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Abstract

That women's labor force participation in the Islamic Republic of Iran has been consistently low is well known, but explanations vary as to the principal causes. Moreover, many studies examine the female economically active population in aggregate, without sociodemographic distinctions. The puzzle is why – despite high educational attainment, rising age of marriage, smaller family size, and the country's economic difficulties – women remain under-represented in the labor force. Drawing on household surveys, we put the spotlight on the waged and salaried employment patterns of urban married women, who dominate the female labor force, and we compare patterns in two time periods – the economic growth period of 2005-2007 and the economic crisis period of 2018-2020. In examining the structural and institutional factors that explain both their high levels of unemployment and their tendency to drop out of the labor force following marriage and childbirth, we highlight the role of sanctions, economic cycles, declining government recruitment, discriminatory laws, and gendered wage gaps. We also highlight similarities and differences between Iran and other countries in the Middle East and North African region.

Keywords: Iran, women, labor force, wages, institutions, sanctions, employment **JEL Classifications:** J1

ملخص

من المعروف جيدًا أن مشاركة المرأة في القوى العاملة في جمهورية إيران الإسلامية كانت منخفضة باستمرار، لكن التفسيرات تختلف من حيث الأسباب الرئيسية. وعلاوة على ذلك، توجد دراسات عديدة عن مجموع السكان الناشطين اقتصاديا من الإناث، دون تمييز اجتماعي ديمغرافي. اللغز هو السبب - على الرغم من التحصيل العلمي المرتفع، وارتفاع سن الزواج، وصغر حجم الأسرة، والصعوبات الاقتصادية في البلاد - لا تزال المرأة ممثلة تمثيلاً ناقصًا في القوى العاملة. بالاعتماد على الدراسات الاستقصائية للأسر المعيشية، نسلط الضوء على أنماط العمل بأجر وأجر للنساء المتزوجات في المناطق الحضرية، اللائي يهيمنن على القوى العاملة النسائية، ونقارن الأنماط في فترتين زمنيتين - فترة النمو الاقتصادي 2005-2007 وفترة الأزمة الاقتصادية 2008-2010. عند فحص العوامل الهيكلية والمؤسسية التي تفسر ارتفاع مستويات البطالة لديهم وميلهم إلى الانقطاع عن العمل بعد الزواج والولادة، نسلط الضوء على دور على والمؤسسية التي تفسر الاقتصادي الموالة لديهم وميلهم إلى الانقطاع عن العمل بعد الزواج والولادة، نسلط الضوء على دور على والمؤسسية الي تفسر المعامي المولي المعرفي الماطق الحضرية اللرأي يهيمان على القوى العاملة النسائية، ونقارن الأنماط والمؤسسية التي تفسر التفع مستويات البطالة لديهم وميلهم إلى الانقطاع عن العمل بعد الزواج والولادة، نسلط الضوء على دور على أوجه التشابه والاختلاف بين إيران ودول أخرى في منطقة الشرق الأوسط وشمال إفريقيا.

1. Introduction and overview

The literature on women and labor in the Middle East and North Africa has long noted the low rates of female labor-force participation (FLFP) across the region (Clark et al., 1991; Youssef 1971). In more recent decades, this has become anomalous given women's growing educational attainment and lowered fertility rates (Assaad et al., 2017; Assaad et al., 2020; Ilkkaracan, 2012; Majbouri ,2018; Salehi-Isfahani, 2001; Spierings et al., 2010). The literature has explained the causes behind such low levels of female labor force participation (FLFP) in terms of Islamic values and norms (Korotayev, et al., 2015), social norms (Chamlou et al., 2016; Spierings, 2014), patriarchy (Haghighat, 2005; Soltani, 2017), discriminatory family laws and policies (Moghadam, 2013; World Bank, 2021), oil sector dominance and lack of diversification (Ross, 2008), and gendered wage gaps (Karshenas, 2001). Some MENA countries have nonetheless seen an increase in FLFP, but one country has seen a significant decline: Iran.

In this century alone, the Iranian FLFP rate declined by more than 30 percent. Writing on the intensity of trade and financial economic sanctions and their effects, Laudati and Pesaran (2021) note that Iran's labor market has seen not only a decrease in the overall employment rate but a significant decline in FLFP, during the period of intense international pressure.

We agree that sanctions have contributed to the decline – and to the government's overall budget crisis - but we consider additional key factors behind the low FLFP. Framed by economic theory and by feminist political economy and institutionalism, our paper has three objectives. First, using household and labor force surveys from the Statistical Center of Iran (Markaz Amar, SCI), we elucidate the patterns of urban women's participation, employment and unemployment across age, marital status, education, and public and private sector location. (We focus on urban women because more than 75% of Iran's population is urban.) Briefly, the lowest rates of participation are found among married women with below-secondary schooling. In addition, the decline in public sector employment has not been met with an adequate growth of well-paid jobs in the private sector, in a pattern similar to what Said (2015) has found for Egyptian women. Second, we highlight the role of the Islamic Republic's economic and political institutions in affecting indeed, limiting - female labor supply and demand. As the World Bank's Women, Business and the Law dataset shows, the extent of codified gender-based discrimination is considerable. Iran's male-dominated and religious-based institutional set-up puts women at a legal disadvantage, is biased in favor of male employment, and reinforces the sexual division of labor. Finally, a look at responses to key questions of the World Value Survey rounds out the analysis.

2. Literature review

Interest in patterns of FLFP spans various disciplines and is motivated by diverse interests. For many economists, labor force participation is associated with productivity and economic growth, with scholars studying aspects such as age, race, sex, education and per capita income (Becker, 1971; Psacharopoulos and Tzannatos, 1989). Other economists (Klasen, 2019; Majlesi, 2016) find that women's employment and earnings influence their bargaining power, with important implications for their own and their children's welfare. For feminist economists and sociologists, women's economic participation and income control – and especially access to remunerative work in the formal sector of the economy – are key to their equality and empowerment. Employment

and income-earning provide women with voice, agency, and resources to make decisions within the household and community, join associations and unions, and avoid domestic violence or leave an abusive domicile (Blumberg, 1989, 1995; Chafetz, 1990; Kabeer, 1999; Moghadam, 1998; World Bank 2012, 2013), with some convergence in housework and childcare (Pailhé et al., 2021).

Women's employment has other benefits. Research shows that women's participation in productive labor has been the entrée to their participation in political society; FLFP correlates with women's parliamentary representation (Walby, 2009), which in turn leads to women's "interest legislation". Besamusca et al. (2015) found positive correlations between women's economic participation and their political rights and representation. Wyndow et al. (2013) concluded that empowering women through education and employment may have a causal effect on democratic development by raising the benefits of political participation and expanding the broad base of support for democracy. Walby (2009) argued that increased female employment could raise the likelihood of support for social democracy, echoing Iversen and Rosenbluth (2006: 17) in their analysis of OECD countries: "paid employment makes women more 'left-leaning'." Conversely, studies have found that non-employed women are less likely to hold egalitarian or emancipatory attitudes and more likely to support fundamentalist movements or ideologies (Blaydes and Linzer, 2008; Çavdar, 2022).

Feminist political economy and institutionalism (Mackay and Chappell, 2014; Rai and Waylen, 2014; Waylen, 2017) are correctives to mainstream theories in applying a gender lens to interrogate the macroeconomic environment, state policies, formal organizations, and informal institutions to assess the impact on women's inclusion, equality, and economic and political empowerment. Various actors—families, state officials, development planners, researchers, donors, employers—may promote or discourage female LFP and attachment. Laws, policies, and attitudes have a bearing on patterns of FLFP as well as on growth. Feminist economists have noted that women's care obligations – housework and care for children or elderly relatives – may be vital for social reproduction, but in the absence of institutional supports for working mothers, such care activities either "deplete" women's time and energy or serve as obstacles to employment and promotion (Rai et al., 2014).

The gender pay gap has been the focus of much research, especially for the very wide gaps seen in the private sector. Explanatory factors include differences in education and experience (human capital) that influence worker productivity and value to employers. Also relevant are occupation and sector of activity, size of establishment, and other compensating wage differentials associated with jobs. The wage gap can also be due to discrimination, whether from discriminatory laws or employers' prejudices. In their discussion of race and gender in the labor market, Altonji and Blank (1999) examine aspects of discrimination, including wage gaps between women and men that cannot be fully explained by human capital and other differences in the characteristics of women and men in the labor market. Tzannatos (1999) examines occupational segregation in selected Latin American and Caribbean countries, and he estimates losses to productivity and output. As Killingworth and Heckman (1986) noted, growth strategy matters for FLFP; it stagnates or declines in the absence of economic opportunities for women in manufacturing or white-collar services. What of patterns of women's employment by social class or education? In his study of a sample of developing countries in Latin America, South Asia, Southeast Asia, Sub-Saharan Africa, and the Middle East, Klasen (2019: 182) writes that poor women tend to be "pushed into the labor force" but they reduce their labor market participation if household income (typically earned by males) rises, as the "need" to work lessens. Such women tend to have weaker labor market attachment than do educated women. Another finding is that fertility decline need not contribute to increasing FLFP rates. Klasen also finds evidence that social stigma against working women may be a contributing factor to low levels of FLFP, pointing out that in developing countries such as Turkey, Georgia, and India, large percentages of respondents in the World Values Survey agree that when jobs are scarce, men should be given preference (Klasen 2019: 184). We would add that this is almost uniformly true of all Arab countries as well as Iran, as we discuss presently.

In Europe, FLFP has varied, with generally higher rates in the Nordic countries and lower in southern Europe; prior to the collapse of Communism, the women of the German Democratic Republic (East Germany) had considerably higher rates than the women in West Germany. Portugal stands out among European countries in having high rates of working-class FLFP; this is partly the legacy of men's emigration and military conscription in the 1960s and until the 1974 revolution and subsequent democratic transition, as Tavora (2012) explains. The expansion of manufacturing as well as health and education services helped sustain and indeed increase Portuguese FLFP. The expansion of social protection and family benefits, including the provision of affordable childcare, is another factor.

Such benefits do not accrue to most working women in the U.S. Although U.S. FLFP is much higher than that of women anywhere in the Middle East and North Africa, it fell between 1990 and 2010 when compared with peer OECD countries. Blau and Kahn (2013) show that whereas the non-U.S. average FLFP had been 67.1% in 1990 compared with the U.S. 74%, by 2010 the respective figures were 79.5% and 75.2 percent. They attribute the relative U.S. decline to the absence of paid parental leave mandates, part-time work schedules, and childcare services in the U.S. (see also Sholar 2016).

There has been much discussion in the development literature and international policy circles on women's entrepreneurship as a way out of poverty as well as a pathway to their economic empowerment (Atlan-Okay, 2014; Yetim, 2008). A distinction is made between subsistence micro-enterprises and productive businesses, while acknowledging that women's difficulty in obtaining credit, loans, and training is further complicated by the absence of a transparent and accessible legal and regulatory environment, and of business and industry networks. Over the years, many programs have been initiated across MENA countries to support women's entrepreneurship, but women entrepreneurs are concentrated in services, particularly retail, and their activities are less diversified and less capital-intensive than those of men (CAWTAR, 2007; Chamlou and Karshenas, 2016). Moreover, although the average share of women-owned small and medium enterprises (SMEs) is 34 percent globally, in the Arab region it is only 14 percent (IMF, 2019: 8). In Iran, the regulatory environment for opening a business is more conducive than in some comparator countries, but women are far less likely than men to start their own businesses, although by 2014 the "early-stage entrepreneurial activity rate" for Iranian women had increased to nearly 10% (Sarfaraz, 2017: 42).

One specificity of FLFP in some MENA countries, notably Tunisia and to a lesser extent Turkey, is that the participation of women with *tertiary education* is at a par with comparator countries (e.g., in Latin America), but the low participation rates among women with *intermediate education* push down the overall female rates. This is significant because most working-age women in the MENA region (and other countries) have education levels at or below the secondary school level. The FLFP of those with tertiary education is higher than those with secondary schooling or less, but the *unemployment* rates among university educated women are also very high – between 20 and 35 per cent across different countries. In Saudi Arabia in 2013, fully 70% of unemployed Saudi women had college degrees. Such patterns and trends are found in Iran, to which we now turn.

For context, we note that in addition to observing secular trends, we are comparing patterns in Iran in two time periods. The years 2005-2007 were characterized by economic growth and rising real wages. The years 2017-2020 are notable for the onset of economic crisis following the Trump administration's withdrawal from the international agreement, the Joint Comprehensive Plan of Action (JCPOA, or the Iran nuclear deal) and the imposition of "maximum pressure sanctions". Austerity measures instituted by the Iranian government generated two sets of widespread protests in late 2017-early 2018 and again in late 2018, largely led by working-class men against rising prices and declining real wages.³

3. The political economy underpinnings of FLFP in the Islamic Republic

Iran is a large country with considerable regional variation in characteristics such as ethnicity and religiosity, and with rich regional cultures of deep historical roots. Accordingly, FLFP patterns have varied across the regions and over time. For example, in provinces such as Qom and Semnan, FLFP rates in urban areas were close to a mere 7% in 2005-06, while in Gilan, Mazandaran, and Yazd they were over 20 percent. By 2020, however, one can observe a considerable convergence in FLFP across the regions. The variance of FLFP across 30 provinces (*ostan*) declined from 0.17 in 2005-06 to 0.08 in 2019-20. Such regional convergence across the provinces indicates that national level political economy factors can override regional cultural proclivities in shaping FLFP.

A detailed discussion of the political economy of the Islamic Republic of Iran falls beyond the confines of this paper, but we briefly list some of the salient features with direct implications for FLFP. The first is the rapid growth of economically privileged para-statal institutions (including several *bonyad*) under the control of the core clerical state, which has over time eroded the financial resources of the central government (see, e.g., Harris, 2013; Karshenas & Moshaver, 2012).⁴ The implications for women's LFP and employment have been considerable (as discussed below in Section 4.1). The second relevant feature is the imposition of U.S. sanctions over a long period of time and the Iranian state's relative economic isolation. As discussed below (Section 7), sanctions have played an important part in the cyclical behavior of FLFP. Economic isolation coupled with monopolistic control over industries by para-statals has given rise to the growth of uncompetitive industries behind tariff walls benefiting from high energy and credit subsidies,

³ See, e.g., BBC: <u>https://www.bbc.com/news/world-middle-east-42544618</u> and Washington Post: <u>"Working-class anger in Iran shows government's vulnerability"</u> (3 January 2018).

⁴ We distinguish the "core" theocratic institutions from the various governments that are elected.

which have served to limit female labor demand. At the same time, a plethora of small private enterprises and high technology services has grown in the interstices of the large monopolistic industries, creating jobs for educated women in professional and technical occupations.

The third important political economy feature is the labor market institutions of the Islamic Republic.⁵ These have given rise to a highly dualistic labor market with women pushed into the low-productivity, low-wage informal sectors with important implications for LFP of married women (see Section 5). The fourth element has been the masculinist ideology of the Islamic regime as reflected in its discriminatory laws and practices which have paved the way for formal and informal discriminatory practices in the labor market, and the provision of considerable subsidies – both indirect price subsidies and direct cash transfers – in support of patriarchal one-breadwinner households (sections 6 and 7).

The trends and patterns of FLFP under the Islamic Republic have been shaped by the combination and interaction of these four political economy elements. We now turn to an overview of those trends and patterns in urban Iran during the 2005-20 period.

4. Iranian women's LFP: patterns and trends

Patterns of FLFP in Iran are dominated by the participation of married women, as the marriage rate is high. Between 2005 and 2020, the overall rate for female participation in urban areas fluctuated at around 14 percent (see Table 1). The FLFP rates declined from the peak of 15.5% in 2009 to 12.8% in 2014, increased to 15.5% in 2018, and fell to 14.1% in 2020. Though male participation rates are higher, we can observe similar cyclical fluctuations for men during this period (Table 1). This indicates the significance of the effect of economic cycles on labor force participation which is often ignored in the literature on FLFP (see, e.g., survey by Killingworth and Heckman, 1986).

Figure 1 shows the average FLFP for the 2005-20 period by age group, in comparison to Egypt, Turkey, Indonesia and Korea. The data for the comparator countries are based on the ILO's *Global Wage Report 2018* and they fall within a similar time span as the case of Iran considered here. Two features of Iran's FLFP stand out in Figure 1: (a) participation rates are lower than all the comparator countries in all age groups, and (b) around the 25-30 age group, Iranian women's participation rates start a precipitous decline which continues to the retirement age. As shown in Figure 2, this pattern is repeated in all the years between 2005 and 2020.

⁵ On the formation of the labor market institutions under the Islamic Republic see Kalb (2022); for implications for wages and the emergence of a dual labor market see Karshenas (2021).

		-				
	Female	Male	Total			
2005	15.04	79.61	48.22			
2006	15.45	79.04	47.91			
2007	14.93	78.85	47.37			
2008	15.22	77.20	46.95			
2009	14.79	76.62	46.28			
2010	13.37	75.39	44.73			
2011	13.16	74.00	43.71			
2012	14.05	75.05	44.82			
2013	13.08	75.45	44.36			
2014	12.84	74.67	43.94			
2015	13.97	75.30	44.55			
2016	14.37	75.85	45.08			
2017	15.16	76.88	46.00			
2018	15.54	77.13	46.26			
2019	14.99	76.07	45.52			
2020	14.10	75.06	44.26			
Source: Pased on HIES Statistical Center of Iran (SCI)						

Table 1: Labor Force Participation (16-65 ages), 2005-2020

Source: Based on HIES, Statistical Center of Iran (SCI)



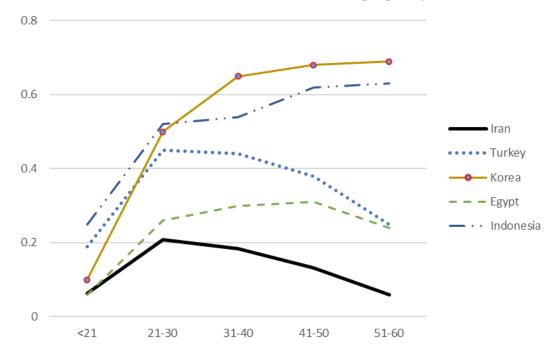




Figure 2: FLF by Age and Period, 2005-2020

Source: Based on HIES, SCI

Another characteristic is the low participation of women with below-secondary schooling. Table 2 shows FLFP trends by education and marital status. As can be seen, the LFP of women with below university education is very low, particularly among married women. This is significant because, as previously noted, the majority of Iran's working-age women have below secondary education levels. As shown in Table 3, between 73 and 86 percent of women had secondary and below education levels in 2005-20.

	Neve	r-Married W	omen	<u> </u>	/larried Wom	en		
	Education Level			Education Level				
		Below	University		Below	University		
	<u>Total</u>	<u>University</u>	Level	<u>Total</u>	<u>University</u>	Level		
2005	0.22	0.21	0.32	0.13	0.08	0.53		
2006	0.23	0.19	0.29	0.13	0.09	0.48		
2007	0.22	0.18	0.31	0.13	0.08	0.50		
2008	0.24	0.19	0.30	0.13	0.07	0.47		
2009	0.22	0.18	0.26	0.13	0.08	0.48		
2010	0.22	0.14	0.32	0.11	0.06	0.43		
2011	0.22	0.14	0.32	0.10	0.06	0.41		
2012	0.25	0.16	0.37	0.11	0.06	0.40		
2013	0.25	0.15	0.37	0.10	0.05	0.36		
2014	0.25	0.15	0.39	0.10	0.05	0.34		
2015	0.27	0.17	0.40	0.10	0.06	0.35		
2016	0.28	0.18	0.42	0.11	0.06	0.36		
2017	0.32	0.19	0.49	0.11	0.06	0.34		
2018	0.32	0.19	0.50	0.11	0.06	0.34		
2019	0.32	0.18	0.50	0.10	0.05	0.33		
2020	0.30	0.16	0.47	0.10	0.05	0.31		

 Table 2: Female Labor Force Participation by Marital Status and Education, 2005-20

Source: Based on HIES, 2005-2020, SCI (Markaze Amar Iran) Notes: The table covers women in the 16 to 50 age group.

	Wor	nen %	Men %		
Educattion level	2005-07	2018-20	2005-07	<u>2018-20</u>	
Primary & below	31.1	19.0	24.8	15.2	
Lower Secondary	16.3	14.2	23.1	18.1	
Secondary & pre-University	38.3	40.3	37.3	41.7	
University Degree	14.3	26.6	14.8	25.0	
Total	100.0	100.0	100.0	100.0	

Table 3: Share of Working Age Women and Men at Different Educational Levels

Source: Based on HIES, SCI, 2005-2020

Note: The table relates to 16-50 age groups.

Unemployment rates are also very high. Table 4 shows unemployment rates by marital status, sex, and educational levels. On average more than half the never-married female participants at both university and pre-university education levels were unemployed. Unemployed women, constituting more than half the labor force participants, drop out of the labor market upon marriage.

	N	lever-Marri	ed	Married			
	Education Level			Education Level			
		Below University			Below	University	
	Total	<u>Universit</u>	Level	<u>Total</u>	<u>University</u>	Level	
Female ⁽¹⁾							
2005-06	0.53	0.58	0.44	0.11	0.11	0.12	
2007-08	0.53	0.54	0.52	0.12	0.09	0.16	
2009-10	0.58	0.59	0.56	0.13	0.11	0.15	
2011-12	0.56	0.53	0.57	0.15	0.12	0.17	
2013-14	0.54	0.54	0.54	0.12	0.07	0.17	
2015-16	0.55	0.47	0.59	0.12	0.08	0.16	
2017-18	0.52	0.48	0.54	0.11	0.09	0.13	
2019-20	0.53	0.52	0.54	0.13	0.10	0.14	
Male ⁽¹⁾							
2005-06	0.33	0.34	0.30	0.04	0.05	0.03	
2007-08	0.33	0.33	0.31	0.04	0.04	0.03	
2009-10	0.39	0.39	0.42	0.05	0.05	0.04	
2011-12	0.41	0.40	0.46	0.05	0.05	0.04	
2013-14	0.39	0.39	0.41	0.04	0.04	0.04	
2015-16	0.40	0.40	0.42	0.05	0.05	0.05	
2017-18	0.38	0.38	0.41	0.04	0.05	0.04	
2019-20	0.39	0.39	0.41	0.05	0.05	0.04	

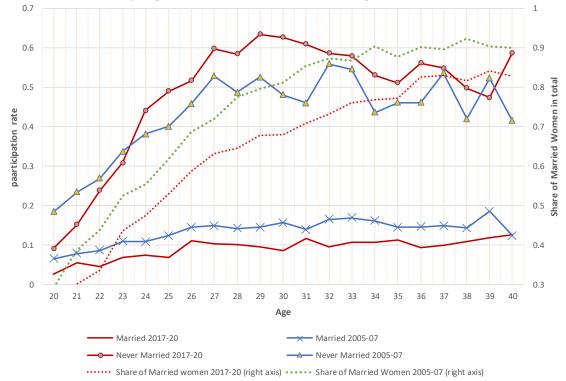
Table 4: Unemployment Rates by Marital Status, Gender and Education, 2005-2020

Source: Based on HEIS, SCI, 2005-2020

Notes: (1). 16-50 age group.

Figure 3 shows the participation rates of never-married and married women along with the share of married women by age for the early and end years during 2005-2020. The participation rate of never-married women peaks at the very high levels of 50-60% and stays above the 40% rate. For married women, however, participation barely rises above 10% on average in 2017-2020 (and just 12.5% in 2005-2007). As a growing share of women get married in the 20-30 age group, the participation rates are increasingly dominated by the very low rates for married women. This process gives rise to the inverted-V curve shown in Figure 1 above. The low rates of participation of married women compared to men are not connected to the educational attainment of women. On the contrary, as seen in Figures 4a and 4b, the proportion of girls with secondary school diplomas in our 2005-2020 sample reached parity with men by the generation that was born in the late 1970s; parity is also found in later generations. Regarding university education, the age cohorts of the 1980s and after have increasingly outperformed men (Figure 4b). The problem, therefore, is not one of educational disparity.

Figure 3: Labor Force Participation of Married and Never-Married Women, and Share of Married Women, by Age, 2005-07 and 2018-20 Averages



Source: Based on HIES, 2005-2020. SCI (Markas Amar)

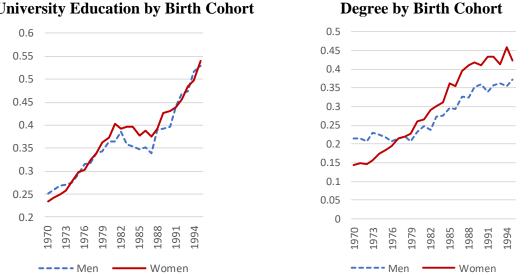


Figure 4b: Proportion with University

Figure 4a: Proportion with Secondary and Pre-University Education by Birth Cohort

Source: Based on HIES, 2005 to 2020, SCI (Markaze Amar)

The low and declining LFP of married women with secondary and lower educational attainments is of particular significance and can be said to be the main cause of the low FLFP in Iran.⁶ Also, the persistent rates of unemployment of married women, which remains above 11% for the entire period, indicates that labor market conditions are not conducive to the employment of married women. This leads to the question of the nature of jobs available to women, in terms of productivity, remuneration, ease of access, and flexibility to accommodate work-life balance for married women.

4.1 Employment structures

Table 5 puts the spotlight on salaried and non-salaried workers in public and private sectors, as a proportion of total employment for men and women for the 2005-20 period. A notable feature of women's employment is the increase in the share of wage employment and the rapid decline in the share non-wage workers. The low rates of self-employment have been discussed in relation to discriminatory practices at various levels – e.g., access to credit, attaining official business licenses, limited wealth due to unequal inheritance laws and other discriminatory practices (Salehi-Esfahani and Bahramitash, 2015). Other factors could be lack of space due to high cost and cramped housing in sprawling cities, and the absence of vocational training for women. The low and declining share of self-employed in total female employment is a cause for concern, as self-employment can offer more flexible working conditions that can reduce the fixed costs of FLFP compared to wage employment. Issues related to low share of women as employers and self-employed are important and need further research. In what follows we focus on women's employment as wage and salary earners.

⁶ Studies on time-use in Persian and English suggest that married women's household labor and care work limit their labor supply. For English-language studies, see Salehi-Isfahani & Taghvatalab (2018); Torabi and Abbasi-Shavazi (2016); Torabi (2021).

	Employe	es		Other Wor	kers		
		Government	Private			Self	Unpaid Family
Female	Total	Sector	Sector	Total	Employers	Employed	Labour
2005-06	0.69	0.38	0.32	0.31	0.02	0.18	0.11
2007-08	0.73	0.36	0.37	0.27	0.02	0.16	0.09
2009-10	0.74	0.35	0.39	0.26	0.02	0.16	0.08
2011-12	0.79	0.37	0.42	0.21	0.01	0.12	0.07
2013-14	0.77	0.35	0.42	0.23	0.01	0.17	0.05
2015-16	0.78	0.29	0.49	0.22	0.02	0.16	0.05
2017-18	0.81	0.29	0.52	0.19	0.01	0.14	0.04
2019-20	0.82	0.27	0.55	0.18	0.01	0.14	0.03
Male							
2005-06	0.63	0.20	0.43	0.37	0.07	0.27	0.04
2007-08	0.64	0.19	0.45	0.36	0.06	0.26	0.04
2009-10	0.66	0.17	0.49	0.34	0.05	0.26	0.03
2011-12	0.73	0.18	0.55	0.27	0.04	0.21	0.02
2013-14	0.68	0.17	0.52	0.32	0.04	0.26	0.02
2015-16	0.69	0.16	0.54	0.31	0.03	0.26	0.01
2017-18	0.68	0.15	0.54	0.32	0.03	0.27	0.01
2019-20	0.68	0.13	0.55	0.32	0.03	0.27	0.02

Table 5: Employment Structure, 2005-2020

Source: Based on HIES, 2005-20, SCI.

Notes: Two year averages. Workers between ages of 16 to 50

The share of female employment as wage employees in urban areas increased from around 70% in 2005 to over 82% in 2020 (compared to the share of male wage workers which fluctuated between 60-70% in this period). At the same time, there has been a steep decline in women's share as government employees and a concomitant increase in their employment in the private sector. Indeed, between 2005 and 2020, the share of government employment in total wage and salaried employment fell dramatically from 56% to 34% in the case of women and from 33% to 19% in the case of men. This is linked to the squeeze on government finances in this period. We attribute this partly to U.S. sanctions and partly to the encroachment of the parastatal tax-exempt institutions (*bonyad*) that we discussed earlier. According to SCI estimates, government current expenditure as a share of GDP at current prices declined from 22% in 2005 to 16% in 2015 and down to 10% in 2020, which is very low by any standards. This is bound to have influenced both employment and wages in the government sector.

As a result, women have had to seek employment in the private sector – which has not been the preferred sector for female employment in many MENA countries, due to weak labor legislation compared to the public sector. The employment trends shown in Figure 5 indicate that in fact all the increase in female employment during 2005-20 has been due to the increase in private sector employment. The growth in private sector employment is concentrated in two episodes of 2005-08 and 2014-18, each followed by long periods of stagnant or declining trends (Figure 5). This cyclical pattern in private sector employment also coincides with the cycles of tightening and easing of U.S. sanctions.

The trend in government employment as shown in Figure 5 is not significantly different from zero, and the level of female employment in the government sector in 2020 was in fact slightly lower

than in 2005. While in 2005 close to 75 percent of female government employees had university education, by 2020 this ratio had increased to over 90 percent. It appears that as older women with lower than university education retired, the new recruits in government employment were increasingly university educated. Government employment of women with below university education in this period fell by 40 percent, that is, a negative annual growth of -3.4 per cent.

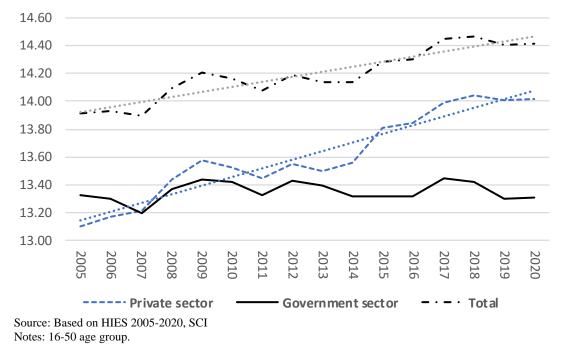


Figure 5: Women's Employment Trends, 2005-2020

The growth of private sector employment of wage workers has been much more impressive, but only for the university educated women (see Figure 6a and 6b). The trend growth rate of employment of married women with university education in the private sector in this period was close to 12 percent a year. However, as the private sector employment of married women with university education started from a low base, this did not lead to a commensurate growth in total female employment (Figure 6a). The trend growth rate of employment of married women with below university education in the private sector was less than 1.9 per cent a year, and for unmarried women was 3.9 percent a year. However, once we include the negative growth of government employment of women with below university education falls to 1.0 percent a year. This is well below labor force growth, let alone sufficient to make a dent in unemployment and participation of women.

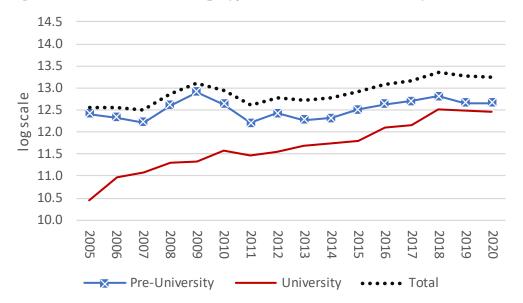
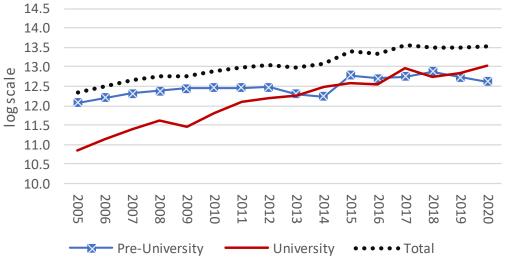


Figure 6a: Private Sector Employment of Married Women by Education, 2005-2020

Figure 6b: Private Sector Employment of Unmarried Women by Education, 2005-2020



Source: Based on HIES, SCI, 2005 to 2020 (Markaz Amar)

We have drawn attention to U.S. sanctions as a factor in the cyclical behavior of women's labor force participation. What role does government policy play? What of specific institutions? We now turn to wage-setting institutions that affect labor supply and demand.

5. Wage setting institutions and the gender wage gap

In Iran, the minimum wage is set annually at the end of each financial year on a monthly basis and is kept at the same level for the whole of the following year, and it plays a central role in Iran's wage setting institutions. In accordance with the 1990 labor law of the Islamic Republic, it is the minimum of the wages and salaries of public sector employees as well as workers in the private sector who have formal contracts. The pay-scale for all the workers with formal contracts above the minimum wage rises at more or less a similar proportion as the minimum wage increases.⁷ According to Article 41 of Iran's labor code, the minimum wage should be fixed in relation to the rate of inflation and "shall be sufficient to meet the living expenses of a family, whose average number of members shall be specified by the appropriate authorities." In line with the state's patriarchal norms, the minimum wage is set with a view to the preservation of one-breadwinner family structures through a basic family wage.

The labor code (Article 41) also stipulates that the minimum wage should cover all workers, but this is not the case. A large section of employees, particularly female employees, receive wages well below the minimum wage; these are generally workers without formal labor contracts.⁸ The trends in the proportion of women working below the minimum wage in the private sector along with trends for male workers (working in both private and public sectors) are shown in Figure 7. Between 60 to 70 percent of employed women in the private sector had wages below the minimum wage over the 2005-2020 period. For women with lower than university education this figure goes up to 70 to 80 per cent. In contrast, the proportion of men working below the minimum wage fluctuates between 20 to 30 percent. Hence, 70-80% of husbands or potential husbands receive wages which align with the stipulations of the labor code. To observe the extent to which this has been satisfied we need to define and measure "basic family wages".

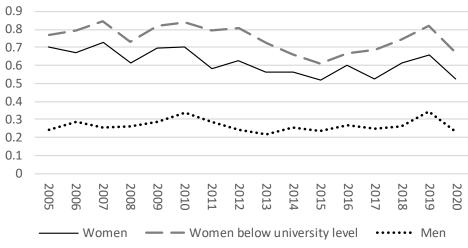


Figure 7: Proportion of Female Private Sector Workers with Below Minimum Wage Compares to Men, 2005-2020

Source: Based on HIES, SCI (Markaze Amar), 2005-20 Notes: 16 to 65 age groups. Men refers to both private and government sectors.

We define "basic family wages" as half the median consumption of a married couple between the ages of 16 and 30 with one child in the year 2000. As the Islamic Republic does not have an official poverty line, we use this indicator as a measure of the poverty line or the minimum of the "basic family wage" as stipulated in the labor code. Figure 8 shows the ratio of the real minimum wage to the real value of the basic family wage (both measured in 2011 consumer prices). As can be seen, the government has managed to keep this ratio well above 1 throughout this period until 2020. This ratio tends to increase during oil boom years and tends to decline only during crisis

⁷ We draw on Karshenas (2001).

⁸ On the informal and precarious forms of employment, see Batmanghelidj (2022); Hashemi (2018); Khosravi (2017).

years that coincide with severe external sanctions. Even during the 2017-2020 crisis years, the minimum wage has managed to remain at par with the basic family wage, despite the rapid decline in real wages. The continued decline in real wages since 2020 has meant that a growing share of one-breadwinner families receive wages well below the poverty wages, a factor behind the recent political crises in the country.⁹

We next compare take-home wages of men and women with the level of the basic family income. Figure 9 shows the share of all male workers and female workers in the private sector receiving wages below the basic family income. The share of male workers with wages below the basic family income fluctuates between 10 to 20 percent, except for the 2017-2020 crisis years when they increase to over 25 percent. In the case of women working in the private sector, around 50 percent received wages below basic family wage levels, increasing to between 60 to 70 percent for women with less than university education.¹⁰ It should be noted that shortfalls in households' basic family wages are also supplemented by subsidies, cash transfers, and charitable transfers (see Karshenas & Tabatabai, 2023).

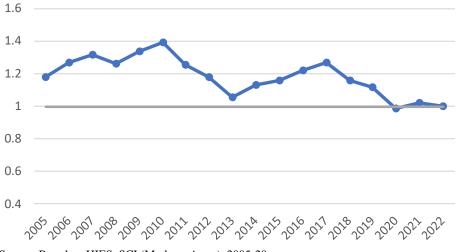


Figure 8: The Ration of Minimum Wage to the Basic Family Wage, 2005-2020

Source: Based on HIES, SCI (Markaze Amar), 2005-20 Notes: 16 to 65 age groups. Men refers to both private and government sectors.

⁹ We refer to both the working-class protests of 2017-19 and the nationwide youth-led protests of fall 2022 after the death in police custody of the young Kurdish woman, Mahsa Jina Amini.

¹⁰ These are national average figures, and there may be considerable regional variations that need to be considered. The basic family wage in Tehran with its higher cost of living will be different from small provincial cities. But as minimum wages are set at the national level we have not pursued regional variations.

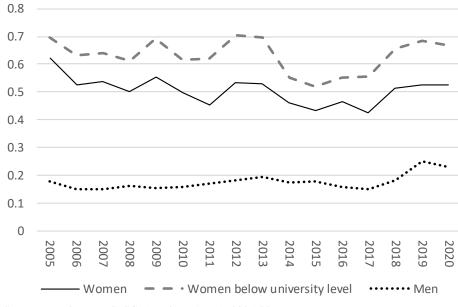


Figure 9: Proportion of Female Private Sector Workers with Below Family Wages Compared to Men, 2005-2020

Source: Based on HIES, SCI (Markaze Amar), 2005-20

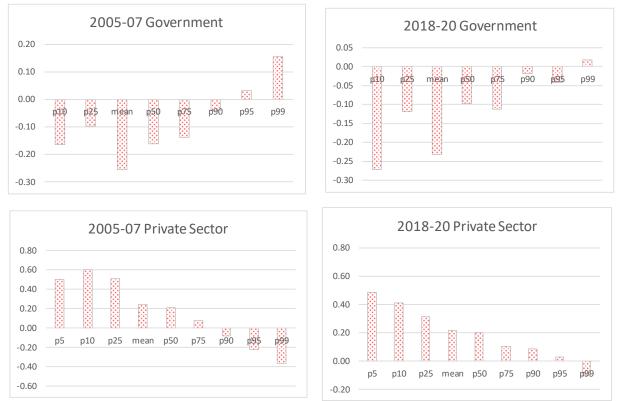
Notes: 16 to 65 age groups. Men refers to both private and government sectors.

Can women's lower wages be attributed to their lower hours of work? Many women who participate in paid work in the high-FLFP OECD countries are part-time workers, with a secular decline in hours of work as FLFP has increased since the mid- 20^{th} century. This is not the case in Iran, where median hours of work per week for employed women increased from 36 in 2005 to 42 in 2020 – an increase which is observed in all quantiles and in the mean hours of work as well. We now turn to the distribution of the hourly wages of men and women.

The gender wage gap

Wage differentials at different quantiles and at the mean for the government and private sectors and the combined sample are shown in Figure 10. Wage differentials are measured as the difference between log wages of men and women, referred to as the raw wage gap. A negative value indicates that women's wages are higher than men at a particular quantile. As can be seen, both the mean and median for the combined sample indicate that on average, women's wages are higher than men's, which is not unexpected as Iranian women's participation is highly selective and employed women have on average a much higher level of education than men. The aggregate raw wage premiums for women are entirely due to the government sector wage differentials which are negative at all the quantiles apart from the 95th quantile and above. The private sector, however, exhibits a totally different picture. Men's wages have a large premium over women's wages, particularly at the lower quantiles, with positive mean and median for both years. At the mean and median, men have about a 20% wage premium over women, expressed as a percent of men's wages. At lower than median quantiles the wage premium for men is as high as 50 to 60 percent.

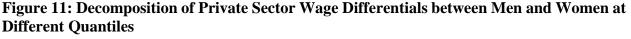
Figure 10: Gender Wage Gap at Different Quantiles and the Mean (log(wage.men)-log(wage.women), 2005-20



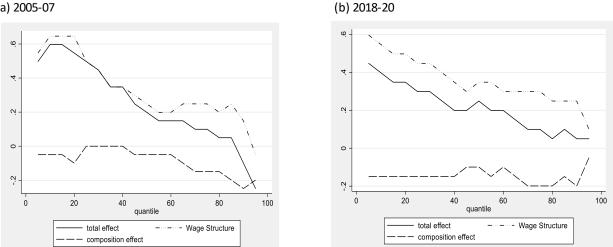
Source: Based on HIES, 2005-2020, SCI (Markaze Amar)

A further observation relates to the change in private sector pay differentials over time. As seen in the upper part of the distribution, during 2005-07 women had a wage premium over men in the upper decile of the distribution. However, by 2018-20 the wage gap changes in favor of men. How can one explain this, considering that the educational gap between men and women narrowed during this period? Can we interpret this as a sign of increased wage discrimination against women in the crisis years of 2018-20 when real wages had a drastic decline? To answer questions of this type we need to decompose the raw wage gap into a part that is explained by the observed characteristics of workers – e.g., education, age, experience, occupation – and the unexplained part. The first part, or the explained part is referred to as the composition effect, and the second part is the wage structure effect, which – assuming unobserved influences are independent of gender – can be interpreted as wage discrimination effect. We have conducted the decomposition exercise by using the reweighting method of Dinardo et.al (1996) for various quantiles of the wage gap.¹¹ The decomposition results for the private sector for the two periods of 2005-07 and 2018-20 are shown in Figure 11.

¹¹ The variables used in the reweighting method are education (five categories), age, ten occupational and 13 industrial categories, 30 regional (*ostan*) categories, marriage category, interactions between occupation and education, sector and education, marriage index and education, and education and age index (8 categories). See, e.g., Razavi and Habibi (2014) who estimate wage discrimination at mean in Iran for two years using linear regression methods.







Source: Based on HIES, 2005-2020, SCI (Markaze Amar)

The total effect indicated by the solid line in Figure 11 shows the large gender wage differentials in the private sector, particularly at lower quantiles as was also observed in Figure 10. The composition effect for both periods is negative, and particularly pronounced in the 2018-20 period for all quantiles, and for the 2005-07 period for the higher wage quantiles. The negative composition effect is because the participating women's observed characteristics, such as their educational attainments, at all the wage quantiles are higher than men. As the supply of educated women increases over the 2005-20 period, they move down the wage distribution curve and occupy jobs that are occupied by less qualified men. As can be seen from Figure 12, about 37% of women in the lowest wage quartile had post-secondary and university education, while most men working at such wage levels had below the upper-secondary education levels. The wage structure effect in Figure 11 confirms considerable wage discrimination against women in the private sector at all wage quantiles.

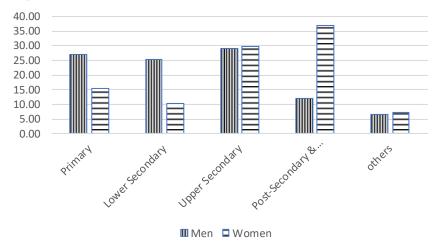
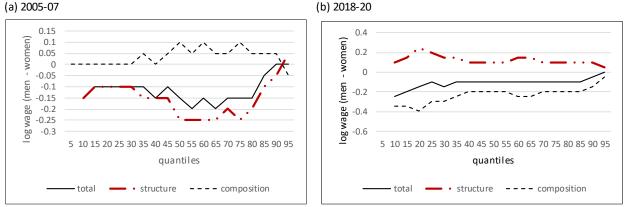


Figure 12: Educational Attainment of Workers at the Lowest Wage Quartile, 2018-20

Source: Based on HIES, 2005-2020, SCI Notes: refers to the lowest men's quartile level

The increase in gender wage discrimination over this period is even more pronounced in the case of the government sector (Figure 13). As noted above, women had a positive wage premium over men in the government sector in 2005-07. This is also shown in Figure 13 with the total effect being negative for all quantiles. The composition effect in the government sector in that period was positive, as male employees had higher observed qualifications compared to women in the public sector in that period. Women's wage premium as depicted by the wage structure effect was thus even more pronounced than their total wage premium (Figure 13, panel a). With the drastic reduction of government employment of women with below university education during this period (discussed in the previous section), by 2018-20 the composition effect flips from being positive to negative as government female employees on average become more qualified than men. The wage structure effect turns positive in 2018-20, indicating wage discrimination favoring men. Wage discrimination in the government sector, however, remains moderate compared to the private sector, with the wage structure effect indicating below 20% wage premium for men (Figure 13, panel b). What is clear is the presence of severe gendered discrimination in the labor market.

Figure 13: Decomposition of Governement Sector Wage Differentials between Men and Women at Different Quartiles



Source: Based on HIES. 2005-2020. SCI.

To what extent are the above results affected by the dramatic fall in real wages in 2018-2020 following the intensification of the US sanctions? In other words, since the 2005-07 period was one of economic boom and rising real wages and 2018-2020 was a period of economic crisis with falling real wages, it may be argued that our results are affected by the economic cycle rather than any systematic intensification of discriminatory practices against women. To allay such concerns, we have applied the same decomposition exercise as above to the mean wages for the entire 2005-2020 to investigate the possible impact of such cyclical influences. The results are shown in Figure 14 for the private sector. As the Figure shows, the total log wage differential between men and women for the period was relatively stable, fluctuating around 0.2. The composition effect, however, has followed a declining trend since 2008 and the wage structure effect has followed a rapidly increasing trend. This result is consistent with our conclusions above. The trends in real wages as shown in Figure 14 clearly highlight the dramatic fall in real wages since 2017. The picture depicted in Figure 14 relates to mean wages. Very similar pictures emerge in relation to median and the lower and upper quartile of wages (not reported here). In all the cases the correlation coefficient between the wage structure effect and the level of wages is less than 0.08 and not significantly different from zero.

The wage differentials do not appear to be influenced by the fall in wages, as the wage structure effect attains its highest level in 2017. If anything, the wage structure effect shows a moderate decline in 2019 and 2020, which indicates that the rise in wage discrimination against women between 2005 and 2020 is not influenced by the economic cycle; it is rather a secular trend that rises with the rising qualifications of working women. Below we examine the role that discriminatory legislation plays, but first we discuss further the gender wage gap, with a focus on married women's labor force participation.

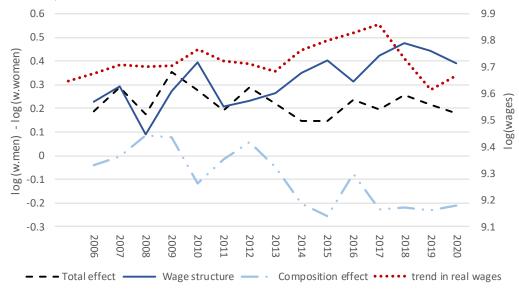


Figure 14: Trends in Private Sector Real Wages and Wage Differential between Men and Women, 2005-2020

Source: Based on HIES, 2005-2020, SCI

6. Married women's LFP and the wage gap

Wage gap hypothesis in the case of MENA countries maintains that a necessary condition for the low labor market participation of women is the wide gap between the earnings of men and women, and family wages for men, which has made the preservation of one-breadwinner families possible.¹² This is particularly relevant in the case of married women who form the bulk of non-participants in Iran. As shown in Figure 15a and b, the LFP of married women has a totally different behavior from the never-married women, both in levels and long-term trends. The participation rates of never-married women are much higher than married women, but even more importantly, they have very different trends: The increasing trends in LFP of never-married women is in sharp contrast to the declining trends in married women's LFP.

¹² As discussed in Karshenas (2001), historically this came about during the rapid urbanization process in the last century in high wage natural resource rich countries in the region, where the gender wage gap was principally due to the educational gap between men and women. With the rapid educational catching up by women during the last two decades, the gender wage gap seems to have been increasingly maintained by discriminatory practices as observed above.

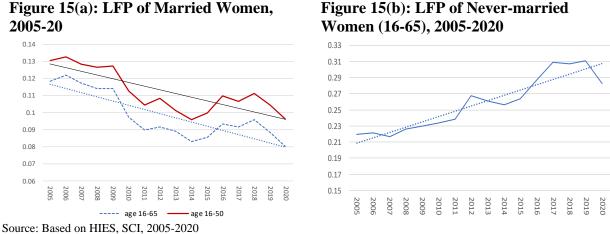


Figure 15(a): LFP of Married Women,

A main reason is that never-married women in Iran typically live at their parental home and are not the main homemakers. The wages of never married women only partially contribute to family expenses, and therefore their labor supply is not very sensitive to real wages. Once married, however, they share with their husband in assuming responsibility for household maintenance. As a result, the labor supply of married women is much more sensitive to the wages and other job benefits offered to them in the labor market. This is shown in Figure 16, where one can observe a remarkable association between LFP of married women and real wages. The overall declining trend in LFP of married women is closely associated with the declining trend in real wages, and even more remarkably, the cyclical movements in real wages are closely associated with cyclical movements in participation. This is in sharp contrast with the LFP trends of never-married women, which continue their upward trend despite the declining trend in wages.

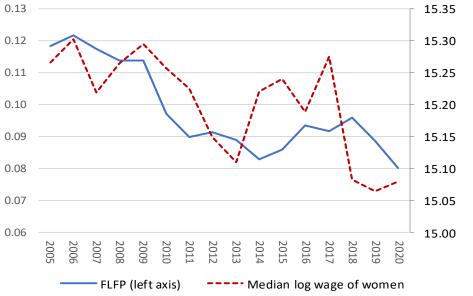


Figure 16: The Relationship between LFP of Married Women and Real Wages

As noted, the withdrawal of Iranian women from the labor market post-marriage is made possible by the institution of the "family wage". In the case of workers in the public sector and the formal

Source: Based on HIES, 2005-2020, SCI.

private sector workers this is done by maintaining men's wages above the family wage, and by giving increasing preference to the employment of men over women above the minimum wage, as observed in Section 5 above. In the case of male workers in the informal sector who receive wages below the minimum wage, increasing resort is made to generous income subsidies to sustain onebread-winner family structures. During the 2005-20 period more than 11 percent of household consumption expenditure in the bottom three expenditure deciles of households in urban areas was financed by direct cash subsidies by the state, while households also indirectly benefitted from price subsidies of varying degrees over this period. The zenith of the cash transfer program was during 2011-13 period, when the share of consumption subsidies in urban areas for the bottom 3 income deciles increased to over 28 percent of household expenditure (Karshenas & Tabatabai, 2023). This period also coincided with the intensification of external sanctions which led to a rapid fall in wages (Figure 6). The combination of these factors (namely increase in family income and decline in women's wages) led to the sharpest decline in LFP of married women between 2010 and 2014. Following the JCPOA agreement and the opening of the economy after 2014, we witness the sharpest increase in wages and in LFP of married women. This is followed by a rapid decline in FLFP after the imposition of the unilateral US sanctions and the rapid fall in wages. Wages play an important role in married women' LFP over the cycle and in the long run¹³.

Recent literature on FLFP in the Middle East has emphasized slow growth of demand for labor that leads to high unemployment rates and the fall in labor force participation due to discouraged worker effect (see, e.g., Asaad et al., 2020; Tansel et al., 2022). When the focus shifts to the LFP of married women, as it should, the demand side theories remain incomplete, as they do not address wage offers open to women. The wage gap hypothesis differs from the demand side theories in that it relies on both the supply side and the demand side factors to explain low FLFP. On the supply side, the Islamic state's wage-setting institutions and other policies in support of one-breadwinner families increases the reservation wages of married women. On the demand side, the low wage offers in the low productivity sectors which are the main employers of women, particularly women with less than university education, inhibits LFP of married women. An increase in the demand for labor would not raise FLFP unless it led to rising wages inducing women with reservation wages close to the market wage to participate, or to increasing the working hours for women already employed. The formal test of various theories of FLFP in the context of Iran and other MENA countries falls beyond the confines of the present paper and is a topic of our ongoing research.

7. Women's disadvantages in Iran: the role and interaction of formal and informal institutions

Economists and sociologists have explained the gender wage gap in terms of human capital variables, occupational sex-typing, and social inequalities and discrimination (e.g., Becker, 1971; Blau and Kahn, 2016; Reskin and Hartmann, 1986; Reskin and Bielby, 2005; Vallas et al., 2010, ch. 11). In most countries, women have attained parity with men in educational attainment, so researchers have explored other factors behind the gender pay gap. In this regard, context is key. In Iran, as in many MENA countries, family laws and public policies continue to discriminate

¹³ Majbouri (2015) also finds large wage elasticity of women's participation, but he tries to explain this away by invoking cultural norms and preferences.

between women and men, and thus women's disadvantages in the labor market should be viewed in the broader context of discriminatory laws and policy practices, as well as on the impact that these may have on attitudes and values regarding men, women, work, family, and decisionmaking.

Gender-discriminatory laws in Iran have been the subject of many academic and policy studies. The World Bank's Women's Business and the Law annual report contains data on women's public and private rights, including property, judicial, marital, and labor rights. Iran's disadvantages are considerable. For example, apart from the absence of a constitutional prohibition of discrimination, there are no specific laws prohibiting wage discrimination, workplace sexual harassment, or dismissal in the case of pregnancy. After two decades of parliamentary debate and revisions, a law on violence against women was finally approved in April 2023. Within the family law provisions of the state's Civil Code, daughters do not receive the same family inheritance as sons. Women now have a generous, government-funded maternity leave of fully 270 days, but married women's autonomy and choices are limited, compared to men. For example, married women cannot apply for a passport or travel outside the country; obtain a job or pursue a trade or profession; confer citizenship to a non-national husband; or be designated household head in the same way that a married man can. The 2021 Women, Business, and the Law index consists of eight measures, assessed from 0 to 100, and Iran receives 0 on mobility, workplace, and marriage, and 25 on pension. As a result, its total is one of the lowest: 31.3 out of 100. This compares with, for example, Vietnam's 81.9 (World Bank, 2021).

When one examines the Iranian public's responses to survey questions over time regarding gender, work, and decision-making, some attitudes remain conservative and reflective of the traditional sexual division of labor, which are likely reinforced by the Islamic state's discriminatory laws and its conservative ideology on gender and family, dispensed through religious institutions, schools, the media, and indeed most formal institutions. Some survey responses, however, suggest changes in the public's awareness over time, and perhaps criticism of the status quo. In comparing responses over three waves of the World Values Survey (4: 2000; 5: 2005; 7: 2020), a large majority of Iranian women do find work to be "very important" (73%) and agree or strongly agree that "being a housewife is just as fulfilling" (70%). But they also agree (65%) that men should have more rights to a job than women, although they are somewhat divided on whether it is a problem if a woman makes more than a man (interestingly, men also are divided on this question, posed in Wave 7).

Views have changed regarding women in business and women in politics. In Wave 5, nearly 90% of men and 71% of women agreed or strongly agreed that "men make better business executives than women do." In 2020 (Wave 7), the percentages had declined to 57% and 41%, respectively. By Wave 7, both men and women had modified their views on whether men made better political leaders than women: for men, 62% agreed/agreed strongly while 46% of women did. This may reflect declining confidence in the way the overwhelmingly male clerical and lay political elite have run the country: Iran's parliament, for example, generally has had a mere five percent female representation. And, as we have seen, dire economic conditions have led to protests and other displays of dissatisfaction.

Of course, families may ignore discriminatory laws and practice more gender equality. Moreover, the young people who took to the streets in September – December 2022 following the death in police custody of Mahsa Jina Amini represent a growing demographic that desires fewer restrictions and more opportunities. How this demographic might force a change in the patterns of FLFP and compensation that we have discussed, not to mention discriminatory laws, remains an open question which is closely linked to broader political and economic dynamics.

8. Discussion and conclusions

Our discussion of patterns and trends in Iranian women's labor force participation has been framed by economic theory and by feminist political economy and institutionalism, and we have underscored the salience of wage-setting institutions as well as gendered legal and policy frameworks that ultimately serve to limit female labor supply and demand. The interaction of political economy and institutional features of the Islamic Republic of Iran, as discussed in this paper, gives rise to a vicious circle that inhibits FLFP and undermines economic progress.

The squeeze of public finances by the encroachment of institutions under the control of the theocratic core state has deprived the economy of vital public services. At the same time, the dwindling expenditures on public services such as health, education and other social services that are female employment-intensive has reduced female employment in the public sector and contributed to a decline in FLFP. The monopoly rents by protected and highly subsidized industries have contributed to a highly discriminatory gender wage gap and the maintenance of family wages for men in the formal sectors of the economy. An increasing number of young, educated women who remain unemployed or are recruited in the low-wage low-productivity sectors, at wage levels that are a fraction of men's wages, fall out of the labor market upon marriage and childbirth. Economic isolation, discriminatory laws, and the state's masculinist ideology are the other important factors behind low FLFP and economic retrogression. The resort to price subsidies for essential goods and direct cash transfers to prop up the patriarchal family structures only help to intensify the vicious circle.

And yet "external" factors and forces are not irrelevant. In Iran's case in particular, U.S.-imposed sanctions, especially since Trump's "maximum pressure" sanctions, created an economic crisis that exacerbated the masculinist tendencies of the Islamic regime and placed women at a greater disadvantage. In this regard, we agree with scholars who argue that sanctions hurt ordinary citizens more than they do the political elites (Mulder, 2022a, 2022b), and with economists who have documented the effects of sanctions on women's employment and general citizen wellbeing (e.g., Demir and Tabrizy, 2022; e.g., Gutmann et al., 2020; Laudati and Pesaran, 2021). As we have shown, the cycles of women's wages and LFP closely correspond with the sanctions' intensity cycles.

The propensity to favor men over women in employment remains strong in MENA countries, and Iran is no exception. The economic costs are substantial, as the literature shows (see e.g., Karshenas 2001, and Karshenas and Moghadam, 2001 for an early exposition). For these reasons, enhancing and improving women's gainful employment has become a mantra within mainstream international policy circles and agencies. The World Bank, the IMF, the McKinsey Global Institute, and other such entities offer economic arguments or a "business case" for women's

economic participation and empowerment, arguing that investing in women's education and especially employment is integral to building the national human resource and tax base and increasing national income and growth (Revenga and Shetty, 2012; World Bank, 2012). They also draw attention to productivity and growth losses due to women's exclusion from paid labor. In a 2012 report, the United Nations Economic and Social Commission for Asia and the Pacific estimated that the Asia-Pacific region lost USD 42–47 billion annually due to women's limited access to employment, compared to USD 16–30 billion lost per year due to inequality in education (UN-ESCAP, 2012: 103). Estimates for Iran indicate that on average for each country in MENA, there was a net GDP loss of about 32 percent during the 1980–2010 period, due to low FLFP rates.

For a country like Iran, reeling from sanctions as well as low growth, it is utterly irrational to deprive its educated female population of opportunities to contribute economically. For this to change, however, fundamental institutional reforms are required. At the very least, reforms are needed in the wage-setting institutions and in the family laws that disadvantage women in their private and public rights and serve to reinforce conservative attitudes toward women, work, and family. In the wake of the recent protests, it remains to be seen if those institutional changes and more will come about through radicalized social movements or through government policy reform.

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