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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 (EFW), Freedom

Rights

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

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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 . 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,

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

related to issues of gender in labor markets) on 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-

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 contribu

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

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 Variables[1]

Female Labor Force Participation Rate (% of female population ages 15-64): This captures the percentage of the total female, working/F1 12 Tf1 0 0 1 190.83 598.2 Tm0 g0 G[(hi)7(gh)-20(e)7(

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 female worker in that country is in perfect health and is fully

worker is lacking in formal knowledge and skills and suffers from health problems that hinder

comes to both unemployment rates and the percentage of female workers who are engaged in

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 coef

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

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

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, as 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 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-

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 and 10 years ago and the current labor force participation rates for women. What we see here is consistent with the contemporaneous results

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

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

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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 4[4].

[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

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

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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									
EFW Summary	-0.1498	-1.1414**	-2.7868***	1.3088***	0.2979	-1.2421*	1.7150***	0.8726	-0.7241
Ln Per Capita GDP	2.3997	-1.1099	-1.5581	3.3715*	2.1332	0.9633	1.9176	1.7144	0.5995
Political Rights	0.3973	0.2417	0.1339	0.2802	0.2242	0.0142	0.2473	0.2488	0.0110
Civil Liberties	0.2595	0.2118	0.2771	0.3040	0.3708	0.5133	0.3066	0.3832	0.5115
Gender Mandate Index	9.0856***	3.8611**	-41.3002***	5.3214**	1.0720	-34.7018***	4.1640	0.5050	-32.4177***
EFW*GMI			6.3709***			5.3538***			5.2704***
Dependent Variable: Unemployment Rates for Women (% of Female Labor Force)									
EFW Summary	-1.3839***	-1.8102***	-1.7177**	-0.7080*	-1.1097***	-1.6125***	-0.5139	-0.6840**	-0.9724*
Ln Per Capita GDP	-6.9889***	-7.4813***	-7.4933***	-4.4225***	-4.6800**	-4.7910***	-3.7545**	-3.9860**	-4.0004**
Political Rights	-0.4281	-0.4254	-0.4224	-0.1412	-0.1260	-0.1423	-0.1678	-0.1437	-0.1611
Civil Liberties	0.2487	0.2596	0.2567	0.1229	0.0355	0.0852	0.1375	0.0200	0.0474
Gender Mandate Index	1.5142	0.5460	2.3909	1.4683	-0.7835	-8.6149	0.8379	-0.1802	-5.237
EFW*GMI			-0.2499			-1.3127			0.7452
Dependent Variable Unemployment Rate for Women with Advanced Education (% of Female Labor Force with Advanced Education)									
EFW Summary	-1.6722***	-2.4184***							

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

Dependent Variable:	Labor Force Participation Rate for Females Age 16-64	Unemployment Rates for Women (% of Female Labor Force)	Unemployment Rate for Female Workers with