theorized strength of status- and economic scarcity-related concerns following layoffs of low-skilled men and shifts in workforce composition towards low-skilled women, dividing voters by class (skill) and gender. We argue that these concerns generate support for the political right.

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). Income losses experienced by laid-off men are passed on within the household, diminishing the resources available to family members. The consequences of these spillovers are most severe in households where men are the primary (or sole) income earners and women do the bulk of unpaid labor within the home. Such household structures are common in communities historically anchored by industries that intensively drew upon low-skilled male labor (Ross 2008; Bennett, Ravetti, and Wong 2021).

Women may look to recoup lost household income by entering the workforce in the face of shocks to their husbands. Scholars have notably explored this in the context of war, where men are disproportionately conscripted or killed and women enter into the labor force in their place (Acemoglu, Autor, and Lyle 2004; Tripp 2015). In peacetime, we expect women to similarly become more economically active as husbands lose work. Though working-class men may in some cases be able to compensate for income loss themselves, industry-specific skills and a hesitancy to seek work in subjectively less masculine industries may limit their tendency to actually do so. Conversely, working-class women often take jobs in the care-oriented service industries, such as healthcare, that have

rapidly grown amid decay in male-dominated, low skill-intensive industries (England 2010; Winant 2021).

The entry of women into the labor force has powerful political effects. Studies find that it can narrow 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, 5), 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. Scholars have argued that it is specifically women's entry into high-skilled occupations that augments female political representation (Kenworthy and Malami 1999; Thomsen and King 2020). Amid layoffs of men, however — a context of economic decline — women in the working class are often only able to find work that pays substantially less than what their husbands earned previously (Latimer and Oberhauser 2004; Scott 2007; Dill and Hodges 2019). Women taking low-paying, low-skilled 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 often persist. Indeed, women's gains during wartime, facilitated by a loss of men from local communities, fre-

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

quently 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, particularly in working-class communities, which feature low labor mobility (Ganong and Shoag 2017; Kaplan and Schulhofer-Wohl 2017). Accordingly, shifts in breadwinning induced by layoffs are likely to occur while men remain present in both the household and local community. 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 should stoke already widespread fears of cultural disruption (Margalit 2019), disconcerting those 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, as is common in the working class (Lamont 2000; Bell and York 2010; Kojola 2019) — should fuel men's interest in reviving male-led social hierarchies and divisions of labor. This restorationist impulse should strengthen where this loss of work coincides with growth in women's labor market activity, a starker shock to those valued gender hierarchies. Resultant changes in the marriage market, namely increased divorce rates and diminished marriage prospects for lesseducated and lower-earning men (Iversen and Rosenbluth 2010; Shenhav 2021), should further 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 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-

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

<sup>&</sup>lt;sup>13</sup>We test this assumption below (fn. 20).

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 male job loss (Gilens 1999; Shayo 2009). Men in the working class 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 2024; 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 they are averse to taking welfare.

We argue that these changing gender roles affect the political preferences and voting choice of men across classes. Low-skilled men pay both material and status-related costs as they lose work and as low-skilled women expand their place in the local economy. As economic means of reclaiming subjective social status are often unavailable or unappealing, these men should seek to restore the status quo ante via political mobilization. In the wake of losing breadwinning responsibilities, such men should be drawn to "nostalgic" political candidates — historically situated on the right (van Kersbergen 1995; Wolbrecht 2000) — who pledge to protect domestic structures where men support their families via work outside the home and, part and parcel of this, promise to revive the labor market fortunes of working-class men. 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 and remains central to right-wing populist discourse today (Inglehart and Norris 2016; Giuliani 2022; Anduiza and Rico 2024).

This rightward shift is not limited to low-skilled men personally laid off. Rather, it is likely to be apparent among men across the local economy, both low and high skilled. 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). Observation of low-skilled men losing work may aggravate other low-skilled men's perceptions of labor market risk, which scholars have shown to increase expressions of sexism and support for socially conservative parties (Kim and Kweon 2022; Off 2023). Moreover, the economic costs of decline in these industries are not limited to the men on their payrolls. In times of growth, male-dominated and low skill-intensive industries support the employment and wages of low-skilled 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 and social standing of local low-skilled men.

While low-skilled men incur both cultural and material costs from these labor market shifts, men outside the working class move rightward principally due to aggravated cultural anxieties. Though insulated from the immediate economic ramifications of layoffs, these men derive psychosocial value from a prospering labor market for low-skilled men and growth in the industries in which they work, which reinforce established gender hierarchies

<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 industries reliant on low-skilled male labor, such as coal and steel (Broz, Frieden, and Weymouth 2021; Zucker 2022).

and which are seen as symbols of traditional masculinity (Scott 2007; Bush and Clayton 2023; Strangleman 2024). Visible collapse in the station of working-class men evokes a broad sense of cultural threat, signaling erosion of the status quo social order that men across classes value. Consequently, men outside of the working class should similarly gravitate towards right-wing political movements pledging to protect men's place in the economy and home.

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, 29) likewise interviews men who emphasize a "need to work to support [their] family" and to permit their wives to "be home to raise her child." We expect these attitudes to manifest in votes for right-wing political parties that defend male-breadwinner family models.

**Hypothesis 1.** Layoffs of low-skilled men that coincide with a shift in workforce makeup towards low-skilled women cause men to become more supportive of right-wing political parties.

We argue that women in the working class should also move right as low-skilled men lose work. Such 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 these women support right-wing, traditionalist parties out of discontent with

the new situation of economic 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.

Women in developed democracies have broadly moved to the left in recent decades, which scholars attribute 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 difficult to come by amid decline in low skill-intensive industries, which erodes community-wide wealth and welfare (Broz, Frieden, and Weymouth 2021; Blonz, Roth Tran, and Troland 2023). While working-class women may enter the workforce to substitute for newly unemployed husbands, these women will often struggle to fully replace their husbands' prior earnings. Low-skilled men in industries such as coal and steel were historically well compensated; low-skilled men nearby likewise enjoyed significant wage premia as those industries grew. Women entering service work following decline in those industries earn substantially less (Latimer and Oberhauser 2004; Dill and Hodges 2019).

Women who increase their paid labor as husbands lose work will often encounter 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) — sometimes increasing their alcohol and drug consumption (Dean and Kimmel 2019; Case and Deaton 2020)<sup>16</sup> — aggravat-

<sup>&</sup>lt;sup>15</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>16</sup>A resident of one Appalachian coal community recounts, "When the mines left, [men] all ended up on

ing demands on female breadwinners' time and impeding their conversion of economic autonomy into political gain.

For women able to only partially compensate for husbands' lost income, and who face mounting demands on their time, restoration of the status quo ante should 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, should 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, as in working-class areas (Strøm 2014; Goldin 2021; Hutchinson, Khan, and Matfess 2023). In line with this, sociological work finds that women in advanced economies report lower life satisfaction when they assume breadwinning responsibilities while their husbands are jobless (Inanc 2018; Kowalewska and Vitali 2024).

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.

drugs. And their women went to work" (New York Times, 2019, nyti.ms/3ec0cfG).

Rightward shifts in the local community and household should 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), men — fearing their new subordinate economic position — likely would resist the broad reconceptualizations of the welfare state needed to cement women's newly prominent place in local labor markets. Such communal moves to the right should erode the perceived viability of the new economic structure and dissuade women from mobilizing in its favor. Working-class women may also themselves adopt more patriarchal 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>17</sup>

Low-skilled women with and without laid-off husbands should behave similarly to the extent that they bear an economic cost from layoffs of low-skilled men in the community. Male-dominated and low skill-intensive industries historically distorted local labor markets, generating wage premia for low-skilled men across local industries (Cascio and Narayan 2022) and stunting the development of more gender-equitable industries (Ross 2008). Shocks to low-skilled men, insofar as they stem from decline in such industries, should thus erode perceptions of economic security across working-class house-holds. Moreover, relatively high rates of "benevolent sexism" among working-class 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 may stir cultural anxieties among women as well as men, though work indicates that men tend to be more attentive to threats to gender hierarchies than women (Bush and Clayton 2023).

All such complications should deter mobilization in support of the transformed local

<sup>&</sup>lt;sup>17</sup>Under mounting time constraints, women 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).

economy. For working-class women, a return to the status quo ante advocated for by right-wing parties, where low-skilled men earned high wages and male-breadwinner family models prevailed, should thus be seen as the most realistic means of recovering economic welfare and stability (even if a return to those 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.

An important note is that we do not expect women outside of the working class to similarly move right. Patterns of assortative mating mean that most high-skilled women are partnered with high-skilled men, limiting direct exposure to the economic fallout of layoffs of low-skilled men (Schwartz and Mare 2005; Greenwood et al. 2014). As with low-skilled women, they should also place less cultural value on the maintenance of male-breadwinner family models, especially given the tendency of education to inculcate more egalitarian gender attitudes (Bolzendahl and Myers 2004). High-skilled women may be socialized by increasingly conservative husbands into moving right, but we expect any such shift to be mild given the lack of scarcity-related concerns and weaker attachment to conservative family models.

**Hypothesis 2.** Layoffs of low-skilled men that coincide with a shift in workforce makeup towards low-skilled women cause low-skilled women to become more supportive of rightwing political parties.

In sum, layoffs of low-skilled men tilt the balance of economic activity towards low-skilled women. This labor market transformation stokes fears of cultural upheaval and corresponds with an erosion in economic welfare across the working class. We argue that this syndrome of cultural anxiety and material scarcity pushes men across economic classes, as well as working-class women, towards right-wing political movements that seek a restoration of male-breadwinner, female-homemaker divisions of labor in the home and

community.

### LAYOFFS AND VOTE CHOICE

We test this theory in the United States. We first demonstrate that the combination of layoffs of low-skilled men and growth in women's share of local workforces has pushed men across classes and working-class women to the right. The next section considers the mechanisms underlying these results.

Per our theory, we measure labor market shifts focusing on low-skilled (non-college educated) workers. Our metric of right-wing support is voting 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 promise to revive male-dominated, low skill-intensive industries such as coal and steel. Using individual-level survey data drawn from the Cooperative Election Study, we find that gendered labor market shifts have bolstered Republican support among both college- and non-college educated men, as well as non-college educated women.

In evaluating 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 measure employment conditions at the county level, reflecting the community-level focus of our theory and localized nature of economic disruptions stemming from industrial decline (see Broz, Frieden, and

<sup>&</sup>lt;sup>18</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>19</sup>The first wave of deindustrialization in the U.S. occurred in the late 20th century. Limited data on the gendered character of layoffs and local workforces complicate examination of this period, though we expect the theory to still apply.

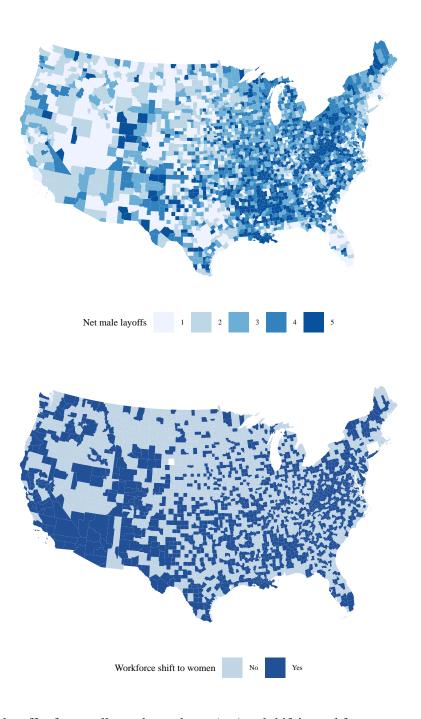
Weymouth 2021). We gather employment data from the Quarterly Workforce Indicators (QWI) of the U.S. Census Bureau, which records high-frequency male and female employment data for each county and industry in the U.S., with coverage of most of the country since the early 2000s. These data, illustrated in Figure 1, reveal pronounced rebalances of labor market activity within the working class across much of the country. Women's share of local low-skilled workforces grew in 46% of counties between 2004–20, with a notable cluster of gains in the coal mining belt of Appalachia occurring alongside significant low-skill male job loss.<sup>20</sup>

#### Estimation

We expect college- and non-college educated men, as well as non-college educated women, to become more supportive of Republican candidates following layoffs of non-college educated men that coincide with an increase in women's share of the non-college educated workforce. To test this, we draw nationally representative survey data on individuals' intended vote choice in House elections from Cooperative Election Study (CES) waves between 2006–20 (Ansolabehere and Schaffner 2017; Kuriwaki 2022). We pair these data with the aforementioned QWI employment data. We measure net layoffs as the sum of job losses in the four quarters preceding survey enumeration in an individual's county, minus job gains in that period, relative to the total number of workers employed in that county in 2004.<sup>21</sup> We measure workforce shifts towards women as a binary indicator of whether net job gains by non-college educated men in the preceding four quarters. Forty-three percent of CES respondents had

 $<sup>^{20}</sup>$ 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>21</sup>QWI defines job gains ("job creation") as the "number of jobs gained at firms" and job losses ("job destruction") as the "number of jobs lost at firms" in a given period (see perma.cc/CS7B-LEZ9).



**Figure 1:** Net layoffs of non-college educated men (top) and shift in workforce composition towards non-college educated women (bottom), 2004–2020. Net layoffs are plotted by quintile; they are calculated as job losses minus job gains, relative to 2004 employment counts. Shift in workforce composition is a binary indicator of whether women's share of employed low-skilled workers grew.

experienced a workforce shift towards women in the year prior to being surveyed.

We estimate the following model by least squares, incorporating CES survey weights:

Vote 
$$\text{GOP}_{icst} = \beta \left[ \text{net male job } \text{loss}_{c(t-1)} \times \text{shift to women}_{c(t-1)} \right] + \gamma \mathbf{X}_{ic(t-1)} + \eta_s + \delta_t + \varepsilon_{icst}$$

where i indexes individuals, c counties, s states, and t quarter-years. The net male job loss and workforce shift variables are restricted to non-college-educated workers in line with our theory. The outcome is a binary indicator for whether an individual stated an intent to vote Republican in the next House election.  $\mathbf{X}$  is a vector of control variables, including the constituent terms of the interaction, as well as the race and age of individual i and party of the sitting House representative for county c. Importantly, we also control for layoffs of college-educated men, interacted with workforce shifts towards women, to isolate the effect of layoffs of non-college educated men from that of broader economic decline.  $\eta_s$  and  $\delta_t$  are state and quarter-year fixed effects, which absorb time-invariant differences across states and nationwide time-varying shocks. We cluster standard errors by county.

Table 2 reports estimation results for all CES respondents, as well as for individuals disaggregated by gender and class (non-college or college educated); marginal effects plots are in Appendix C.<sup>23</sup> These results align with expectations. Across the full sample, we find no sign that net layoffs of non-college educated men increase Republican voting where there has been no gendered shift in workforce composition. Republicans only gain where non-college educated women simultaneously grow their place in the local workforce. Model 2 indicates, for example, that a standard deviation increase in net male layoffs (net layoffs equal to 1% of workforce size in 2004) renders voters 2.2 percentage points more likely to

<sup>&</sup>lt;sup>22</sup>Small numbers of CES respondents within single counties do not permit credible estimation of county fixed effects (see Appendix G). In robustness checks described below, we include commuting zone fixed effects as well as state-by-year fixed effects.

<sup>&</sup>lt;sup>23</sup>We limit these analyses to subjects aged 25 years and older, following the U.S. Census Bureau in its analyses of educational attainment (see, e.g., Census Table B15003, bit.ly/4670xs4).

back Republicans — specifically where low-skilled workforce makeup has shifted towards women. No relationship with intended vote choice is apparent where the gender makeup of the county's workforce has remained steady or become more male. We find no consistent evidence of changes in intended election turnout (Appendix D).

	Pr(Vote for Republican House Candidate = 1)						
	A	.ll	Non-Colle	ege Educated	College Educated		
	All		Men	Women	Men	Women	
	(1)	(2)	(3)	(4)	(5)	(6)	
Layoffs of non-college men (net)	-1.027	0.023	0.193	-0.423	-0.454	1.228+	
	(0.806)	(0.406)	(0.776)	(0.647)	(0.861)	(0.712)	
Workforce shift to non-college women	-0.002	0.004	0.004	0.004	0.003	-0.003	
	(0.009)	(0.005)	(0.007)	(0.006)	(0.008)	(0.008)	
Layoffs of men × shift to women	6.155***	2.279***	2.102*	2.044**	3.378***	0.846	
·	(1.036)	(0.525)	(0.955)	(0.775)	(0.991)	(0.935)	
N	253,653	253,653	70,337	81,404	56,288	45,580	
Adjusted R <sup>2</sup>	0.032	0.150	0.157	0.191	0.113	0.117	
Controls		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

**Table 2:** Least squares regressions of intended votes for Republican House candidates, 2006–2020, on county-level workforce changes in preceding four quarters. Standard errors clustered by county. CES observation weights included. Full covariate results and marginal effects plots in Appendix C.

Results by gender-class group are likewise in line with expectations. Models 3–4 indicate that non-college educated voters, both men and women, are more likely to support Republicans when low-skill male job loss coincides with workforce shifts towards low-skilled women. In that setting, a standard deviation increase in net male layoffs renders non-college educated men 2.2 points and non-college educated women 1.5 points more likely to vote Republican.<sup>24</sup>

<sup>&</sup>lt;sup>24</sup>We find similar results for white and non-white CES respondents (Appendices E and F), though note that they are stronger for non-white non-college educated men than white non-college educated men. This may be due to higher baseline levels of Republican support among the latter (across all analyzed CES waves, 63% of white non-college educated men intended to vote Republican versus 34% of non-white non-college educated men).

Results further show that college-educated men are closely attuned to the labor market standing of non-college educated men (Model 5). For college-educated men, a standard deviation increase in net layoffs of non-college educated men is predicted to boost Republican voting by 2.8 percentage points when occurring alongside growth in women's share of the non-college educated workforce. Importantly, we find no significant relationship with intended vote choice only among college-educated women, who we see as insulated from the economic and status-related costs of working-class labor market transformations. Results of Model 6 suggest that while these women are somewhat more likely to vote Republican following male layoffs, that probability does not significantly vary with changes in women's place in the economy. Our results are robust to adding state-by-year fixed effects, which absorb time-variant statewide shocks, and to specifications with commuting-zone fixed effects, which account for unobserved heterogeneity at the salient labor market unit level (Appendix G).

It is possible that these results conflate layoffs of low-skilled men and shifts in work-force composition with shocks that drive right-wing voting for reasons independent of gender. For example, shocks to coal mining (which may be particularly painful for predominantly male laborers in the industry) might augment Republican support due to the industry's unique cultural value (Bell and York 2010), not the gender of those suffering job loss. To account for this, we re-estimate these models focusing solely on employment changes within mining and manufacturing industries (NAICS 21, 31–33). We obtain consistent results, though do estimate the college-educated women behave similarly as other gender-class cohorts with this alternative specification (Appendix H).

#### **MECHANISMS**

Our results indicate that county-level shocks to low-skilled men's employment, alongside workforce shifts towards low-skilled women, push communities to the right. Low-skilled men — those bearing the direct costs of those shocks — move right. High-skilled men also move right, as do low-skilled women. We theorize that status-related anxieties drive men to the right, while concerns relating to economic scarcity push rightward those in the working class.

We test these mechanisms in two ways. First, we disaggregate subjects in the above CES analyses by labor force status, which allows us to identify voters more or less exposed to the economic costs of labor market upheaval. Second, we draw on a multi-decade longitudinal study to examine how within-household shifts in divisions of labor and income affect support for male-breadwinner family models.

### Disaggregation by Labor Force Status

We theorize that labor market shifts away from low-skilled men increase Republican voting for two reasons. First, voters may bear some material cost from those labor market changes, increasing the appeal of a return to the prior socioeconomic order championed by the right. We expect these material costs to be most pronounced within the working class. Second, voters — specifically, male voters — may interpret those labor market changes as a threat to social status, a sign of unwanted cultural upheaval, and likewise be drawn to Republican promises of protection for male-breadwinner family models. To disentangle these mechanisms, we conduct secondary tests disaggregating CES respondents by their labor force status: whether they are active participants in the labor force (either employed or unemployed), retired, or, in the case of women, homemakers. Retirees should largely be insulated from the material effects of labor market changes, but will still be exposed to their

cultural ramifications (see, e.g., Hainmueller and Hiscox 2006). Table 3 reports subgroup results for the CES analyses described above.

	Pr(Vote for Republican House Candidate = 1)							
	Non-College	e Edu. Men	Non-College Edu. Women			College-Edu. Men		
	Active	Retired (2)	Active (3)	Retired (4)	Homemaker (5)	Active (6)	Retired (7)	
	(1)							
Layoffs of men (net)	-0.156	0.512	0.989	-0.046	-2.933	-0.056	-3.228	
	(0.990)	(1.365)	(0.869)	(1.443)	(1.789)	(1.018)	(1.673)	
Workforce shift to women	0.007	-0.005	-0.001	0.011	0.008	0.002	-0.004	
	(0.009)	(0.011)	(0.008)	(0.011)	(0.015)	(0.009)	(0.013)	
Layoffs of men × shift to women	4.177***	-0.646	0.453	1.796	5.053*	3.444**	3.443+	
•	(1.167)	(1.691)	(1.161)	(1.623)	(2.067)	(1.166)	(2.036)	
N	40,500	21,091	37,704	22,695	9,249	39,215	13,676	
Adjusted R <sup>2</sup>	0.157	0.166	0.204	0.171	0.153	0.113	0.107	
Controls	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

**Table 3:** Replication of Table 2, disaggregating subjects by labor force status at time of survey. "Active" includes employed and unemployed workers; "homemakers" are limited to married subjects. Full covariate results and marginal effects plots in Appendix I.

We theorize that non-college educated men are cross-pressured by material and status concerns. They are directly exposed to deteriorating labor market conditions, and subject to status-related costs by virtue of their gender. Notably, we find that these labor market changes increase Republican voting only among non-college educated men active in the labor force (Model 1). Among retired non-college educated men, we find no indication of a move to the right (Model 2). By contrast, we find evidence of a rightward move among both labor market-active and retired college-educated men — people at significant remove from the economic costs of low-skill layoffs — suggesting that the status-related mechanism is operative (Models 6–7).

While these results should be interpreted cautiously given possible non-random selection into labor force status, they do suggest that high-skilled men may see more cultural value in the labor market standing of low-skilled men than low-skilled men themselves. For low-skilled men, their position in the labor force appears to be more an economic issue than a cultural one. This aligns with findings that cultural backlash to deindustrialization is most apparent among voters at some remove from workers in declining industries (Baccini and Weymouth 2021).

We theorize that non-college educated women principally move right due to material pressures. We find no significant results for non-college educated women active in or retired from the labor force (Models 3–4). We do, however, find a large and statistically significant result for married women identifying as homemakers (Model 5). As homemakers should often be highly dependent upon spousal earnings, we see this result as evidence of material motivations behind non-college educated women's embrace of Republicans. We do not find a commensurate result for college-educated women (Appendix J). We likewise do not find any significant result for unmarried low-skilled women, who are at greater remove from the material repercussions of male layoffs (Appendix K).

# Within-Household Sources of Attitudinal Change

We argue that layoffs of low-skilled men, when occurring alongside a shift in workforce makeup towards women, bolster Republicans by increasing the appeal of male-breadwinner family models. We test this here. To do so, 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>25</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

<sup>&</sup>lt;sup>25</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.

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.<sup>26</sup>

We consider the eight gender attitude questions asked in the 1982, 1987, and 2004 waves of the NLSY79.<sup>27</sup> The questions ask subjects for their preferences around women's role in the family; for example, their level of 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," or, "women are much happier if they stay at home and take care of their children." We aggregate answers to all eight questions into a *z*-score index, where higher values indicate greater support for male-breadwinner, female-homemaker family models (Appendix L provides further detail on the index).

Our first analysis subsets to all married women in the NLSY79 panel. For each married woman, we record the number of weeks they worked in the preceding year, the total income from salaries and wages of themselves and their spouse ("household income"), and the *maximum* income that that couple reported through that year in the NLSY79 panel. The ratio of current real household income to maximum real household income captures the economic state of the household; lower figures indicate that a couple was earning less in a given year than it did previously, adjusting for inflation. We measure entry into year-round labor as a binary indicator of whether an individual worked for the entirety of the preceding year.<sup>28</sup> We then estimate models of the following form by least squares:

Gender attitude<sub>it</sub> = 
$$\beta$$
 [entry into year-round labor<sub>i(t-1)</sub> × HH income ratio<sub>it</sub>] +  $\gamma \mathbf{X}_{it} + \eta_i + \delta_{it} + \varepsilon_{it}$ 

<sup>&</sup>lt;sup>26</sup>The longitudinal structure also permits within-individual analyses, which address potential issues of selective outmigration from distressed local economies (Lim 2023).

<sup>&</sup>lt;sup>27</sup>These encompass all gender attitude questions repeatedly asked in the NLSY79.

<sup>&</sup>lt;sup>28</sup>Across all NLSY79 waves, 49% of married women report working 52 weeks in the prior year versus 70% of married men.

where **X** is a vector of control variables, including the constituent interaction terms as well as individuals' region of residence and educational attainment, and  $\eta_i$  and  $\delta_{it}$  are individual and age fixed effects. We cluster standard errors by individual and include NLSY79 sample weights.

	Support for Male-Breadwinner Family Model				
	All Married Women		Non-College Edu.	College Edu.	
	(1)	(2)	(3)	(4)	
Entry into year-round work	0.187+	0.200+	0.196	0.198	
•	(0.113)	(0.112)	(0.156)	(0.175)	
Ratio of current to peak household income	-0.017	-0.013	0.001	-0.064	
-	(0.063)	(0.063)	(0.085)	(0.103)	
Entry into work $\times$ income ratio	-0.344**	-0.355**	-0.360*	-0.307	
•	(0.125)	(0.123)	(0.176)	(0.189)	
N	5,611	5,549	3,037	2,512	
Adjusted R <sup>2</sup>	0.385	0.389	0.365	0.398	
Controls		<b>√</b>	<b>√</b>	✓	
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Age fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

**Table 4:** Least squares regressions of gender attitude index on binary indicator of a woman's entry into year-round work, interacted with ratio of current household income to the individual's historical maximum household income (while married). Sample limited to married women with NLSY79 observation weights included. Standard errors clustered by individual. Full covariate results and marginal effects plots in Appendix M.

Table 4 reports estimation results for all married women, and for non-college and college-educated women separately. This split-sample approach addresses the possibility that non-college and college-educated women vary in unobserved ways, such as in their baseline gender attitudes. As noted previously, higher values of the outcome index indicate greater support for male-breadwinner, female-homemaker family models.

Across the full sample of married women, we find that year-round employment corresponds to reduced support for such domestic structures when a household is in a stable economic position (a high ratio of current to peak household income). However, this relationship weakens significantly and reverses where household income has declined from its historical peak. Results of Model 2 indicate that among women in the highest tercile of income ratios — household income at least 93% of its historical maximum — entry into year-round labor reduces support for male-breadwinner family models by about 13% of a standard deviation. Among women in the lowest tercile of income ratios, where real household income in a given year was at least 31% below its historical peak, year-round employment has slightly positive and insignificant relationship with conservative gender attitudes. Consistent results are found when using a binning estimator instead of a linear estimator (Appendix M); this binning estimator helps address issues of an uneven distribution of moderator values (Hainmueller, Mummolo, and Xu 2019).

These results indicate, as theorized, that economic distress negates the emancipatory effects of entry into paid labor. These dynamics are clearer among non-college educated women (Model 3) than college-educated women, whose economic situation is less precarious. While point estimates for college-educated women are directionally consistent, they do not reach conventional levels of significance (Model 4). Reduced economic vulnerability to year-to-year income fluctuations among college-educated women, or durable gender attitudes inculcated in college, may account for the latter null result.

We theorize that men are sensitive to within-household divisions of labor, exhibiting more patriarchal gender attitudes when their position as breadwinner erodes. To test this, we analyze all married men in the NLSY79 panel, calculating the difference between the share of household income that a man is currently responsible for and the maximum share that that man was ever responsible for while married. This allows us to capture within-individual erosion in breadwinning status.<sup>29</sup> We regress the gender attitude index on this

 $<sup>^{29}</sup>$ We calculate loss of breadwinning status (decline in % household income earned) for individual i in year t as: [maximum share of household income earned (through year t) $_{it}$ ] — [current share of household income earned $_{it}$ ] As noted above, we limit calculation of maximum income shares to years in which an individual was married.

variable, including individual and age fixed effects as before, as well as the same set of control variables.

	Support for Male-Breadwinner Family Model				
	All Married Men		Non-College Edu.	College Edu	
	(1)	(2)	(3)	(4)	
% decline from peak breadwinning	0.440***	0.456***	0.455**	0.672***	
	(0.118)	(0.117)	(0.142)	(0.173)	
N	1,675	1,662	847	815	
Adjusted R <sup>2</sup>	0.328	0.323	0.267	0.310	
Controls		<b>√</b>	✓	<b>√</b>	
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Age fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

**Table 5:** Least squares regressions of gender attitude index on change in an individual's breadwinning status. Higher values indicate greater reduction in share of household income earned ("breadwinning"). Sample limited to married men with NLSY79 observation weights included. Standard errors clustered by individual. Full covariate results in Appendix N.

Results in Table 5 indicate that men whose share of household income is in decline express greater support for male-breadwinner family models. Results for Model 2 imply that across all married men, a 20-percentage point reduction in income share increases support for such family models by 9% of a standard deviation. These findings are in line with a large body of work holding that men prefer to outearn spouses (Fisman et al. 2006; Bertrand, Kamenica, and Pan 2015; Folke and Rickne 2020). Importantly, non-college and college-educated men respond similarly to growth in spousal earnings (Models 3–4). As suggested here and in the preceding CES analyses, men across classes see value in the maintenance of male-breadwinner family models.

Coarse geographic identifiers in NLSY79 data do not permit analyses of whether the observation of nearby men losing breadwinning status augments conservative gender attitudes, as we theorize. But existing empirical work indicates such observations increase expressions of support for male-breadwinner family forms and exacerbate stigmatization

of inverted gender roles (Epstein 2004). Lamont (2000), for example, documents men's interest in "policing" class and gender boundaries, where they explicitly distinguish themselves from unemployed men whom they view "as lazy and as having no dignity because they are not self-reliant" (147).

Support for male-breadwinner family models strongly correlates with support for the Republican Party.<sup>30</sup> Questions on party identification were asked solely in the 2008 wave of the NLSY79. Regression analyses of this wave show that people who express greater support for male-breadwinner family models are significantly more likely to identify as Republican. These results are consistent across classes and among men and women (Appendix O). While these analyses are cross-sectional, they do suggest that shifts in breadwinning roles in contexts of economic distress support moves to the right. This is consistent with repeated 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 economic decline. We argue that the combination of low-skilled male layoffs and shifts in workforce composition towards women drives communities to the right. Men proximate to such labor market transformations 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, working-class 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

<sup>&</sup>lt;sup>30</sup>The NLSY79 did not regularly collect information on subjects' political attitudes, preventing a longitudinal analysis of political outcomes.

of recovering economic welfare. In support of these claims, we bring to bear evidence on intended vote choice, household divisions of labor, and gender attitudes in the U.S. over several decades. We find that layoffs of low-skilled men, when coinciding with growth in low-skilled women's workforce share, bolster the standing of the Republican Party with both men across economic classes and low-skilled women. We likewise find that shifts in within-household gender roles were historically associated with increased expressions of support for male-breadwinner family models, a strong correlate of Republican identification.

Our findings are notable amid an ongoing move by the U.S. right to reaffirm maleled domestic structures (Leach 2020). This paper helps make sense of the support rightwing parties find among women and men, speaking to scholarly debates over the antiglobalization 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 (Margalit 2019). Working-class men have experienced sharp erosion in their labor market standing in recent decades (Binder and Bound 2019). Consequent fears around upturned gender hierarchies are an important source of discontent amid this economic disruption.

This paper also clarifies the conditions under which economic tumult bolsters the political right. Our argument aligns with the literature showing that shocks to employment buttress rightist movements (Baccini and Weymouth 2021; Ballard-Rosa et al. 2021; Milner 2021). This paper suggests that layoffs of men in isolation do not tilt communities towards the right. Rather, it is the coincidence of layoffs with a rebalancing of economic power from men to women that lays the foundation for right-wing gains.

Our results, which show why women sometimes favor conservative politicians, are also 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 conditions of economic distress in post-industrial communities to be more mild, women's general leftward shift may be more pronounced today.

Our theory should generalize to cases marked by the presence of parties pledging a return to male-oriented household and industrial orders. It may be particularly applicable to mono-economies, where single male-dominated, low skill-intensive industries were once dominant in the local community; elsewhere, more gender-equitable industries may limit the extent to which layoffs disproportionately afflict either men or women. 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-term responses to layoffs. 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 male-breadwinner 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 labor markets 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, low skill-intensive fossil fuel industries (Bush and Clayton 2023). Our results indicate that gender-based concerns about cultural upheaval may fuel broad backlash to macroeconomic change, including those spurred by climate change mitigation. Gendered differences in exposure to labor market tumult is a fundamental aspect of how communities experience, cope with, and respond to economic change.

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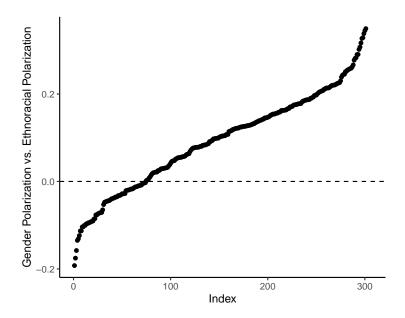
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# **APPENDICES**

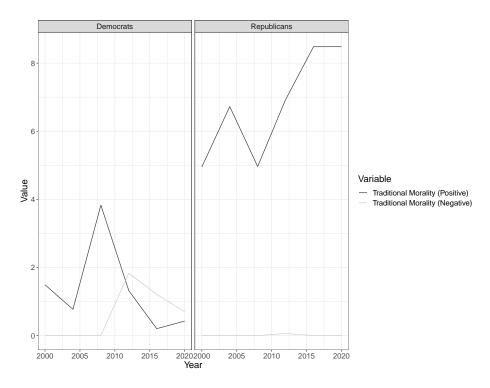
A.	Workforce Polarization by Gender vs. Ethnicity/Race	2
	Traditional Values in Party Manifestos	
C.	Vote Choice: Full Covariate Results for Table 2	4
D.	Vote Choice: Intended Turnout	6
E.	Vote Choice: Results by Race (White)	7
F.	Vote Choice: Results by Race (Nonwhite)	8
G.	Vote Choice: Alternative Fixed Effects Specifications	9
H.	Vote Choice: Employment Changes within Mining and Manufacturing	12
I.	Vote Choice: Full Covariate Results for Table 3	13
J.	Vote Choice: College-Educated Women by Labor Force Status	15
	Vote Choice: Unmarried Low-Skilled Women	
L.	Gender Attitudes: NLSY79 Gender Attitude Index	17
	Gender Attitudes: Full Covariate Results for Table 4	
N.	Gender Attitudes: Full Covariate Results for Table 5	20
O.	Gender Attitudes: Party Identification Results	21

#### 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

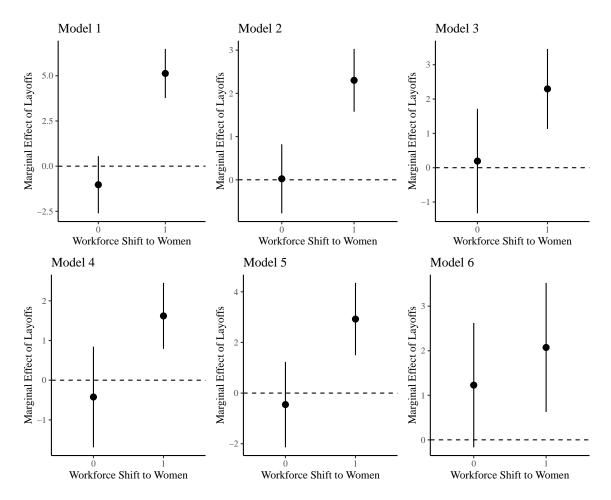


**Figure B1:** Differences in party manifestos in emphasis on traditional morality (from Comparative Manifesto Project), which includes maintenance and stability of the traditional family as a value (with the woman as the homemaker).

# C. Vote Choice: Full Covariate Results for Table 2

	Al	7	Non-Colleg	ge Educated	College Educated	
	All		<u> </u>		o o	
	Al	ll .	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Layoffs of non-college men (net)	-1.027	0.023	0.193	-0.423	-0.454	1.228+
	(0.806)	(0.406)	(0.776)	(0.647)	(0.861)	(0.712)
Workforce shift to non-college women	-0.002	0.004	0.004	0.004	0.003	-0.003
	(0.009)	(0.005)	(0.007)	(0.006)	(0.008)	(0.008)
Layoffs of men × shift to women	6.155***	2.279***	2.102*	2.044**	3.378***	0.846
	(1.036)	(0.525)	(0.955)	(0.775)	(0.991)	(0.935)
Layoffs of college-educated men (net)	-1.441	0.193	0.619	0.442	0.370	-0.213
	(1.525)	(0.618)	(1.632)	(1.248)	(0.653)	(0.657)
Layoffs of coledu. men × shift to women	-10.597***	-4.889***	-4.252*	-3.923*	-6.502***	-2.523
•	(2.105)	(0.959)	(2.056)	(1.654)	(1.596)	(1.515)
Incumbent party $(1 = R)$		0.249***	0.231***	0.269***	0.219***	0.236**
		(0.006)	(0.008)	(0.008)	(0.009)	(0.009)
White		0.240***	0.270***	0.302***	0.145***	0.157**
		(0.009)	(0.011)	(0.010)	(0.009)	(0.010)
Age		0.002***	0.003***	0.002***	0.003***	0.000*
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	253,653	253,653	70,337	81,404	56,288	45,580
Adjusted R <sup>2</sup>	0.032	0.150	0.157	0.191	0.113	0.117
Controls		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table C1:** Table 2 with all covariate results reported. Controls reported under dashed line.



**Figure C1:** Marginal effects of layoffs of non-college educated men (Table 2). 95% confidence intervals plotted. Calculated via Arel-Bundock, Greifer, and Heiss (2024).

## **D.** Vote Choice: Intended Turnout

	Pr(Intended Turnout in Next Election = 1)						
	All		Non-College Educated		College Educated		
	A	All	Men	Women	Men	Women	
	(1)	(2)	(3)	(4)	(5)	(6)	
Layoffs of non-college men (net)	-0.482*	-0.477*	-0.788	-0.211	-0.113	-0.446+	
	(0.227)	(0.230)	(0.549)	(0.239)	(0.206)	(0.244)	
Workforce shift to non-college women	-0.001	0.000	-0.001	0.001	0.000	0.000	
	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	
Layoffs of men $\times$ shift to women	-0.161	-0.259	0.153	-0.307	0.502+	0.264	
· 	(0.297)	(0.290)	(0.594)	(0.312)	(0.267)	(0.332)	
Layoffs of college-educated men (net)  Layoffs of coledu. men × shift to women	0.824*	0.916*	1.521*	0.698+	0.038	0.231	
	(0.371)	(0.393)	(0.738)	(0.419)	(0.194)	(0.169)	
Layoffs of coledu. men $\times$ shift to women	0.127	0.289	-0.227	-0.399	-0.999*	-0.140	
	(0.501)	(0.505)	(0.936)	(0.605)	(0.471)	(0.475)	
Incumbent party $(1 = R)$		-0.003*	0.001	-0.003	0.000	0.001	
		(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	
White		0.017***	0.016***	-0.001	0.025***	0.021***	
		(0.002)	(0.003)	(0.003)	(0.003)	(0.002)	
Age		0.002***	0.002***	0.002***	0.001***	0.001***	
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
N	428,911	428,911	116,288	156,120	81,957	74,485	
Adjusted R <sup>2</sup>	0.803	0.806	0.784	0.750	0.934	0.889	
Controls		✓	✓	✓	✓	✓	
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

**Table D1:** Replication of Table 2, replacing intended vote choice outcome with intent to turnout in next election. Controls reported under dashed line.

# **E.** Vote Choice: Results by Race (White)

	All		Non-College Educated		College Educated	
	A		Men Women		Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Layoffs of non-college men (net)	0.311	0.493	0.756	-0.855	0.530	2.442**
•	(0.646)	(0.414)	(0.837)	(0.655)	(0.818)	(0.803)
Workforce shift to non-college women	0.005	0.003	-0.002	0.008	0.006	-0.001
<u> </u>	(0.007)	(0.005)	(0.008)	(0.006)	(0.009)	(0.009)
Layoffs of men × shift to women	3.351***	1.622**	0.910	2.230**	1.972*	-0.286
,	(0.814)	(0.541)	(1.045)	(0.833)	(0.994)	(1.046)
Layoffs of college-educated men (net)	-1.006	0.026	0.305	1.460	0.298	-0.757
	(1.282)	(0.658)	(1.782)	(1.296)	(0.615)	(0.964)
Layoffs of coledu. men × shift to women	-7.440***	-4.195***	-2.723	-3.762+	-5.642***	-1.761
•	(1.759)	(1.043)	(2.244)	(1.924)	(1.601)	(1.819)
Incumbent party $(1 = R)$		0.235***	0.206***	0.268***	0.203***	0.221***
		(0.007)	(0.008)	(0.008)	(0.010)	(0.010)
Age		0.003***	0.003***	0.002***	0.003***	0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	196,150	196,150	55,958	62,519	44,721	32,919
Adjusted R <sup>2</sup>	0.041	0.092	0.081	0.106	0.095	0.094
Controls		<b>√</b>	✓	✓	<b>√</b>	✓
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table E1:** Table 2, sample limited to white respondents. Controls reported under dashed line.

# F. Vote Choice: Results by Race (Nonwhite)

	Ai	!!	Non-Colleg	ge Educated	College Educate	
	A		Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Layoffs of non-college men (net)	-1.430	-0.861	-0.728	1.409	-3.223	-3.031
•	(1.039)	(0.901)	(1.708)	(1.534)	(2.777)	(1.210)
Workforce shift to non-college women	0.004	0.003	0.025+	-0.012	-0.007	-0.007
C	(0.011)	(0.008)	(0.015)	(0.011)	(0.015)	(0.014)
Layoffs of men × shift to women	6.550***	3.868***	4.402*	0.376	8.304**	4.181*
•	(1.159)	(1.042)	(1.974)	(1.786)	(2.908)	(1.788)
Layoffs of college-educated men (net)	-0.351	0.670	3.120	-3.315	-0.524	1.504*
	(1.399)	(1.049)	(3.399)	(2.723)	(3.929)	(0.735)
Layoffs of coledu. men × shift to women	-11.360***	-6.919***	-9.347*	-2.223	-9.871*	-4.701
	(2.087)	(1.672)	(4.238)	(3.136)	(4.847)	(2.851)
Incumbent party $(1 = R)$		0.258***	0.269***	0.241***	0.252***	0.251**
		(0.010)	(0.015)	(0.014)	(0.015)	(0.015)
Age		0.002***	0.002***	0.002***	0.003***	0.001*
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	57,503	57,503	14,379	18,885	11,567	12,661
Adjusted R <sup>2</sup>	0.053	0.126	0.140	0.143	0.106	0.116
Controls		<b>√</b>	✓	✓	✓	✓
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table F1:** Table 2, sample limited to non-white respondents. Controls reported under dashed line.

#### **G.** Vote Choice: Alternative Fixed Effects Specifications

The models in Table 2 include state and quarter-year fixed effects, helping to address unobserved threats to inference that vary geographically and temporally. This implies that identification comes from within-state, over-time differences across counties, assuming no confounding county-specific shocks. Here we report results with two alternative fixed effects specifications to reduce concerns about potential confounding factors. First, we replace state fixed effects with commuting zone fixed effects. Commuting zones are groups of counties that may cross state boundaries, but are generally smaller in size than states; we collect commuting zone definitions from the U.S. Department of Agriculture (perma.cc/U9H6-BU7D). Second, we replace state and quarter-year fixed effects with a single state-by-year fixed effects term, which helps account for state-specific shocks. Results are consistent with commuting zone and quarter-year fixed effects (Table G1), as well as with state-by-year fixed effects (Table G2).

Note that we are not able to reliably estimate results with *county* fixed effects due to there being few CES respondents in most individual counties. Across all CES waves from 2006–2020, the median county had 34 observations versus 213 for the median commuting zone and 6,239 for the median state.

	Pr(Intended Vote for Republican House Candidate = 1)						
	All		Non-College Educated		College Educate		
	A	.11	Men	Women	Men	Women	
	(1)	(2)	(3)	(4)	(5)	(6)	
Layoffs of non-college men (net)	-1.174*	-0.217	-0.262	-0.411	-1.078	0.840	
	(0.554)	(0.373)	(0.754)	(0.627)	(0.826)	(0.712)	
Workforce shift to non-college women	-0.001	0.001	0.005	0.000	0.001	-0.007	
	(0.006)	(0.004)	(0.007)	(0.006)	(0.008)	(0.007)	
Layoffs of men × shift to women	4.319***	1.934***	1.976*	1.874*	2.705**	-0.365	
•	(0.726)	(0.490)	(0.951)	(0.757)	(0.959)	(0.920)	
Layoffs of college-educated men (net)	-0.339	0.373	1.556	0.294	0.440	-0.151	
	(0.918)	(0.539)	(1.579)	(1.214)	(0.593)	(0.650)	
Layoffs of coledu. men × shift to women	-7.671***	-3.950***	-4.188*	-3.505*	-4.725**	-0.354	
•	(1.521)	(0.912)	(2.025)	(1.616)	(1.572)	(1.434)	
Incumbent party $(1 = R)$	, ,	0.231***	0.216***	0.249***	0.211***	0.218**	
1 , , ,		(0.007)	(0.009)	(0.009)	(0.009)	(0.010)	
White		0.237***	0.267***	0.301***	0.144***	0.154**	
		(0.008)	(0.010)	(0.010)	(0.010)	(0.010)	
Age		0.002***	0.003***	0.002***	0.003***	0.001*	
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
N	253,653	253,653	70,337	81,404	56,288	45,580	
Adjusted R <sup>2</sup>	0.068	0.159	0.169	0.204	0.126	0.138	
Controls		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
Commuting zone fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Quarter-year fixed effects	✓	✓	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

**Table G1:** Table 2 with commuting zone and quarter-year fixed effects. Controls reported under dashed line.

	All		Non-College Educated		College Educated	
	Al	1	Men Women		Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Layoffs of non-college men (net)	-1.074	0.097	0.407	-0.382	-0.376	1.189
-	(0.820)	(0.419)	(0.797)	(0.656)	(0.860)	(0.734)
Workforce shift to non-college women	-0.005	0.001	0.001	0.003	0.001	-0.007
	(0.009)	(0.005)	(0.007)	(0.006)	(0.008)	(0.009)
Layoffs of men × shift to women	6.436***	2.319***	2.006*	1.950*	3.844***	1.730+
	(1.038)	(0.538)	(0.969)	(0.781)	(1.032)	(0.975)
Layoffs of college-educated men (net)	-1.719	-0.108	-0.033	0.264	-0.011	-0.285
•	(1.680)	(0.657)	(1.704)	(1.307)	(0.707)	(0.617)
Layoffs of coledu. men $\times$ shift to women	-10.732***	-4.417***	-3.765+	-3.308*	-6.376***	-2.759
	(2.199)	(0.989)	(2.096)	(1.682)	(1.441)	(1.541)
Incumbent party $(1 = R)$		0.253***	0.233***	0.273***	0.229***	0.242**
		(0.006)	(0.008)	(0.008)	(0.009)	(0.009)
White		0.238***	0.268***	0.299***	0.144***	0.156**
		(0.008)	(0.011)	(0.010)	(0.009)	(0.010)
Age		0.002***	0.003***	0.002***	0.003***	0.000+
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	253,653	253,653	70,337	81,404	56,288	45,580
Adjusted R <sup>2</sup>	0.039	0.154	0.164	0.196	0.120	0.126
Controls		✓	✓	✓	✓	✓
State-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	✓	$\checkmark$	$\checkmark$

**Table G2:** Table 2 with state-by-year fixed effects. Controls reported under dashed line.

#### H. Vote Choice: Employment Changes within Mining and Manufacturing

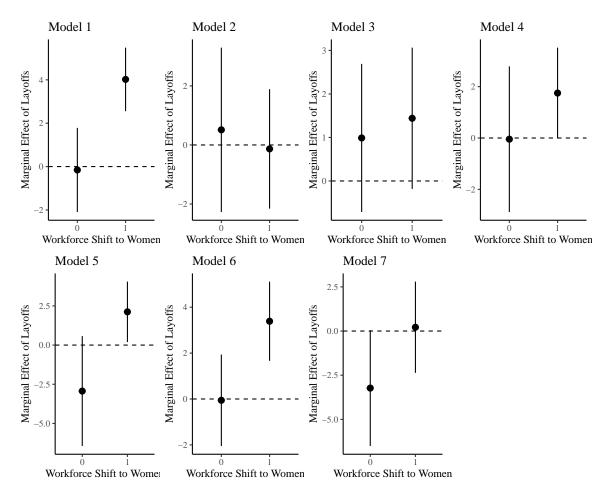
	Al	l	Non-College Educated		College Educate	
	Al	1	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Layoffs of non-college men (net)	-1.633***	-0.801*	-0.749	-0.717+	-0.804	-0.670
	(0.483)	(0.316)	(0.471)	(0.395)	(0.592)	(0.602)
Workforce shift to non-college women	0.007	0.008	0.010	0.005	0.005	0.010
_	(0.009)	(0.005)	(0.008)	(0.007)	(0.009)	(0.009)
Layoffs of men × shift to women	3.472***	1.768***	1.309*	1.732***	1.406*	1.903**
•	(0.595)	(0.387)	(0.572)	(0.461)	(0.695)	(0.726)
Layoffs of college-educated men (net)	0.065	0.256	0.976	0.125	0.809	-1.253
,	(1.057)	(0.707)	(1.085)	(0.899)	(0.977)	(1.276)
Layoffs of coledu. men $\times$ shift to women	-3.418*	-1.718+	-1.203	-1.686	-2.005	-1.020
	(1.394)	(0.900)	(1.365)	(1.179)	(1.290)	(1.522)
Incumbent party $(1 = R)$		0.247***	0.229***	0.268***	0.222***	0.234**
		(0.007)	(0.008)	(0.008)	(0.009)	(0.009)
White		0.239***	0.272***	0.300***	0.141***	0.158**
		(0.009)	(0.012)	(0.011)	(0.010)	(0.010)
Age		0.002***	0.003***	0.002***	0.003***	0.001*
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	236,248	236,248	64,952	74,810	53,267	43,177
Adjusted R <sup>2</sup>	0.030	0.150	0.157	0.192	0.114	0.117
Controls		<b>√</b>	✓	<b>√</b>	<b>√</b>	✓
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Quarter-year fixed effects	✓	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table H1:** Table 2, with employment variables measured solely for mining and manufacturing industries (NAICS 21, 31–33). Controls reported under dashed line. Sample limited to counties with at least 1,000 workers employed in those industries in 2004.

## I. Vote Choice: Full Covariate Results for Table 3

		Pr(Vote	e for Republic	an House Car	ndidate = 1)		
	Non-Colleg	e Edu. Men	Non-	-College Edu.	Women	College-Edu. Men	
	Active	Retired	Active	Retired	Homemaker	Active	Retired
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Layoffs of men (net)	-0.156	0.512	0.989	-0.046	-2.933	-0.056	-3.228+
	(0.990)	(1.365)	(0.869)	(1.443)	(1.789)	(1.018)	(1.673)
Workforce shift to women	0.007	-0.005	-0.001	0.011	0.008	0.002	-0.004
	(0.009)	(0.011)	(0.008)	(0.011)	(0.015)	(0.009)	(0.013)
Layoffs of men $\times$ shift to women	4.177***	-0.646	0.453	1.796	5.053*	3.444**	3.443+
•	(1.167)	(1.691)	(1.161)	(1.623)	(2.067)	(1.166)	(2.036)
Layoffs of college-educated men (net)	0.931	0.006	-0.975	-1.547	6.961+	0.380	3.000
, ,	(2.054)	(2.772)	(1.790)	(2.603)	(4.013)	(0.632)	(3.203)
Layoffs of coledu. men $\times$ shift to women	-7.523**	-0.511	-1.476	-2.093	-12.948*	-7.313***	-4.069
•	(2.578)	(3.586)	(2.380)	(3.019)	(5.174)	(1.721)	(4.807)
Incumbent party $(1 = R)$	0.227***	0.228***	0.278***	0.256***	0.261***	0.222***	0.210***
	(0.010)	(0.013)	(0.009)	(0.013)	(0.017)	(0.010)	(0.014)
White	0.263***	0.327***	0.299***	0.314***	0.267***	0.141***	0.177***
	(0.012)	(0.020)	(0.012)	(0.019)	(0.019)	(0.010)	(0.019)
Age	0.004***	0.004***	0.003***	0.003***	-0.000	0.004***	0.004***
•	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)
N	40,500	21,091	37,704	22,695	9,249	39,215	13,676
Adjusted R <sup>2</sup>	0.157	0.166	0.204	0.171	0.153	0.113	0.107
Controls	<b>√</b>	✓	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

**Table I1:** Table 3 with all covariate results reported. Controls reported under dashed line.



**Figure I1:** Marginal effects of layoffs of non-college educated men (Table 3). 95% confidence intervals plotted. Calculated via Arel-Bundock, Greifer, and Heiss (2024).

# J. Vote Choice: College-Educated Women by Labor Force Status

	Pr(Vote for	Republican Ho	ouse Candidate =
	C	College-Educate	ed Women
	Active	Retired	Homemaker
	(1)	(2)	(3)
Layoffs of men (net)	1.211	1.602+	4.146
	(0.952)	(0.963)	(3.259)
Workforce shift to women	-0.005	0.004	0.007
	(0.009)	(0.015)	(0.025)
Layoffs of men $\times$ shift to women	1.977+	-0.057	-7.138+
	(1.188)	(1.759)	(3.785)
Layoffs of college-educated men (net)	0.154	-0.667	-4.226
	(0.551)	(0.783)	(5.280)
Layoffs of coledu. men $\times$ shift to women	-3.883*	-1.962	11.641+
	(1.856)	(2.633)	(6.937)
Incumbent party $(1 = R)$	0.238***	0.187***	0.203***
	(0.010)	(0.016)	(0.026)
White	0.142***	0.207***	0.155***
	(0.010)	(0.020)	(0.029)
Age	0.001***	-0.002*	0.001
	(0.000)	(0.001)	(0.001)
N	29,882	8,870	3,605
Adjusted R <sup>2</sup>	0.118	0.115	0.094
Controls	✓	<b>√</b>	<b>√</b>
State fixed effects	$\checkmark$	$\checkmark$	$\checkmark$
Quarter-year fixed effects	$\checkmark$	$\checkmark$	$\checkmark$

**Table J1:** Table 3, extended to college-educated women. Controls reported under dashed line.

## K. Vote Choice: Unmarried Low-Skilled Women

	Pr(Vote for Republican House Candidate = 1)
	(1)
Layoffs of men (net)	0.892
•	(1.603)
Workforce shift to women	-0.009
	(0.014)
Layoffs of men × shift to women	2.607
	(2.052)
Layoffs of college-educated men (net)	-5.643+
	(3.178)
Layoffs of coledu. men $\times$ shift to women	0.304
·	(4.237)
Incumbent party $(1 = R)$	0.226***
	(0.015)
White	0.274***
	(0.014)
Age	0.000
	(0.000)
N	10,567
Adjusted R <sup>2</sup>	0.207
Controls	✓
State fixed effects	$\checkmark$
Quarter-year fixed effects	$\checkmark$
+p < .1, *p < .05, **p < .01, ***p < .001	

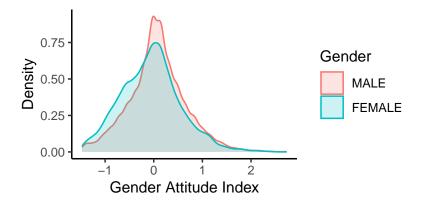
**Table K1:** Table 3, limited to non-college educated women listed as "single / never married." Controls reported under dashed line.

#### L. Gender Attitudes: NLSY79 Gender Attitude Index

The gender attitude index was calculated using all eight gender attitude questions repeatedly asked in the NLSY79 (Cronbach's alpha = 0.75). These questions are listed below. The answer options for each question were 1- strongly disagree, 2- disagree, 3- agree, 4-strongly agree. To calculate the z-score index, we standardized answers to each question and then took the mean of the standardized answers for each NLSY79 subject.

- 1. A woman's place is in the home, not in the office or shop.
- 2. A wife who carries out her full family responsibilities doesn't have time for outside employment.
- 3. A working wife feels more useful than one who doesn't hold a job. [Answers inverted in calculation of index.]
- 4. Employment of wives leads to more juvenile delinquency.
- 5. Employment of both parents is necessary to keep up with the high cost of living. [Answers inverted in calculation of index.]
- 6. 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.
- 7. Men should share the work around the house with women, such as doing dishes, cleaning, and so forth. [Answers inverted in calculation of index.]
- 8. Women are much happier if they stay at home and take care of their children.

On average, men score higher on the index (indicating greater support for male-breadwinner family models) than women. Men's mean score is +0.08; women's is -0.06 (a significant difference: t-test p < 0.001). See Figure L1.

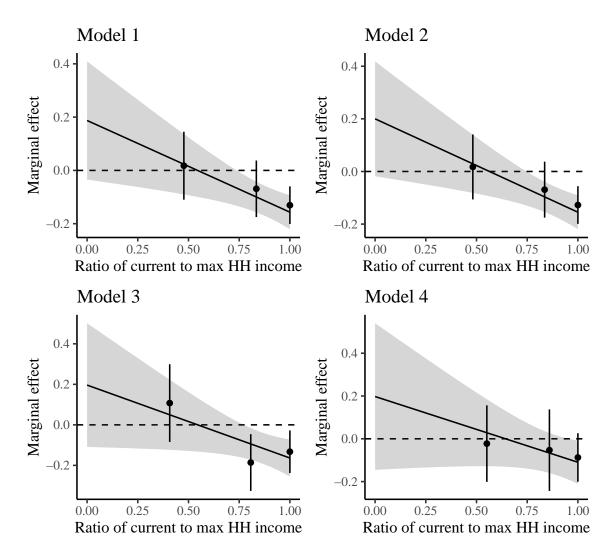


**Figure L1:** Density of NLSY79 gender attitude index values by gender. Higher values indicate greater support for male-breadwinner, female-homemaker family models.

## M. Gender Attitudes: Full Covariate Results for Table 4

	Support for Male-Breadwinner Family Model						
	All Marri	ed Women	Non-College Edu.	College Edu.			
	(1)	(2)	(3)	(4)			
Entry into year-round work	0.187+	0.200+	0.196	0.198			
	(0.113)	(0.112)	(0.156)	(0.175)			
Ratio of current to peak household income	-0.017	-0.013	0.001	-0.064			
	(0.063)	(0.063)	(0.085)	(0.103)			
Entry into work $\times$ income ratio	-0.344**	-0.355**	-0.360*	-0.307			
	(0.125)	(0.123)	(0.176)	(0.189)			
Region = Northeast		0.014	-0.251	0.224*			
_		(0.103)	(0.186)	(0.109)			
Region = South		-0.013	-0.158	0.123			
_		(0.093)	(0.144)	(0.124)			
Region = West		-0.027	-0.017	0.050			
		(0.095)	(0.162)	(0.118)			
Educational attainment		-0.016	0.016	-0.023			
		(0.013)	(0.041)	(0.019)			
N	5,611	5,549	3,037	2,512			
Adjusted R <sup>2</sup>	0.385	0.389	0.365	0.399			
Controls		<b>√</b>	✓	<b>√</b>			
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Age fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			

**Table M1:** Table 4 with all covariate results reported. Controls reported under dashed line.



**Figure M1:** Marginal effects of women's entry into year-round work on gender attitudes (Table 4). Positive values indicate greater support for male-breadwinner family models. 95% confidence intervals plotted. The three points are marginal effect estimates obtained via the binning estimator of Hainmueller, Mummolo, and Xu (2019).

# N. Gender Attitudes: Full Covariate Results for Table 5

	Support for Male-Breadwinner Family Model						
	All Married Men		Non-College Edu.	College Edu			
	(1)	(2)	(3)	(4)			
% decline from peak breadwinning	0.260***	0.256***	0.270***	0.188**			
1	(0.045)	(0.044)	(0.067)	(0.068)			
Region = Northeast		-0.020	-0.222	0.112			
		(0.142)	(0.276)	(0.164)			
Region = South		0.151	-0.024	0.192			
_		(0.095)	(0.172)	(0.130)			
Region = West		0.184+	0.028	0.222*			
_		(0.094)	(0.282)	(0.089)			
Educational attainment		0.014	-0.145*	0.028			
		(0.026)	(0.069)	(0.026)			
N	4,184	4,147	2,421	1,726			
Adjusted R <sup>2</sup>	0.355	0.358	0.337	0.412			
Controls		<b>√</b>	✓	<b>√</b>			
Individual fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Age fixed effects	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			

**Table N1:** Table 5 with all covariate results included. Controls reported under dashed line.

#### O. Gender Attitudes: Party Identification Results

	Pr(Republican Identification = 1)								
	<i>All</i> All		Non-College Edu.		College Edu.				
			Men	Women	Men	Women			
	(1)	(2)	(3)	(4)	(5)	(6)			
Gender attitude index	0.202***	0.209***	0.096*	0.216***	0.242***	0.251**			
	(0.017)	(0.017)	(0.046)	(0.034)	(0.038)	(0.027)			
Region = Northeast		-0.067*	-0.071	0.026	-0.150*	-0.079			
		(0.032)	(0.072)	(0.065)	(0.069)	(0.055)			
Region = South		0.007	-0.042	0.046	-0.048	0.061			
		(0.025)	(0.056)	(0.050)	(0.051)	(0.045)			
Region = West		-0.076*	0.085	0.013	-0.220***	-0.134*			
		(0.031)	(0.073)	(0.062)	(0.063)	(0.052)			
Educational attainment		0.012**	0.038	0.045	-0.004	0.007			
		(0.005)	(0.024)	(0.029)	(0.004)	(0.010)			
Age		-0.001	0.003	-0.012	0.005	0.004			
		(0.005)	(0.010)	(0.009)	(0.009)	(0.008)			
Household income		0.000***	0.000***	0.000**	0.000	0.000			
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)			
N	2,912	2,868	623	681	653	911			
Adjusted R <sup>2</sup>	0.055	0.076	0.043	0.095	0.091	0.109			
Controls		<b>√</b>	<b>√</b>	✓	<b>√</b>	✓			

**Table O1:** Regressions of Republican Party identification (0/1) on the gender attitude index (measuring support for male-breadwinner family models) for NLSY79 respondents in 2008. Models estimated by ordinary least squares with NLSY79 sample weights included. Robust standard errors parenthesized. Controls reported under dashed line.