

# Employment and Rates of Return to Education in Arab Countries Gender and Public Sector Perspectives

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## About the author

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## In a nutshell

- Two interconnected challenges for the Arab region are how to increase the low participation of women in the labor market and reduce its historic reliance on the public sector as employer of last resort, especially for women.
- Empirical estimates show that the impact of education on wages (the rate of return to education) is lower in the Arab region than elsewhere. The rate of return to education is higher for Arab women than for Arab men.
- The historically high income premium associated with employment in the public sector in the Arab region seems to have been eroded in the case of Arab men but less so for Arab women.

## Policies

- At the macro level, increase the role of private sector in creating decent employment: Reduce rentier practices and create a level playing field in the private sector; Rationalize employment in and increase the efficiency of the public sector.
- In the area of education, adopt policies that would address its internal and external efficiency: Raise the quality and increase the relevance of education; Use public funding to genuinely boost human capital and avoid over-investment in education (e.g. in the form of credentialism or due to subsidized social demand).
- Finally, introduce policies that would enable women to equally participate in the economic sphere: Most notably, remove legal impediments that are exceptionally prevalent in the Arab region; Reduce the labor market duality between the public and private sectors.

Two issues at the forefront of the policy debate in the Arab region have been how to address the low rates of economic activity of women and the high share of government to total employment. Women's low employment rate suppresses the potential contribution of women to the economy

and, as a result, reduces both the level of production (GDP) at the macro level and personal welfare at the micro level.

A bloated public sector has adverse effects on production through lower productivity, excessive taxation, unproductive public spending and labor market segmentation that gives rise to queuing/luxury unemployment, especially among women.

Both issues are worth revisiting for two reasons. First, both are changing fast. The female labor force participation rate is increasing faster than in any other region, while the importance of the public sector as an employer has been declining. Combining the gender and public sector dimensions makes the case in point: in 1975 the proportion of women with secondary education and above whose first jobs were in the public sector was more than 75 percent in Tunisia and Egypt and nearly 60 percent in Jordan, but is now only around 30 percent in all three countries.<sup>1</sup>

Second, though till now estimates of the rates of return to education (RORE) were available for only a handful of Arab countries, a new study estimated them for all 22 Arab countries.<sup>2</sup> These estimates can be used to better understand these two issues.<sup>3</sup>

Using the results of that study, this policy brief presents, first, estimates of RORE for the Arab region separately for women and men and compares them to those in the rest of the world. Then it examines the income premium associated with public sector employment, that is, how much more (or less) a public sector worker is paid compared to a private sector worker with the same characteristics. It finally explores the significance of the findings for public policy.

### *Arab Women's RORE are higher than those for Arab Men*

Women are paid less than men on average. This is not unique to Arab countries. For example, even in the EU and after adjusting for the difference in weekly hours worked by women and men, female workers are paid on average 15 percent less than men. For the few Arab

countries for which such a comparison is possible, the gender pay gap at the regional level is, at first glance, only around 10 percent.<sup>4</sup> However, this is partly a reflection of the fact that few Arab women work and, among them, most are highly educated and are employed in the public sector in greater proportions than men. These remarks make clear that gender (and public sector) gaps in the labor market are made of many different components such as hours worked, sector of employment, education attainment and so on.

With this in mind, Figure 1 presents the estimates of RORE for all Arab countries. One conclusion is that there is significant variability of the RORE actors the Arab region.

Another is that in most countries the rate is higher for women than for men. At the regional level, the average female RORE is about 10 percent higher than the corresponding one for men (5.8 percent compared to 5.2 percent for men). In other words, Arab women who work are paid more for each additional year of education they have compared to Arab men.<sup>5</sup>

And though not shown in the graph, the average RORE in the Arab region is lower by 15-20 percent

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<sup>1</sup> Assaad (2015).

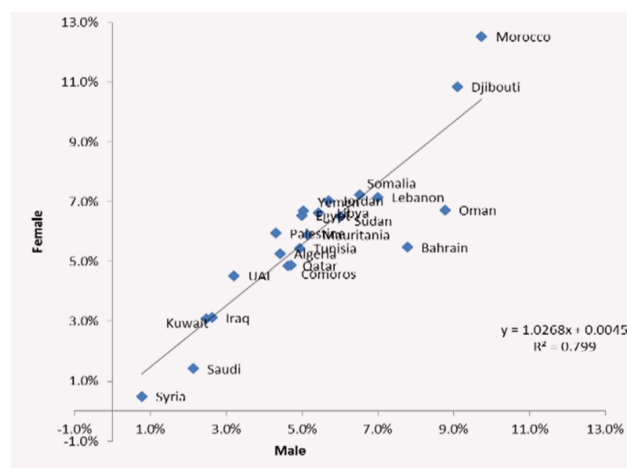
<sup>2</sup> Tzannatos, Diwan and Abdel Ahad (2016). Rates of return to education (RORE) are typically reported as percentages, for example, a value of 5% implies that a worker with an additional year of schooling earns that much more than an otherwise identical worker who has one year less education.

<sup>3</sup> Though education is often undertaken for reasons other than finding employment (social demand), it is mostly driven by economic considerations and as such it is considered to be "investment in human capital." The increase in labor earnings associated with additional education is interpreted as the rate of return to the investments in education in a manner similar to other forms of investments.

<sup>4</sup> Tzannatos (2008).

<sup>5</sup> Higher RORE for women compared to men are also reported in other studies. For example, Montenegro and Patrinos (2014) estimated that the regional averages are 5.5 percent for men and 11.1 percent for women. The difference between their estimates and ours is partly because their sample is based on only nine Arab countries, none of which are in the GCC that have low RORE. For these nine countries (Djibouti, Iraq, Jordan, Lebanon, Morocco, Syria, Tunisia, Palestine and Yemen) our estimates are also higher than those based on all 22 countries reported in this brief (5.5 percent for men and 6.6 percent for women).

**Figure 1: In Most Arab Countries, the Female RoRE is Greater Than Male Rate**



Source: Tzannatos, Diwan and Abdel Ahad (2016).

than the rate in developing regions. This has led to the conclusion that the Arab region does not seem to be capitalizing on investments in education to the same extent as other regions have done.<sup>6</sup>

It is worth mentioning that the RORE for primary education in MENA (9.4 percent) is almost on par with the global average (10.3 percent). The situation reverses at successive education levels with the estimates for MENA being almost half the global averages (3.5 percent compared to 6.9 for secondary education, and 8.9 percent compared to 16.8 for tertiary education).<sup>7</sup>

*The Income Premium for Workers in the Public Sector is Low in the Arab Region*

Controlling for individual characteristics such as education, age/experience, location (urban/ rural) and so on, the aforementioned study estimated the income gain of households where the responding member to the survey questions was employed in the public sector or in the private sector (as self-employed or an employee) compared to a member who did not work. The results are presented as regional averages for 18 Arab countries and 90 non-Arab countries in Table 1.

**Table 1: Income Gains (%) from Employment in Different Sectors 2010s (Compared to Non-Workers)**

	Non-Arab Countries		Arab Countries	
	Male	Female	Male	Female
Public Sector	35.7	25.9	14.6	11.1
Private: Employee	23.4	21.4	9.4	7.8*
Private: Self-employed	16.0	8.0	18.7	7.4*

Notes: \* Statistically Significant  
Source: Tzannatos, Diwan and Abdel Ahad (2016).

Among non-Arab countries, the income gains from employment are as expected and follow the same pattern for men and women. Compared to non-workers, incomes increase but not by much for self-employed workers where informality tends to be common, jobs are often referred to as precarious and workers are considered to be vulnerable. However, they increase significantly for private sector employees and further for public sector workers.

The situation is quite different in the Arab region. The household incomes of men working in the public sector are 14.6 percent higher than those who do not work. The corresponding increase for those in self-employment is higher (18.7 percent) and for private sector employees lower (9.4 percent). Overall, it does not make much difference on household incomes if men are employed in the public sector, compared to employment in the combined private sector.

The case of Arab women is more interesting: The household income gain is statistically significant only in the case women working in the public sector. This suggests that the make or break decision for Arab women to work depends much more than men on whether they would work in the public sector. In contrast, for non-Arab women, the breakthrough takes place at employee status irrespective of whether this is in the public sector or the private sector.

<sup>6</sup> World Bank (2008).  
<sup>7</sup> Montenegro and Patrinos (2014).

This suggests that the private sector in the Arab region does not seem to value women's work much. In fact, many micro studies show that the decision for Arab women to work is closely associated with high levels of education and opportunities for employment in the public sector.<sup>8</sup>

### *Policy Implications*

Our findings offer a number of messages to policy makers, one of which is that care should be exercised when generalizations are attempted at the regional level. Arab countries are very heterogeneous and their 'average' may not mean much. As shown in this brief, there are significant intraregional differences in the RORE that vary from almost zero to more than 10 percent.

Notwithstanding this intra-regional variation, the RORE in Arab countries are generally found to be lower than those observed in other regions. This finding is compatible with different explanations, each calling for different policies as explained below.

#### *Improve the quality of education (internal efficiency)*

One explanation for the low RORE in the Arab region is that education is of a low quality. In support of this hypothesis is the low scholastic achievement of Arab students in comparative international examinations, such as TIMSS, PIRLS and PISA.<sup>9</sup> In this case, policies can focus on addressing student-related factors (such as socio-economic disadvantages), school-related factors (teachers' qualifications and motivation, furniture, availability/ affordability of textbooks, other materials, classrooms and, more generally, building facilities) and system-wide factors (methods of teaching, curricula, promotion regulations, role of exams for university entry etc.)

#### *Increase the relevance of education to labor market needs (external efficiency)*

Another explanation for the low RORE is that the education qualifications and skills job seekers bring

to the labor market are not the ones that private employers value. A lot has been said about this, in the sense that Arab education systems focus too much on soft subjects or do not encourage active thinking, thereby depriving prospective workers of soft skills that are increasingly relevant in modern production settings. If so, modernizing reforms in the education system are necessary, since pedagogical methods, curriculum contents and choice of subjects should not be the result of legacies of the past or what existing teachers can and want to teach, especially in public education institutions.

#### *Increase the demand for educated workers and skills through competition*

The previous two areas are operating on the labor supply side, but there can also be problems on the labor demand side. This is the case when production and markets are immune to competition due to monopolistic, rentier and crony practices. Under such conditions, profits are more or less guaranteed to existing firms that are under no pressure to reduce costs or increase productivity that can eventually lead to higher wages. These symptoms are present in the region.<sup>10</sup> Under such conditions, the effect of education on wages is replaced by the 'bumper effect': More educated workers 'bump off' less educated ones at the same wage level thus lowering the RORE. Alternatively, educated and skilled workers can emigrate in pursue of higher wages, leaving behind those willing to accept low wages. This is another common symptom in the Arab region that has one of the highest skilled emigration rates in the world (brain drain).<sup>11</sup> The answer, in this case, is to ensure a level playing field in the economy through

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<sup>8</sup> However, the preference of women to work in the public sector is not unique to the Arab region: In the EU, the share of women in the public sector is both high and relatively uniform across its member states, ranging from 65 percent to 75 percent. See Rubery (2012).

<sup>9</sup> Tzannatos (2014); Salehi-Isfahani, Hassine and Assaad (2014).

<sup>10</sup> An-Nashif and Tzannatos (2013); Cammett, Diwan, Richards and Waterbury (2015).

<sup>11</sup> World Bank (2010).

appropriate macro/monetary/fiscal/investment/trade policies and the right policies for private sector and business development.

*Recognize that there can be overinvestment in education*

Yet another explanation for the low RORE in the Arab region can be that there is an oversupply of educated job seekers. This can arise from many reasons, one of which is 'credentialism' in the expectation of getting a public sector job. Alternatively, over-supply of education can arise from subsidized higher education in combination with a rising social demand for education by aspiring middle classes during the ordinary course of development. There is nothing wrong with high social demand for education and, in fact, it should be welcome: Education has many intangible benefits, ranging from more informed citizens to better parenthood. However, public subsidies beyond basic education (e.g., indiscriminate stipends to all students, no fees even for the wealthy and so on) should be examined in terms of their impact relative to other uses of public resources.

*Recognize that there can be overinvestment in education*

As already noted, female average wages are lower than male average wages (the so called 'gender wage gap'). Yet, working women have more years of education than working men and women's RORE are higher than those for men. If these were the only two factors affecting wages, then women should be paid on average more than men. However, there are other factors in operation such as gender differences in the type of education acquired, hours of work, sector of employment, attitudes, willingness or ability to commute or even migrate and so on.

So, female education can reduce the gender wage gap but it cannot eliminate it alone. And there are areas where policies can help towards that end. One of them is to ease women's access to private sector employment. This is becoming increasingly more important as Arab governments continue to rationalize employment in the public sector. And there are signs that the younger and the more educated Arab women prefer to work

in the private sector in countries outside the GCC.<sup>12</sup> Thus, market imperfections that limit employment opportunities for women should be eliminated.

Such imperfections include employer discrimination or institutional constraints (for example, arising from legal provisions and conservative cultures).<sup>13</sup> In fact, a recent report showed that there are still 30 economies in the world that have ten or more legal differences regarding the treatment of women in business. Of them, 14 were among the 154 non-Arab countries included in that report. The other 16 were all the Arab countries that were included in the report.<sup>14</sup> When such impediments to women's employment in the private sector are removed, the resulting benefits can be much higher for Arab women (and Arab economies) than in other world regions. This is so for three reasons: (i) the labor force participation of Arab women is low and therefore has scope to increase more than elsewhere; (ii) women workers are more educated, on average, than the average man; and (iii) the RORE to women's education are higher than those for men.<sup>15</sup>

As a final word, studies that have estimated the impact from greater gender equality in the labor market on men have found that men will not lose out in absolute terms as 'the size of the pie' will increase due to efficiency gains.<sup>16</sup> As growth rates in the Arab region have slowed down and the price of oil has plummeted, it makes it even more pressing than before to use more efficiently both women and men in the labor market.

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<sup>12</sup> Diwan and Nabli, 2014.

<sup>13</sup> Diwan and Klugman, 2015.

<sup>14</sup> World Bank, 2015.

<sup>15</sup> This loss is well documented and supported by ample empirical studies. See an early study by Tzannatos (1988) and more recent ones by Cuberes and Teignier (2014) and McKinsey (2015). For the Arab region such losses may reach up to 5 percent of GDP due to employment segregation and as much as 20 percent of GDP due to the low female labor force participation rate (Tzannatos, 2016).

<sup>16</sup> Tzannatos, 1988, 2008, 2016.

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