

BRIDWELL INSTITUTE WORKING PAPER SERIES



**Economic Freedom vs. Gender Equality
Mandates: Which is More Effective at Improving
Women's Labor Market Outcomes?**

Rosemarie Fike, *Texas Christian University*

Abigail R. Hall, *University of Tampa*

Economic Freedom vs. Gender Equality Mandates: Which is More Effective at Improving Women's Labor Market Outcomes?

Rosemarie Fike^{''}

Abigail R. Hall[†]

When it comes to achieving gender equality in labor markets, which is more effective—laws targeting equality over the outcome or a set of institutions that creates greater equality over permission to participate? A growing number of countries have adopted legal mandates that directly attempt to achieve greater gender parity in the labor market. These mandates range from “family-friendly” laws that require firms to offer paid maternity leave and restrict them from being able to fire women for being pregnant to more intrusive policies that impose gender quotas on corporate boards. Regardless of their form, gender equality mandates restrict economic freedom by imposing constraints on the decisions that employers can make regarding who to hire, what payment to offer, and what benefits they are required to provide. It is important then to consider whether economic freedom itself exerts a meaningful impact on women's labor market outcome. This paper explores the impact that each of these policy strategies has on several measures of women's performance in the labor market. We find that higher levels of economic freedom are associated with lower unemployment rates for women, fewer women engaged in vulnerable employment, higher levels of human capital for female workers, and a larger percentage of females who are employers. We also find that while gender mandates may improve women's labor force participation rates, they have little to no impact on other labor market outcomes we examined. In addition, the empirical evidence suggest that gender mandates work best when in an environment of economic freedom. Finally, our SGMM estimates provide some causal evidence that more economic freedom is associated lower unemployment rates, lower vulnerable employment, and greater labor force participation for women.

JEL CODES: J16, J7, J29

^{''} Email: rosemarie.fike@tcu.edu. Address: Department of Economics, Texas Christian University, TCU Box 29851 Fort Worth, TX 76129

[†] Email: ablanco@ut.edu. Address: Department of Economics, University of Tampa, 401 W. Kennedy Blvd., Box O. Tampa, FL 33606.

1 Introduction

In 2018, the Governor of California signed SB 826 into law. The bill required that, by the end of 2019, business incorporated in the state, or businesses with principal executive offices in the state have a minimum of one female on its board of directors. By the end of 2021, the bill required boards to have a minimum of two female members if the boards consisted of five members. Boards comprised of six or more directors would be required to have at least three women (SB-826, 2018). In May 2022, the Los Angeles Superior Court overturned the law, citing a violation of the equal protection clause under the state's constitution (Shepherd 2022). It's expected this ruling will be appealed.

While California is the first U.S. state to mandate that companies include more women in their management and on their boards, they are far from the first to implement such policies. Norway adopted such policies in 2003. Eight European countries—Belgium, France, Italy, Germany, Austria, Portugal, Greece, and the Netherlands—have similarly adopted mandatory gender quotas for listed companies. In 2022, European Commissioner President Ursula von der Leyen sought to revive a 2012 proposal that would impose gender quotas across the European Union. In October of that year, the European Council gave final approval to legislation that requires companies listed on European stock exchanges to have at least 40 percent of non-executive directors or at least 33 percent of directors be women. If selecting between equally qualified candidates for a position, the new law mandates that boards prioritize under-represented candidates (Council of the EU 2022).

The rationale behind such mandates generally pertains to ideas surrounding equity, social justice, and a long history of gender discrepancies in labor markets. Women's labor force

participation on a global scale has remained largely stagnant for some three decades. The World Bank (2022) notes that “[w]omen are less likely to work for income or actively seek work. The global labor force participation rate for women is just over 50% compared to 80% for men. Women...have fewer opportunities for business expansion or career progression. When women do work, they earn less.” Though data is preliminary, research suggests that work stoppages related to the COVID-19 pandemic were greater for women than men in developing nations across *all* categories—regardless of age, education level, or whether women were located in urban or rural areas (Kugler et al. 2021).

Gaps remain between men and women work at the highest levels. According to data from the OECD, women are woefully underrepresented in corporate boardrooms. A mere 16 percent of board members in the top 500 multinational enterprises (MNEs) by market capital are women. Only twelve percent of board members in technology are women. The sector with the most female board members—consumer non-cyclicals (household items)—boasted 20 percent female membership. Only one in twenty of the top 500 MNEs had female board representation above 30 percent (Organization for Economic Development and Cooperation 2020).

There may be other benefits to gender diversity on corporate boards as well. Though the evidence is mixed, many studies have found positive economic benefits to more gender-diverse boards. Wowak et al. (2020), for example, found that firms with more female members recalled defective or dangerous products much faster than boards without such representation. This has implications for consumer safety but may also benefit companies as voluntary recalls are preferable to involuntary ones. In an analysis of 500 Australian companies, Vafaei et al. (2020) found that boards with more female participation saw more innovation activities than those with less. These results held across industrial classifications. Kim and Starks (2016) find evidence the

gender-diverse boards may increase firm value by bringing unique skills that are otherwise absent. Groening (2018) found that when firms had both a male CEO and board chair with homogenous (male) boards, adding women to the board were associated with higher returns.

Female representation on corporate boards is not the only area of focus for gender parity in labor markets. “Family-friendly” policies like restrictions on firing pregnant employees and mandated paid maternity leave are all aimed at increasing women’s labor force participation and aimed at achieving gender equity and are fairly common globally.

Although it may be beneficial to both women and firms to see more women in the workforce and more gender diversity at the highest levels of management, the move to mandate gender diversity, or even gender parity, is not without controversy. Many have pointed out that diversity programs—whether “hard policies” like mandating women on corporate boards or in legislatures, or “soft policies” like diversity training, have in many cases had little effect on diversifying many workplaces or reducing biases (see Dobbin and Kalev 2016, Fitzsimmons 2012, Sacchet 2018). Dobson and Rastad (2018) reject the idea of diversity quotes altogether. In many countries, there is open hostility to these policies.

These policies also necessarily restrict economic freedom by imposing constraints on the decisions that employers can make regarding who to hire, what payment to offer, and what benefits they are required to provide. It is important then to consider whether economic freedom itself exerts a meaningful impact on women’s labor market outcome. The purpose of this paper is to explore the impact that each of these policy strategies has on achieving greater gender equality in the labor market. In this paper, we engage in a comparative institutional analysis in an effort to address several key questions. When it comes to increasing diversity, what is better, policies targeting *equality of outcome*, or policies targeting *equality of opportunity*? Do women fare better

in labor markets when their presence is mandated, or when they are granted the same permission to compete in the labor market as their male counterparts and are able to make their own choices? To that end, we employ panel data regression techniques to empirically examine this question, utilizing data from the Fraser Institute's Economic Freedom of the World Index (EFW), Freedom House's Political Rights and Civil Liberties Indices, as well as data from the World Bank's Women, Business, and the Law Report and the World Development Indicators.

We contribute to three primary strands of literature. The first of these literatures is the literature on gender in labor markets. This vast literature includes analyses of gender pay disparities (see Blau and Kahn 2017, Weichselbaumer and Winter-Ebmer 2005 for examples), the aforementioned discussions related to gender imbalances on corporate boards, and the effects of maternity leave on women's labor force outcomes (see Bergemann and Riphahn 2023, Del Rey et al. 2021 for examples), among many other topics. We contribute to this literature by analyzing the effects of different institutional regimes on various labor market outcomes. In particular, we evaluate how economic freedom impacts women's labor force participation, unemployment rates, rates of vulnerable employment, the percentage of female workers who are employers.

The second body of literature relates to economic freedom and women's outcomes. Adname (2015) analyzed the effects of economic freedom on women in the Middle East and North Africa and make the case for policies that are both market friendly and gender sensitive. Discussing data from Pakistan, Awan and Akbar (2018) found that women's economic freedom was positively associated with economic growth. Cebula and Alexander (2015), found that higher levels of economic freedom were associated with an increase in female labor force participation for women over the age of 65. Within this literature, our work most closely relates to that of Fike (2017, 2019, 2020), who has analyzed at length the impact of economic freedom on gender disparities,

specifically considering things like freedom of movement, freedom to work, legal status, rights of private property ownership, and freedom of movement. We contribute to this literature by analyzing the effects of economic freedom and “gender mandates” (i.e., government mandates related to issues of gender in labor markets) on women’s labor market outcomes.

Third and finally, this paper contributes to the larger literature on comparative institutional analysis. This large body of literature—applied to everything from the experience of disabled students in higher education (Berggren et al. 2015) to surveillance capitalism (see Alshamy et al. 2023) seeks to understand how differing institutional structures shape the incentives and interactions of actors within them. It emphasizes how differing institutional arrangements may lead to radically different outcomes—even if the same policy is implemented. This type of analysis has previously been applied to issues related to women in labor markets. Weiss et al. (1976), utilize cross-national data to understand how differing institutional structures affect women’s employment in positions of authority and employment more generally. Grosvold et al. specifically apply comparative institutional analysis to the study of women on corporate boards, and suggest that family, education, government, and economic structures contribute to women’s board participation, but do not find impacts related to religious institutions. We contribute to this literature by examining how our labor market outcomes change under differing institutional regimes. Specifically, we analyze how women perform in arenas of relative freedom versus arenas of relative economic restriction. Our analysis controls for additional measures of institutional quality such as the extent to which political rights and civil liberties are protected. Finally, we control for the impact of family-friendly policies such as mandated maternity, paternity, and parental leave as well as female-oriented government mandates like gender quotas for corporate

boards and equal pay mandates and examine the interaction between these mandates and the broader set of economic institutions in which they are being implemented.

The rest of the paper proceeds as follows. Section 2 provides an overview of our data and methodology. Section 3 discusses our findings. Section 4 concludes.

2 Data and Methodology

It has long been posited that markets act as a civilizing force. In *Spirit of the Laws*, Montesquieu (1748: 346), stated “Commerce is a cure for the most destructive of prejudices; for it is almost a general rule, that wherever we find agreeable manners, there commerce flourishes.” Similar ideas were echoed by Adam Smith. In *Letters on Jurisprudence* (2011: 458), he explicitly notes how market interactions serve as a check on behavior. “A dealer is afraid of losing his character and is scrupulous in observing every engagement. When a person makes perhaps 20 contracts in a day, he cannot gain so much by endeavoring to impose on his neighbors. The very appearance of a cheat would make him lose.”

The idea that markets encourage virtuous behavior has become known as the *doux commerce* thesis. Contemporary scholars have expanded and continued with this idea. McCloskey (2006: 30), for instance, highlights seven “Bourgeois virtues” associated with markets which include traits such as justice, courage, temperance, and prudence. She notes, “Capitalists ended slavery and emancipated women and founded universities and rebuilt churches, none of these for material profit...Bourgeois virtues led us from terrified hunter bands and agricultural villages to peaceful suburbs and lively cities...Commerce may have lowered the spirit of the proud noble, Voltaire noted with little regret...but it sweetened and elevated the rude peasant.” Bruni and Sugden (2013) suggest that the *telos* of market-based interaction is mutually beneficial exchange. As such, they offer several traits “properly or consistently viewed as praiseworthy within the

practice of the market” (*Ibid*: 153). These traits include universality, enterprise and alertness, respect for the preferences of one’s trading partners, trust, and the acceptance of competition, among others.

More recently, Storr and Choi (2019) take another look at the *doux commerce* thesis. Combining theoretical and empirical treatments, they contend that markets allow for, and ultimately *reward* moral behavior and the building of community. Importantly for our analysis, Storr and Choi find that market societies tend to have less income inequality than non-market societies and offer more opportunities for social mobility. Further, people living in market-oriented societies are found to be more tolerant of members of historically marginalized groups such as homosexuals (Beggren and Nilsson 2013) and racial minorities (Wright 2022) which lends support for the claim that economic freedom provides a means to dismantle discriminatory social orders.

The idea that markets may reduce discrimination and incentivize inclusion is not exclusive to the aforementioned scholars. Becker (1957), for instance, argues that markets provide a disincentive to engage in discriminatory behavior. Engaging in discrimination of any sort (e.g., racial, gender, age, etc.) results in costs for the individuals being discriminated against *and* the person(s) discriminating against them. Assuming that actors are rational and self-interested, Becker argued that markets would tend to *reduce* discrimination. While the freedom of markets may allow for economic actors to more easily engage in taste-based discrimination, whereby an actor may refuse to interact with a person or group based on some characteristic (e.g., a misogynist would refuse to interact with women because he dislikes them), these actors will not indulge these preferences without cost. Further, non-discriminating employers can increase their profits by employing those against whom other employers may discriminate. He concluded that while

markets were unlikely to eliminate taste-based discrimination, more expansive markets are likely to observe less discrimination.

We hypothesize that women living in countries with greater levels of economic freedom will perform better in the labor market than women living in economically unfree countries. Specifically, we expect higher levels of economic freedom to be associated with greater labor market participation for women, greater job security, and a stronger incentive to invest in higher levels of human capital and pursue entrepreneurial endeavors. We expect this relationship to remain even after controlling for other types of institutions, the level of economic development, and the existence of explicit mandates that target improvements in the labor market.

2.1 Dependent Variables¹

Female Labor Force Participation Rate (% of female population ages 15-64): This captures the percentage of the total female, working-age population that either has a job or is actively seeking work. We expect that in societies with greater levels of economic freedom there will be more opportunities for women to participate in the labor market and fewer restrictions on the types of job opportunities women may pursue. In the face of expanded opportunities, we expect more women to be participating in the labor force in places that have greater economic freedom.

Unemployment Rate for Women (% of female labor force): This refers to the percentage of the total female labor force that is actively looking for work but has not been able to find it. We expect that in an environment of relative economic freedom, labor markets will be operate more efficiently, the scope of the market will be wider allowing for a greater division of labor and job

¹ All dependent variables examined in this analysis are obtained from the World Bank's World Development Indicator database. Each variable is examined for 165 countries from 1990 to 2020.

opportunities that are more abundant and easier to pursue. As such, we expect greater levels of economic freedom to be associated with a lower overall rate of unemployment for women.

Unemployment Rate for Women with Advanced Education (% of female labor force with advanced education): This measures the unemployed percentage of the female labor force who has completed some form of tertiary education or training. We also expect economic freedom to be associated with lower rates of unemployment for women with advanced education. Since increased economic freedom means that people have greater control over where they live and what kind of work they do, this should allow for a more efficient labor market search/matching process.

Percentage of Female Workers Engaged in Vulnerable Employment (% of total female employment): Vulnerable employment refers to workers who are self-employed with no employees as well as workers who are part of producer cooperatives or unpaid family workers. These types of jobs typically offer very little financial security, as vulnerable workers are likely to have informal working arrangement that offer them little protection in the event of adverse economic conditions. We expect greater levels of economic freedom to create more jobs with formal labor contracts. As such, we predict greater economic freedom will be associated with a smaller percentage of women engaged in vulnerable work.

Human Capital Index for Female Workers (0-1 Scale): This variable provides a measure of worker productivity by estimating the relative health and educational attainment of an average female worker in a given country. A score of “1” indicates that the average female worker in that country is in perfect health and is fully educated. Scores closer to “0” indicate that the average worker is lacking in formal knowledge and skills and suffers from health problems that hinder their ability to be productive workers. When economic freedom is restricted, labor market opportunities for women will be more limited. If job prospects are more limited, the incentive to

invest in higher levels of education are weakened as the return to that investment falls. For example, Geddes et al. (2012) found that when the law changes to grant women property rights, people are more likely to invest in the education of their daughters. We expect greater economic freedom to be associated with higher levels of human capital accumulation.

Female Employers (% of total female employment): This measures the percentage of all female workers who are classified as self-employed (either a sole proprietor or with partners) and have at least one employee working for them on a continuous basis. Economic freedom expands the scope of the market and creates more opportunities for people to gain from mutually beneficial exchanges. Market-oriented institutions that protect property rights, have freely moving price signals, and allow for the profit and loss mechanism to operate can better communicate key information to economic decision makers. These feedback mechanisms put people in a better position to identify productive entrepreneurial opportunities and economic freedom grants them the permission to act on the profit opportunities they notice. Thus, we expect higher levels of economic freedom to be associated with a larger percentage of women to engage in this type of entrepreneurship.

2.2 Independent Variables

Economic Freedom of the World Index (Fraser Institute): Our main explanatory variable of interest in this analysis is a measure of economic freedom. Higher EFW index scores indicate that the economic activity of that society is largely governed by the spontaneous order of the market and the government is not a major player in determining the direction of markets. Property rights are well protected, barriers to enter and compete in markets are low, monetary policy is stable, international trade policies are open, and the regulatory climate is not burdensome to

entrepreneurs. As stated above, we expect economic freedom to have a positive coefficient when examining women's labor force participation rate, their human capital index scores, and the percentage of females who are employers. We expect a negative coefficient, however, when looking at the unemployment rates and the percentage of female workers who are engaged in vulnerable work. As shown in Table 1, the standard deviation for the EFW variable is about 1 unit, so the coefficient for this variable can effectively be interpreted as the impact that a one standard-deviation increase in EFW score would have on the dependent variable in question.

Gender Mandate Index (World Bank - Woman, Business, and the Law Report): A main contribution of this study is that it examines the impact of *both* economic freedom and gender mandates on women's labor market performance. We use several questions contained in the World Bank's *Women, Business, and the Law Report* to create our gender mandate controls. A country gets a score of "0" if the answer to the question below is "No" and it gets a "1" if the answer is "Yes".

1. Does the law mandate equal remuneration for work of equal value?
2. Is paid leave of at least 14 weeks available to mothers?
3. Does the government administer 100% of maternity leave benefits?
4. Is there paid leave available to fathers?
5. Is there paid parental leave?
6. Is dismissal of pregnant workers prohibited?
7. Are there mandate gender quotas for corporate boards?

First, we constructed an aggregated Gender Mandates Index (GMI) by taking a simple average of each country's score across all seven gender mandate questions. Higher scores on the GMI indicate a larger number of gender mandates are in place in those countries. If gender mandates help improve labor market outcomes for women, then we should observe a positive coefficient for women's labor force participation rate, their human capital index scores, and the percentage of females who are employers. We should see a negative coefficient, however, when it

comes to both unemployment rates and the percentage of female workers who are engaged in vulnerable employment. If gender mandates are costly and hinder women's labor market performance, we should observe the opposite².

Natural Log of Per Capita Income (World Bank - World Development Indicators): Several scholars have posited that women's ability to enter the labor force depends, at least in part, on the overall level of economic development achieved by society (see for example, Goldin 1995, Gaddis 2013)). At higher levels of economic development, people are able to consume more output which, all other things equal, should result in a higher demand for labor. This ought to improve labor market prospects for women. We use the natural log of per capital GDP in lieu of the level of per capita GDP so that the variable can be interpreted as growth rates.

It has been established in the literature that economic freedom exerts a positive *causal* impact on both the level of per capita income and income growth (Hall and Lawson 2014, and Lawson 2022). Because of this, the coefficient on our income variable is likely to absorb most of the effect that economic freedom has on the dependent variables when both are included in a regression specification.

In short, economic freedom has both a direct impact on the dependent variables and an indirect impact that operates through the channel of higher living standards. To ensure that the coefficient on our EFW variable estimates economic freedom's full impact our dependent variables, we first estimate a regression that uses all explanatory variables to estimate per capita income, we capture the residuals for that regression, and then use those residuals in our main analysis to control for the level of development. The coefficient on the per capita income residuals

² As a robustness check, we use both the aggregated GMI value and the full set of disaggregated dummy variables in our analysis. Table 2 in the next section depict the results of the regression analysis that uses the aggregated GMI scores. The results of the regression specifications estimated using the disaggregated dummy variables are reported in Table 3.

essentially shows the *pure* effect that per capita income has on the dependent variable in that the effect that economic institutions, political institutions, civil liberties, and gender mandates might exert through the channel of per capita income are separated out³.

If higher levels of development help improve labor market outcomes for women, then we should observe a positive coefficient for women's labor force participation rate, their human capital index scores, and the percentage of females who are employers. We should see a negative coefficient, however, when it comes to both unemployment rates and the percentage of female workers who are engaged in vulnerable employment.

Political Rights Index (Freedom House): Economic institutions are not the only relevant set of rules that might affect women's labor market outcomes. Political institutions may also matter. Democratic institutions that provide women with a means to voice their political preferences might result in an environment that is friendlier to women in the workforce. Our measure of political institutions is the Political Rights Index produced by Freedom House. Unlike our measure of economic freedom, higher numbers on this index indicate lower levels of political freedom. If more democratic political institutions help improve labor market outcomes for women, then we should observe a negative coefficient for women's labor force participation rate, their human capital index scores, and the percentage of females who are employers. We should see a positive coefficient, however, when it comes to both unemployment rates and the percentage of female workers who are engaged in vulnerable employment.

Civil Liberties Index (Freedom House): The extent to which people can speak freely and exchange ideas without fear of being silenced can also affect women's ability to make their

³ Since this process of using estimated residual values as an explanatory variable introduces a source of error into the analysis, regressions were calculated using both bootstrapped standard errors as well as the robust standard errors clustered around each country. The robust clustered standard errors provided more conservative estimates of statistical significance so that is what is reported and discussed here.

preferences and opinions known. Further, limitations to civil liberties could present a challenge to any social change movements that push for the kinds of changes in gender norms that might lead to greater gender equality in the labor market. Like the Political Rights Index, the Civil Liberties Index is measured such that lower values indicate greater protection of civil liberties. If greater protection of civil liberties helps improve labor market outcomes for women, then we should observe a negative coefficient for women's labor force participation rate, their human capital index scores, and the percentage of females who are employers. We should see a positive coefficient, however, when it comes to both unemployment rates and the percentage of female workers who are engaged in vulnerable employment. Table 1 depicts the summary statistics and for the set of variables used in our empirical analysis.

[Insert Table 1 Here]

3 Results

Using fixed effects regression techniques on a panel 165 countries from 1990-2020, we estimate the relationship between economic freedom and the other explanatory variables on six different measures of women's labor market performance. Including country-level fixed effects controls for any unobserved, unchanging country-level characteristics that are not explicitly accounted for in our set of control variables such as geographical characteristics and slow-moving aspects of cultural norms that are challenging to measure. We employ two main estimation strategies: Fixed Effects Panel Regression (using both the Gender Mandates Index and the disaggregated Gender Mandate Dummy Variables) and System Generalized Methods of Moments (using only the Gender Mandate Index)

3.1 Contemporaneous and Lagged EFW in Fixed Effects Panel Regressions with Gender Mandate Index

The first set of regression specifications we estimate focus on EFW and the Gender Mandates Index.

Equation (1) depicts the baseline regression specification that includes our key explanatory variables for each country, i , and each year, t , and includes country-level fixed effects, c_i .

$$(1) Dep Var_{it} = \beta_0 + \beta_1 EFW_{it} + \beta_2 LNPCGDP_{it} + \beta_3 GMI_{it} + \beta_4 PR_{it} + \beta_5 CL_{it} + c_i + u_{it}$$

Equation (2) shows our second regression specification which includes dummy variables for each year to control for relevant time trends that could be exerting an influence on our dependent variables.

$$(2) Dep Var_{it} = \beta_0 + \beta_1 EFW_{it} + \beta_2 LNPCGDP_{it} + \beta_3 GMI_{it} + \beta_4 PR_{it} + \beta_5 CL_{it} + \beta_6 YearDummy_t + c_i + u_{it}$$

The final specification is provided in Equation (3), which adds an interaction term to our previous specification. This interaction term is included to examine whether gender mandates are more (or less) effective when they exist in an environment that is otherwise economically free.

$$(3) Dep Var_{it} = \beta_0 + \beta_1 EFW_{it} + \beta_2 LNPCGDP_{it} + \beta_3 GMI_{it} + \beta_4 PR_{it} + \beta_5 CL_{it} + \beta_6 EFW_{it} * GMI_{it} + \beta_7 YearDummy_t + c_i + u_{it}$$

The coefficient on the interaction term, β_7 , can be interpreted as the impact that economic freedom and gender mandates work together to have on our dependent variable of interest. The other coefficients must be interpreted carefully, as the interaction term changes the meaning of the coefficients for both the EFW and the GMI. In this specification, β_1 tells us the impact of EFW on the dependent variable conditional on GMI being zero. There are many observations in the dataset for which the GMI is equal to zero, so this is not unrealistic. The coefficient on β_6 , however, does

not have a comparably realistic interpretation, as there are no observations in the sample for which the EFW score is equal to zero.

Each of these specifications is estimated three different times. First, using a measure of economic freedom that is contemporaneous with the dependent variables. Next, to begin to address questions of causality, we also examine the impact that *past* levels of economic freedom have on current measures of women's performance in the labor market. Changes in institutional quality may take time to exert an impact on the labor market choices that people make. In this section, addition regression specifications are estimated for each dependent variable using versions of the EFW index that are lagged by five and 10 years. using a version of the EFW index that is lagged by five years. Finally, using a version of the EFW index that is lagged by ten years. Table 2 summarizes these regression results.

[Insert Table 2 Here]

Contemporaneous EFW Results

The relationship between economic freedom and the labor force participation rate for women is not robust. The sign and significance of the coefficient on EFW is incredibly sensitive to the choice of specification and appears to have a sign that is opposite of what is expected. The gender mandate variables, however, seem to have a largely positive and statistically significant impact on women's labor force participation rates, indicating that gender mandates may help get women into the labor force. In addition, the positive coefficient on the interaction between economic freedom and gender mandates suggest that these gender mandates work better when in an institutional environment that embraces economic freedom.

These results, however, show a statistically significant relationship between economic freedom and the unemployment rate that is fairly consistent across all specifications. We can see

that a one-standard deviation increase in economic freedom is associated with a decrease in the unemployment rate for women of anywhere between 0.68 and 1.03 percentage points. The interaction between EFW and the GMI is highly statistically significant and has a negative coefficient. However, the gender mandate index is only significant in specification (3), and it has the incorrect sign. This suggests that in the absence of economic freedom, gender mandates would increase the unemployment rate for women. Per capita income growth is also strongly associated with lower rates of unemployment for women. Surprisingly, democratic political institutions are associated with higher levels of unemployment for women, though the statistical significance is marginal.

When we examine the impact of economic freedom and gender mandates on unemployment rate for women with advanced education, a similar pattern emerges. In all but one specification, economic freedom is significant at the 1% level and has a negative coefficient suggesting that a one-standard deviation increase in economic freedom is correlated with a decrease in the unemployment rate for females with advanced educational training of between 1.67 and 2.42 percentage points. Improvements in living standards are also strongly significant at the 1% level in every specification and have the expected negative coefficients. The Gender Mandate Index is only significant in one specification, and it has the incorrect sign, suggesting that higher scores on the gender mandates index are associated with greater unemployment rates for women with advanced education. The interaction between economic freedom and gender mandates is not significant.

Turning next to the percentage of employed women who are engaged in vulnerable work, once again, the pattern of results is similar to the results for the unemployment rates. For two out of three specifications, the EFW index is both negative and significant at the 1% level. This

suggests that a one-standard deviation increase in the EFW score is associated with a decrease in the percentage of women working in vulnerable forms of employment of anywhere between 1.64 and 2.93 percentage points. The GMI is only marginally significant at the 10% level in one specification, and it loses significance as soon as time fixed effects are included. The measure of per capita income is also significant in all specifications with a negative coefficient indicating that higher levels of development are associated with a small portion of the workforce employed in vulnerable work.

When the dependent variable is the women's human capital index (on a scale of 0 -1), regardless of the specification, a one-standard deviation higher level of economic freedom is associated with an increase in the human capital score of anywhere between 0.0244 and 0.0408 points. This relationship is significant at the 1% level in all three specifications. Both the income per capita measure and the gender mandate index are significant at the 1% level in specification (1), both have the anticipated sign, but they both lose their significance as soon as time dummy variables are included.

Finally, when it comes to the percentage of female workers who are employers, economic freedom has a positive coefficient and is significant at the 1% level in all three specifications. This suggests that a one-standard deviation increase in a country's economic freedom score is associated with an increase in the percentage of female workers who are employers by about 0.19 percentage points. In all three specifications, higher per capita incomes are also associated with anywhere between a 0.3810 and 0.4671percentage point increase in the percentage of female employers. The gender mandate index is not statistically in any of the specifications.

Lagged EFW Results

Next, we turn to the relationship between a country's EFW score five and 10 years ago and the current labor force participation rates for women. What we see here is consistent with the contemporaneous results. Past EFW has a stronger relationship with women's labor force participation rates than the current level of EFW did, though this relationship does not appear to be robust. In specification (1), economic freedom is significant at the 1% level and has a positive sign. However, when the interaction between past EFW and current gender mandates is included, the coefficient on EFW becomes negative, the coefficient on the gender mandate index becomes highly significant and negative, and the interaction term is positive and significant at the 1% level. This suggests that gender mandates are likely to work better in an environment of economic freedom.

Turning to the relationship between past economic freedom and the unemployment rate for all women, we see that the previously observed relationships lose their significance. EFW is only statistically significant in one specification (at the 1% level), but it always has a negative coefficient. The gender mandate index is only significant when the interaction terms are included, and it has a positive coefficient indicating that gender mandates are associated with increased unemployment rates. The interaction terms are always negative and significant, suggesting once again that while gender mandates on their own tend to increase unemployment for women, they work better within an institutional context of economic freedom.

The level of economic freedom five years in the past still has a statistically significant negative relationship with the unemployment rate for women with advanced education. The only time the gender mandate index is significant is in specification (1) and it has the incorrect sign. However, economic freedom 10 years in the past does not have any significant relationship with the unemployment rate for women with advanced education. In both cases, the only variable that

is consistently significant (in four out of six specifications) is the measure of per capita income which is inversely related to the unemployment rate in question. Taken together, these results suggest that current levels of economic freedom are more important for unemployment rates than past levels of economic freedom. The effect of economic freedom seems to be more persistent when we are looking at unemployment rates for women with advanced education than for the overall unemployment rate, though the effect does not last much beyond the five-year lag.

We also observe a statistically strong, and persistent negative between past economic freedom and the percentage of women engaged in vulnerable employment. In all six specifications, a one-standard deviation increase in economic freedom in the past is associated with a decline in women in vulnerable forms of employment of anywhere between 0.88 and 1.5 percentage points in the current period. The gender mandate index is also negative and statistically significant in four out of six specifications. It loses significance when the interaction term is included. Overall, it seems that economic freedom has a more robust relationship with the rate of vulnerable employment than gender mandates.

Interestingly, the interaction term has a negative coefficient while the coefficients on EFW and the gender mandate index are both positive. This suggests that if there are no gender mandates in place, economic will increase women's incentive to get human capital and if there is no economic freedom then gender mandates will increase the incentive to get human capital. However, if already in the presence of economic freedom, the addition of a gender mandate may disincentivize human capital accumulation.

The results suggest that economic freedom five years in the past still has a strong positive relationship with the overall level of women's human capital. A one unit increase in the economic freedom of the world score five years in the past is associated with approximately a 0.02-point

increase in the human capital score for women today. This relationship wanes significantly at the 10-year mark, with EFW 10 years in the past only being significant when interaction term is included. The gender mandate index has a positive relationship with the human capital index in four out of six regression specifications.

Finally, we turn to the relationship between past economic freedom and female employers as a percentage of all female workers. Economic freedom five years ago has a positive and statistically significant relationship with female employment in all three specifications. This relationship weakens when looking at economic freedom 10 years in the past. Notably, gender mandates have no significant relationship with the percentage of female workers who are employers in any of the specifications presented in these tables. This indicates the institutional environments in the current period and in the recent past matter most when it comes to creating the conditions necessary for women to pursue their own entrepreneurial endeavors.

3.2 Fixed Effects Panel Regressions with Disaggregated Gender Mandate Variables

The next set of regression specifications provides a robustness check to the results shown in Table 2. These regressions focus on EFW and the disaggregated set of gender mandate dummy variables. These regressions are only estimated using a contemporaneous measure of economic freedom. The regression equations are of the same general format as equations 1 and 2 above.

[Insert Table 3 Here]

When examining the results for the regression specifications that use the disaggregated gender mandate dummy variables, a similar pattern of results emerges. While the signs of the coefficients

largely remain unchanged, the relationship between economic freedom and our set of dependent variables does seem to lose significance as time passes. In addition, disaggregating the gender mandate index allows us to identify the different effects that each type of gender mandate might have on our outcome variables.

We can see that it is specifically the availability of paternity leave and parental leave that are associated with higher rates of women's labor force participation. This makes intuitive sense, as the availability of paid leave for both parents, and not just for the birthing parent, would lower the cost of rejoining the labor force after having a child. Interestingly, the government administering 100% of maternity leave benefits and laws that forbid the dismissal of pregnant workers are both associated with lower levels of labor force participation for women.

In addition, economic freedom and per capita income growth are associated with lower unemployment rates, while gender mandates largely have no statistically significant effect. Paid parental leave and a ban on dismissing pregnant workers both are marginally significant, at the 10% level in one specification with a negative coefficient, suggesting that the presence of each of these two mandates would decrease the unemployment rate for women by approximately 1 percentage point. Once again, more political freedom is associated with higher unemployment rates for women.

Turning to the unemployment rate for women with advanced education, when the gender mandate index is decomposed into its individual dummy variables, we see that the economic freedom variable and per capita income both retain their statistical significance and their negative coefficients. Specifically, a one-standard deviation increase in economic freedom is associated with a decrease in the unemployment rate for women with advanced education of between 1.42 and 2.30 percentage points. Interestingly, the decomposition of the gender mandate index reveals

that equal pay mandates are associated with an increase in the unemployment rate for women with advanced education, and this is significant at the 5% level.

Disaggregating the Gender Mandate Index to examine the relationship between vulnerable employment for women, we can see that our measure of per capita income retains its statistical significance and negative coefficient. However, the EFW index loses significance when the time trend is included but is significant at the 1% level with a negative coefficient like it is in Table 2. Of note, the only gender mandate dummy variable that is significant at all is the government administration of maternity leave benefits, which is significant at the 5% level and is associated with an undesirable *increase* in the percentage of women working in vulnerable employment.

When the gender mandate index is disaggregated, we do not see much of a change in the observed relationship between EFW and women's human capital. The EFW index is still significant at the 1% level in both specifications, and the coefficient is still positive and with a similar magnitude what was shown in Table 2. Once again, it is notable that most of the gender mandate dummy variables are not significant at all. Corporate board quotas appear as negative and significant at the 5% level in specification (2), suggesting that quotas reduce the incentive for women to build human capital - the exact opposite of what they are intended to accomplish. Additionally, the equal pay mandate is marginally significant, at the 10% level, in specification (1) with a positive coefficient. Otherwise, the gender mandates seem to exert very little impact on women's human capital.

Finally, the results depicted in Table 3 also confirm the relationship between economic freedom and female employers that was shown in Table 2. A one-unit increase in a country's economic freedom score is associated with approximately a 0.19 percentage point increase in the percentage of female workers who become employers. This result is statistically significant at the

1% level. In addition, higher living standards are associated with higher rates of female entrepreneurship. There is not a single gender mandate that exerts a notable impact on the percentage of female workers who are employers.

3.3 System Generalized Method of Moments Estimation

A final step toward establishing whether the relationships presented in Tables 2 and 3 are likely to be causal, we must employ more sophisticated methods to address endogeneity concerns. While imperfect, System GMM approach uses lagged values of both the independent and dependent variables (both in levels and in differences) to generate instruments from within our dataset. For each dependent variable, we estimate two specifications of the SGMM regression model, one using IV-style instruments and the other using GMM-style instruments. The results of these estimates are depicted in Table 4⁴.

[Insert Table 4 Here]

Table 4 does provide a slightly different pattern of results than what we observed using a simple Fixed Effects panel regression. First, there is some evidence that greater economic freedom causes higher rates of labor force participation rates for women, as the coefficients are positive and significant at the 5% level in both specifications. Additionally, greater economic freedom is associated with a lower rate of unemployment for women. The coefficients are negative and significant at the 5% level. Finally, there is some moderate support for the claim that greater economic freedom reduces the number of women who are engaged in vulnerable employment.

⁴ Table 4 does not provide estimates using the Human Capital Index as the dependent variable. Because there is not much variation in this indicator over time, the SGMM model was unable to be estimated. As a result, Table 4 only examines five of the six dependent variables.

The estimated coefficient is negative and significant at the 5%, but only one the specification that uses GMM-style instruments.

Gender mandates, however, only seem to have a statistically significant, negative impact on the percentage of women who work in vulnerable employment. Outside of vulnerable employment, there is no statical relationship between gender mandates and the five other dependent variables being examined in Table 4.

4 Conclusion

This research suggests that economic freedom plays a critical role in the economic outcomes of women. Economic freedom is strongly associated with lower levels of female unemployment, higher levels of human capital for women, fewer unemployed women with advanced educational training and fewer women in vulnerable employment. Economic freedom is strongly associated with more female *employers*. In the case of unemployment and vulnerable employment, there is some evidence that these relationships may be causal ones. These results provide additional support for earlier work suggesting that markets, and interactions within them, not only discipline undesirable behaviors like gender discrimination, but provide avenues for advancement for historically marginalized groups.

Our work also casts doubt on the efficacy of labor market mandates related to gender. While multiple specifications found that mandates generally and specific mandates (e.g., mandated paid parental leave) were highly significant and associated with greater labor force participation, we find weak or no evidence that such mandates significantly affect unemployment rates, women in vulnerable employment, or the number of female employers. This suggests that while mandates may help push women onto the lower rungs of the economic ladder (e.g., make it easier or more likely for her find or retain some form employment either generally or following a pregnancy),

these policies do little to nothing to help them climb to high rungs. Additionally, when economic freedom is interacted with our measure of gender mandates, the results suggest that gender mandates seem to work best when enacted in an institutional environment that is largely economically free.

Taken together, our results suggest that legislating labor market outcomes for women and the continued push to further women in the labor force by government decree is unlikely to be effective. You cannot mandate equality of outcome. Instead, our work highlights the profound importance of economic freedom in allowing women to not only find and retain employment, but to advance further in their careers. Women may be able to grab onto the bottom run because of gender mandates, but an environment of economic freedom is necessary for them to be able to climb to the top of that ladder. It is not the heavy hand of the state that will advance women, but instead the “soft commerce” of the market.

References

- Adname, Souad. 2015. “Economic Freedom and Women’s Emancipation in the MENA Region.” *Economic Affairs*, 35(3): 416-427.
- Alshamy, Yahya, Christopher J. Coyne, Abigail R. Hall, and Matthew Owens. 2023. “Surveillance Capitalism & the Surveillance State: A Comparative Institutional Analysis.” Working Paper. Online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4361776.
- Awan, Abdul Ghafoor, and Ayesha Akbar. 2018. “Economic Freedom and Its Impact on Economic Growth.” *Global Journal of Management, Social Sciences, and Humanities*, 4(3): 503-530.
- Becker, Gary. 1957. *The Economics of Discrimination*. Chicago: University of Chicago Press.
- Berggren, Niclas and Therese Nilsson. 2013. “Does Economic Freedom Foster Tolerance?” *Kyklos*, 66(2): 177-207.
- Berggren, Ulrika Järkestig, Diana Rowan, Ewa Bergbäck, and Barbro Blomberg. 2016. “Disabled Students’ Experiences of Higher Education in Sweden, the Czech Republic, and the United States—a Comparative Institutional Analysis.” *Disability and Society*, 31(3): 339-356.

Bergemann, Annette and Regina T. Riphahn. 2023. *Journal of Population Economics*, 36: 139-178.

Blau, Francine D. and Lawrence M. Kahn. 2017. "The Gender Wage Gap: Extent, Trends, and Explanations." *Journal of Economic Literature*, 55(3): 789-865.

Bruni, Luigino and Robert Sugden. 2013. "Reclaiming Virtue Ethics for Economics." *Journal of Economic Perspectives*, 27(4): 141-164.

Cebula, Richard J., and Gigi M. Alexander. 2015. "An Exploratory Empirical Note on the Impact of Labour Market Freedom on the Female Labour Force Participation Rate in the US." *Applied Economic Letters*, 22(8): 632-636.

Council of the European Union. 2022. "Council Approves EU Law to Improve Gender Balance on Company Boards." Council of the European Union, October 17. Online: <https://www.consilium.europa.eu/en/press/press-releases/2022/10/17/council-approves-eu-law-to-improve-gender-balance-on-company-boards/>.

Del Rey, Elena, Andreas Kyriacou, and José I. Silva. 2021. "Maternity Leave and Female Labor Force Participation: Evidence from 159 Countries." *Journal of Population Economics*, 34: 803-824.

Dobbin, Frank and Alexandra Kalev. 2016. "Why Diversity Programs Fail." *Harvard Business Review*, June-July. Online: <https://hbr.org/2016/07/why-diversity-programs-fail>.

Dobson, John and Mahdi Rastad. 2018. "Women on Boards: EU Board Quotas, and Why the US Should Avoid Them." *Business & Professional Ethics Journal*, 37(1): 1-12.

Fike, Rosemarie. 2020. "Women's Economic Rights—What's Changed and Why Does it Matter?" Fraser Institute. Online: <https://womenandprogress.org/sites/default/files/womens-economic-rights.pdf>.

_____. 2019. "Gender Disparity Under the Law and Women's Well-Being." Fraser Institute. Online: <https://womenandprogress.org/sites/default/files/2019-08/gender-disparity-under-the-law-and-womens-well-being.pdf>.

_____. 2017. "Impact of Economic Freedom on Women's Well-Being." Fraser Institute. Online: https://womenandprogress.org/sites/default/files/2017-12/women-and-progress-pub_0.pdf.

Fitzsimmons, Stacey R. 2012. "Women on Boards of Directors: Why Skirts in Seats Aren't Enough." *Business Horizons*, 55(6): 557-566.

Gaddis, Isis. and Stephan Klasen. 2014. "Economic Development, Structural Change and Women's Labor Force Participation: A Reexamination of the Feminization U Hypothesis." *Journal of Population Economics*, 27: 639-681.

Geddes, Rick, Dean Lueck, and Sharon Tennyson. 2012. "Human Capital Accumulation and the Expansion of Women's Economic Rights." *Journal of Law and Economics*, 55(4): 839-867.

Goldin, Claudia. 1995. "The U-Shaped Female Labor Force Function in Economic Development and Economic History." In *Investment in Women's Human Capital and Economic Development*, T. Paul Schultz ed. University of Chicago Press, p. 61-90.

Groening, Christopher. 2018. "When Do Investors Value Board Gender Diversity?" *Corporate Governance*, 19(1): 60-79.

Grosvold, Johanne, Bruce Rayton, and Stephen Brammer. 2016. "Women on Corporate Boards: A Comparative Institutional Analysis." *Business and Society*, 55(8): 1157-1196.

Hall, Joshua C., and Robert A. Lawson. 2014. "Economic Freedom of the World: An Accounting of the Literature". *Contemporary Economic Policy*, 32(1): 1-19.

Kim, Daehyun, and Laura T. Starks. 2016. "Gender Diversity on Corporate Boards: Do Women Contribute Unique Skills?" *American Economic Review*, 106(5): 267-71.

Kugler, Maurice, Mariana Viollaz, Daniel Duque, Isis Gaddis, David Newhouse, Amparo Palacios-Lopez, and Michael Weber. 2021. "How Did the COVID-19 Crisis Affect Different Types of Workers in the Developing World?" World Bank Policy Research Working Paper 9703.

Lawson, Robert A. 2022. "Economic Freedom in the Literature: What Is It Good (Bad) For?" Chapter 3 in Gwartney et al. *Economic Freedom of the World: 2022 Annual Report*. Fraser Institute, 187-200.

McCloskey, Deirdre. 2006. *The Bourgeois Virtues: Ethics for an Age of Commerce*. Chicago: University of Chicago Press.

Montesquieu, Charles de Secondat. *The Spirit of the Laws*. Online: <https://socialsciences.mcmaster.ca/econ/ugcm/3ll3/montesquieu/spiritoflaws.pdf>.

Organization for Economic Development and Cooperation. 2020. "What Big Data Can Tell Us About Women on Boards." Gender Equality. Online: <https://www.oecd.org/gender/data/what-big-data-can-tell-us-about-women-on-boards.htm>.

Sacchet, Teresa. 2018. "Why Gender Quotas Don't Work in Brazil: The Role of the Electoral System and Political Finance." *Colombia International*, 95: 25-54.

SB-826. 2018. "Corporations: Boards of Directors." Online: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB826.

Shepherd, Leah. 2022. "Court Overturns California Law Requiring Women on Boards of Directors." *SHRM*, June 1. Online: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB826/.

Smith, Adam. 2011 [1762]. *Letters On Jurisprudence*. Indianapolis: Liberty Fund.

Storr, Virgil H. and Ginny Seung Choi. 2019. *Do Markets Corrupt Our Morals?* New York: Palgrave Macmillan.

Vafaei, Alireza, Darren Henry, Kamran Ahmed, and Mohammad Alipour. 2020. "Board Diversity: Female Director Participation and Corporate Innovation." *International Journal of Accounting and Information Management*, 29(2): 247-279.

Weiss, Jane A., Francisco O. Ramirez, and Terry Tracy. 1976. "Female Participation in the Occupational System: A Comparative Institutional Analysis." *Social Problems*, 23(5): 593-608.

Weichselbaumer, Doris and Rudolf Winter-Ebmer. 2005. "A Meta-Analysis of the International Gender Wage Gap." *Journal of Economic Surveys*, 19(3): 479-511.

World Bank. 2022. "Female Labor Force Participation." January 9. Online: <https://genderdata.worldbank.org/data-stories/flfp-data-story/#:~:text=Women%20are%20less%20likely%20to,do%20work%2C%20they%20earn%20less.>

Wowak, Kaitlin D., George P. Ball, Corinne Post, David J. Ketchen Jr. 2020. "The Influence of Female Directors on Product Recall Decisions." *Manufacturing and Services Management*, 23(4): 895-913.

Wright, Walker. 2022. "Illiberal Economic Institutions and Racial Intolerance in the United States." *Economic Affairs*, 42(2): 307-326.

Data Sources:

Gwartney, James D., Robert A. Lawson, Joshua Hall, and Ryan Murphy (2022). Economic Freedom Dataset, published in *Economic Freedom of the World: 2022 Annual Report*. Fraser Institute.

World Bank (2020). *Women, Business, and the Law 2020*. World Bank. <https://openknowledge.worldbank.org/handle/10986/32639>

World Bank (2023). *World Development Indicators*. World Bank (producer and distributor). <http://data.worldbank.org/datacatalog/world-development-indicators>

Table 1: Summary Statistics

	<i>Mean</i>	<i>Standard Deviation</i>	<i>Min</i>	<i>Max</i>	<i>Observations</i>
Labor Force Participation Rate for Females Age 15-64	56.5564	17.1530	6.26	91.83	3,564
Unemployment Rate, Female Total	9.4957	7.7992	0.149	46.248	3,726
Unemployment Rate, Female Advanced Education	7.7450	7.1639	0.65	65.09	1,701
Vulnerable Employment, % Total Female Employment	41.8574	32.3711	0.02	99.27	3,564
Human Capital Index, Females	0.5981	0.1550	0.2783	0.9001	475
Female Employers, % Total Employed Females	1.7020	1.3721	0	10.82	3,564
EFW Summary Score	6.7266	1.0581	2.72	0.914	3,331
EFW Lagged 5 Years	6.3899	1.2718	2.37	9.14	927
EFW Lagged 10 Years	6.1739	1.3314	2.37	0.914	878
LN Per Capita Income	8.4715	1.4801	5.2471	11.6300	3,691
LN Per Capital Income Residuals	-1.09e-09	1.3031	2.7528	2.7996	3,229
Political Rights Index	4.4929	2.1166	1	8	3,749
Civil Liberties Index	4.4102	1.7735	1	8	3,749
Gender Mandate Index, Dummy	0.4005	0.2675	0	1	3,795
Equal Remuneration Mandate, Dummy	0.3642	0.4813	0	1	3,796
Paid Leave for Mothers of At least 14 Weeks, Dummy	0.5465	0.4979	0	1	3,797
Government Administers 100% of Leave, Dummy	0.5312	0.4991	0	1	3,798
Paid Leave for Fathers, Dummy	0.4034	0.4906	0	1	3,799
Paid Parental Leave, Dummy	0.1942	0.3956	0	1	3,800
Dismissal of Pregnant Workers Prohibited, Dummy	0.7325	0.4427	0	1	3,801
Gender Quotas for Corporate Boards, Dummy	0.0314	0.1743	0	1	3,802

Table 2: Summary of Regression Results

	Current Year EFW			5 Year Lagged EFW			10 Year Lagged EFW		
	Baseline	Year FE	Interactions	Baseline	Year FE	Interactions	Baseline	Year FE	Interactions
Dependent Variable: Labor Force Participation Rate for Females Age 15-64									
<i>EFW Summary</i>	-0.1498	-1.1414**	-2.7868***	1.3088***	0.2979	-1.2421*	1.7150***	0.8726	-0.7241
<i>Ln Per Capita GDP</i>	2.3997	-1.1099	-1.5581	3.3715*	2.1332	0.9633	1.9176	1.7144	0.5995
<i>Political Rights</i>	0.3973	0.2417	0.1339	0.2802	0.2242	0.0142	0.2473	0.2488	0.0110
<i>Civil Liberties</i>	0.2595	0.2118	0.2771	0.3040	0.3708	0.5133	0.3066	0.3832	0.5115
<i>Gender Mandate Index</i>	9.0856***	3.8611**	-41.3002***	5.3214**	1.0720	-34.7018***	4.1640	0.5050	-32.4177***
<i>EFW*GMI</i>			6.3709***			5.3538***			5.2704***
Dependent Variable: Unemployment Rates for Women (% of Female Labor Force)									
<i>EFW Summary</i>	-1.3839***	-1.8102***	-1.7177**	-0.7080*	-1.1097***	-1.6125***	-0.5139	-0.6840**	-0.9724*
<i>Ln Per Capita GDP</i>	-6.9889***	-7.4813***	-7.4933***	-4.4225***	-4.6800**	-4.7910***	-3.7545**	-3.9860**	-4.0004**
<i>Political Rights</i>	-0.4281	-0.4254	-0.4224	-0.1412	-0.1260	-0.1423	-0.1678	-0.1437	-0.1611
<i>Civil Liberties</i>	0.2487	0.2596	0.2567	0.1229	0.0355	0.0852	0.1375	0.0200	0.0474
<i>Gender Mandate Index</i>	1.5142	0.5460	2.3909	1.4683	-0.7835	-8.6149	0.8379	-0.1802	-5.237
<i>EFW*GMI</i>			-0.2499			-1.3127			0.7452
Dependent Variable: Unemployment Rate for Women with Advanced Education (% of Female Labor Force with Advanced Education)									
<i>EFW Summary</i>	-1.6722***	-2.4184***	1.4355	-0.5569*	-0.8705***	-0.9498*	0.3352	-0.1087	-0.1479
<i>Ln Per Capita GDP</i>	-6.7793***	-9.7475***	-9.8448***	-2.2761	-4.8374***	-4.8690***	-2.9258	-4.8663**	-4.8731**
<i>Political Rights</i>	-0.2323	-0.2307	-0.2145	0.1317	0.0353	0.0270	0.0114	-0.0211	-0.0276
<i>Civil Liberties</i>	-0.3118	-0.2207	-0.2433	-0.3738	-0.1532	-0.1466	-0.1214	-0.0377	-0.0350
<i>Gender Mandate Index</i>	6.0724***	3.0656	10.2549	3.1388**	0.2552	-1.0590	2.0482	-0.8099	-1.4270
<i>EFW*GMI</i>			-2.1477			0.1783			0.0885
Dependent Variable: Female Workers in Vulnerable Employment (% of Female Employment)									
<i>EFW Summary</i>	-2.0323***	-1.0692	-1.6384***	-1.4364***	-0.8824**	-1.2684**	-1.5004***	-0.8983**	-1.2967**
<i>Ln Per Capita GDP</i>	-6.6893***	-4.2508*	-4.3963**	-3.5874**	-2.6593	-2.9525*	-2.3267	-2.0194	-2.2976
<i>Political Rights</i>	-0.0543	0.0160	-0.0215	-0.3719	-0.3684	-0.4210	-0.3869	-0.3985	-0.4579
<i>Civil Liberties</i>	-0.1873	-0.0089	0.0158	0.1803	0.2260	0.2617	0.3483	0.3453	0.3772
<i>Gender Mandate Index</i>	-5.2856*	-1.8859	-16.5522	-7.1662***	-4.4931**	-13.4592	-7.1184***	-4.4382*	-12.6528
<i>EFW*GMI</i>			2.0690			1.3418			1.3150
Dependent Variable: Human Capital Index for Females (Measure of Health and Education of Workers)									
<i>EFW Summary</i>	0.0408***	0.0244***	0.0316***	0.0236***	0.0159**	0.0284***	0.0068	0.0015	0.0294**
<i>Ln Per Capita GDP</i>	0.0491***	0.0104	0.0106	0.01445	-0.0090	-0.0059	0.0178	0.0003	0.0077
<i>Political Rights</i>	0.0020	0.0022	0.0021	-0.0011	-0.0012	-0.0009	0.0007	0.0010	0.0009
<i>Civil Liberties</i>	-0.0000	-0.0009	-0.0008	0.0052	0.0044	0.0037	0.0004	0.0001	-0.0011
<i>Gender Mandate Index</i>	0.0421***	0.0016	0.1079	0.0381**	-0.0064	0.1778*	0.0389**	-0.0064	0.3111**
<i>EFW*GMI</i>			-0.0144			-0.0245*			-0.0421**
Dependent Variable: Female Employers (% of Total Female Employment)									
<i>EFW Summary</i>	0.1889***	0.2040***	0.1904***	0.1560***	0.1478***	0.01339*	0.1152**	0.1004	0.1349
<i>Ln Per Capita GDP</i>	0.3810**	0.4671**	0.4636**	0.0257	0.3183	0.3077	0.1575	0.2278	0.2519
<i>Political Rights</i>	-0.0103	-0.0081	-0.0090	-0.0153	-0.0136	-0.0155	-0.0101	-0.0102	-0.0051
<i>Civil Liberties</i>	0.0871*	0.0962**	0.0968**	0.1399	0.1488*	0.1501*	0.1305	0.1519	0.1492
<i>Gender Mandate Index</i>	-0.4806	-0.3811	-0.7320	-0.4526	-0.4077	-0.7306	-0.3301	-0.3951	0.3168
<i>EFW*GMI</i>			0.0495			0.0483			-0.1140

Robust standard errors clustered around each country were used in these estimations but are not reported here to save space. Statistical significance: *** p<0.01, ** p<0.05, * p<0.1. The full set of tables with standard errors is available upon request.

Table 3: Fixed Effects Panel Regression Results with Disaggregated Gender Mandates

Dependent Variable:	Labor Force Participation Rate for Females Age 15-64		Unemployment Rates for Women (% of Female Labor Force)		Unemployment Rate for Female Workers with Advanced Education (% of Female Labor Force with Advanced Education)		Female Workers in Vulnerable Employment (% of Female Employment)		Human Capital Index for Females (Measure of Health and Education of Workers)		Female Employers (% of Total Female Employment)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
<i>EFW</i>	-0.0511	-1.1207**	-1.4106***	-1.9305***	-1.4160***	-2.3070***	-1.8982***	-0.9330	0.0413***	0.0238***	0.1896***	0.2026***
<i>LN PCGDP (Residuals)</i>	2.0750	-1.5629	-7.3219***	-8.1231***	-6.7937***	-10.6810***	-6.8000***	-4.3011**	0.0481***	0.0087	0.3552**	0.4437**
<i>Political Rights</i>	0.3872	0.2212	-0.4196	-0.4198	-0.3007	-0.2915	-0.1008	-0.0375	0.0018	0.0022	-0.0113	-0.0096
<i>Civil Liberties</i>	0.2591	0.2812	0.2372	0.2604	-0.2282	-0.1570	-0.1594	0.0367	0.0006	-0.0004	0.0875*	0.0988**
<i>Equal Pay Mandate</i>	1.2121*	0.6786	0.6008	0.4865	1.9798**	1.6117**	-1.0500	-0.6834	0.0108*	0.0046	-0.0763	-0.0653
<i>Paid Maternity Leave</i>	0.8797	0.1500	1.0344	1.0024	1.2235	0.9962	-1.2706	-0.8166	0.0074	-0.0004	-0.0515	-0.0433
<i>Gov Administer Mat Leave</i>	-1.3303	-1.9533*	-0.0224	-0.3225	3.3754	2.9323	1.6078**	1.8988**	0.0137	0.0136	-0.1181	-0.1131
<i>Paid Paternity Leave</i>	2.1867***	1.8588***	0.3995	0.3365	0.3825	0.0204	-0.3561	0.0352	0.0067	-0.0008	-0.0120	0.0076
<i>Paid Parental Leave</i>	3.0749***	2.4239***	-0.3449	-0.5492	0.0052	-0.5588	-0.8730	0.4010	-0.0006	-0.0043	-0.0597	-0.0462
<i>No Dismissal of Pregnant Workers</i>	-0.6300	-1.9954**	-0.5631	-0.8326	-0.0185	-0.3826	-1.9292	-1.3815	-0.0063	-0.0033	-0.1679	-0.1600
<i>Gender Quotas for Boards</i>	4.0581**	2.2018	-0.3221	-0.7486	-0.1773	-1.5641**	-0.6427	0.7275	0.0041	-0.0105**	-0.0224	0.0229
Time Fixed Effects	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y
Observations	3,059	3,059	2,133	2,133	1644	1644	3,059	3,059	469	469	3,059	3,059
Countries	159	159	155	155	149	149	159	159	139	139	159	159
Within R-Squared	0.1702	0.2631	0.1408	0.1730	0.0930	0.1471	0.2209	0.2562	0.2329	0.3501	0.0364	0.0419
Between R-Squared	0.0014	0.0330	0.0016	0.0013	0.1641	0.1918	0.7529	0.7413	0.8043	0.6996	0.0701	0.0804

Robust standard errors clustered around each country were used in these estimations but are not reported here to save space. Statistical significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The full set of tables with standard errors is available upon request.

Table 4: System GMM Estimation Results (Arellano-Bond)

Dependent Variable	Labor Force Participation Rate for Females Age 15-64		Unemployment Rates for Women (% of Female Labor Force)		Unemployment Rate for Female Workers with Advanced Education (% of Female Labor Force with Advanced Education)		Female Workers in Vulnerable Employment (% of Female Employment)		Female Employers (% of Total Female Employment)	
	IV Style	GMM Style	IV Style	GMM Style	IV Style	GMM Style	IV Style	GMM Style	IV Style	GMM Style
Lagged Dependent Var.	0.9575*** (0.0145)	0.9921*** (0.0036)	0.9436*** (0.0294)	0.9438*** (0.0084)	0.7660*** (0.0837)	0.9029*** (0.0429)	1.0181*** (0.0074)	1.0026*** (0.0038)	0.9449*** (0.0218)	0.9643*** (0.0109)
EFW	0.2277** (0.0920)	0.1889** (0.0751)	-0.2028** (0.0845)	-0.2644** (0.1258)	-0.4052 (0.3054)	-0.3165 (0.2211)	-0.1050 (0.0733)	-0.1834** (0.0732)	0.1289 (0.0105)	0.0153 (0.1184)
LN PCGDP	-0.0414 (0.0629)	0.0850** (0.0416)	0.0612 (0.0674)	0.1304** (0.0626)	-0.3301 (0.2566)	-0.2570 (0.2308)	0.4395*** (0.1537)	0.2422* (0.1265)	0.0050 (0.0071)	-0.0007 (0.0111)
Political Rights	0.1078** (0.0524)	0.0468 (0.0381)	0.0361 (0.0822)	0.0224 (0.1115)	0.2093 (0.2009)	0.2594 (0.1664)	0.0188 (0.0546)	0.0181 (0.0556)	0.0001 (0.0082)	0.0041 (0.0079)
Civil Liberties	-0.2278*** (0.0765)	-0.0678 (0.0532)	-0.0599 (0.1064)	-0.0051 (0.1309)	-0.0244 (0.2282)	-0.2514 (0.1878)	-0.1045 (0.0698)	-0.1223 (0.0924)	-0.0021 (0.0107)	-0.0060 (0.0104)
Gender Mandate Index	0.3914 (0.2988)	-0.0010 (0.1839)	-0.3108 (0.1987)	-0.2675 (0.2583)	-0.7189 (0.6564)	-0.3174 (0.4359)	-0.3366* (0.1770)	-0.6080** (0.3001)	0.0273 (0.0289)	0.0095 (0.0288)
Time Fixed Effects	Y	N	Y	N	Y	N	Y	N	Y	N
Total Observations	2716	2716	1719	1719	1362	1362	2716	2716	2716	2716
Countries	159	159	126	126	109	109	159	159	159	159
# Instruments	213	1410	234	1400	234	1276	213	1410	213	1410
AR(1)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AR(2)	0.509	0.506	0.335	0.545	0.517	0.545	0.791	0.760	0.936	0.975
Hansen	0.997	1.000	1.000	1.000	1.000	1.000	0.992	1.000	0.983	1.000

Robust standard errors are reported in parentheses. Statistical significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$