Global Evidence on the Gender Wage Gap

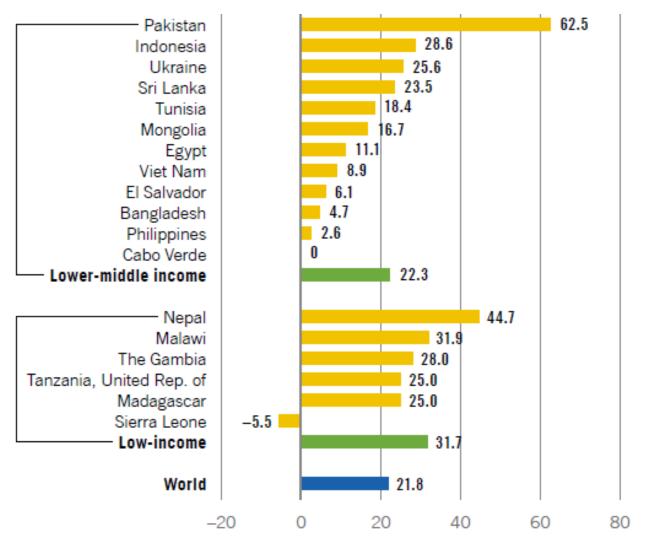
Kathleen Beegle, World Bank October 2021

Work-in-progress with Andrea Atencio and Josefina Posadas

Please do not cite

Raw (unadjusted) gender wage gap

Female to Male Median Wage Ratio



- The gender wage gap is large
 - Women in the median of the female wage distribution earn 21.8% of what men in the median of the male wage distribution earn.
- High cross-country variation
 - The gender wage gap in median wages ranges from -5.5 to 62.5 in low and low-middle income countries.

Source: ILO. 2018. Global Wage Report 2018/19: What lies behind gender pay gaps. International Labour Office – Geneva: ILO.

- The literature on gender wage gaps is vast.
- And there is considerable variability in terms of country and time coverage, data sources and variables definitions, methodologies of diverse degree of complexity, and (somewhat) findings.
- Fewer cross-country studies than individual country studies.

Consider how development and gender wage gaps evolve.

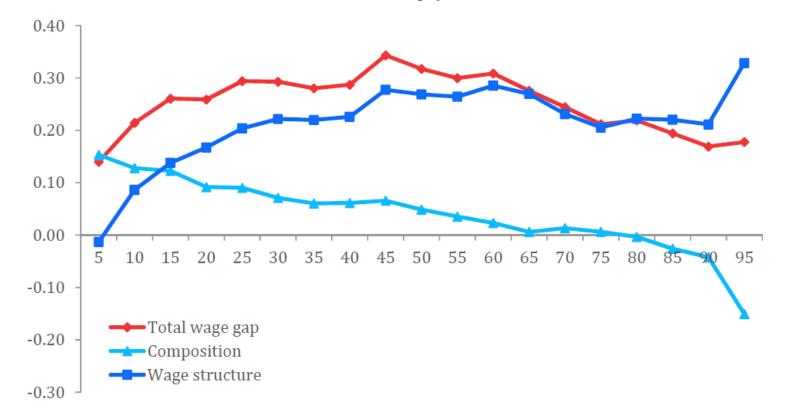
Use cross-country data to examine development patterns (or lack of) that underpin global gender wage gaps.

"Adjusting" raw gender wage gaps by decomposition

- Endowment effects: or composition effects. This addressed the differences between observable traits of workers, such as education levels; sometimes called the component that is "explained" by differences in labor market attributes of workers.
 - Contrary to priors, adjusting for observable differences can make the wage gap look worse rather than better, as in the case of education where women's schooling has surpassed men.
- Coefficient effects: differences in returns between sexes, sometimes referred to as "unexplained" wage gap and "wage structure" effects. Often, but probably incorrectly, referred to as evidence of labor market discrimination.
- Can be done across the wage distribution (to look for "sticky floors" and "glass ceilings")

Russia Gender wage gap: distributional patterns

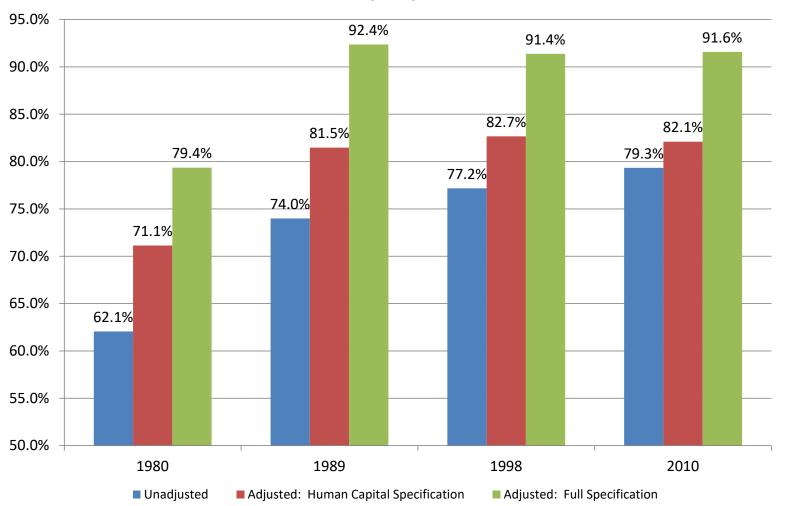
Decomposition of total gender pay gap into composition and wage structure effects, by percentile in 2011



- The distribution matters
 - Differences in observables characteristics between men and women explains the gender pay gap at the bottom of the distribution.
 - **Differences in the return** to those characteristics explain the gender pay gap at the **top** of the distribution.
- Same policy not equally effective for all women.

U.S. Gender wage gap: over time

Female to Male Wage Ratios, Unadjusted and Adjusted for All Covariates (PSID)



The gender wage gap has closed over time...but not completely.

Human capital specification

 controls for education and experience (also race and region)

Full specification

 + occupation, industry and unionism

Source: Blau, IZA World Labor Conference 2018 presentation

Global gender wage gaps: Stylized facts

- Raw gender wage gaps large in LICs
 - But not in MNA
 - In a small number of countries there is a negative wage gap (with the average woman wage worker earning slightly more than her male peers).

	O a contriba a	Ratio of women/men			
	Countries	Avg	p25	p50	p75
Region					
East Asia & Pacific	10	0.85	0.84	0.80	0.85
Europe & Central Asia	13	0.85	0.90	0.81	0.85
Latin America & the Caribbean	17	0.98	1.03	0.99	1.00
Middle East & North Africa	4	1.45	0.90	1.10	1.20
South Asia	5	0.60	0.71	0.68	0.52
Sub-Saharan Africa	27	0.76	0.83	0.87	0.83
Income level					
Low Income	21	0.71	0.47	0.50	0.51
Middle Income	53	0.95	1.62	1.02	1.01
High Income	2	0.92	0.92	0.95	0.96

Raw gender wage gaps

- Large in LICs
 - Vary greatly across regions
 - Vary across the wage distribution within regions

Global gender wage gaps: Stylized facts

- Raw gender wage gaps large in LICs
- Most of the gender wage gap is not explained by observable traits
 - And in some contexts, adjusting for endowments widens the gap

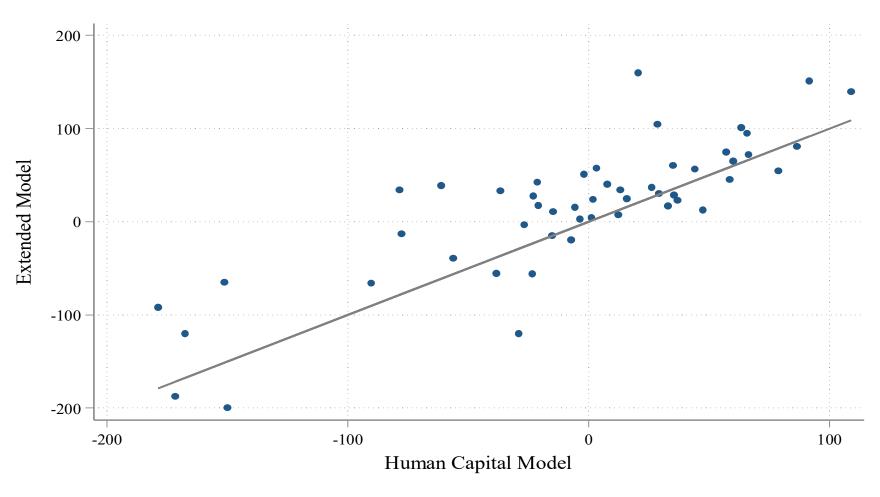
Most of the gender wage gap is not explained by observable traits, except in MNA

Dagian	Carretulas	Explained (% GWG)		
Region	Countries -	Human Capital	Extended	
East Asia & Pacific	10	-21.71	-9.11	
Europe & Central Asia	9	-8.62	17.36	
Latin America & the Caribbean	7	-79.45	-32.22	
Middle East & North Africa	3	57.63	111.78	
South Asia	5	11.76	13.17	
Sub-Saharan Africa	17	17.51	34.05	

- Extended includes industry and occupation
- Negative %
 indicates that
 adjusting for
 endowment
 results in *larger* gap.

Not a strong occupational segregation story

Percentage of the gender wage gap explained by the observable traits



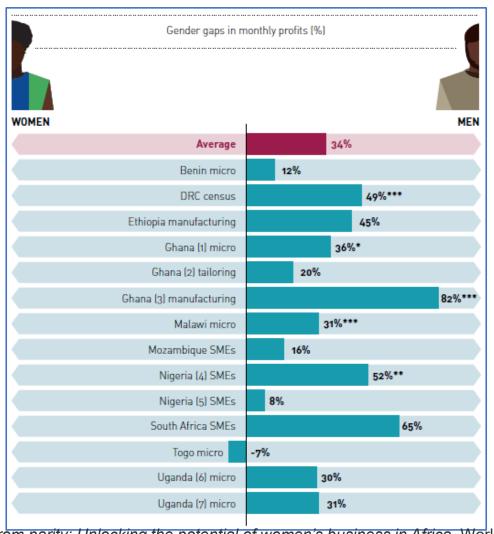
Human capital specification

 controls for education, experience, urban

Full specification

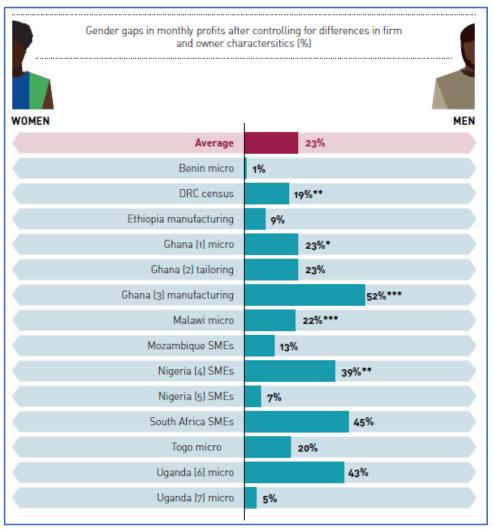
+ occupation and industry

It's not just about gender gaps in wages... Gender income gaps in non-wage jobs: entrepreneurs



Source: World Bank Group. 2019. Profiting from parity: Unlocking the potential of women's business in Africa. World Bank, Washington, DC.

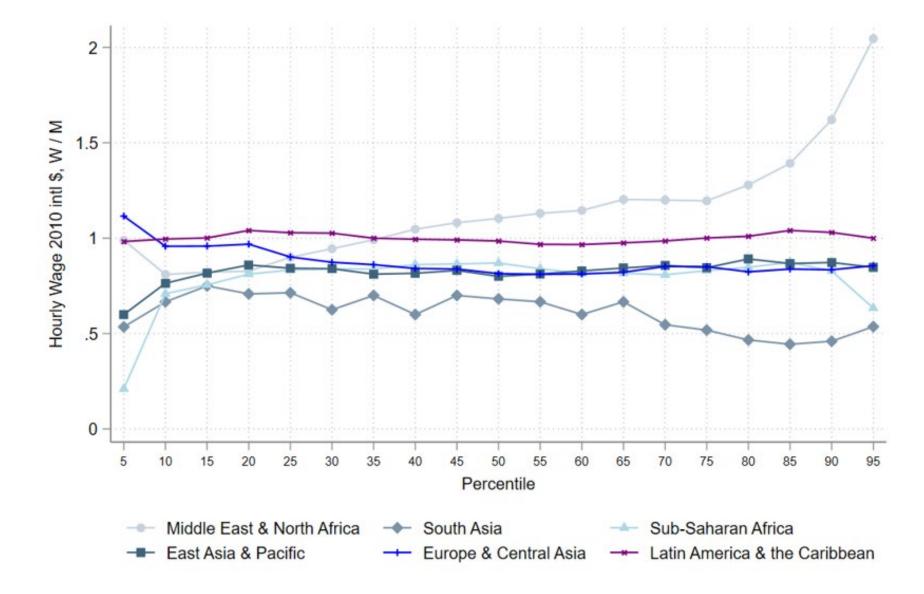
And observable traits do not explain most of the differences: 34% falls to 23% gap



Source: World Bank Group. 2019. *Profiting from parity: Unlocking the potential of women's business in Africa*. World Bank, Washington, DC

Global gender wage gaps: Stylized facts

- Raw gender wage gaps large in LICs
- Most of the gender wage gap is not explained by observable traits
- Distributions matter



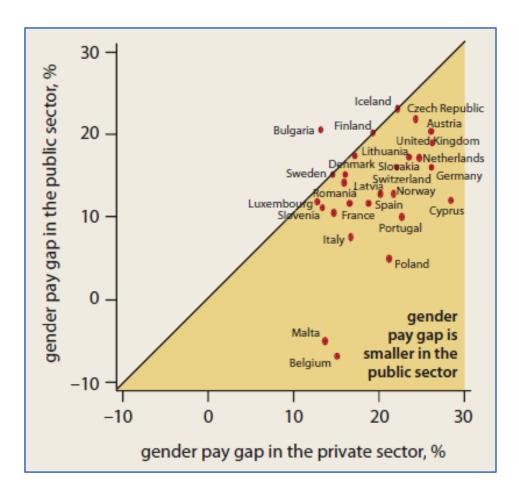
Global gender wage gaps: Stylized facts

- Raw gender wage gaps large in LICs
- Most of the gender wage gap is not explained by observable traits
- Distributions matter
- The gender wage gap is not necessarily declining
 - Stagnating in the US. It increased in urban china in early 2000s.
- Public employment is associated with lower gender wage gaps
 - In part due to the public sector wage premium & high propensity for public sector work for women workers

		vomen to mer	1	
	Countries	LFP	Wage Workers	Public
Region				
East Asia & Pacific	10	0.75	0.91	1.10
Europe & Central Asia	13	0.81	1.08	1.52
Latin America & the Caribbean	17	0.69	0.98	1.58
Middle East & North Africa	4	0.57	0.42	1.91
South Asia	5	0.34	0.84	1.02
Sub-Saharan Africa	27	0.86	0.49	1.02
Income level				
Low Income	21	0.72	0.45	1.18
Middle Income	53	0.62	0.96	1.27
High Income	2	0.72	1.02	1.54

 Women have a higher propensity to work in the public sector than men.

Gender wage gaps are higher in the private sector than public



Source: Figure 5.1 The World Bank. 2011. "Chapter 5: Gender differences in employment and why they matter." pp 198-253 in <u>World Development Report 2012: Gender equality and development.</u>

Explaining gender wage gaps

- Traditional explanations: human capital, gender division of labor (especially into specific industries/occupations), discrimination.
- Newer approaches: gender norms, noncognitive skills/psychological attributes which influence matching/sorting and bargaining.
- Persistent problem of unmeasured characteristics of the worker and of the job.

Explaining changes in the unexplained

Changes in:

- Discrimination..... and many other things:
- sorting (firm match) and bargaining (within firm) by sex
- selection into work by sex
- labor demand that is engendered (demand for women workers relative to men workers) and not captured by industry or occupation
- (non) linearity of renumeration of work (and/or changes in PT/FT work by sex)
- relative unmeasured characteristics (productivity on the job?)
- penalties for workforce interruptions, which differ starkly by sex
- structural changes (often unionization in high-income countries)

Does the development context matter?

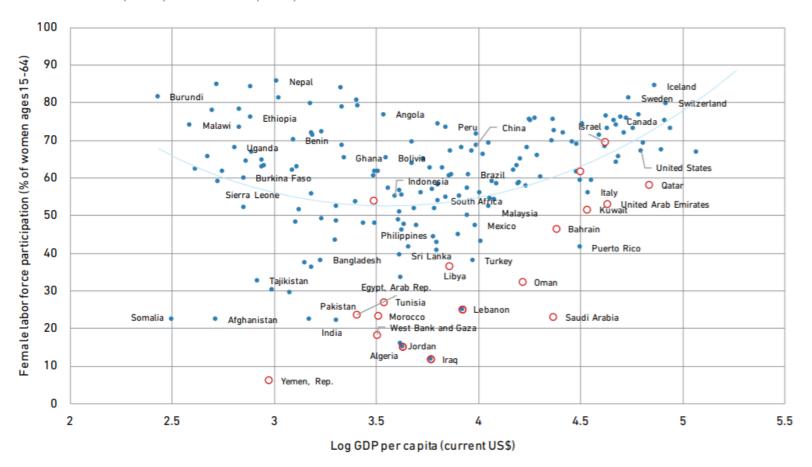
- Most of the literature comes from high-income countries.
- From a development perspective, a global view of gender wage gaps is largely missing.
- Development-associated factors may contribute to understanding gender wage gaps, much as they have been studied with regards to labor force participation.

What are the possible intersections with development.....

(1) Development associated F-LFP: U-shape hypothesis

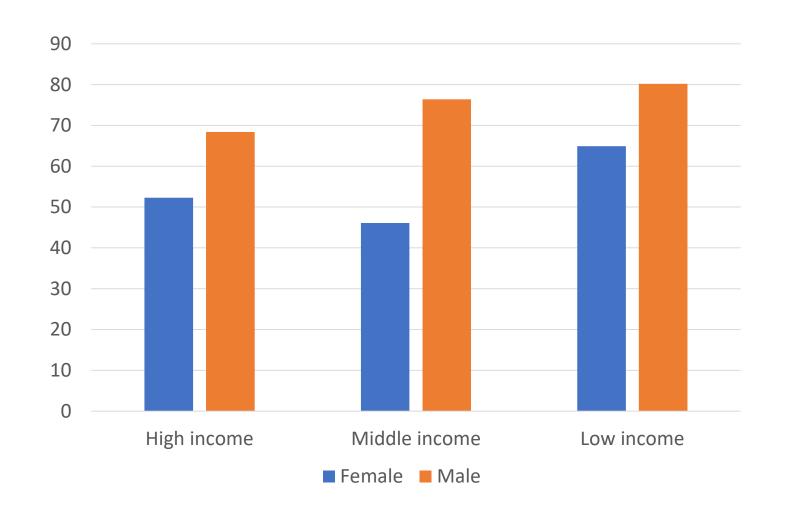
FIGURE 1.1

Female labor force participation and GDP per capita around the world, c. 2019



Source: Lugo, Maria Ana, Miriam Muller, and Matthew Wai-Poi. 2020. *Middle East and North Africa - Women's economic participation in Iraq, Jordan, and Lebanon.* Washington, D.C.: World Bank Group.

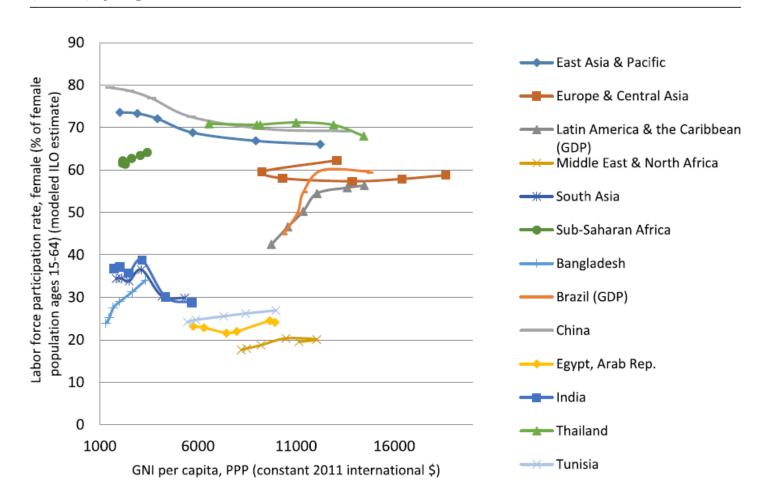
LFP gap change across income levels



Source: 2017 World Bank gender data portal

... but U-shape theory not seen within regions

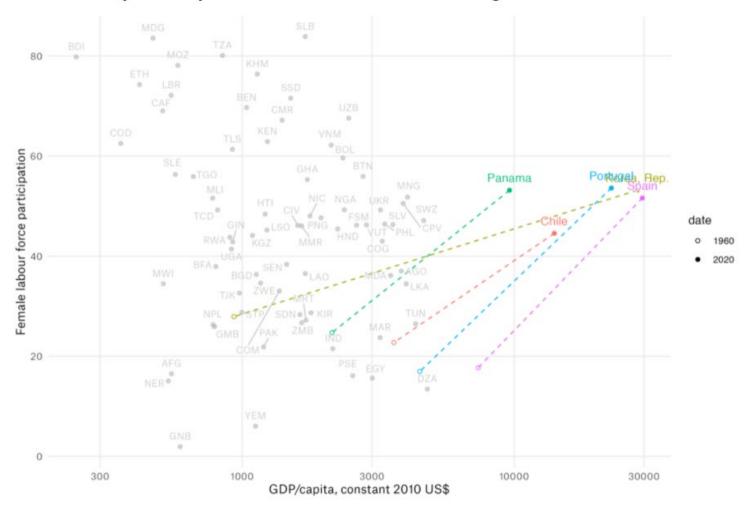
Figure 3. GNI Per Capita (2011 International \$) and Female Labor Force Participation Rate (15–64) by Region and Selected Countries, 1990–2015



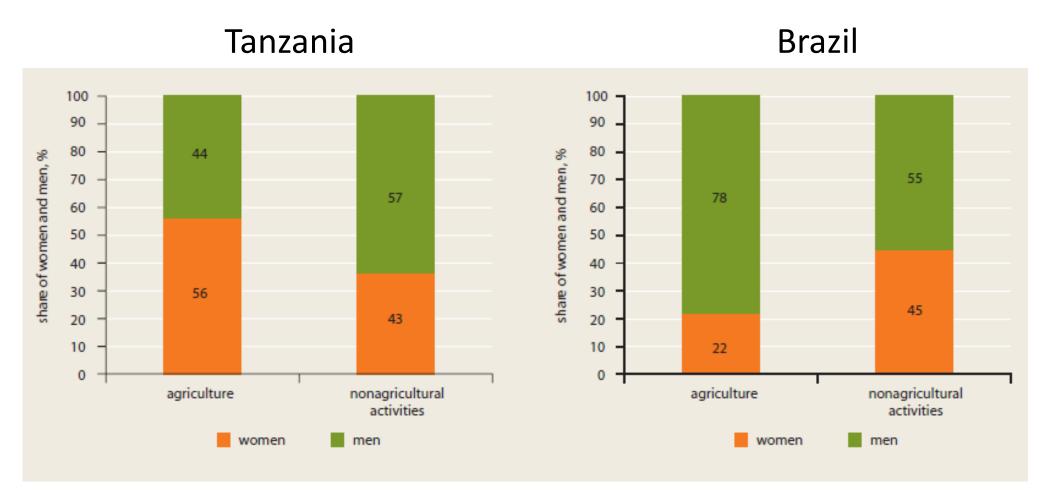
Source: Klasen, Stephan. 2019. "What explains uneven female labor force participation levels and trends in developing countries?" The World Bank Research Observer 34(2): 161-197.

... also, possible level shift in propensity of women to work at given income level.

Female labor force participation from 1960 to today

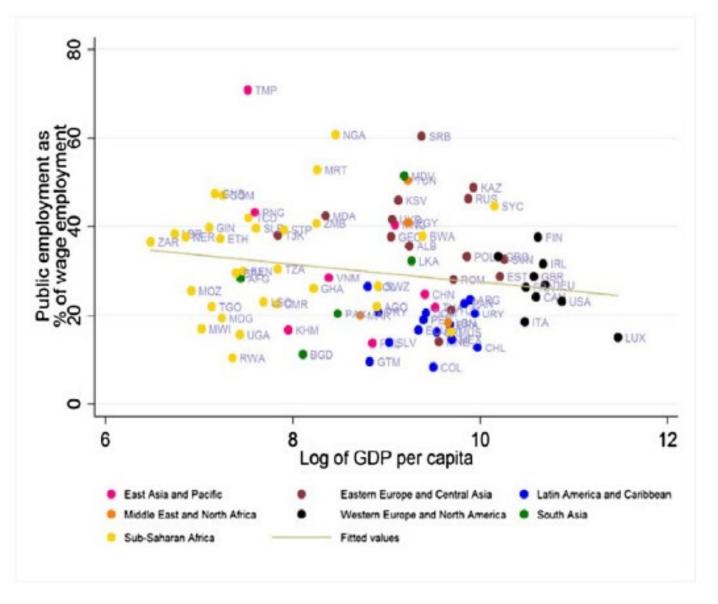


(2) Development is associated with changes in gender employment patterns by sector (structural transformation) which can differ by sex



Source: Figure 5.6 The World Bank. 2011. "Chapter 5: Gender differences in employment and why they matter." pp 198-253 in *World Development Report 2012: Gender equality and development*.

(3) Development is weakly associated with less public wage work where there is a wage premium and different propensity for public sector work by sex



Source: Gindling, Zahid Hasnain, David Newhouse, and Rong Shi. 2020. Are public sector workers in developing countries overpaid? Evidence from a new global dataset." World Development 126.

(4) Development is associated with changing norms.... Norms: permission to work in Pakistan (1)

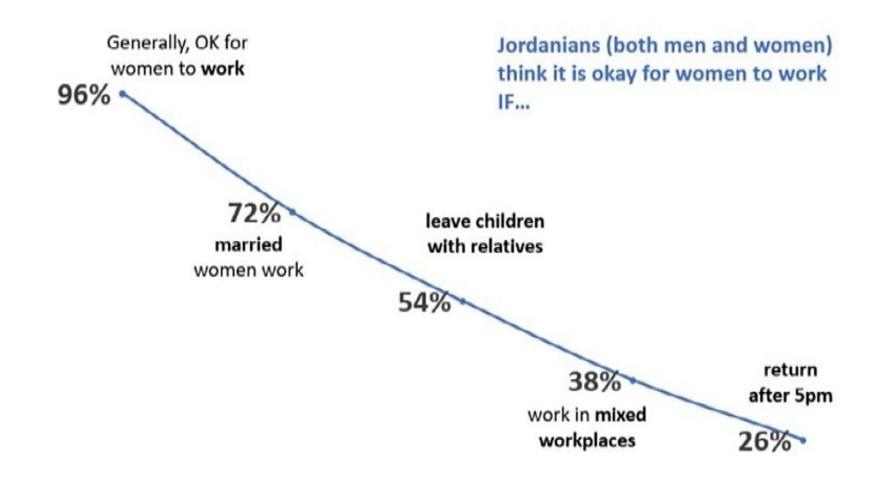
Women are



more likely to participate in the labor force if men in the household agree that married women should be allowed to work outside the home.

Source: Amir, Saman, Apichoke Kotikula, Rohini P. Pande, Laurent Loic Yves Bossavie, and Upasana Khadka. 2018. *Female labor force participation in Pakistan: what do we know.* Washington, D.C.: World Bank Group.

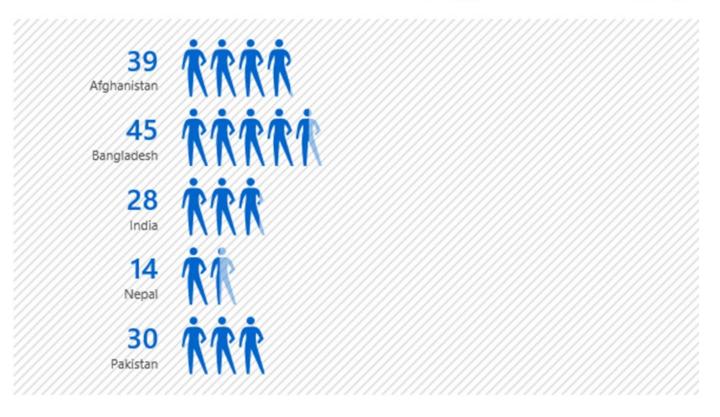
Norms: the right type of work in Jordan (2)



Norms: bias in hiring women (3)

 Enterprise Surveys in South Asia asked questions whether firms think that hiring women could cause disruption in the working environment

Firms with bias in hiring women (%)

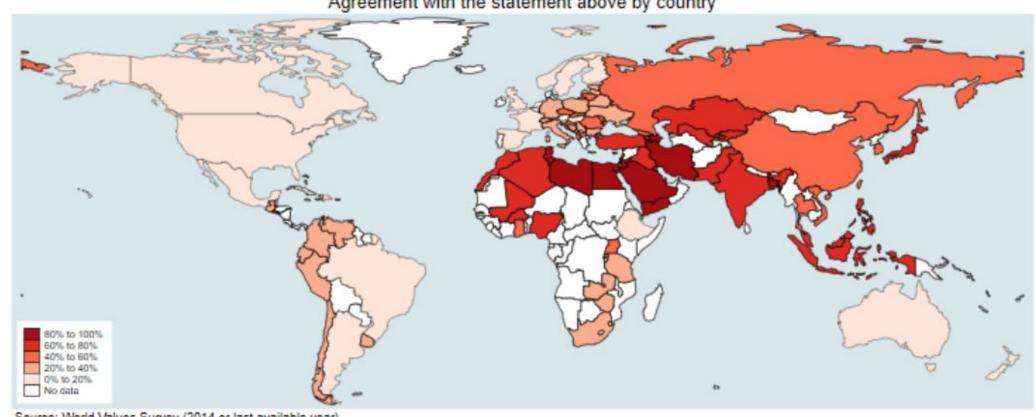


Source: Andy Kotikula, Afra Chowdhury and Asif Islam. 2019. "Women disrupting the workplace: Employer bias against hiring women in South Asia." World Bank mimeo.

Norms: men having a greater right to a job (4)

When jobs are scarce, men should have more of a right to a job than women.

Agreement with the statement above by country



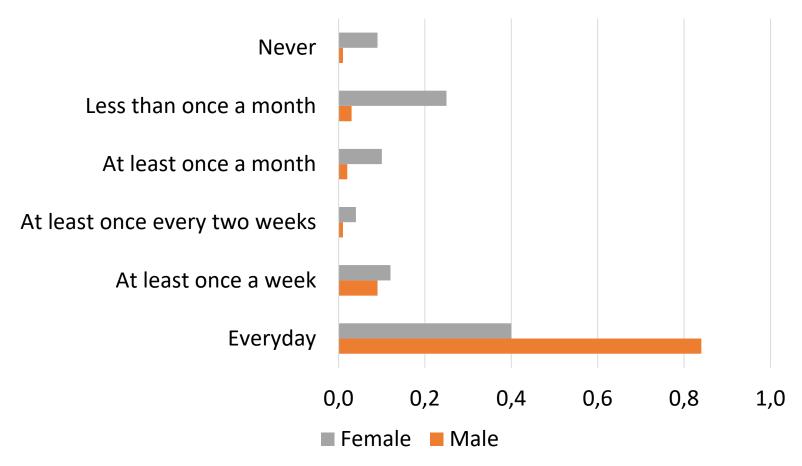
Source: World Values Survey (2014 or last available year)

Norms: about gender-based violence (5)

- Two-thirds of young female apprentices in Ibadan, Nigeria's third-most-populous city, reported having experienced physical violence. Among this group, 39% indicated that their employer was the most recent perpetrator.
- Women may prefer self-employment because it helps them avoid sexual harassment, as reported by 20% of participants in a study in Liberia.
- In Malawi, 14% and 11% of female and male entrepreneurs respectively indicated that a man has a good reason to hit his wife for not completing the housework, disobeying, refusing to have sexual relations with him, or being unfaithful.

Norms: about the mobility of women (6A)

Frequency of travel outside neighborhood in Dhaka*



Source: Kotikula, Aphichoke, Ruth Hill, and Wameq Azfar Raza. 2019. What works for working women?: Understanding female labor force participation in Urban Bangladesh. World Bank, Dhaka.

Norms: about the mobility of women (6B)



Source: Amir, Saman, Apichoke Kotikula, Rohini P. Pande, Laurent Loic Yves Bossavie, and Upasana Khadka. 2018. *Female labor force participation in Pakistan:* what do we know. Washington, D.C.: World Bank Group.

Norms: about the mobility of women (6C)

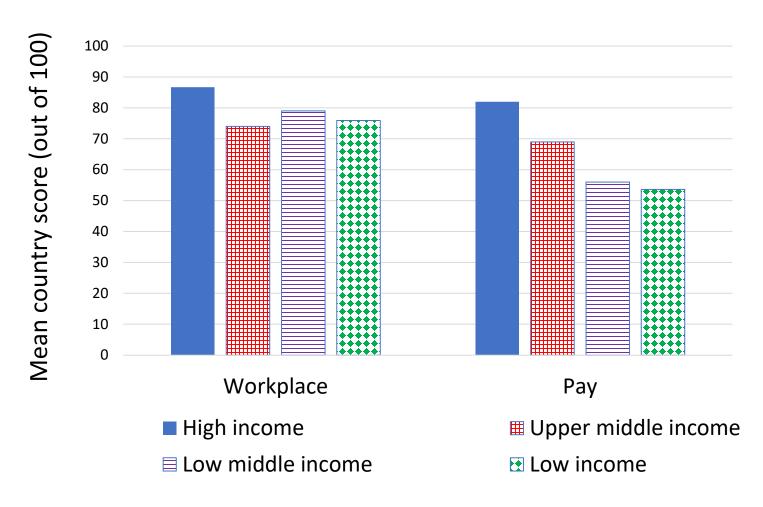
80% Women afraid of being harassed while using public transport

16.5% Reduction in female labor force participation in developing countries due to lack of safe transportation

economies do not prohibit sexual harassment in public places

Source: Karla Gonzalez, 2020

Norms: laws on equal workplaces and pay (7)

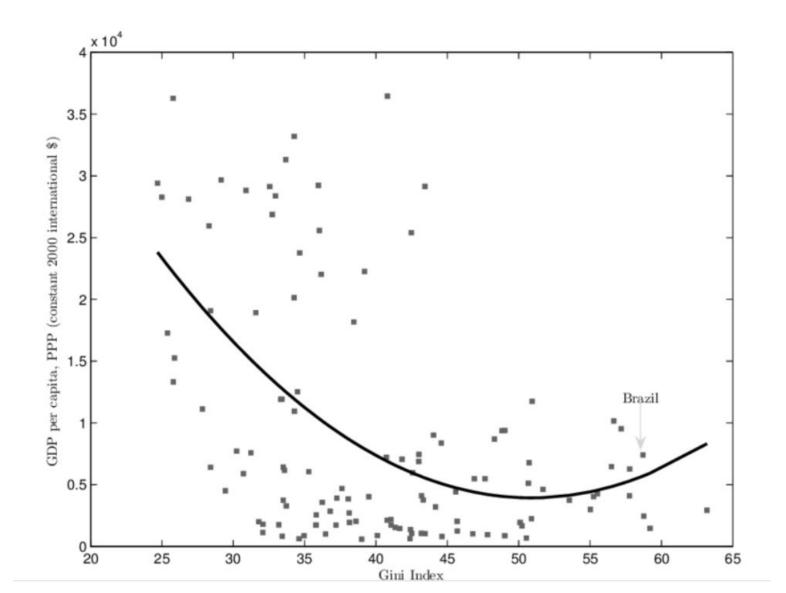


Source: World Bank. 2021. Women, business, and the law 2021.

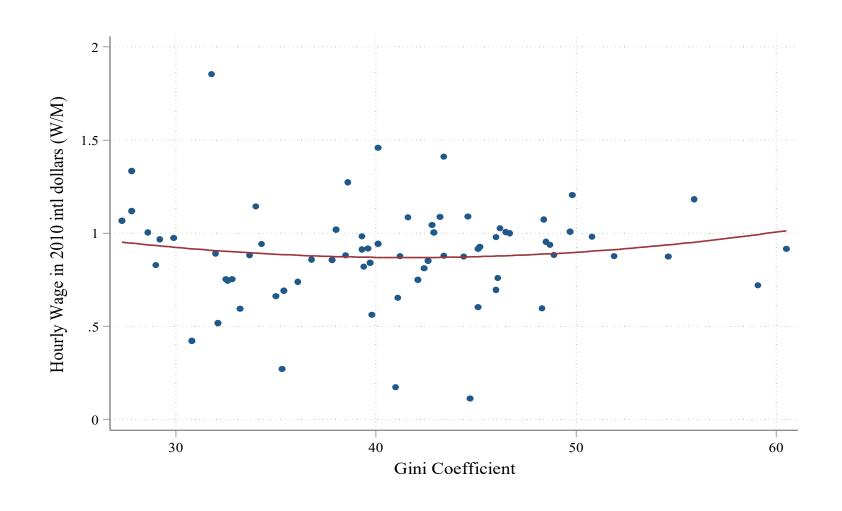
Gender wage gaps can reinforce norms

- Expectations on child-care and domestic activities, thereby limiting work
- Propensity to send girls to school/high education.

(5) Other avenues: inequality & development



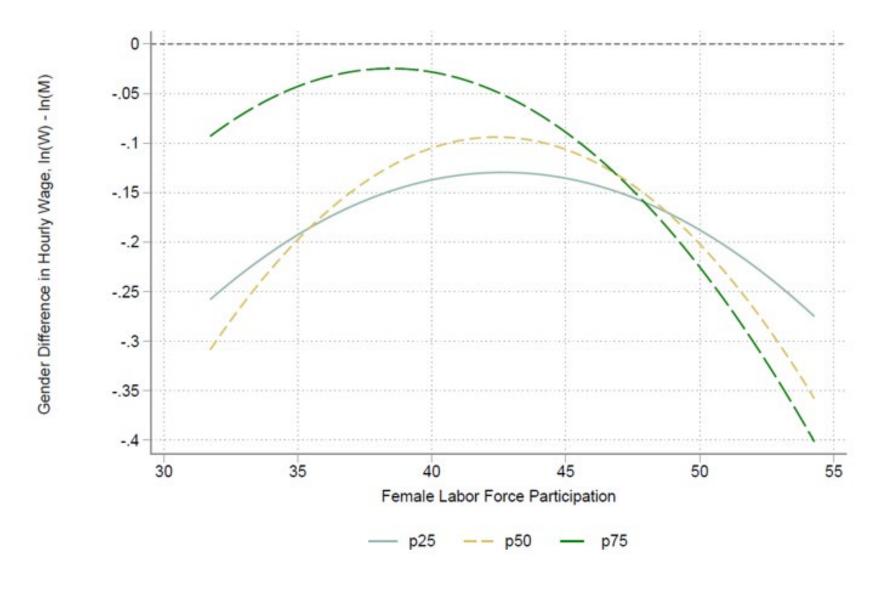
Other avenues: inequality & the gender wage gap



Development processes and gender wage gaps

- Rendall (2013) examines how changes in the structure of economies (specifically, US, Brazil, India and Turkey) with regards to the change in composition of jobs that emphasize brains versus brawn factors impacts the gender wag gap.
- Bhaltora and Fernandez (2018) examine both the influence of increasing female labor force participation and demand-side trends on gender wage gaps in Mexico with estimated equilibrium model of the labor market.

Gender wage gap by FLFP: inverted U-shape

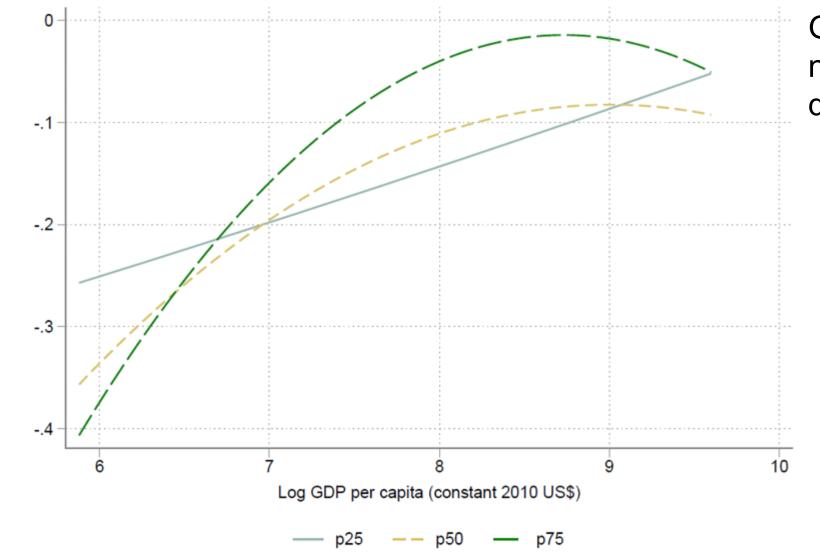


Gender wage gaps

- (Low-FLFP countries) decline along the wage distribution.
- At the top of the distribution increase with FLFP.

Gender wage gap by GDP per cap

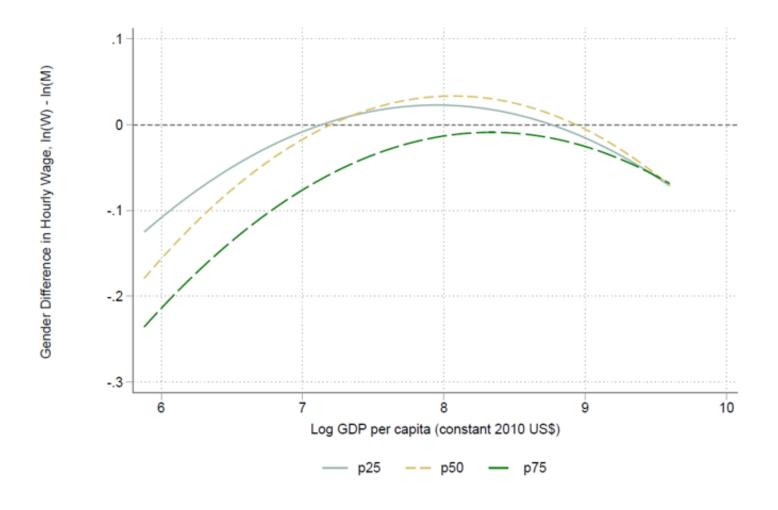
Gender Difference in Hourly Wage, In(W) - In(M)



Gender wage gaps narrow with development

Public sector Gender wage gap by GDP per cap

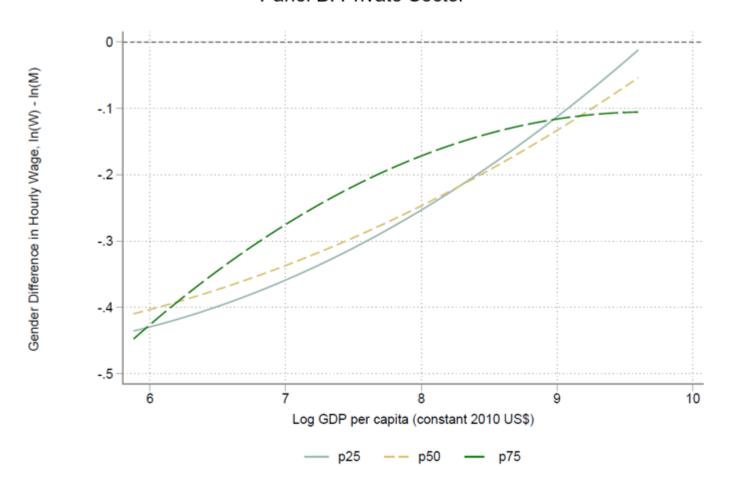




- Gender wage gaps are considerably smaller in the public sector.
- Public sector has smaller (or even reverted) gender wage gaps at the bottom-half of the wage distribution.

Private sector Gender wage gap by GDP per cap

Panel B. Private Sector



 Private sector has smaller gender wage gaps at the top of the wage distribution.

Additional analysis

- Using paired observations from countries to look at development patterns
- Addressing selection into work for both men and women, and if common support (or lack of it) matters

Suggestive policy directions

High income contexts: less relevant spheres for LICs

- Parental leave and part-time mandates: conflicting impacts
- Role of unions
- Pay transparency laws

Universal approaches

- Early education and child-care
- Unpacking public sector wage structure processes
- Uncertain: Workplace and pay legislation

Suggestive policy directions

More relevant for lower income settings

- Physical mobility: improving options for women to get to jobs.
 - Need more evidence on the magnitude of this influence on matching to higher paying wage jobs.
- Improved information systems to improve job search
- Gender norms

Thank you!