

Gendered Laws

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Abstract

This paper offers for the first time a global picture of gender discrimination by the law as it affects women's economic opportunity and charts the evolution of legal inequalities over five decades. Using the World Bank's newly extended *Women, Business and the Law* database, the paper documents large and persistent gender inequalities, especially

with regard to equal pay and treatment of parenthood. The paper finds positive associations between improvements in the law and several labor market outcomes, and establishes a small, but over time increasing, causal impact of more equal laws on higher female labor force participation.

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Gendered Laws

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1. Introduction

One of the most salient and pervasive forms of gender discrimination is the unequal treatment of women and men by the law. Until recently, women did not have the right to vote in most countries. In many parts of the world, women are still not allowed to participate in certain professions. In England, until 2003, the law of rape postulated, in effect, that a man who had sex with a woman believing that it was consensual had to be acquitted, even if there were no reasonable grounds for this belief. While examples of gendered laws abound, what has been missing is a complete picture of the relative severity, evolution, and impact of legal gender discrimination around the world. Most of the existing evidence on gendered laws and reforms comes from a limited number of (usually, developed) economies, but it is largely unknown to what extent the findings hold when measured on a much wider scale. The World Bank's newly compiled *Women, Business and the Law* (WBL) database aims to fill this knowledge gap. The database measures equality of economic opportunity under the law between men and women in 190 economies, for 50 years, from 1970 until today.

The purpose of this paper is twofold. First, we provide a description of the newly constructed WBL database, which will be updated annually and made available to the public, and use it to document a series of stylized facts regarding legal gender discrimination across the world. Second, we examine whether improvements in the legal treatment of women have contributed to more equal labor market outcomes, specifically to higher female labor force participation, closing of the wage gap between men and women, and lower occupational segregation. To establish a causal effect of legal reforms, we exploit a novel methodology suggested by a recent paper by Freyaldenhoven, Hansen and Shapiro (AER, 2019) – FHS henceforth.

We document the existence of large gaps between the legal treatment of men and women despite the tremendous progress that has been made in the past five decades. The gaps are most pronounced in the areas of *Getting Paid* and *Having Children* – that is, we find that women are most disadvantaged by the law when it comes to the compensation they receive and their treatment once they have had children. We find positive associations between improvements in the law and higher female labor force participation, a lower wage gap between men and women, and less occupational segregation. We establish that the first of these correlations allows for a causal interpretation. Specifically, application of the FHS methodology suggests that more equal laws have led to higher female labor force participation. The effect is small, suggesting that factors other than laws are also responsible for women's higher labor

force participation, but it increases with time, as more years from the initial enactment of legal reforms pass.

Overall, our results suggest that gendered laws matter, but they matter more for some labor market outcomes than others. The effect of legal reforms is relatively small, but this is to be expected, given that legal discrimination is only one among many sources of gender imbalances and that the passing of better laws does not guarantee that these laws will be enforced, especially in countries with social norms disadvantaging women's participation in the formal economy. But laws are actionable in the short run – in contrast to norms and attitudes, which may take longer time to change. In future research, it would be interesting to link the measures of women's legal treatment in the WBL database to measures that capture women's actual economic agency and investigate the relationship between *de jure* and *de facto* female empowerment.

The remainder of the paper is structured as follows. Section 2 presents a brief description of the WBL database. Section 3 provides an overview of the literature on the impacts of gender discrimination under the law. Section 4 documents a series of stylized facts for the 190 countries and 50 years in our sample. Section 5 examines the causal impact of legal reforms on labor market outcomes. Section 6 concludes.

2. WBL Database: A Short Description

The WBL data set focuses on legislation that may impact a woman's access to employment and entrepreneurial activity; it does not cover legal gender discrimination across all aspects of a woman's life. The information on the legal environment in each economy is collected through collaboration of legal experts based in the World Bank with local experts, including lawyers, judges, civil society representatives and public officials. In total, a network of more than 10,000 legal experts contribute to the WBL project.

The data set attempts to capture inequality in legislation throughout the duration of a woman's working life, from the time she can enter the labor force through to retirement. Thirty-five individual legislative issues are aggregated into the following eight indicators, with four or five binary questions in each: *Going Places* examines constraints on freedom of movement; *Starting a Job* analyzes laws affecting a woman's decision to work; *Getting Paid* measures laws and regulations affecting women's pay; *Getting Married* assesses legal constraints related to marriage; *Having Children* examines laws that affect women's work after having children; *Running a Business* analyzes constraints to women starting and running a business; *Managing Assets* considers gender differences in property and inheritance; and, finally, *Getting a Pension*

assesses laws that affect a woman's pension. A complete list of the eight indicators and 35 topics is presented in Table A1.

Indicator-level scores are obtained by calculating the unweighted average of the four or five binary questions within that indicator and scaling the result to 100. Overall scores are then calculated by taking an unweighted average of the eight indicators, with 100 representing the highest possible score. Take, for example, the legal environment in Afghanistan in 2019: this economy receives a score of 50 out of 100 for the *Going Places* indicator because women face legal restrictions in two of the four legislative issues covered (women in Afghanistan cannot travel outside their home, nor can they choose where to live, in the same way as a man). In the *Getting Paid* indicator, women face legal restrictions in only one of the four issues covered and, so, Afghanistan receives a score of 75 for this indicator. Overall, based on an unweighted average of the eight indicators, the WBL index score for Afghanistan is 38.13. A WBL index score of 100 would indicate that there are no legal inequalities between men and women in the areas covered by the database.²

3. Existing Literature

There is a growing body of evidence that suggests that the types of legal inequalities measured under the WBL index matter for women's economic outcomes.³ Take, for instance, laws that impact women's mobility. Demirguc-Kunt, Klapper and Singer (2013) document a relationship between legal mobility restrictions and women's access to finance; Islam, Muzi and Amin (2019) find that travel restrictions placed on women are associated with lower levels of female business ownership; and Htun, Jensenius and Nelson-Nuñez (2019) find that such restrictions may reduce women's labor supply. Laws that impact women's decisions to work and their salaries, should they do so, have also been shown to be impactful. According to research by Zabalza and Tzannatos (1985), UK legislation forbidding discrimination based on gender is associated with increased employment and earnings of women. Hallward-Driemeier and Gajigo (2015) show that, in Ethiopia, lifting constraints on women's right to work outside the home is associated with increased engagement of women in the formal labor market. Amin and Islam (2015) document a link between laws mandating nondiscrimination based on gender and women's employment. While laws mandating nondiscrimination in employment have generally been associated with positive outcomes for women, evidence from the United Kingdom links equal pay legislation with a decrease in female

² A full description of the laws covered under the WBL and the methodology used to calculate the index can be found in World Bank (2019b).

³ A summary of this evidence is provided in World Bank (2019a) and a more complete overview in Roy (2019).

employment in the manufacturing sector (Pike, 1985), while some evidence from the United States shows no impact (Gunderson, 1975). On the other hand, Zveglic and van der Meulen Rodgers (2003) and Islam, Muzi and Amin (2019) show that lifting job restrictions on female workers is associated with improved employment outcomes.

The impact of unilateral divorce legislation on female labor supply appears to hinge on legislation on the division of property (Gray, 1998; Voena, 2015). Evidence on the impact of maternity, paternity and parental leave legislation on female labor market outcomes is equivocal. Early evidence from Europe (Ruhm, 1998) finds that short periods of paid parental leave are associated with increases in women's employment with no impact on earnings, but that longer leave durations, while also related to increased female employment, are associated with reductions in women's wages. For the United States, Baum and Charles (2003) find that maternity leave legislation does not have a statistically significant impact on maternal leave taking, but that it does make women who take maternity leave more likely to return to their pre-birth jobs afterwards (the latter finding is similar to the results of Baker and Milligan (2008) who study the impact of Canadian maternity leave entitlements). Schönberg and Ludsteck (2014) find that expansion in maternity leave coverage in Germany is associated with reductions in mothers' labor supply in the short run, but that the long-run impacts are small. Olivetti and Petrongolo (2017) highlight that when examining the effects of such family leave policies, determining causal relationships is extremely challenging. Recent research on the long-run effects of paid parental leave in California (Bailey et al., 2019) finds no increase in female employment, earnings or attachment to employers as a result of the policy, but, on the contrary, finds that, for first-time mothers, paid family leave is associated with lower employment and earnings in the long run.

Research has found that laws that enable women to sign a contract or open a bank account are associated with higher female labor participation (Gonzales et al., 2015). Similarly, experimental evidence from India finds that when women's wages are deposited into their own bank accounts, their labor supply increases (Field et al., 2016). There is quite a substantial body of evidence that links improved property rights for women (the *Managing Assets* indicator) to female labor supply. For example, cross-country studies by Hallward-Driemeier, Hasan and Rusu (2013) and Gonzales et al. (2015) show that equalization of property and inheritance rights between men and women is associated with increased female labor supply. Heath and Tan (2019) find that reforms in inheritance laws in India increase women's labor supply and that the effect is particularly strong for high-paying jobs. Finally, in terms of laws that are related to pensions and retirement, several country-specific studies, such as for Austria (Staubli and Zweimüller, 2013), Australia

(Atalay and Barrett, 2015) and the United Kingdom (Cribb, Emmerson and Tetlow, 2016), show that increases in retirement ages are associated with increased female labor supply.

The impact of reforming the types of laws covered under the WBL index extends beyond women's economic empowerment. Giving more rights to women is associated with improved educational outcomes for women (Branisa, Klasen and Ziegler, 2013; Deininger, Goyal and Nagarajan, 2013; Roy, 2015; Deininger et al., 2019; Harari, 2019), reductions in fertility rates (Branisa, Klasen and Ziegler, 2013), increased household expenditure on education, health and nutrition (Mishra and Sam, 2016), improved educational outcomes for the next generation (Menon, Van Der Meulen Rodgers and Nguyen, 2014), and improved health outcomes for women (Anderson, 2018; Harari, 2019). The types of laws that have been most commonly associated with these outcomes are those that give greater property and inheritance rights to women, which are believed, in turn, to increase their bargaining power within the household.

From a macroeconomic perspective, reductions in gender inequality may be associated with higher growth through several channels. For example, Goldin (1986) discusses the relationship between increased female labor force participation and earnings and economic growth in the United States. Klasen (2002) notes that inequalities in education between men and women negatively impact growth by lowering the average economywide level of human capital. Lagerlöf (2003) suggests that gender equality equalizes the human capital of husbands and wives, which increases women's opportunity cost of having children and causes the fertility rate to fall. Cavalcanti and Tavares (2016) suggest that gender discrimination impacts output through two channels – it decreases women's participation in economic activity, which has a direct impact on output, and it is associated with higher levels of fertility and lower levels of investment in human capital, which have long-run implications for economic growth.

While the studies presented above have illustrated some of the ways in which gender equality under the law is related to economic outcomes, what has been missing from the literature is a global picture of the extent of these legal inequalities – contrasting the results between countries where women are given the same rights under the law as men with those where the legal gender gap is large, and examining the evolution of gender equality over time. What has also been lacking is an analysis of whether the relationships documented above are always causal, and whether they hold when measured on a much wider scale. These are the gaps in the literature that we attempt to address in this paper.

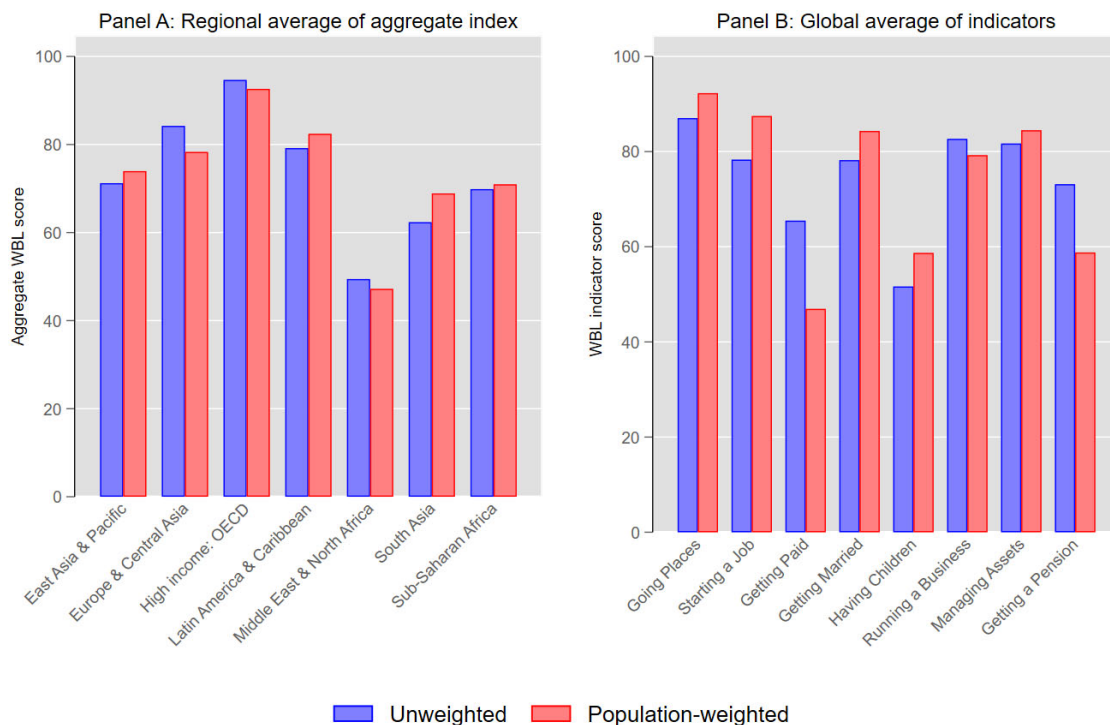
4. Stylized Facts: 50 Years of Uneven Progress

Stylized Fact 1: A woman in the average country has three-quarters the rights of a man.

In 2019, the global average WBL score was 75.23 out of 100 points, which indicates that, in the average country, women are accorded about three-quarters the number of rights as men in the areas covered by the index. In 2019, no inequalities across gender lines were recorded in eight countries (Belgium, Canada, Denmark, France, Iceland, Latvia, Luxembourg and Sweden). At the other end of the spectrum, unequal treatment under the law remains a significant obstacle for women living in Sudan, the West Bank and Gaza and the Republic of Yemen – each of these economies received a score of less than 30. In some highly populated economies, gender equality is well below the global average; for example, in 2019, Bangladesh and Pakistan received scores of 49.38 points. So, the approximately 180 million women living in these two countries have about half the rights of men in the areas covered by the index.

As one may anticipate, there is significant variation by region in legal gender equality, as illustrated by Panel A in Figure 1. Equality of economic opportunity across gender is highest in high-income OECD economies, where the average score is 94.65 points, and lowest in the Middle East and North Africa (MENA) region, where the average score is 49.56 points.

Figure 1: Legal gender inequality – index average by region and global average for each indicator



Stylized Fact 2: Women are most severely penalized when it comes to laws that are related to having children and getting paid.

Looking at the aggregate WBL index masks some interesting differences between the eight topics covered. Breaking the aggregate index down into the eight indicators, the data—displayed in Panel B in Figure 1—show that, in 2019, women faced the greatest inequality in laws related to having children, where the global average was 53.89 out of 100 possible points (or 60.39 when each economy is weighted by its share in global population). On the other hand, laws placing constraints on freedom of movement (*Going Places*) show the lowest levels of gender inequality (average of 87.24 points when unweighted and 92.36 when population weighted). When comparing weighted and unweighted scores, we can see that the relative rankings of the indicators change. For example, when country scores are weighted by population, the averages show that, across the world, women are most severely penalized when it comes to laws that are related to getting paid (population-weighted average score of 47.81 in 2019). This reflects the fact that in some highly-populated countries, such as China and India, women are severely discriminated against in this domain. In 2019, China and India scored 25 out of a possible 100 points in this indicator.

The regional averages for each topic—summarized in Table 1—show some interesting patterns. In high-income OECD economies, the average score is high for each topic; laws related to getting paid show the greatest degree of inequality but, nonetheless, receive a score of 89.84. There is more variation in other regions, take Europe and Central Asia for example; based on the aggregate WBL score, this region had the second highest average score (84.23 out of 100 points – see Figure 1). However, economies in this region clearly have significant room for improvement in terms of laws that affect the size of a woman’s pension, where their average score is 54 points.

Table 1: Average 2019 score by region for each WBL indicator

	Going Places	Starting a Job	Getting Paid	Getting Married	Having Children	Running a Business	Managing Assets	Getting a Pension
East Asia & Pacific	89.00 (16.27)	68.00 (34.25)	67.00 (21.31)	86.40 (20.59)	35.20 (32.29)	82.00 (11.46)	76.80 (27.50)	66.00 (25.90)
Europe & Central Asia	99.00 (5.00)	85.00 (22.82)	66.00 (31.36)	96.80 (7.48)	80.00 (16.33)	93.00 (11.46)	100.00 (0.00)	54.00 (23.58)
High-income OECD	100.00 (0.00)	97.66 (9.75)	89.84 (18.90)	95.00 (11.36)	90.00 (12.44)	95.31 (9.91)	98.75 (7.07)	90.63 (16.50)
Latin America & Caribbean	92.19 (13.38)	76.56 (30.41)	69.53 (20.80)	88.75 (14.31)	45.00 (26.88)	82.81 (13.38)	98.13 (5.92)	80.47 (20.80)
Middle East & North Africa	52.50 (37.96)	58.75 (39.96)	37.50 (27.51)	33.00 (26.97)	33.00 (25.36)	80.00 (10.26)	43.00 (13.42)	58.75 (28.42)
South Asia	90.63 (18.60)	84.38 (18.60)	46.88 (38.82)	70.00 (26.19)	30.00 (10.69)	71.88 (16.02)	55.00 (20.70)	50.00 (23.15)
Sub-Saharan Africa	82.29 (21.85)	76.04 (30.05)	62.50 (30.07)	67.50 (30.49)	44.58 (22.69)	72.40 (21.41)	73.33 (24.87)	80.21 (24.71)

Stylized Fact 3: Religious laws do not explain gendered laws.

Looking at the results for MENA, the poorest performing region in terms of gender equality, Table 1 shows that women face the lowest levels of legal discrimination when it comes to starting and running a business (an average score of 80 out of 100), and the highest number of constraints in laws related to marriage and laws that impact their economic rights upon having children. Apart from Malta (which is an outlier with a WBL score of 88.75 in 2019), all countries in the region are majority Muslim population; thus, the high number of legal gender restrictions in the region may relate to countries' compliance with conservative versions of Sharia (Islamic law). As discussed by Bowen (2018), during periods of colonization across Muslim Asia, Africa and the Middle East, colonial rulers applied their own Western law to criminal or commercial disputes, but were less inclined to reshape family law, which retained much of its Islamic influence.

While respecting nations' religious beliefs and values, it is worth considering to what extent laws that discriminate by gender could be reformed in the MENA region within the confines of Islamic law. Several authors have argued that it is patriarchal cultures, and not Islamic law, that is behind gender inequality in many countries. Braunstein (2014) argues that people too readily assume that Islam is a suitable proxy for

patriarchal preferences, and Ross (2008) maintains that in the Middle East the presence of substantial oil rents (that protect patriarchal norms), and not Islam, is the reason that women have made so little progress in terms of asserting their rights. Another reason to question the absolute link between Islamic law and legal gender restrictions is that, as Noland (2005), Bowen (2013) and Barlas (2019) note, laws derived from readings of the Quran are subject to many interpretations – as is the case with the reading of many sacred texts – and there are wide divergences in terms of practice. This may be why, as noted in King and Mason (2001), there is such a large variation in the autonomy of Muslim women in different contexts.

Mashhour (2005) argues that the restrictions placed on women's rights in many Muslim countries are not the result of Islamic law, but rather the result of patriarchal norms in these societies. Indeed, the author notes that the main aim of Sharia is to maintain justice and promote public welfare. By comparing the cases of Tunisia and the Arab Republic of Egypt (which, it is worth noting, had WBL scores in 2019 of 70 and 45, respectively), Mashhour (2005) argues that the liberal case of Tunisia should be considered as a model for how to incorporate gender equality in the family sphere within the bounds of Sharia. He argues that, as Sharia is partly divine (coming from the Quran and Sunna) and partly human-derived, it is not static but, rather, is constantly evolving. He concludes that common ground can indeed be found between Islamic law and gender equality.

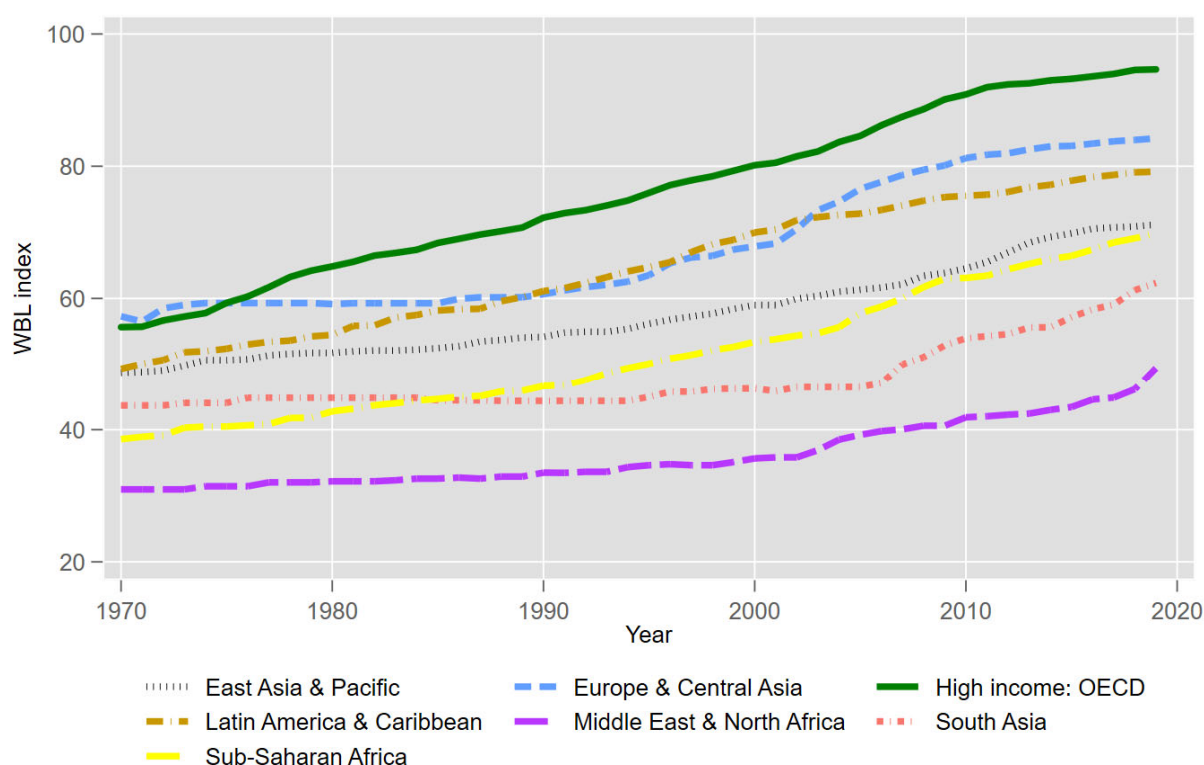
Stylized Fact 4: The past five decades have seen tremendous progress, but the pace of reform has differed across regions.

While the current state of legal gender equality is what matters to women now, it is also interesting to chart the progress of reform over the five decades covered by the WBL data. The unweighted global average WBL score increased from 46.48 to 75.23 points between 1970 and 2019, but different regions have made progress in terms of legal gender equality at different paces. As Figure 2 illustrates, while OECD economies are currently at the top of the ranking, in the 1970s, women in the Europe and Central Asia region faced fewer legal gender restrictions than their OECD counterparts. On the other hand, while regional average scores in the Latin America and Caribbean (LAC) and East Asia and Pacific (EAP) regions were very close in 1970, at 49.34 and 48.75 points respectively, economies in LAC have made greater progress towards legal gender equality over time, achieving a score of 79.18 by 2019, compared to 71.30 in EAP. Another interesting comparison is between the Sub-Saharan Africa and South Asia regions; while legal gender restrictions in 1970 were fewer in South Asia (WBL score of 43.67) compared to Sub-Saharan

Africa (WBL score of 38.57), by 2019, the average score in Sub-Saharan Africa was 69.86 points, while the average for South Asia lagged by almost eight points at 62.34.

Figure 2 also illustrates the slow progress in the MENA region. The overall index increased by less than four points (from 31 to 34.34 points) in the 25 years from 1970 to 1994. The subsequent 25 years (1995 to 2019) showed greater progress, with the average score increasing by almost 15 additional points.

Figure 2: Charting the progress of legal gender equality over time

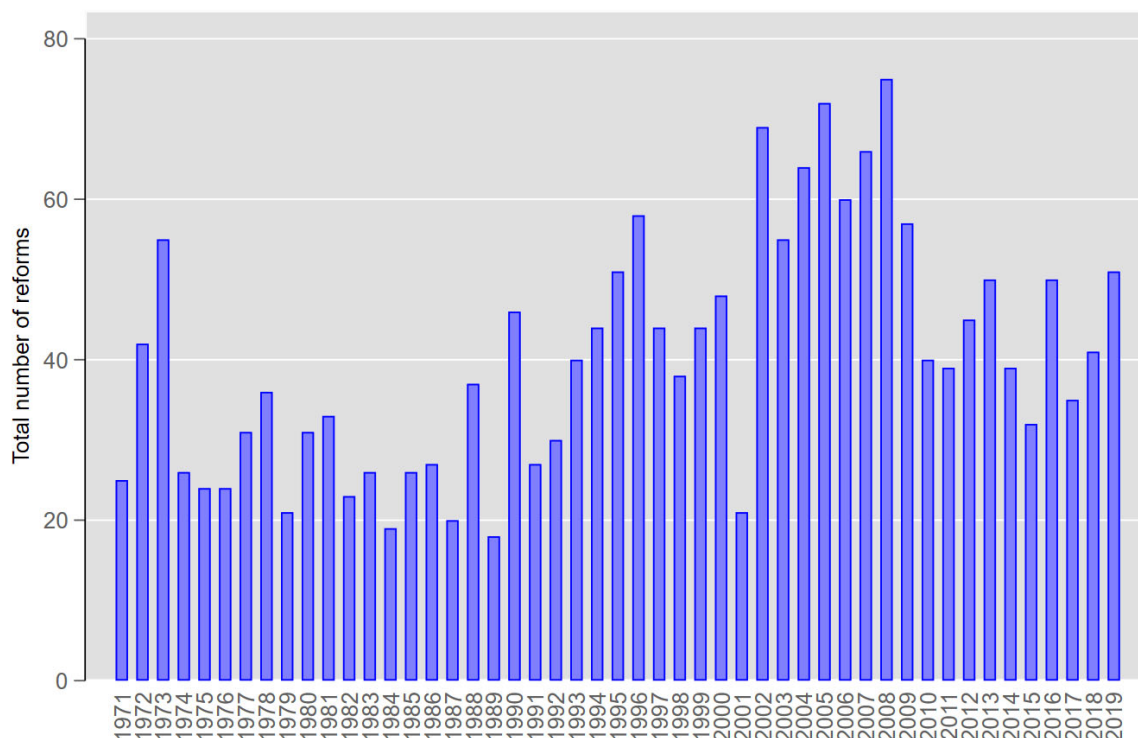


An alternative way of charting progress towards gender equality is to count the number of changes that have been made to the laws in each economy. Looking at the 35 individual aspects of gender equality covered by WBL, we count a reform as each time a legal restriction formerly placed upon women is removed. For example, in Afghanistan, the response to the question “Can a woman apply for a passport in the same way as a man?” changed from “No” to “Yes” between 2015 and 2016. Thus, this would be counted as one positive reform in Afghanistan in 2016.

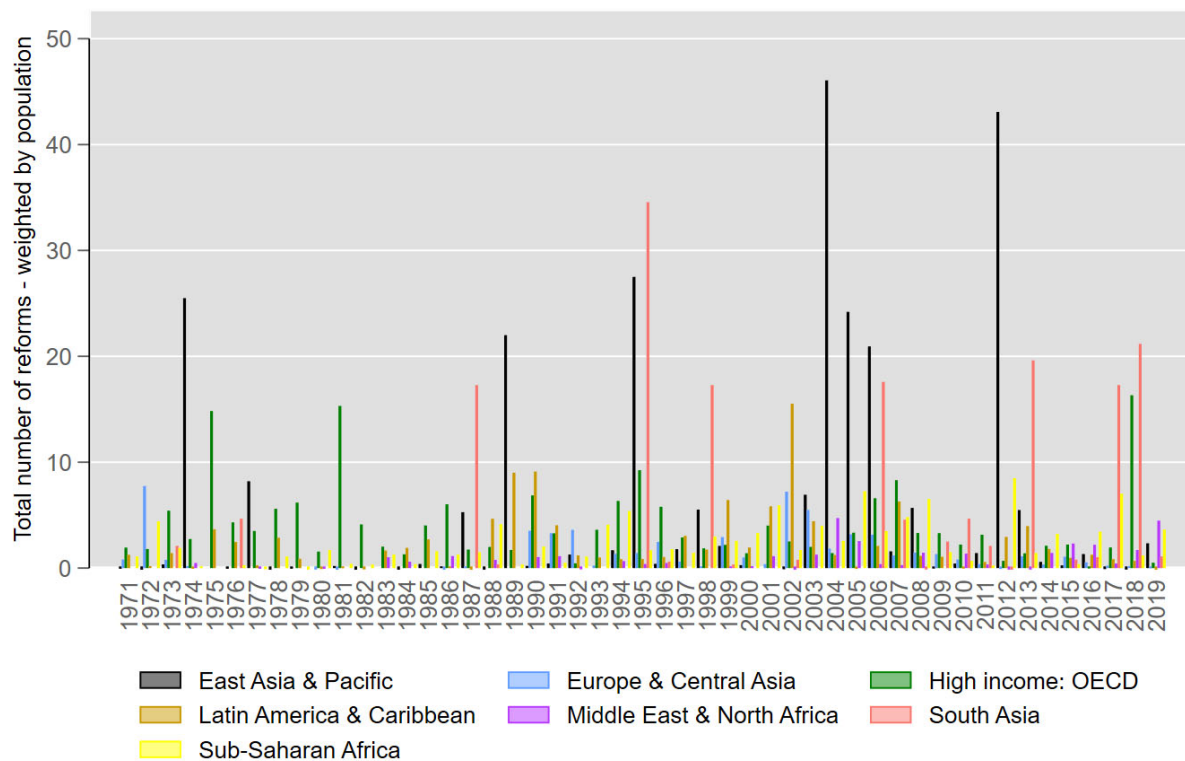
When all such changes across the globe are aggregated for each year, the data, illustrated in Figure 3, show that the peak year for reform was 2008. In that year, 75 reforms were made across the world. The top reforming region was Sub-Saharan Africa, where 28 reforms were implemented. This partly reflects the fact that it is the region with greatest number of economies – there are 47 economies in this region,

compared to only eight in South Asia, but the data do show that an ambitious reform agenda was undertaken by several Sub-Saharan African economies in the mid-2000s, with 2005 and 2008 being particularly reformatory years. In 2005—the peak year of reform in the region—35 reforms were implemented, with 10 countries implementing at least one. The top reformers—Benin and Botswana—each made changes to seven of the 35 data points measured. Other leaders in terms of reform were Mozambique (six reforms), Tanzania (four reforms) and Lesotho (three reforms). In 2008—the peak reform year across the globe—10 economies in the region again implemented at least one reform. In that year, Kenya and Mozambique were the lead reformers, with each country implementing reforms that equalized laws across six data points. Other strong reformers in the region were Namibia (four reforms), Cabo Verde and Sierra Leone (three reforms each). A likely driver of African reform around this period was the adoption of the Maputo Protocol by the African Union (AU). The Maputo Protocol guarantees wide-ranging equal rights to women, including the right to take part in political processes, increased autonomy in matters relating to their own health, and an end to female gender mutilation. Of the 35 aspects covered by the WBL index, 30 are included in the Maputo Protocol. The protocol came into force in 2005 after having being ratified by 15 member states of the AU. Over time, an increasing number of countries have signed-on and, as of 2018, 41 of the 54 member countries in the AU had ratified the protocol.

Figure 3: Total count of global reforms by year



When charting progress in gender equality, an interesting question to consider is the number of people affected by legal reforms. Progress in terms of population-weighted reforms is shown in Figure 4. When reforms are counted in this way, reforms in the EAP and South Asia regions stand out. There is a large spike in EAP in 1974 – a result of seven changes that were made in Indonesia in that year when laws were equalized across gender in the *Going Places*, *Starting a Job*, *Running a Business* and *Managing Assets* indicators. Large spikes also appear in the EAP region in 1989, 1995, 2004, 2005, 2006, and 2012, which all represent years in which China implemented at least one reform. The maximum number of reforms in China in a single year was two; in 2004, two reforms were made in laws related to having children and, in 2012, two reforms affecting women’s decision to work were made. Spikes also emerge in South Asia in 1987, 1995, 1998, 2006, 2013, 2017 and 2018, representing years in which India implemented at least one reform. In India, the maximum number of reforms implemented in a single year was also two – in 1995, India equalized laws on inheritance, which affected two data points.



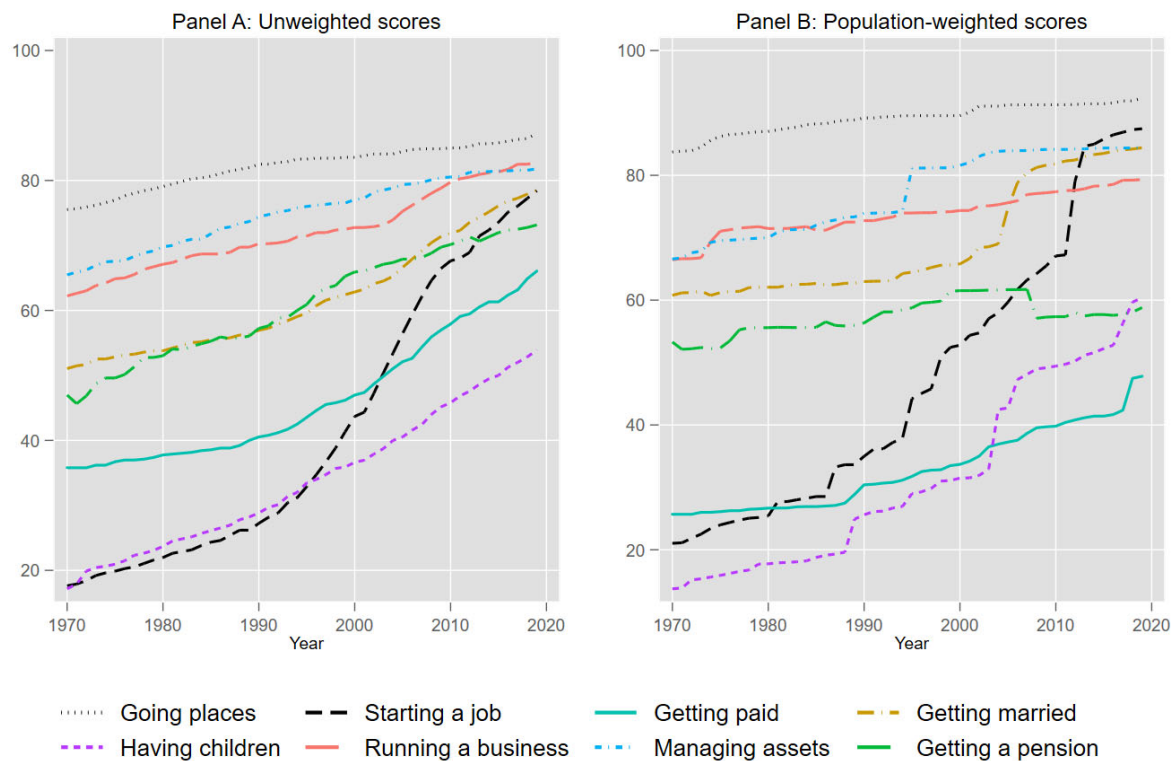
Stylized Fact 5: The pace of reform varies not only across countries, but also across the individual indicators.

As Figure 5 illustrates, *Starting a Job* displays the fastest pace of reform, when reforms are unweighted (Panel A) and when they are weighted by population (Panel B). The *Going Places* and *Managing Assets* indicators, both of which start from a relatively high base, display the slowest pace of reforms. The *Getting Paid* indicator also displays a slow pace of reform, despite starting from a relatively low base (this is particularly notable when average scores are weighted by population). Legal reform also progressed at a relatively slow pace in the *Getting a Pension* indicator. In fact, when the scores are weighted by population share, we see some regression of the laws that impact the size of a woman's pension in the latter half of the 2000s (Panel B in Figure 5). This drop in *Getting a Pension*, which is only evident when global averages are weighted by population, reflects a negative reform that was made in China in 2008. In that year, a labor contract law was enacted, which introduced mandatory retirement ages that differed by gender. Before this law was enacted, there was no mandatory retirement age.⁴

The differing pace of reforms across the indicators suggests that countries may display differing degrees of resistance to granting women equal rights under the law in different areas, and that economic factors may motivate reforms. For example, the fast pace of reforms in *Starting a Job* indicates that the progress in this area may have been motivated by the desire to better integrate women into the labor force during a time of rising demand for labor. We now turn to a more systematic investigation of the effects of reforms on labor market outcomes, using a framework that takes the potential economic motivation of reforms into account.

⁴ Labor Contract Law of the People's Republic of China of 29 June 2007, Art. 44(2) http://www.gov.cn/flfg/2007-06/29/content_669394.htm [accessed November 11, 2019].

Figure 5: Charting the progress of the indicators over time



5. Causal Impacts of Gender Laws on the Labor Market

5.1 Empirical Approach

In this section, we set out our approach to examining the relationship between the degree of gender equality in an economy, as measured by the WBL index, and women's labor market outcomes. The main outcome considered is the female labor force participation rate in the non-agricultural sector, although we also consider the association between gender equality and the wage gap and occupational segregation between men and women. We focus on the non-agricultural sector because almost all employment in agriculture in developing countries is informal, and hence not directly influenced by legislation.

Female labor force participation data come from two sources – national estimates and modeled ILO estimates.⁵ While national estimates have the advantage of spanning a longer time horizon, for some economies national estimates are unreliable and have many gaps in the series. For this reason, we use

⁵ Both data sets can be accessed via the World Bank's World Development Indicators (WDI): <http://datatopics.worldbank.org/world-development-indicators/>. The most recent available version of the WDI was used in the analysis, which is dated September 27, 2019.

national estimates only for the 32 high-income OECD economies in our data and use modeled ILO estimates for the remaining 158 economies. While this introduces a source of heterogeneity into the measurement of our outcome variable, even if we were to use ILO estimates exclusively, there would be differences between countries in terms of the data, as ILO sources for labor force statistics vary between countries depending on data availability. Furthermore, the inclusion of country fixed effects in model estimation should address this issue. Data on the gender wage gap are also from two sources – the ILO and OECD; ILO gender wage gap data are the difference between the mean earnings of men and the mean earnings of women, expressed as a percentage of the earnings of men; OECD data are similarly calculated but use median as opposed to mean earnings. As the OECD figures should be less sensitive to outliers, we use the OECD data whenever possible, and only use ILO figures in countries and years where OECD data are not available. For the third outcome, occupational segregation, we use occupational data compiled by the ILO to compute an Occupational Segregation Index by sex.⁶

We model the relationship between the WBL index and labor force outcomes as follows:

$$Y_{i,t} = \alpha + \beta WBL_{i,t-1} + \delta Z_{i,t} + \gamma_i + \phi_t + u_{i,t} \quad (1)$$

Y is the outcome for country i at time t ; WBL represents the WBL score in $t-1$; and $Z_{i,t}$ represents a set of potential control variables, including fertility rate, female education, income and male population. The terms γ_i and ϕ_t represent country and year fixed effects; $u_{i,t}$ is the error term. The WBL index is measured at a one-year lag, as we would not expect to see an impact of legal reform on women's labor market outcomes in the same year that reforms were implemented.

The coefficient β represents the relationship between gender equality and women's labor force outcomes across 190 countries, accounting for unobservable differences between countries and time periods (captured by the fixed effects). However, within this framework we cannot attribute a causal effect of legal gender equality to female labor force participation, as there may be some time-varying unobservable $\eta_{i,t}$, which is correlated with both the WBL score and female labor supply. A likely candidate for this

⁶ As discussed by Blau, Brummund and Liu (2013), differences in the distribution of men and women across a range of occupations can be described in a simple index. The most commonly used measure of occupational segregation was developed by Duncan and Duncan (1955), and can be calculated as: $OSI_t = (0.5) \sum_i |m_{it} - f_{it}|$, where m_{it} and f_{it} are the proportion of males and females, respectively, that are employed in occupation i at time t . ILO data on employment by occupation are available for 143 economies from 1991 to 2017; however, the series has several gaps, as coverage varies from year to year and between economies. The data are, in general, much more complete for high-income OECD economies.

unobservable factor is labor demand – when the demand for labor is increasing, more women are likely to join the labor force; at the same time, economies may be more likely to remove restrictions that prevent women from participating in the workforce to facilitate the provision of additional workers. To deal with this issue, we adopt the novel approach of Freyaldenhoven, Hansen and Shapiro (2019), FHS henceforth, who outline a methodology to identify causal effects in a panel data study when a time-varying unobservable confound $\eta_{i,t}$ is present, through the use of a covariate which is only related to the policy in question through the unobservable confound. To implement their approach, it is necessary to identify a covariate $x_{i,t}$ that is affected by the confounding variable $\eta_{i,t}$ but unaffected by the WBL index. Once a covariate has been identified, the authors show that β , the causal effect of the policy in question, can be estimated via two-stage-least squares (2SLS) regression of the outcome $Y_{i,t}$ on the policy variable of interest (in our case, $WBL_{i,t-1}$) and the covariate $x_{i,t}$ using leads of the policy variable as an instrument for $x_{i,t}$. As FHS explain, the covariate $x_{i,t}$ is a noisy proxy for the confound $\eta_{i,t}$. If $x_{i,t}$ were a perfect proxy for the confound, simply adding it as a control variable would allow for causal identification of the parameter β .

Thus, the first model we estimate is a modified version of equation (1) in which we directly control for the covariate $x_{i,t}$ in an OLS model:

$$Y_{i,t} = \alpha + \beta WBL_{i,t-1} + \mu x_{i,t} + \delta Z_{i,t} + \gamma_i + \phi_t + u_{i,t} \quad (2)$$

Next, we proceed to implement the FHS procedure by estimating the following equation via 2SLS, using the lead of the policy variable (i.e., $WBL_{i,t+1}$) as the instrument for $x_{i,t}$:

$$Y_{i,t} = \alpha + \beta WBL_{i,t-1} + \vartheta \hat{x}_{i,t} + \delta Z_{i,t} + \gamma_i + \phi_t + u_{i,t} \quad (3)$$

FHS note that the choice of the covariate $x_{i,t}$ should be based on economic reasoning; we employ as our covariate regional non-agricultural value added, interacted with country i 's oil rents as a percentage of GDP.⁷ We hypothesize that this variable is an imperfect proxy for labor demand because, as economies in a region move away from agricultural production and towards manufacturing and services industries, this should cause the demand for labor to increase. We interact regional non-agricultural value added with oil rents for several reasons – oil production has been tied to slower economic growth (for a discussion of

⁷ Data on oil rents as a percentage of GDP are from the World Bank's WDI data set. Per unit oil rents are the difference between the world price of the commodity and the costs of producing it (the estimated extraction and harvesting costs). Per unit rents are multiplied by the physical quantities that countries extract and are presented as a share of GDP.

the “natural resource curse” refer to Sachs and Warner, 2001) and violent conflict (Bannon and Collier, 2003), which may dampen the demand for increased female labor despite regional industrialization. A stronger argument for its inclusion comes from the work of Ross (2008) who shows that a rise in the value of oil production may reduce female labor force participation because natural resource booms result in a decline of the traded sector where, in developing economies in particular, many women tend to be employed (for example, in export-oriented manufacturing plants) and growth in the nontraded sector (for example, sectors such as construction, from which women tend to be excluded). An important assumption of the FHS model is that the policy variable of interest should not have a direct impact on the covariate. It is for this reason that we use a measure of non-agricultural value added at the regional level that excludes the observation of country i . For oil rents, we assume these are exogenously determined and do not anticipate that equalization of gender laws would impact them.

The application of the FHS methodology relies on a number of assumptions. According to FHS, a necessary condition for the application of their methodology is that the policy variable of interest should not have a direct impact on the covariate. We test this by regressing $x_{i,t}$ on the WBL index; the regression results (presented in Appendix Table A3) confirm no impact (the p-value on the WBL index in this regression is 0.69). A second condition of the FHS approach is evidence of a pre-trend in the covariate $x_{i,t}$. We test this by regressing our covariate $x_{i,t}$ on the lead of the WBL index ($WBL_{i,t+1}$). If there is a pre-trend present, the coefficient on the lead of the policy variable should be statistically significant. The results from our baseline model (regression of female labor supply on the WBL index and the covariate) show that, according to the first stage of the 2SLS model, the lead of the WBL index is a significant predictor of $x_{i,t}$ (results presented in Table A4 in the Appendix). The results also show that the p-value from the under-identification test is 0.01, suggesting that we can reject the null hypothesis of under-identification.

In our baseline model, we do not include any other covariates; this is our preferred specification, as the only endogenous variable contained in the model is the WBL index, which we explicitly account for through the use of the FHS methodology. However, we test the robustness of our results to the inclusion of several covariates that may also be associated with women’s labor market outcomes; specifically, the fertility rate, female education, income (GDP per capita and its square term), and the male working-age population; these are comprised in the vector $Z_{i,t}$ in equations (1) to (3).

5.2 Results

The results of the panel data regressions, using the OLS and FHS models (i.e., equations (2) and (3)) are presented in Table 2.

Columns (1) to (4) in Table 2 consider the relationship between gender equality under the law and the female labor force participation rate. Columns (1) and (2) present the OLS results, under a parsimonious model and after the inclusion of several, potentially endogenous, covariates. In both cases, the relationship is positive and significant; the inclusion of the additional covariates has very little impact on the coefficient on the WBL index. The FHS results, presented in columns (3) and (4), imply that the relationship between gender equality and female labor supply is slightly stronger than the OLS results would suggest, although the OLS and FHS models do not yield statistically different results. Regardless of the model used, the magnitude of the effect is modest – a one-point increase in the WBL index is associated with an increase in female labor force participation of between 0.047 and 0.053 percent. On average, implementing one WBL reform increases the index by 2.9 points; thus, the reform of a single one of the 35 WBL data points would be associated with an increase in female labor supply of between 0.14 and 0.15 percent.

Columns (5) to (6) in Table 2 show that, according to OLS estimation, improvements in gender equality under the law are associated with a reduction in the wage gap between men and women. Again, while the relationship between legal gender equality and women's economic outcomes is positive (in that it is associated with a lower wage gap), it is modest; a one-point increase in the WBL index is associated with a 0.09 to 0.1-percentage point reduction in the wage gap (the median gender wage gap in our sample is 15.64 percent). However, according to the FHS model results (columns (7) and (8)), there is no statistically significant relationship between the WBL index and the pay gap. As the FHS model is designed to identify the causal impact of a policy variable, we can infer from these results that there is no causal effect of the WBL index on the gender wage gap. Similar results hold for occupational segregation between genders (columns (9) through (12) in Table 2). The OLS results with other covariates included (column (10)) suggest that increases in the WBL index are associated with lower levels of occupational segregation between genders, but the results under the FHS model show no significant effect (columns (11) and (12)).

Table 2: The relationship between legal gender equality and women's labor market outcomes

	Female labor force participation				Gender wage gap				Occupational segregation			
	OLS		FHS		OLS		FHS		OLS		FHS	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
WBL index (t-1)	0.047*** (0.009)	0.047*** (0.009)	0.053*** (0.016)	0.048** (0.020)	-0.088*** (0.030)	-0.101*** (0.034)	-0.063 (0.067)	-0.260 (1.012)	-0.026 (0.023)	-0.056** (0.024)	0.004 (0.100)	-0.048 (0.037)
Regional non-ag VA * Oil rents	0.000** (0.000)	0.000* (0.000)	0.002 (0.004)	0.001 (0.004)	0.003** (0.001)	0.003** (0.001)	-0.029 (0.070)	-0.173 (1.103)	-0.003*** (0.001)	-0.003*** (0.001)	0.078 (0.210)	0.015 (0.057)
GDP per capita (constant 2010 US\$)		0.000*** (0.000)		0.000*** (0.000)		0.000 (0.000)		-0.003 (0.021)		0.000*** (0.000)		0.001** (0.000)
GDP per capita squared		-0.000 (0.000)		-0.000 (0.000)		-0.000 (0.000)		0.000 (0.000)		-0.000*** (0.000)		-0.000*** (0.000)
Fertility rate		-2.084*** (0.179)		-2.085*** (0.179)		1.705** (0.770)		0.263 (9.640)		-1.959** (0.796)		-2.019** (0.919)
Male working age population		0.000 (0.000)		0.000 (0.000)		0.000** (0.000)		0.000 (0.000)		-0.000* (0.000)		-0.000 (0.000)
Average years of education, female ages 25 plus		1.258*** (0.175)		1.260*** (0.177)		5.359*** (1.303)		27.129 (136.696)		0.931 (1.484)		0.721 (1.811)
_cons	36.684*** (0.722)	29.628*** (1.461)			17.436*** (2.853)	-54.180*** (15.391)			33.599*** (2.023)	26.548* (15.819)		
_N	4,927	4,459	4,927	4,458	999	949	990	943	1,395	1,215	1,370	1,194

Notes: Standard errors are presented in parentheses; .01 - ***, .05 - **, .1 - *. All regressions include country and year fixed effects

While the impacts of WBL-type reforms on female labor supply are modest, the data suggest that the impacts do appear to be increasing over time. Panel A in Table 3 shows that, if the WBL index is measured at a five-year lag, a one-point increase in the index is associated with an increase in the female labor force participation rate of approximately 0.06 percentage points, which increases to approximately 0.07 after 10 years. The data show no impact of the WBL index on the wage gap or occupational segregation when longer lags are used.

Turning next to the eight individual indicators that make up the WBL index, Panel B in Table 3 shows that the indicators that are significantly associated with increased female labor supply are *Starting a Job*, *Getting Married* and *Running a Business*. The fact that *Starting a Job* and *Running a Business* show evidence of a causal relationship with female labor supply provides support for our choice of methodology, as one would expect these laws to most directly impact women’s decisions to work (either by seeking employment or by starting their own business). Additionally, several other studies have documented a link between the removal of discrimination against married women (captured in the *Getting Married* indicator) and female labor supply.⁸

While we find no robust evidence of a link between the individual indicators and the gender wage gap,⁹ we do find that some of the indicators underlying the aggregate index are related to rates of occupational segregation between genders. Panel C in Table 3 shows that reforming constraints related to marriage (*Getting Married*) and the size of a woman’s pension (*Getting a Pension*) are associated with lower levels of occupational segregation between genders. On the other hand, Panel C in Table 3 also shows that laws and regulations affecting women’s pay and women’s work after having children (*Getting Paid* and *Having Children*) are associated with higher levels of occupational segregation between men and women. These negative impacts are not entirely surprising – early analysis of the impacts of maternity leave on female labor market outcomes shows that while short periods of maternity leave are associated with increased female employment, longer periods of leave are associated with negative wage effects (Ruhm, 1998). Olivetti and Petrongolo (2017) highlight the nuanced relationship between “family-friendly” leave policy and female labor market outcomes that have been uncovered in the literature. Furthermore, recent evidence on the long-term impacts of California’s Paid Family Leave Act finds it is associated with declines in female employment and wages for first-time mothers (Bailey et al., 2019). On the increased occupational segregation associated with positive reforms in the *Getting Paid* indicator, it is plausible that

⁸ Goldin and Olivetti (2013); Hallward-Driemeier, Hasn and Rusu (2013); Gonzales et al. (2015).

⁹ The results are not presented here for brevity but are shown in Table A5 in the Appendix.

legal reform in this area may result in women working in more family-friendly jobs that offer more flexibility but are associated with lower pay. Early evidence of unintended consequences of equal-pay legislation is presented by Pike (1985), who finds that equal pay legislation in the United Kingdom was associated with a decline in female employment in the manufacturing sector.

6. Conclusions

While several individual studies have illustrated how legal gender discrimination is related to economic outcomes, the literature has been missing a global picture of legal inequalities – contrasting the experience of countries where women are given the same rights under the law as men with that of countries where the legal gender gap is large, and examining the evolution of gender equality over time. This paper fills these gaps. First, we present an overview of the WBL database, highlighting the differences between countries and regions, and chart the development of gender equality over time. We find that, across the world, women still face by legal gender discrimination across multiple domains. The level of legal discrimination is particularly onerous in some highly-populated countries and, therefore, restricts economic opportunities for a very large number of women. Having documented the extent of and trends in legal discrimination between men and women, we then study the relationship between these legal restrictions and women’s labor market outcomes. Focusing on female labor force participation, panel estimations of data from 190 economies over 50 years reveals that a more level legal playing field between men and women is associated with more women participating in the workforce; there is also some indication from the data that better rights for women are associated with a lower gender pay gap.

Table 3: Testing the results along additional dimensions – FHS results only

Panel A: The relationship between labor force outcomes and lagged WBL reform								
	Y = Female labor force participation		Y = Gender wage gap		Y = Occupational segregation			
	WBL in t-5	WBL in t-10	WBL in t-5	WBL in t-10	WBL in t-5	WBL in t-10		
WBL index	0.059*** (0.009)	0.070*** (0.010)	0.061 (0.199)	0.016 (0.084)	-0.006 (0.110)	0.019 (0.362)		
Regional non-ag VA * Oil rents	-0.001 (0.002)	-0.004* (0.002)	-0.112 (0.177)	-0.086 (0.076)	-0.012 (0.047)	-0.047 (0.223)		
_N	4,910	4,859	984	959	1,370	1,370		
Panel B: The relationship between individual indicators and female labor force participation								
	Going Places	Starting a Job	Getting Paid	Getting Married	Having Children	Running a Business	Managing Assets	Getting a Pension
WBL index t-1	0.048 (0.097)	0.010* (0.005)	0.014 (0.013)	0.032** (0.013)	0.011 (0.015)	0.014** (0.006)	0.011 (0.013)	0.022 (0.066)
Regional non-ag VA * Oil rents	0.016 (0.108)	-0.006 (0.007)	0.017 (0.021)	0.007 (0.006)	-0.018 (0.018)	-0.002 (0.006)	0.004 (0.011)	0.045 (0.106)
_N	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927
Panel C: The relationship between individual indicators and occupational segregation								
	Going Places	Starting a Job	Getting Paid	Getting Married	Having Children	Running a Business	Managing Assets	Getting a Pension
WBL index t-1	-0.453 (0.933)	-0.006 (0.019)	0.014* (0.008)	-0.048*** (0.017)	0.060*** (0.021)	-0.107 (0.105)	-0.088 (0.147)	-0.037** (0.016)
Regional non-ag VA * Oil rents	0.085 (0.544)	-0.027 (0.040)	0.009 (0.040)	0.015 (0.012)	0.041 (0.036)	0.067 (0.096)	-0.181 (0.214)	0.010 (0.025)
_N	1,370	1,370	1,370	1,370	1,370	1,370	1,370	1,370
Notes: Standard errors are presented in parentheses; .01 - ***; .05 - **; .1 - *. All regressions include country and year fixed effects								

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Appendix

Appendix 1: Additional Data Details

Table A1: The eight indicators and 35 legislative topics covered by the WBL index

1. Going Places
1. Can a woman choose where to live in the same way as a man?
2. Can a woman travel outside her home in the same way as a man?
3. Can a woman apply for a passport in the same way as a man?
4. Can a woman travel outside the country in the same way as a man?
2. Starting a Job
5. Can a woman get a job in the same way as a man?
6. Does the law prohibit discrimination in employment based on gender?
7. Is there legislation on sexual harassment in employment?
8. Are there criminal penalties or civil remedies for sexual harassment in employment?
3. Getting Paid
9. Does the law mandate equal remuneration for work of equal value?
10. Can women work the same night hours as men?
11. Can women work in jobs deemed dangerous in the same way as men?
12. Are women able to work in the same industries as men?
4. Getting Married
13. Is there no legal provision that requires a married woman to obey her husband?
14. Can a woman legally be head of household in the same way as a man?
15. Is there legislation specifically addressing domestic violence?
16. Can a woman obtain a judgment of divorce in the same way as a man?
17. Does a woman have the same rights to remarry as men?
5. Having Child
18. Is paid leave of at least 14 weeks available to mothers?
19. Does the government administer 100% of maternity leave benefits?
20. Is paid leave available to fathers?
21. Is there paid parental leave?
22. Is dismissal of pregnant workers prohibited?

6. Running a Business
23. Does the law prohibit discrimination in access to credit based on gender?
24. Can a woman sign a contract in the same way as a man?
25. Can a woman register a business in the same way as a man?
26. Can a woman open a bank account in the same way as a man?
7. Managing Assets
27. Do men and women have equal ownership rights to immovable property?
28. Do sons and daughters have equal rights to inherit assets from their parents?
29. Do female and male surviving spouses have equal rights to inherit assets?
30. Does the law grant spouses equal administrative authority over assets during marriage?
31. Does the law provide for valuation of nonmonetary contributions?
8. Getting a Pension
32. Are the ages at which men and women can retire with full pension benefits equal?
33. Are the ages at which men and women can retire with partial pension benefits equal?
34. Is the mandatory retirement age for men and women equal?
35. Are periods of absence due to child care accounted for in pension benefits?

Appendix 2: Regression Diagnostics for Application of the FHS Methodology

In this section, we present some regression diagnostics that illustrate the applicability of the approach proposed by Freyaldenhoven, Hansen and Shapiro (2019) to our analysis.

First, as FHS discuss, when faced with a situation where the strict exogeneity of a policy variable (in our case, the WBL index) may fail due to the presence of an unobserved confound ($\eta_{i,t}$), a common approach is to examine whether there is a pre-trend in the policy variable, i.e., to look at whether the policy has an impact on the outcome before the policy actually occurs. To test this, we regress our three outcome variables (female labor supply, the wage gap and occupational segregation) on the lead of the WBL index. The results, summarized in Table A2, suggest the presence of a pre-trend in female labor supply and the gender wage gap, but there is no evidence of a pre-trend in occupational segregation (the coefficient on $WBL_{i,t+1}$ is not significant). However, as FHS point out, this does not rule out the presence of a pre-trend; the authors note that a pre-trend may still be present but may not have been detected due to limited statistical power.

Table A2: FHS model diagnostics – testing for a pre-trend in the outcome variable

	Y = Female labor force participation rate	Y = Gender wage gap	Y = Occupational segregation
WBL index (t+1)	0.038*** (0.010)	-0.081*** (0.032)	-0.000 (0.024)
_cons	19.846*** (1.044)	41.959*** (4.566)	32.995*** (2.402)
Notes: Standard errors are presented in parentheses; .01 - ***; .05 - **; .1 - *. All regressions include country and year fixed effects			

Second, the authors state that their approach requires that the covariate $x_{i,t}$ be affected by the confounding variable $\eta_{i,t}$ but not by the policy variable (in our case, $WBL_{i,t-1}$). We test for a relationship between the policy and the covariate by regressing regional non-agricultural value added multiplied by oil rents on the lagged WBL index. The results, displayed in Table A3, suggest that the WBL index is not significantly related to the chosen covariate.

Table A3: FHS model diagnostics – regressing WBL on the covariate

Y = Regional non-agricultural value added * Oil rents	
WBL index (t-1)	0.292 (0.725)
_cons	215.248*** (60.521)
Notes: Standard errors are presented in parentheses; .01 - ***; .05 - **; .1 - *. Regression includes country and year fixed effects	

Third, the FHS approach requires that there be a pre-trend in the covariate $x_{i,t}$. In our application, this implies that the lead of the WBL index should be a significant predictor of regional non-agricultural value added multiplied by oil rents. This can be investigated by looking at the output from the first stage of the two-stage least squares approach. The results, presented in Table A4, show that the covariate in time t is significantly associated with the lead of the policy variable (the coefficient on the lead of the WBL index is significant in the first stage, and the null hypothesis of the under-identification test can be rejected).

Table A4: FHS model diagnostics – first stage of the 2SLS model

Y = Regional non-agricultural value added * Oil rents	
WBL index (t+1)	-3.386** (1.389)
Notes: Standard errors are presented in parentheses; .01 - ***; .05 - **; .1 - *. Regression includes country and year fixed effects	
Under identification test:	
Anderson canon. corr. LM statistic:	5.998
Chi-sq(1), P-val	0.014

Appendix 3: Additional results table

Table A5: OLS and FHS results of regressions of female labor market outcomes on WBL indicators

Panel A: Y = Female labor force participation rate

	Going places		Starting a job		Getting paid		Getting married		Having a child		Running a business		Managing assets		Getting a pension	
	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS
Indicator in t-1	0.035*** (0.010)	0.048 (0.097)	0.013*** (0.003)	0.010* (0.005)	0.006 (0.004)	0.014 (0.013)	0.019*** (0.006)	0.032** (0.013)	0.021*** (0.005)	0.011 (0.015)	0.016*** (0.005)	0.014** (0.006)	0.007 (0.006)	0.011 (0.013)	-0.004 (0.004)	0.022 (0.066)
Reg. non-ag VA *Oil rent	0.000* (0.000)	0.016 (0.108)	0.000** (0.000)	-0.006 (0.007)	0.000* (0.000)	0.017 (0.021)	0.000* (0.000)	0.007 (0.006)	0.000* (0.000)	-0.018 (0.018)	0.000* (0.000)	-0.002 (0.006)	0.000* (0.000)	0.004 (0.011)	0.000* (0.000)	0.045 (0.106)
_cons	37.235*** (0.916)		39.213*** (0.327)		39.795*** (0.5153)		38.795*** (0.513)		39.122*** (0.349)		38.962*** (0.487)		39.674*** (0.549)		40.581*** (0.390)	
_N	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927	4,927

Panel B: Y = Gender wage gap

	Going places		Starting a job		Getting paid		Getting married		Having a child		Running a business		Managing assets		Getting a pension	
	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS
Indicator in t-1	-0.030 (0.029)	0.214 (1.377)	-0.014* (0.009)	0.009 (0.277)	-0.036*** (0.013)	-0.035 (0.023)	-0.023 (0.018)	-0.002 (0.028)	-0.001 (0.014)	0.004 (0.036)	-0.064*** (0.017)	-0.096 (0.101)	-0.062** (0.026)	-0.043 (0.033)	0.012 (0.014)	0.009 (0.024)
Reg. non-ag VA *Oil rent	0.003** (0.001)	-0.428 (2.365)	0.003** (0.001)	0.119 (1.368)	0.003** (0.001)	0.002 (0.021)	0.003** (0.001)	0.046** (0.022)	0.003** (0.001)	0.093 (0.184)	0.003** (0.001)	0.136 (0.338)	0.003** (0.001)	-0.014 (0.016)	0.003** (0.001)	0.008 (0.034)
_cons	12.654*** (3.018)		11.019*** (1.322)		12.381*** (1.417)		11.844*** (2.012)		9.811*** (1.494)		15.596*** (1.913)		15.806*** (2.765)		8.780*** (1.552)	
_N	999	990	999	990	999	990	999	990	999	990	999	990	999	990	999	990

Panel C: Y = Occupational segregation

	Going places		Starting a job		Getting paid		Getting married		Having a child		Running a business		Managing assets		Getting a pension	
	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS	OLS	FHS
Indicator in t-1	-0.304*** (0.042)	-0.453 (0.933)	0.004 (0.006)	-0.006 (0.019)	0.014** (0.007)	0.014* (0.008)	-0.060*** (0.013)	-0.048*** (0.017)	0.043*** (0.010)	0.060** (0.021)	-0.036*** (0.013)	-0.107 (0.105)	-0.107*** (0.025)	-0.088 (0.147)	-0.031*** (0.009)	- 0.037** (0.016)
Reg. non-ag VA *Oil rent	-0.002*** (0.001)	0.085 (0.544)	-0.003*** (0.001)	-0.027 (0.040)	-0.003*** (0.001)	0.009 (0.040)	-0.003*** (0.001)	0.015 (0.012)	-0.002*** (0.001)	0.041 (0.036)	-0.002*** (0.001)	0.067 (0.096)	-0.003*** (0.001)	-0.181 (0.214)	-0.002*** (0.001)	0.010 (0.025)
_cons	60.376*** (3.991)		30.979*** (0.684)		30.236*** (0.670)		36.749*** (1.227)		28.227*** (0.790)		34.652*** (1.277)		41.495*** (2.422)		33.635*** (0.775)	
_N	1,395	1,370	1,395	1,370	1,395	1,370	1,395	1,370	1,395	1,370	1,395	1,370	1,395	1,370	1,395	1,370

Notes: Standard errors are presented in parentheses; .01 - ***, .05 - **, .1 - *. All regressions include country and year fixed effects